LITE 2 LJ TROUBLESHOOTING

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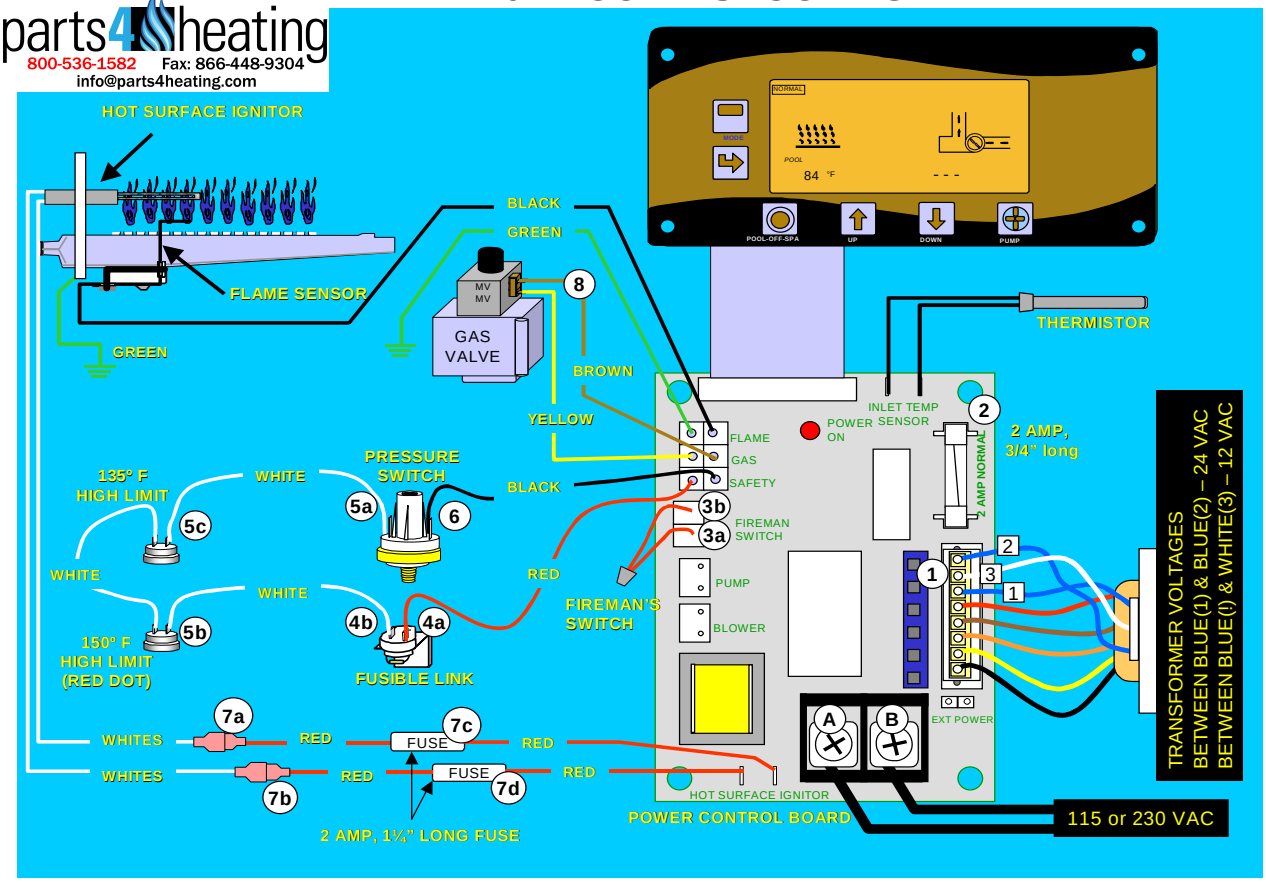


For Thermostat troubleshooting refer to the installation manual.

