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GAS UNITS KITS & ACCESSORIES

508038-01
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SURELIGHT IGNITION CONTROL REPLACEMENT KIT

INSTALLATION INSTRUCTION FOR SURELIGHT IGNITION CONTROL REPLACEMENT KIT (19V36)

Shipping and Packing List

Package 1 of 1 contains:

- 1 - Replacement ignition control
- 1 - Wiring harness (9-pin to 12-pin)
- 1 - Wiring harness (4-pin to 6-pin)
- 2 - Ignitor mounting brackets
- 1 - Replacement ignitor
- 1 - Ignitor harness adapter
- 1 - Diagnostic sticker
- 2 - Screws
- 3 - Wire nuts
- 1 - Wire
- 1 - Wiring diagram

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, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

WARNING

Disconnect power before servicing unit.

ELECTROSTATIC DISCHARGE (ESD) Precautions and Procedures

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.

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

- 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 - Position the provided replacement ignition control over the holes marked "A" in Figure 1 for the appropriate control box design. Snap the replacement ignition control into place in the control box. 80UHG – the control mounting panel will be rotated 90° from either position shown in Figure 1.
- 5 - Insert the provided 6" loose white wire into position 2 on the 12-pin connector, and then splice to the white/red flame sense wire in the furnace. Cut wire terminal, strip wires, and join with wire nut as appropriate. Refer to figure 2 for pin location. Connect 12-pin connector to the replacement control.
- 6 - Connect the remaining 120VAC hot and neutral wires and thermostat wires to the replacement control per table 1.
- 7 - Affix wiring diagram 5380770-01 on top of the existing unit wiring diagram. Affix diagnostic sticker to an appropriate location.



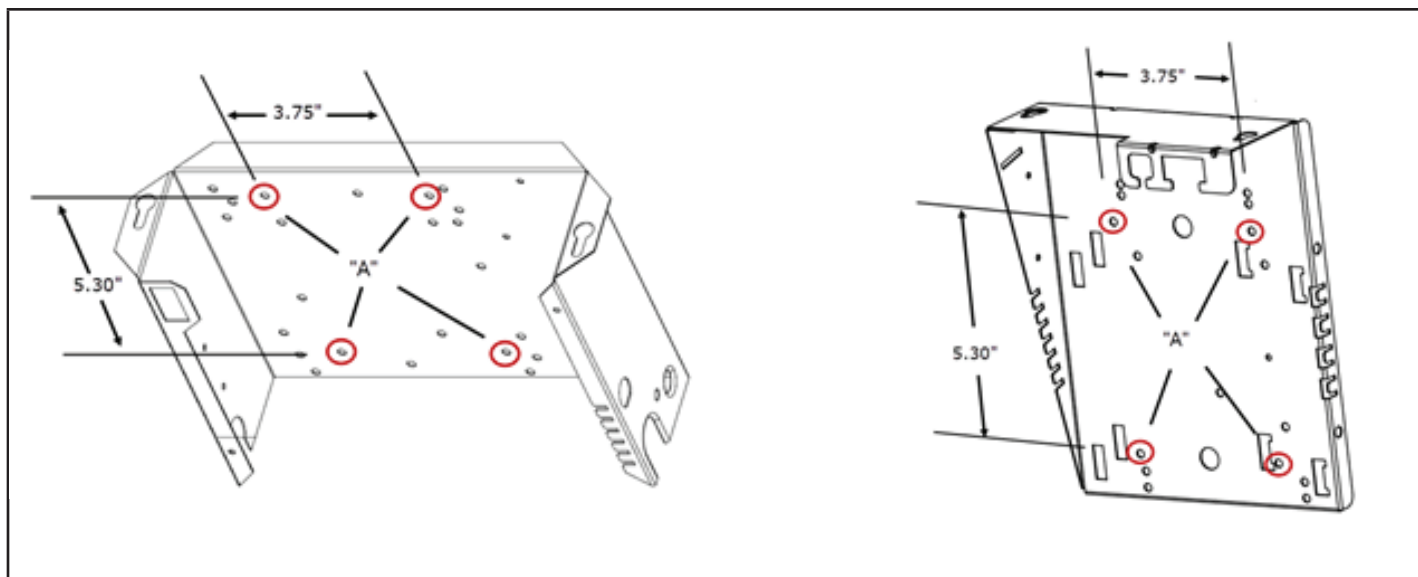


FIGURE 1

TABLE 1

Integrated Ignition Control Markings Cross Reference

Type Connection	10M9301 12L6901 32M8801 56L8401	24L8501 56L8301 63K8901 97L4801	69M0801	Replacement Control
1/4" QC	COOL-H	ABC COOL	COOL	COOL
1/4" QC	HEAT-H	ACH HEAT	HEAT	HEAT
1/4" QC	N/A	ACB LOW	N/A	CONT
1/4" QC	PARK(2)	PARK(2)	PARK(2)	PARK (3)
1/4" QC	LINE-H	120 HOT	LINE	L1
1/4" QC	XFMR-H	VAC TX	XFMR	XFMR
1/4" QC	EAC-H	ACC	EAC	EAC
1/4" QC	HUM-H	HTG ACC	HUM	HUM
1/4" QC	LINE-H	NEUTRAL 120 VAC (5)	NEUTRAL 120 VAC (5)	NEUTRAL (5)
1/4" QC	HUM--N			
1/4" QC	EAC-N			
1/4" QC	XFMR-N			
1/4" QC	CIR-N			
3/16" QC	F;AME SENSE	FLAME SENSE	FS	N/A*
Plug	12-PIN	9-PIN	12-PIN	12-PIN

* Flame sense signal is routed to pin 2 of 12 pin connector on replacement control.

