Technical Information—Gas Slide-In Range JGS8750ADB/S/W JGS8850ADB/Q/S/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 16022089 for detailed installation, operating, testing, troubleshooting, and disassembly instructions.

A CAUTION

All safety information must be followed as provided in Service Manual 16022089.

WARNING

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Model	JGS8750AD* JGS8850	
Power Source		
Voltage rating	120 VAC	120 VAC
Amperage rating	10 Amp	10 Amp
Frequency	60 Hz	60 Hz
Water Column Pressure		
Natural	5 in. W.C.P.	5 in. W.C.P.
LP/Propane	10 in. W.C.P.	10 in. W.C.P.
Surface Burner BTU Nat. (LP)		
Right front	12,000 (8,000)	12,000 (8,000)
Right rear	9,100 (6,000)	9,100 (6,000)
Left front	6,500 (4,500)	6,500 (4,500)
Left rear	10,500 (8,000)	10,500 (8,000)
Oven Burner BTU Nat. (LP)	·	·
Bake	18,000 (18,000)	18,000 (18,000)
Broil	13,000 (14,000)	14,000 (14,000)
Oven Element Watts (120 V)		
Broil	1,200	1,200
Features		
High performance burner	Yes	Yes
Simmer burner	Yes	Yes
Convection	No	Yes
Bread proofing	No	Yes
Dehydration	No	Yes
Oven meat probe	No	Yes
Electronic controls with two timers	Yes	Yes
Child lockout	Yes	Yes
Sabbath mode	Yes	Yes
4.0 cubic foot self-cleaning oven	Yes	Yes
Door activated oven light	Yes	Yes
Electronic ignition	Yes	Yes
Waist-high broiler	Yes	Yes
LP gas convertible	Yes	Yes
Optional backsplash	Yes	Yes
Product Exterior Dimensions in. (cm)		
Height	35 ¾ (90.8)	35 ¾ (90.8)
Width	29 7/8 (75.9)	29 7/8 (75.9)
Depth oven door closed with handle	28 3/16 (71.6)	28 3/16 (71.6)
Weight Ibs. (kg)	•	
Approximate shipping weight	198 (90)	210 (95.25)

Component Testing Procedures



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Illustration	Component	Test Procedure	Results
	Oven light housing	Disconnect connector and test	Verify bulb is plugged in properly.
	9	resistance of terminals	Indicates continuity with bulb installed.
		Measure voltage at oven light	12 VAC, see wiring diagram for terminal identification. If no voltage is present at oven light,
0"			check wiring or light switches.
Primary	Step-down	Measure voltage at:	
Secondary	transformer	Primary terminals	120 VAC (tolerance: 108 to 127 VAC) 10W load (bulb): 11.4 to 11.8 VAC 20W load (bulb): 10.8 to 11.4 VAC
	Door plunger switch	Remove switch from unit and measure the following points:	
		COM to NO	Plunger in continuity, plunger out infinity.
	Autolatch assembly	Disconnect wires and test for continuity per wiring diagram.	See wiring diagram for schematic layout. Access assembly by removing right side panel.
		Refer to Parts Manual for correct autolatch switch associated with the correct manufacturing number.	Common is in neutral position unless locking or unlocking autolatch assembly.
~~X	270° valve	Verify gas is supplied.	
	6.5 K btu 9.1 K btu 10.5 K btu 12 K btu	Adjust set screw for simmer control.	
пп	Spark 270° switch	Test for voltage at terminals	120 VAC
	·	Disconnect wiring and check for	Continuity in LITE position
(2)	Spark ignition	continuity in LITE position Test for resistance of spark lead	Continuity in LITE position. Continuity
	electrode	Test ignitor to chassis	•
	T	Verify gas is supplied	
	Top surface burner 6.5 K btu, 9.1 K btu 10.5 K btu	Verify burner cap is positioned correctly.	Check for obstructions in burner ports.
	12 K btu		
	Top surface burner cap	Verify cap is positioned correctly	Check for obstructions in burner ports.
L A II B II	Spark module 4 + 0	Test for voltage at terminals L and N	120 VAC (tolerance: 109 to 125 VAC)
N A1 0 B1 0		Check polarity and ground	See wiring diagram
п	Temperature sensor	Measure resistance	Approximately 1100 Ω at room temperature 75° F (23.8° C).
	Broil burner	Verify gas is supplied. Orifice adjusted for Natural or LP	Factory set to Natural Gas. Adjust as necessary. Air shutter opening set to .281 to .343.
(a)		Check for obstructions or contamination in ports	Replace if punctured or torn.
	Bake burner	Verify gas is supplied.	Factory set to Natural Gas.
		Orifice adjusted for Natural or LP	Adjust as necessary. Air shutter opening set to .469 to .531.
		Check for obstructions or contamination in ports	Replace if punctured or torn.
- N		contamination in ports	riopiace ii pariotalea di toffi.

