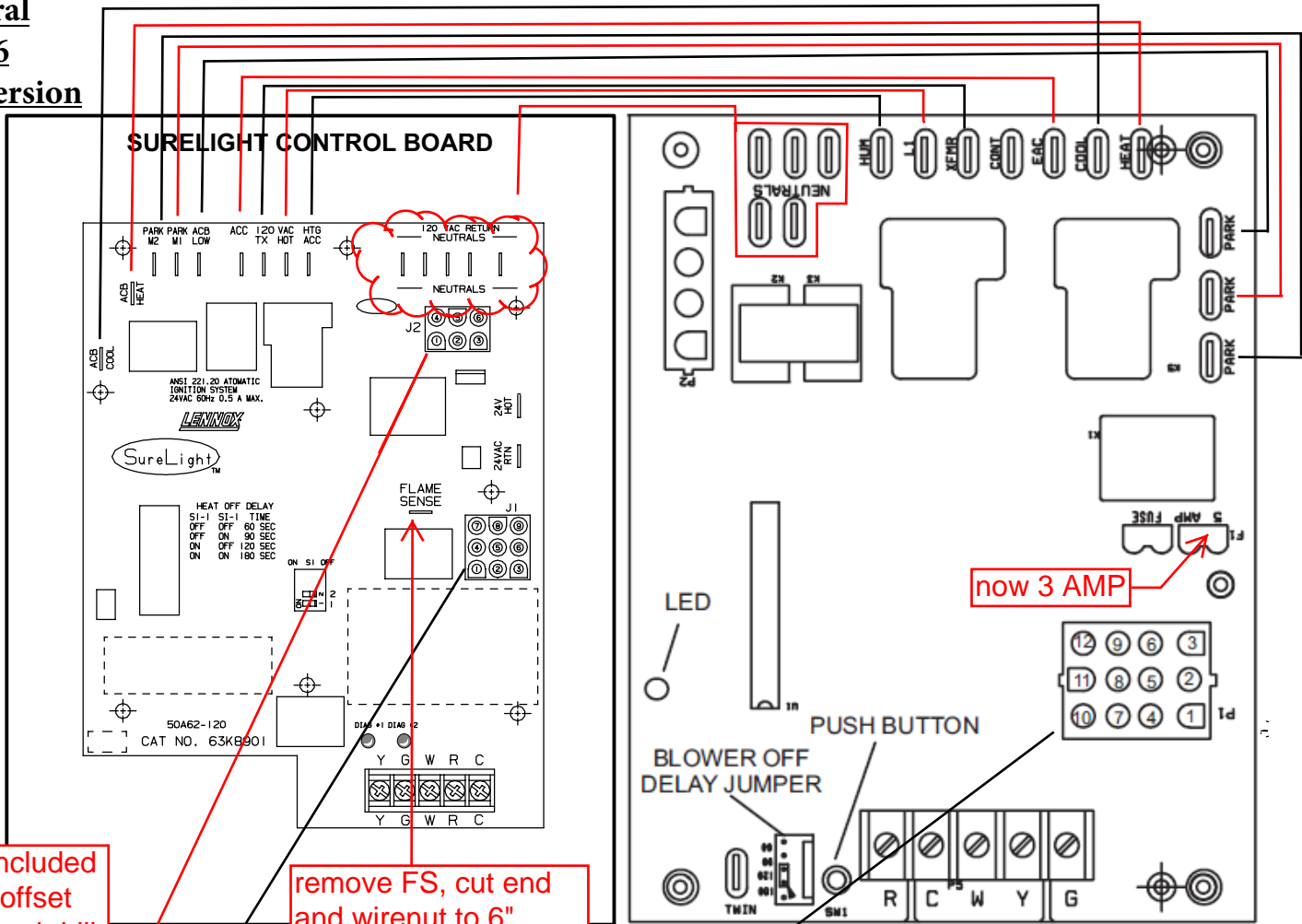


**General**  
**19V36**  
**Conversion**

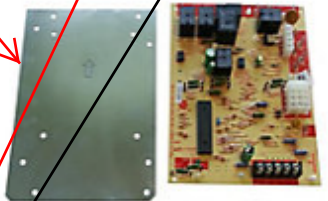


not included  
 now offset  
 IFC and drill  
 3/16" holes

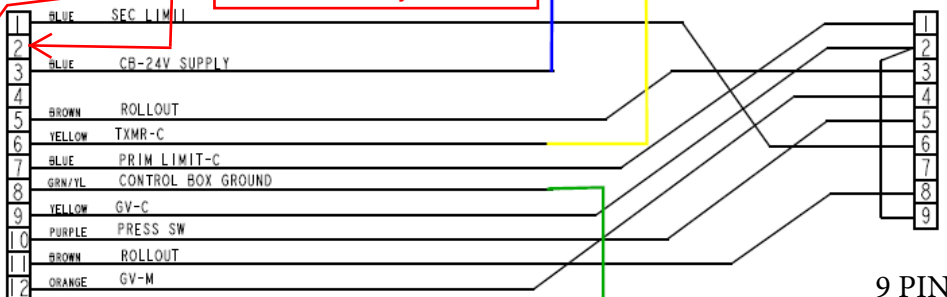
remove FS, cut end  
 and wirenut to 6"  
 "white" wire provided  
 snap into pin 2

to flame sensor

KITS | BOARD  
 83M00 | 30W25  
 Y7761 | 100925-03



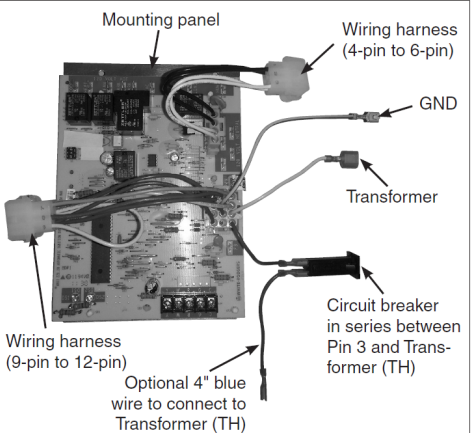
not included join wires



9 PIN  
 CONTROL  
 BOARDS

**new 70W16 ignitor kit  
 must relocate as per IOM**

- 24L8501**
