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INSTALLATION INSTRUCTION FOR SURELIGHT IGNITION CONTROL REPLACEMENT KIT (83M00)

Shipping & Packing List

Package 1 of 1 contains

1 - SureLight® ignition control
1 - Wiring harness (9-pin to 12-pin)
1 - Wiring harness (4-pin to 6-pin)
1 - Mounting panel
4 - Stand-offs
1 - Low voltage circuit breaker
1 - Wire
2 - Wiring diagrams

Shipping Damage

Check all equipment for shipping damage. If you find any damaged equipment, immediately contact the last carrier.

Application

This kit contains all components required to replace any existing single-stage SureLight® ignition control in a Lennox gas furnace.

Installation

⚠WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer (or equivalent), service agency or the gas supplier.

⚠CAUTION

As with any mechanical equipment, personal injury can result from contact with sharp sheet metal edges. Be careful when you handle this equipment.

⚠WARNING

Disconnect power before servicing unit.

Replacing 69M0801, 32M8801, 10M9301, 56L8401 or 12L6901

⚠CAUTION

Electrostatic discharge can affect electronic components. Take precautions to neutralize electrostatic charge by touching your hand and tools to metal prior to handling the control.

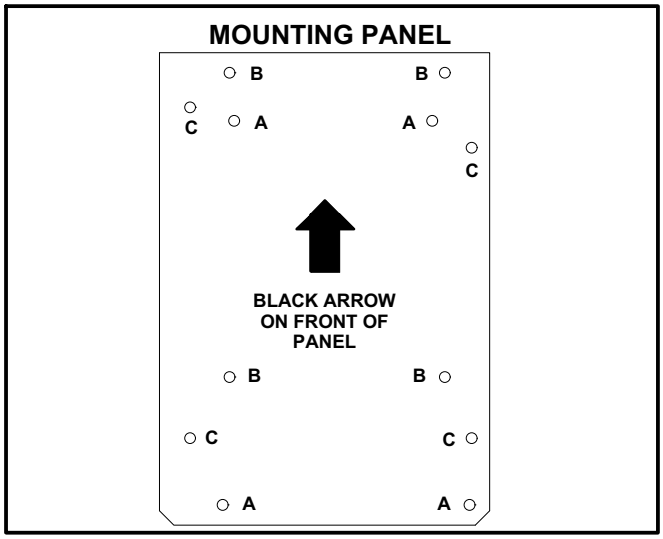


FIGURE 1

1 - Disconnect electrical power and shut off gas supply to the furnace.
2 - Remove the access panel.
3 - Label and disconnect wiring and remove existing ignition control from the control box.
4 - Install provided circuit breaker in unit control box or secure circuit breaker to a wire harness using wire ties.
5 - Position the provided mounting panel so that the black arrow on the front of the panel is pointing up. Position the replacement SureLight ignition control over the holes marked “A" in figure 1. Insert the replacement control stand-off fasteners (already in the control) into the holes in the mounting panel. Snap the replacement SureLight® ignition control onto the mounting panel.
6 - Insert the four provided stand-off fasteners into the back of the mounting panel in the holes marked “B" in figure 1. Snap the mounting panel (including new control) into place in the control box.

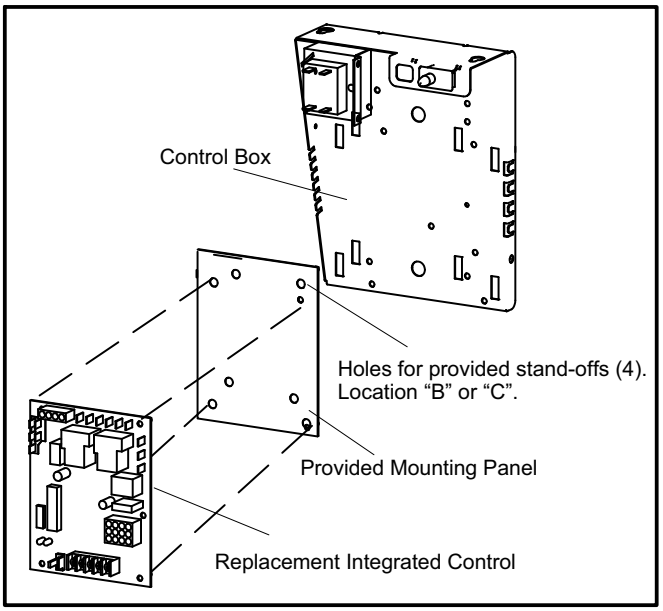


FIGURE 2

7 - **If the existing transformer has quick connect terminals:**

a - Disconnect the blue transformer wire from position 3 on the 12-pin connector.

b - Reconnect the blue transformer wire to one of the circuit breaker terminals.

c - Connect the provided 4” blue wire to position 3 on the 12-pin connector and to the other circuit breaker terminal.