STEP 1 - Check Transformer - Set meter to ACV above 240

24 VAC between Blue [1] & Blue [2] wires?
- NO → 1) Check incoming power. (A & B) 2) Turn off incoming power. Check positioning of Conversion Block. 3) Replace Transformer.
- YES ↓

12 VAC between Blue [2] & White [3] wires?
- NO → 1) Check incoming power. (A & B) 2) Turn off incoming power. Check positioning of Conversion Block. 3) Replace Transformer.
- YES ↓

STEP 2 - Check Fuse (insert common probe in with blue [1] wire, touch other probe to far end of fuse)

24 VAC at far end of fuse?
- NO → 1) Check for short circuits. 2) Replace fuse.
- YES ↓

For the next tests insert and leave the common probe in with the blue(2) wire.

STEP 3 - Check Fireman's Switch Circuit

24 VAC at 3a?
- NO → Power Control is not sending power. Replace Power Control Board.
- YES ↓

24 VAC at 3b?
- NO → Fireman's switch circuit is open. Make sure the external control is calling for heat.
- YES ↓

STEP 4 - Check Fusible Link

24 VAC on red wire at Fusible Link? (4a)
- NO → Check wires for lose connections. Replace Ignition board.
- YES ↓

24 VAC on white wire at Fusible Link? (4b)
- NO → Too much heat in control area. Look for down drafting, Roll-out, Soot, or Low Gas Pressure. Replace Fusible Link.
- YES ↓

STEP 5 - Check High Limits

24 VAC at white wire of Pressure Switch? (5a)
- NO → One or both of the limits are open.(5b & 5c) 1)Check for damage to bypass disc, heads, or exchanger. 2)Jandy recommends replacing both limits. 3)Do Temperature *Rise Test*.
- YES ↓

STEP 6 - Check Pressure Switch

24 VAC at black wire of Pressure Switch? (6)
- NO → Perform *Back Pressure Test*. If 2.5 PSI or more, replace Pressure Switch. If less, check pump, filter, etc., for water flow problems.
- YES ↓

For *Ignitor Test*, remove common probe from blue(2) wire.

STEP 7 - Check Hot Surface Ignitor

Does Ignitor heat up?
- NO → Turn power off, disconnect Ignitor at 7a and 7b. Perform *Ignitor Test*. Is resistance between 25 and 300 Ohms?
  - YES ↓ Remove each fuse (7c & 7d). Check each for continuity. If either is blown, check for shorted wires, then replace fuse. If neither fuse is blown replace the ignition control.
  - NO → Replace Ignitor.
- YES ↓

For Gas Valve test reinsert the common probe in with the blue(2) wire.

STEP 8 - Check Gas Valve

After 10 seconds of Ignitor heat up, is there 24 VAC at brown wire to gas valve?
- NO → Replace Power Control Board.
- YES ↓

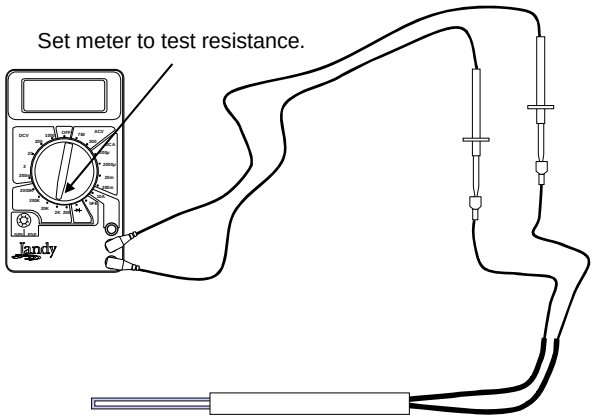
Does heater fire?
- NO → Make certain all gas valves are open, the correct fuel is provided to the heater, gas pressure and volume are correct.
  - OK → Replace Gas Valve.