- 56L8301**
- 63K8901**
- 97L4801**





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# GAS UNITS KITS & ACCESSORIES

508038-01  
12/2019

## 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 - 6" White Wire **FOR FLAME SENSE WIRE SPLICE (SEE STEP 5)**
- 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.



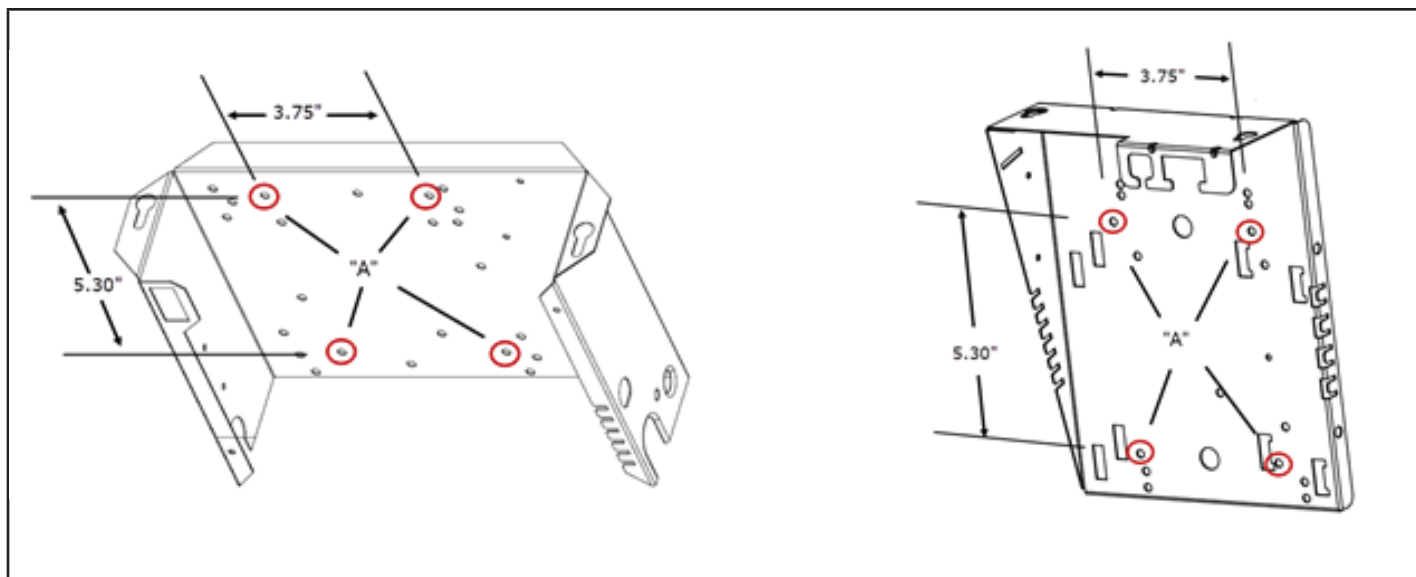


FIGURE 1

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 (to PARK 3 or CONT)	N/A	CONT (ACB LOW non-stop fan opt)
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.