Component & Oven Control Testing Procedures

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Illustration	Component	Test Procedure	Results
	Ignitor	Test for voltage at terminals Test for the amount of amperage in the circuit	120 VAC. 3.2 – 3.6 Amps. If not, replace.
	Broil element	Disconnect wiring to element and measure resistance of terminals	Approximately 16 Ω . 120 VAC.
	Hi-limit temperature switch	Normally closed, verify operation: Open: 269° to 291°F (132° to 144°C) Closed: 173° to 207°F (78° to 97°C)	Infinite. Continuity.
3 3 9 · · · · · ·	Double thermal valve/ shut off valve	Verify gas supply is turned on at regulator	Gas ONred tab up (at regulator). Gas OFFred tab down (at regulator).
	Pressure regulator	Verify gas pressure (W.C.P.) If on LP service verify proper gas supply conversion.	5" Natural 10" LP/propane Gas ON red tab up. Gas OFF red tab down.
	Convection assembly Convection motor Model JGS8850AD*	Measure voltage	120 VAC. (tolerance: 105 to 135 VAC) No continuity. RPM: Approx. 800 (tolerance: 600 to 1000 RMP).
	Cooling fan motor	Measure voltage	120 VAC. No continuity. RPM: Idle: 3395. Load: 3000. Breakdown: 2400.
•	Venturi, right front, left front, left rear burners	Shutter settings	Nominal: .038" (tolerance: .035" to .041").
	Venturi, right rear burner	Shutter settings	Nominal: .038" (tolerance: .035" to .041").
	NOTE: To avoid equipment damage, use caution when checking electronic control circuitry voltages.	L1 Jumper Door logic sensor Meat probe Bake burner Broil burner	P26 (Black) to P5 (White): 120 VAC. P18 to P23 (Black). P4 (Red, pin 5) to P4 (Black, pin 2): Door Locked: Continuity. Door Unlocked: Infinity. P2 (Red) to P2 (Red). See chart , page 7. P17 (Red) to P5 (White): 120 VAC. P25 (Yellow) to P5 (White): 120 VAC.
	Power cord 3-wire	Verify resistance of wires to terminals	Continuity.

Oven Control Testing Procedures

Changing factory set default options: 1. Press Setup Options and the desired pad simultaneously (see table below).

- 2. Press Autoset to change the option.
- 3. Press any pad except *Cancel* to accept the change.
- 4. Press *Cancel* to cancel the operation.

Control	Component	Test Procedure	Results
EOC II	Oven temperature	Press <i>Bake</i> pad and enter 550° F (288° C).	While increasing or decreasing oven
	adjustment	Press and hold <i>Bake</i> pad until TEMP ADJ displays. Press <i>Autoset</i> pad to adjust oven in 5° F (-15° C) increments, from -35° F (-37° C) to 35° F (2° C).	temperature, this does not affect self-cleaning temperature.