8 - Remove the existing hot surface ignitor and its mounting bracket from the burner assembly. Install the replacement ignitor and appropriate new mounting bracket per Figure 3.

NOTE - The red foam gasket included with the replacement ignitor is not needed.

9 - Connect the enclosed 2-pin ignitor harness adapter between the new ignitor and existing furnace connector.

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 4 for diagnostic codes.

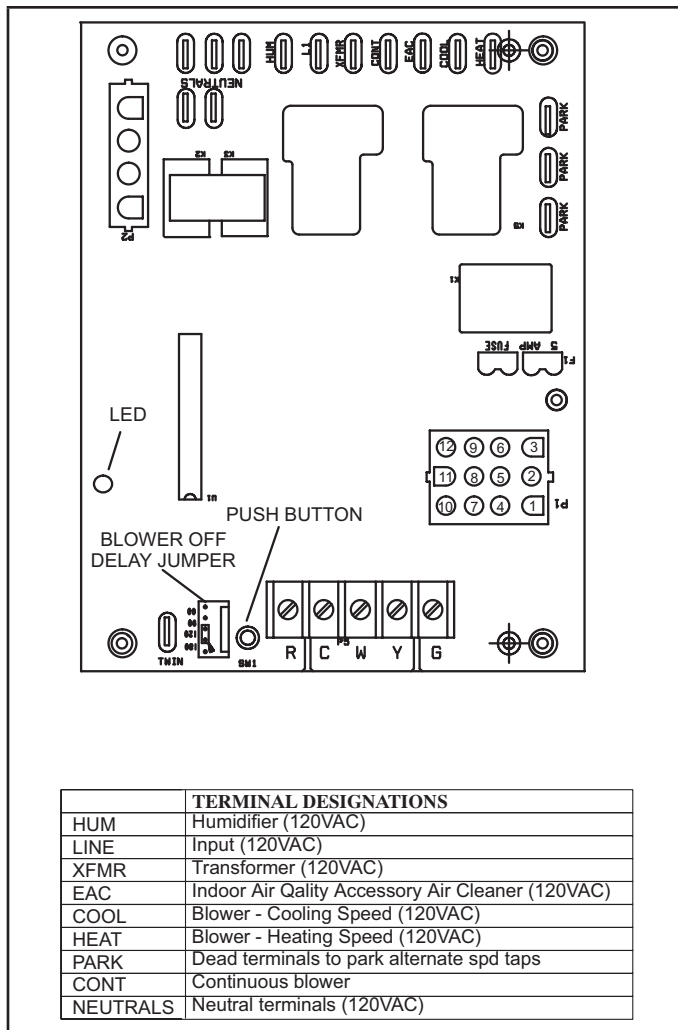


FIGURE 2

TABLE 2

12-Pin Terminal Designations	
PIN #	FUNCTION
1	High Limit Output
2	Flame Sense
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 3

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

TABLE 4

DIAGNOSTIC CODES	
LED Status	DESCRIPTION
LED Off	No power to control or control hardware fault detected.
LED On	Normal operation.
1 Flash	Flame present with gas valve de-energized.
2 Flashes	Pressure switch closed with combustion air inducer de-energized.
3 Flashes	Pressure switch open with combustion air inducer energized.
4 Flashes	Primary limit switch open.
5 Flashes	Rollout switch open.
6 Flashes	Pressure switch cycle lockout.
7 Flashes	Lockout, burners fail to light.
8 Flashes	Lockout, burners lost flame too many times.
9 Flashes	Line voltage polarity incorrect.

Note - This control is equipped with a push button switch for diagnostic code recall. The control stores the last 5 fault codes in non-volatile memory. The most recent fault code is flashed first, the oldest fault code is flashed last. There is a 2 second pause between codes. When the push button switch is pressed for less than 5 seconds, the control will flash the stored fault codes when the switch is released. The fault code history may be cleared by pressing the push button switch for more than 5 seconds.