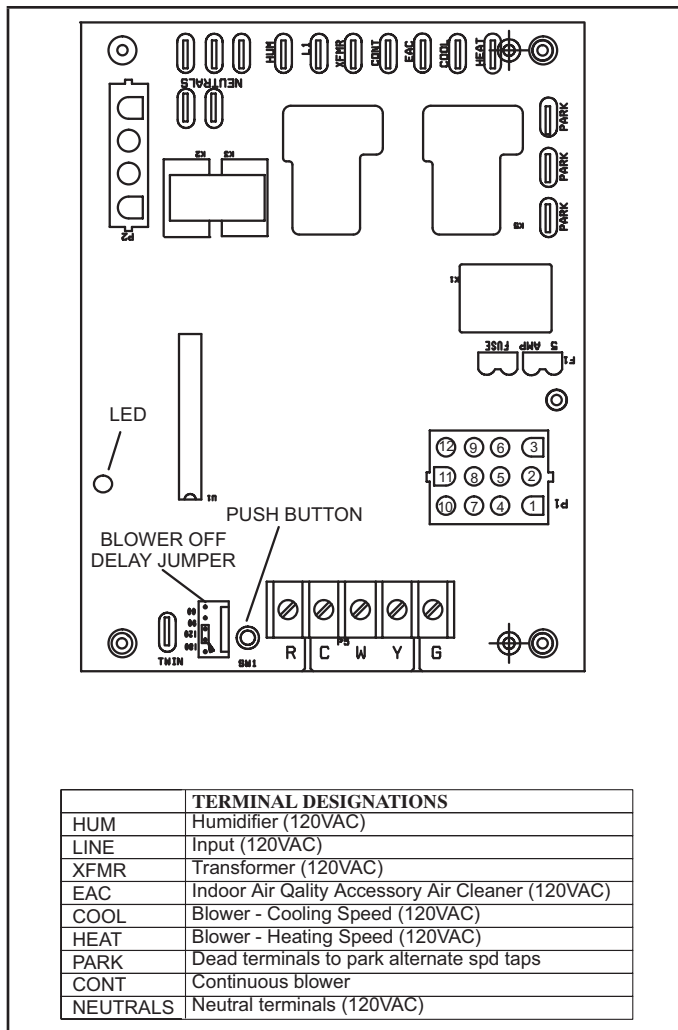


FIGURE 2

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.