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Control	Component	Test Procedure		Results	
EOC II	End-of-Timer	Press Setup Options and the applicable timer	Selects the nur	nber of bee	ps emitted
	Reminder beeps	pad (<i>Timer 1</i> or <i>Timer 2</i>) simultaneously.	when a timed b		
EOC II	Control Lock	Press Setup Options and the Control Lock pad (also the 1 pad) simultaneously.	Press <i>Autoset</i> or disable). The light are operated	e timer, cloo ional.	ck and oven
EOC II	Twelve Hour off/ Sabbath mode	Press Setup Options and the 12 Hour Off pad (also the 2 pad) simultaneously.	Disables the no allowing the ov		
EOC II	Sound Level (Beeper Volume)	Press Setup Options and the Sound Level pad (also the 3 pad) simultaneously.	Press Autoset through IIIIIII 8	to select se	
EOC II	24-Hour Clock	Press Setup Options and the 12/24 Hour Clock pad (also the 4 pad) simultaneously.	Press <i>Autoset</i> time or 24-hour	to select op	otion (12-hour
EOC II	Scroll Speed	Press Setup Options and the Scroll Speed pad (also the 5 pad) simultaneously.	Press <i>Autoset</i> messages (slow	to set spee	
EOC II	End-of-Cook-Time Signal	Press Setup Options and Cook Time Beeps pads (also the 6 pad) simultaneously.	Press <i>Autoset</i> beeps emitted controlled" coo	to set the n at the end o	umber of
EOC II	Temperature Display	Press Setup Options and the Temp C/F pad (also the 7 pad) simultaneously.	Press Autoset (°F or °C).		otion
EOC II	Language Display	Press Setup Options and the Language pad (also the 8 pad) simultaneously.	Press <i>Autoset</i> (English, Frenc		
EOC II	Factory Default	Press Setup Options and the Default pad (also the 9 pad) simultaneously.	Press <i>Autoset</i> settings.		
EOC II	Clock Display	Press Setup Options and the Display On/Off pad (also the Clock pad) simultaneously.	Press <i>Autoset</i> to select clock display (on or off).		ock display
EOC II	Test Access	Press and hold <i>Cancel</i> and <i>Broil</i> pads for 3 seconds at power up or within 5 minutes of power up mode. See "Quick Test Mode."	Allows access to each function for testing purposes.		ction for
	anel Assembly	Closed circuitry resistance (defined as continuity): $1350 - 2250 \ \Omega \text{ for Cancel pads 1 \& 20} \\ 1275 - 2125 \ \Omega \text{ for Cancel pads 2 \& 19} \\ 320 - 2200 \ \Omega \text{ for all other pads} \\ \text{Open circuitry resistance:} \\ \text{Greater than 10 M} \Omega$	Pad 1 2 3 4 5 6 7 8 9 0 Cancel Clock Quick Preheat Bake Broil Keep Warm Convect Roast Cook Time Stop Time Clean Proofing Drying Meat Probe Vent Fan Auto Set Timer 1 Timer 2	Trace 7 & 8 14 & 15 10 & 14 6 & 7 6 & 8 5 & 6 4 & 5 4 & 6 3 & 4 3 & 6 1 & 2 or 1 & 19 or 2 & 20 or 19 & 20 13 & 14 16 & 18 15 & 16 16 & 17 12 & 13 6 & 10 3 & 18 10 & 18 14 & 18 15 & 18 17 & 18 18 18 & 10 9 & 10 6 & 18 11 & 12 17 & 18 12 & 14 10 & 12	Measurement Continuity



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Relay Logic

NOTE: Subsequent changes implemented after the release of this technical sheet may have altered the parameters identified in this chart.

INDEX X - OFF O - ON ■ - CYCLING O - ON OFF (DETERMINED BY USER INPUT)	ВАКЕ	BROIL	CONVECTION FAN HI SPEED	CONVECTION FAN LO SPEED	BROIL ELEMENT	OVEN LIGHT
COOKING MODE						⋄
IDLE PAGE PREUEAT	X	X	X	X	X	❖
BAKE PREHEAT	0	×	×	×		⋄
BAKE	×		×	×		⋄
BROIL PREHEAT	- '	0		- 1	0	⋄
BROIL	×	0	X	X	0	· ·
CLEAN PREHEAT	0	X	X	X	X	X
CLEAN	X	0	×	X	×	X
KEEP WARM PREHEAT	0	×	X	X	О	♦
KEEP WARM	0	X	X	X		*
CONVECT BAKE QUICK PREHEAT	0	X	X	0*	0	⋄
CONVECT BAKE PREHEAT	0	X	X	0*	0	*
CONVECT BAKE	0	×	×	0*		*
QUICK PROOFING PREHEAT	0	×	×	0*	×	*
QUICK PROOFING	0	×	×	0*	×	♦
STANDARD PROOFING PREHEAT	0	×	×	X		�
STANDARD PROOFING	0	×	×	X		�
DRYING PREHEAT	0	×	O*	×	0	♦
DRYING	0	×	O*	×		*

^{*}The Convection Fan does not engage immediately. A waiting period of approximately 5 to 10 minutes elapses before fan engages. Fan stops when oven door is opened.



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"Quick Test" Mode for Electronic Oven Control (EOC) II

Follow the procedure below to perform the EOC II quick test. Instructions must be entered within 16 seconds of each other (via the touch pad) or the EOC will exit the quick test.

- 1. Press and hold the Cancel and Broil pads for 3 seconds at power-up, or within 5 minutes of power-up.
- 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: Press and hold the applicable pad to activate the associated response. Release the applicable pad to deactivate the associated response.

The control display window normally displays "lu:d," where the "l" and "u" indicate the state of the motorized door lock and the "d" indicates oven door input status. Once the applicable pad is pressed and held, the "d" changes to either a "0" (open switch) or a "1" (closed switch). Once the pad is released, the display will return to "lu:d."