8 - Connect the remaining 120VAC hot and neutral wires, the flame sense wire and thermostat wires to the replacement control per table 1.

9 - Affix wiring diagram 535034W on top of the existing unit wiring diagram.

10 - Replace the access panel.

11 - Restore the electrical power and gas supply. Refer to the furnace installation instructions for start-up and check-out procedures. See table 2 for diagnostic codes.

Replacing 97L4801, 63K8901, 56L8301 or 24L8501

1 - Set thermostat to the lowest setting. Disconnect electrical power and shut off gas supply to the furnace.

2 - Remove the access panel.

3 - Label and disconnect wiring and remove existing ignition control from the control box.

4 - When replacing original 63K8901 control in G24M-10 or G27M-1 in upflow or horizontal applications and G27M-100-1 or -120-1 in downflow applications - - Look at the existing control holes as if the unit were installed in the upflow position. Make a mark 1" to the right of each of the existing mounting holes. Position the provided mounting panel over these marks, so that the holes marked “C" in figure 1 are over the marks. **Use the mounting panel as a template only** to drill 3/16" holes through each of the holes marked “A." Install the replacement control in the freshly drilled holes in the blower access panel. Use aluminum tape to seal the unused holes. **When replacing original 63K8901 control in G24M-10, G27M-60-1 or G27M-75-1 in downflow applications -** Look at the existing control holes as if the unit were installed in the upflow position. Make a mark 5/8" ABOVE each of the existing mounting holes. Position the provided mounting panel over these marks, so that the holes marked “C" in figure 1 are over the marks. **Use the mounting panel as a template only** to drill 3/16" holes through each of the holes marked “A." Install the replacement control in the freshly drilled holes in the blower access panel. Use aluminum tape to seal the unused holes.

All other units (mounting panel to be installed) Position the provided mounting panel so that the black arrow on the front of the panel is pointing up. Position the replacement SureLight® ignition control over the holes marked “A" in figure 1. Insert the replacement control stand-off fasteners into the holes in the mounting panel.

5 - **80UHG, 90UGF, G23, G26, GHR26, G32, GHR32, G40, G41, G50, G51, G60 and G61 units -** Insert the four provided stand-off fasteners into the back of the mounting panel in the holes marked “B" in figure 1. **80MGF, G24M and G27M units -** Insert the four provided stand-off fasteners into the back of the mounting panel into the holes marked “C" in figure 1.

6 - Insert the replacement control assembly into the existing holes in the control box or blower panel**.**

7 - **If the existing transformer has quick connect terminals:**

a - Connect the blue wire from position 3 on the 12-pin connector to the circuit breaker terminal.

b - Connect the yellow wire from position 6 on the 12-pin connector to the yellow wire from the transformer.

8 - **If the existing transformer is leaded:**

a - Connect the blue transformer wire to one of the circuit breaker terminals.

b - Connect the 9-pin to 12-pin wiring harness to the unit 9-pin connector.

c - Connect the provided 4-pin to 6-pin wiring harness to the unit 6-pin connector.

d - Connect the blue wire from position 3 on the 12-pin connector to the circuit breaker terminal.

e - Connect the yellow wire from position 6 on the 12-pin connector to the yellow wire from the transformer.

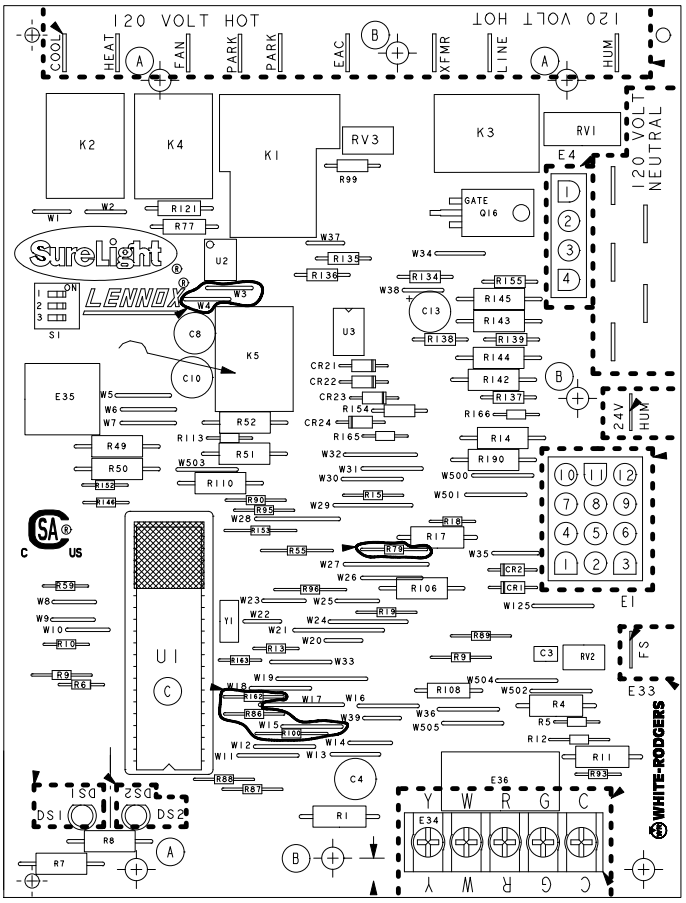
9 - Connect the remaining 120VAC hot and neutral wires, flame sense wire and thermostat wires to the replacement control per table 1.