Temperature Rise Test Chart

MODEL	Btus	Temperature Rise MINIMUM	Temperature Rise MAXIMUM
Lite, Lite 2, Series 1 & Series 2 with 2" header connections	125	27	36
	175	33	42
	250	33	42
	325	28	38
	400	30	39
Series 1 with 1½" header connections	125	22	28
	175	24	36
	250	24	38
	325	28	38
	400	30	38

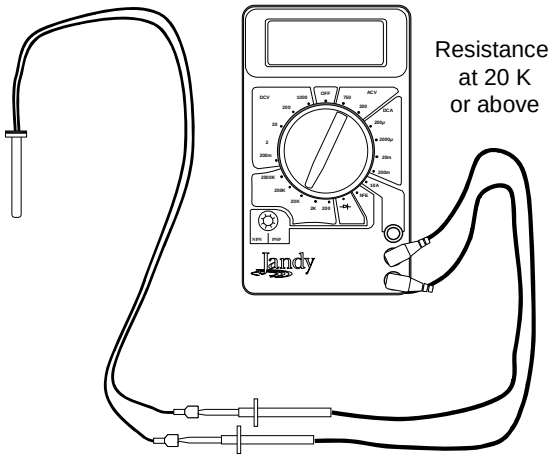
Hot Surface Ignitor Test

Ignitor must be disconnected from the Ignition Control and should be cool to the touch.
Depending on the temperature of the ignitor, the resistance between the two leads of a good ignitor will be 25 to 300 Ohms, typically 60 to 80 Ohms.



Thermistor Test

Remove thermistor leads from ignition board. Set meter to test resistance above 20 K Ohms. Using chart at the right, compare the actual water temperature to the resistance reading to determine if the thermistor is OK.



HEATER SERVICE CODES

FL0: Open switch in safety circuit.
FL1: Temperature Sensor is open or shorted.
FL2: Failed Ignition.
FL3: Flame detected when no flame should exist.
FL4: Hot Surface Ignitor problem.
FL5: Brown-out condition exist.
FL6: Signal to energize gas valve is not being sent by controller.
FL7: Fireman switch circuit is open.

Thermistor Test Chart

Temp	Resistance	Temp	Resistance
50° F	19.898 K Ohms	78° F	9.735 K Ohms
51° F	19.435 K Ohms	79° F	9.483 K Ohms
52° F	18.871 K Ohms	80° F	9.284 K Ohms
53° F	18.382 K Ohms	81° F	9.079 K Ohms
54° F	17.902 K Ohms	82° F	8.864 K Ohms
55° F	17.473 K Ohms	83° F	8.655 K Ohms
56° F	16.988 K Ohms	84° F	8.450 K Ohms
57° F	16.549 K Ohms	85° F	8.253 K Ohms
58° F	16.150 K Ohms	86° F	8.057 K Ohms
59° F	15.710 K Ohms	87° F	7.871 K Ohms
60° F	15.314 K Ohms	88° F	7.687 K Ohms
61° F	14.923 K Ohms	89° F	7.509 K Ohms
62° F	14.547 K Ohms	90° F	7.335 K Ohms
63° F	14.193 K Ohms	91° F	7.166 K Ohms
64° F	13.823 K Ohms	92° F	7.001 K Ohms
65° F	13.477 K Ohms	93° F	6.840 K Ohms
66° F	13.138 K Ohms	94° F	6.685 K Ohms
67° F	12.813 K Ohms	95° F	6.531 K Ohms
68° F	12.492 K Ohms	96° F	6.384 K Ohms
69° F	12.186 K Ohms	97° F	6.238 K Ohms
70° F	11.893 K Ohms	98° F	6.099 K Ohms
71° F	11.593 K Ohms	99° F	5.963 K Ohms
72° F	11.309 K Ohms	100° F	5.829 K Ohms
73° F	11.032 K Ohms	101° F	5.700 K Ohms
74° F	10.765 K Ohms	102° F	5.572 K Ohms
75° F	10.502 K Ohms	103° F	5.449 K Ohms
76° F	10.250 K Ohms	104° F	5.327 K Ohms
77° F	10.000 K Ohms		