Display will indicate the following:

<u>Pad</u>	Response
BAKE	Response Bake relay activated, "1" displayed in control display window.
BROIL	Broil relay activated, "1" displayed in control display window.
CONVECT BAKE	Convection Bake relay activated, Convection Fan cycles, "1" displayed in control
	display window.
CONVECT ROAST	Convection Roast relay activated, Convection Fan cycles, "1" displayed in control
	display window.
OVEN LIGHT	Oven light relay activated, "1" displayed in control display window.
	Actual Probe temperature and "1" displayed in control display window.
	Downdraft fan activated at low speed, "1" displayed in control display window.
	Cooling fan activated, "1" displayed in control display window.
	Downdraft fan activated at high speed, "1" displayed in control display window.
	Motorized Door Lock activated, "1" displayed in control display window.
	Beeper activated, "1" displayed in control display window.
	Displays most recent fault code.
	Press <i>Bake</i> pad and enter 550° F (288° C). Press and hold <i>Bake</i> pad for 4 seconds,
	release <i>Bake</i> pad, then press <i>Bake</i> pad again within 3 seconds. Use the digit pads
	(0 through 9) to adjust from -35° F (-37° C) to 35° F (2° C), oven in 5° F (-15° C)
	increments. This also applies to the CLEAN temperature.
CLOCK	Press Setup Options and the 12/24 Hour Clock pad (also the 4 pad)
	simultaneously, then press <i>Autoset</i> to display time in12-hour format or 24-hour
	format.
TEMPERATURE	Press Setup Options and the Temp C/F pad (also the 7 pad) simultaneously, then
	press Autoset to display degrees in Fahrenheit or Celsius.
CANCEL	Exits the test mode.
0	
1	
2	
3	
4	
5	
<u>6</u>	
7	
8	
9	
AUTOSET	N/A



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Description of Fault Codes

Each Fault Code consists of an "F" followed by a number, dash and a number or letter. The following table describes each Fault Code and the component to troubleshoot.

To view the most recent fault code:

- 1. Press and hold the Cancel and Broil pads for 3 seconds at power-up, or within 5 minutes of power-up.
- 2. Once the control has entered the "Quick Test" mode, release both pads.
- 3. Press the *Cook Time* pad to view the most recent fault (displayed in the control display window).

Fault Code	Description	Component to Troubleshoot/Replace
F0-0	No Fault.	None.
F1-1	Oven temperature above 650° F (343° C) in bake mode.	Ohm sensor and harness (see "Oven Sensor" chart). If OK, change control.
F1-3	Oven temperature above 950° F (510° C) during a clean cycle.	Ohm sensor and harness (see "Oven Sensor" chart). If OK, change control.
F1-5	Cancel pad not responding.	Ensure ribbon cable is securely connected, inspect ribbon cable and connector (shorts, breakage, corrosion, etc.). If OK, replace control.
F1-7	Membrane disconnected.	Ensure ribbon cable is securely connected, inspect ribbon cable and connector (shorts, breakage, corrosion, etc.). If OK, replace control.
F1-8	Shorted key (pad) in membrane switch.	Ensure ribbon cable is securely connected, inspect ribbon cable and connector (shorts, breakage, corrosion, etc.). If OK, replace control.
F1-9	Internal control communication errors.	Replace control.
F1-A	Lock/unlock switch state not advancing to control.	Check connections, harness, and motor. If OK, replace control.
F1-C	Oven door switch state not advancing to control.	Check connections, harness, and motor. If OK, replace control.
F1-E	Control not calibrated.	Replace control.
F1-F	Jumper not removed from printed circuit board (PCB).	Remove jumper from PCB.
F1-H	EEPROM error.	Replace control.
F1-N	Internal voltage for slave micro incorrect.	Replace control.
F3-1	Open or shorted sensor.	Ohm sensor and harness.
F8	Shorted meat probe.	Check probe jack and harness probe jack harness. If OK, check meat probe (see "Meat Probe" chart).
F9-1	Oven door will not lock.	Check wire connections. If OK, replace motorized door lock.
F9-2	Oven door will not unlock.	Check wire connections. If OK, replace motorized door lock.
F9-3	Oven door status is both locked and unlocked.	Check wire connections. If OK, replace motorized door lock.