10 -Affix wiring diagram 535278W on top of the existing unit wiring diagram.

11 - Replace the access panel.

12 - Restore the electrical power and gas supply. Refer to the furnace installation instructions for start-up and check-out procedures. See table 2 for diagnostic codes.

INTEGRATED CONTROL
100925



TERMINAL DESIGNATIONS	
COOL	Cooling Speed (120VAC)
HEAT	Heating Speed (120VAC)
FAN	Indoor fan (120VAC)
PARK	Terminal to park alternate speed taps
PARK	Terminal to park alternate speed taps
EAC	Electronic Air Cleaner
XFMR	Transformer (120VAC)
LINE	Input (120VAC)
HUM	Humidifier (120VAC)
NEUTRALS	Neutral terminals (120VAC)

FIGURE 3

TABLE 1

4-Pin Terminal Designation	
PIN #	**FUNCTION**
1	Combustion Air Inducer Line
2	Ignitor Line
3	Combustion Air Inducer Neutral
4	Ignitor Neutral

TABLE 2

SI DIP SWITCHES		
Heat Off Delay		
SW1	SW2	SEC
OFF	OFF	60
OFF	ON	90*
ON	OFF	120
ON	ON	180
Cool Off Delay		
SW3	____	**SEC**
OFF	____	2
ON	____	45*

** Factory setting*

TABLE 3

12-Pin Terminal Designations	
PIN #	**FUNCTION**
1	High Limit Output
2	Not Used
3	24V Line
4	Not Used
5	Rollout Switch Out
6	24V Neutral
7	High Limit Input
8	Ground
9	Gas Valve Common
10	Pressure Switch In
11	Rollout Switch In
12	Gas Valve Out

Table 1

Integrated Ignition Control Marking Cross Reference				
Type Connection	**10M9301 12L6901 32M8801 56L8401**	**24L8501 56L8301 63K8901 97L4801**	**69M0801**	**100925-03 Replacement**
¼" QC	COOL-H	ACB COOL	COOL	COOL
¼" QC	HEAT-H	ACB HEAT	HEAT	HEAT
¼" QC	n/a	ACB LOW	n/a	FAN
¼" QC	PARK(2)	PARK (2)	PARK (2)	PARK (2)
¼" QC	LINE-H	120 HOT	LINE	LINE
¼" QC	XFMR-H	VAC TX	XFMR	XFMR
¼" QC	EAC-H	ACC	EAC	EAC
¼" QC	HUM-H	HTG ACC	HUM	HUM
¼" QC	LINE-N	NEUTRAL 120 VAC (5)	NEUTRAL 120 VAC (5)	120 VOLT NEUTRAL
¼" QC	HUM-N			
¼" QC	EAC-N			
¼" QC	XFMR-N			
¼" QC	CIR-N			
3/16" QC	FLAME SENSE	FLAME SENSE	FS	FS
Plug	12-PIN	9-PIN	12-PIN	12-PIN

Table 2

DIAGNOSTIC CODES SLOW FLASH = 1 Hz - FAST FLASH = 3 Hz		
DS1 (Red)	**DS2 (Green)**	**DESCRIPTION**
SIMULTANEOUS SLOW FLASH	SIMULTANEOUS SLOW FLASH	Power on - Normal operation. Also signaled during cooling and continuous fan.
SIMULTANEOUS FAST FLASH	SIMULTANEOUS FAST FLASH	Normal operation - signaled when heating demand initiated at thermostat.
SLOW FLASH	ON	Primary or secondary limit switch open.
OFF	SLOW FLASH	Pressure switch open.
ALTERNATING SLOW FLASH	ALTERNATING SLOW FLASH	Watchguard 1 hour -- burners failed to ignite or lost flame 5 times during single heating demand.
SLOW FLASH	OFF	Flame sensed without gas valve energized.
ON	SLOW FLASH	Rollout switch open.
ON ON OFF OFF	ON OFF ON OFF	Circuit control failure or control wired incorrectly.
FAST FLASH	SLOW FLASH	Main power polarity reversed.
SLOW FLASH	FAST FLASH	Low flame signal.
ALTERNATING FAST FLASH	ALTERNATING FAST FLASH	Low voltage OR broken ignitor