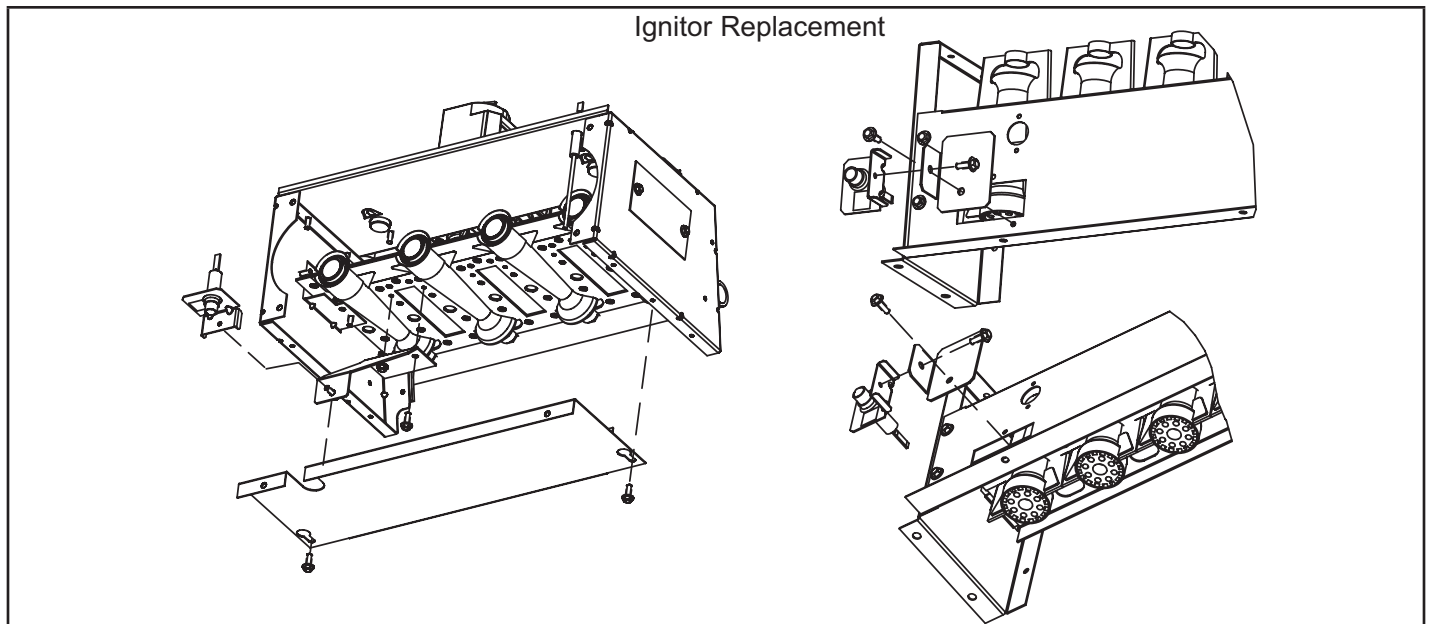


FIGURE 3

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 - 80UHG, 90UGF, G23, G26, GHR26, G32, GHR32, G40, G41, G50, G51, G60 and G61 units -

Position the provided replacement ignition control over the holes marked "A" in Figure 1 for the appropriate control box design. Snap the replacement ignition control into place in the control box.

80UHG – the control mounting panel will be rotated 90° from either position shown in Figure 1.

80MGF, G24M and G27M units

Mark the four corners of a rectangle 3.75" wide by 5.3" tall onto the blower access panel offset from existing furnace control mounting holes. Drill 3/16" dia holes and mount the replacement furnace control in the freshly drilled holes. Use aluminum tape to seal the unused holes.

- 5 - Connect the 9-pin to 12-pin kit wiring harness to the furnace 9-pin connector. Connect the 4-pin to 6-pin kit harness to the furnace 6-pin connector. Connect the 12-pin and 4-pin connectors to the replacement furnace control.
- 6 - **TRANSFORMER WIRING** – The replacement furnace control is equipped with an integral 5-amp fuse for low voltage circuit protection. Any external circuit breaker or fuse assembly currently in the furnace is no longer needed.
 - a - Connect the blue wire from position 3 on the

12-pin connector to the blue wire from the transformer. Cut, strip, and join wires with wire nut as appropriate.

- b - Connect the yellow wire from position 6 on the 2-pin connector to the yellow wire from the transformer. Cut, strip, and join wires with wire nut as appropriate.
 - c - Connect the green wire from position 8 on the 2-pin connector to chassis ground.
- 7 - Insert the provided 6" loose white wire into position 2 on the 12-pin connector, and then splice to the white/red flame sense wire in the furnace. Cut, strip, and join wires with wire nut as appropriate.

- 8 - Remove the existing hot surface ignitor and its mounting bracket from the burner assembly. Install the replacement ignitor and appropriate new mounting bracket per Figure 3.

NOTE - The red foam gasket included with the replacement ignitor is not needed.

- 9 - Connect the enclosed 2-pin ignitor harness adapter between the new ignitor and existing furnace 2-pin connector.
- 10 - Connect the remaining 120VAC hot and neutral wires and thermostat wires to the replacement furnace control per table 1.
- 11 - Affix wiring diagram 538077-01 on top of the existing unit wiring diagram. Affix diagnostic sticker to an appropriate location.
- 12 - Replace the access panel.
- 13 - Restore the electrical power and gas supply. Refer to the furnace installation instructions for start-up and check-out procedures. See table 4 for diagnostic codes.