OVEN SENSOR		
Sensor Type:	Sensor Type: RTD 1000Ω platinum	
Calibration: 1	654Ω (350° F/177° C)	
Temperature F (C)	Resistance (Ohms)	
100 (38)	1143	
200 (94)	1350	
300 (149)	1553	
350 (177)	1654	
400 (204)	1753	
500 (260)	1949	
600 (316)	2142	
700 (371)	2331	
800 (427)	2516	
900 (483)	2697	
1000 (538)	2874	

MEAT PROBE			
Type: NT	NTC Thermistor		
Calibration: 99	9938Ω (150° F/65.5° C)		
Temperature F (C)	Resistance (Ohms)		
122 (50)	18963		
150 (65.5)	9938		
156.2 (69)	8846		
165.2 (74)	7456		
210.1 (98.9)	3886		

Natural Gas/LP Conversion



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Gas Conversion

Orifice Conversion: Natural Gas to LP Gas

- Screw the burner orifice hoods down tight against the pins. Do not over tighten.
- 2. Screw the burner orifice hood down tight against the valve body. It is important to turn down the hood as far as possible to ensure complete conversion.

NOTE: On units using Eaton Oven Safety Valve, screw the valve orifice hood down tight against the valve body. It is important to turn down the hood as far as possible to ensure complete conversion.

Adjust burner air shutter to the widest opening that will not cause the flame to lift or blow off the burner when cold.

Orifice Conversion: LP Gas to Natural Gas

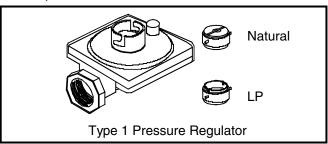
- Screw the burner orifice hoods away from the pins.
 NOTE: On units using Eaton Oven Safety Valve, screw the valve orifice hood away from the pins.
- Adjust burner air shutter to the widest opening that will not cause the flame to lift or blow off the burner when cold.

Pressure Regulator Conversion

Installed in the unit is one of two types of regulators.

Converting Regulator Type 1

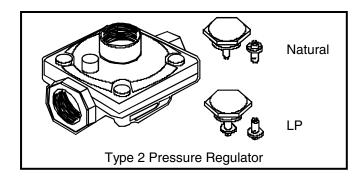
Push down and turn counterclockwise to remove cap. Turn cap over and reinstall.



Converting Regulator Type 2

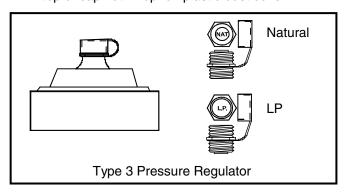
Remove cap and force plastic plunger from bottom of cap. Turn plunger over and force back to original location.

NOTE: Plunger must snap into position, and the type of gas being supplied (NAT or LP) must be visible on lower side of plunger.



Converting Regulator Type 3

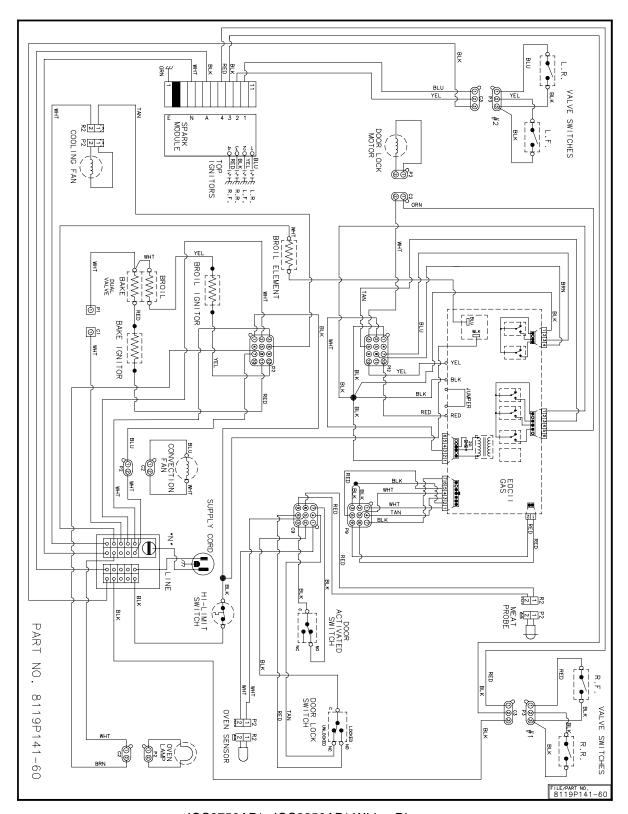
- 1. Pop—off plastic dust cover from cap nut (top of regulator). Remove cap nut (plastic dust cover is attached to cap nut). Remove plastic dust cover from cap nut and reinstall on opposite side of cap nut.
- 2. Reinstall cap nut into regulator. The marking for the type of gas being supplied (LP or N) must be visible in top of cap nut. Pop—on plastic dust cover.



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JGS8750AD*, JGS8850AD* Wiring Diagram

Wiring Diagram and Schematic

A

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