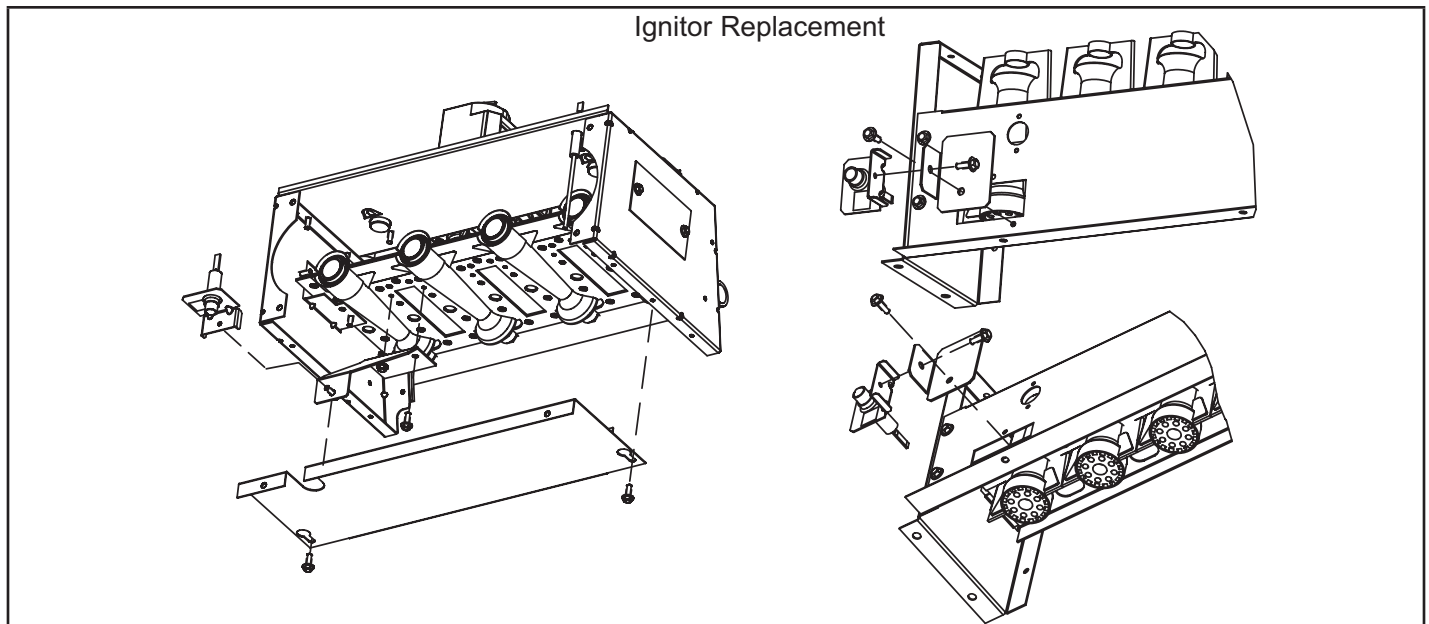


FIGURE 3

### 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.

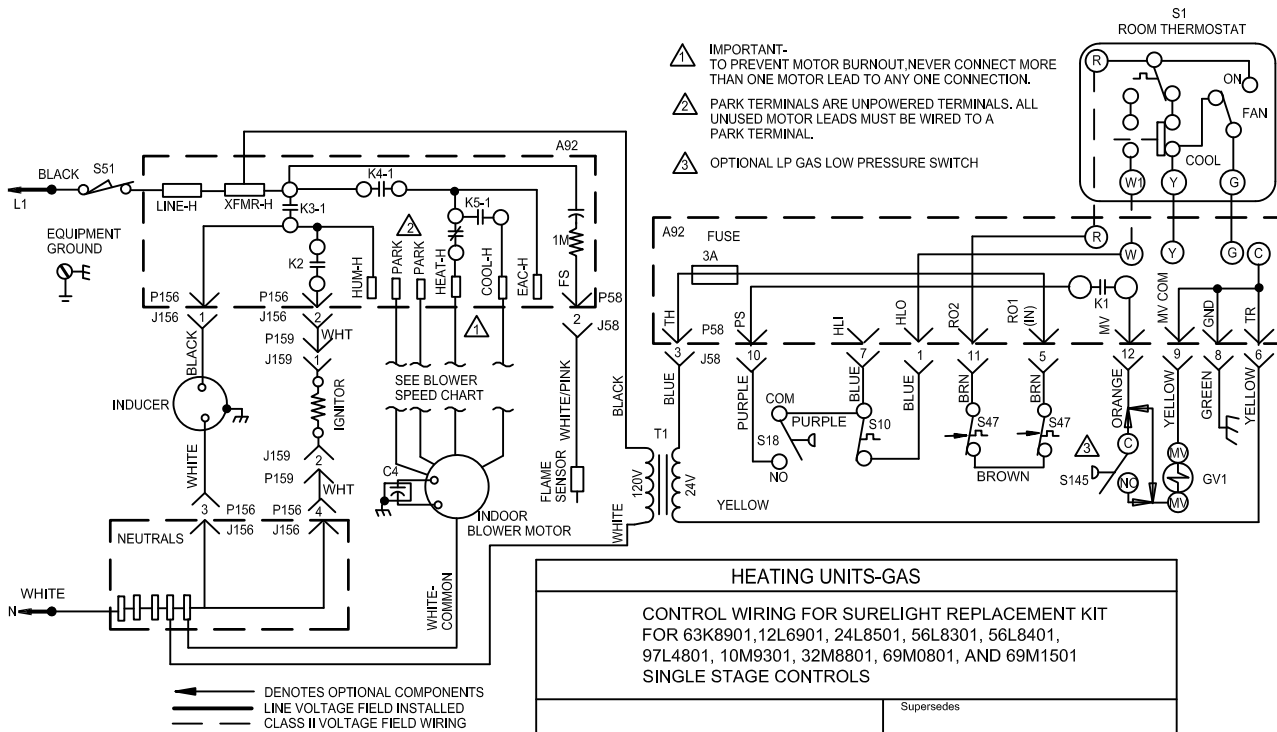
- b - Connect the yellow wire from position 6 on the 2-pin connector to the yellow wire from the transformer. Cut, strip, and join wires with wire nut as appropriate.
  - c - Connect the green wire from position 8 on the 2-pin connector to chassis ground.
- 7 - Insert the provided 6" loose white wire 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.

# Stick On Replacement Diagram

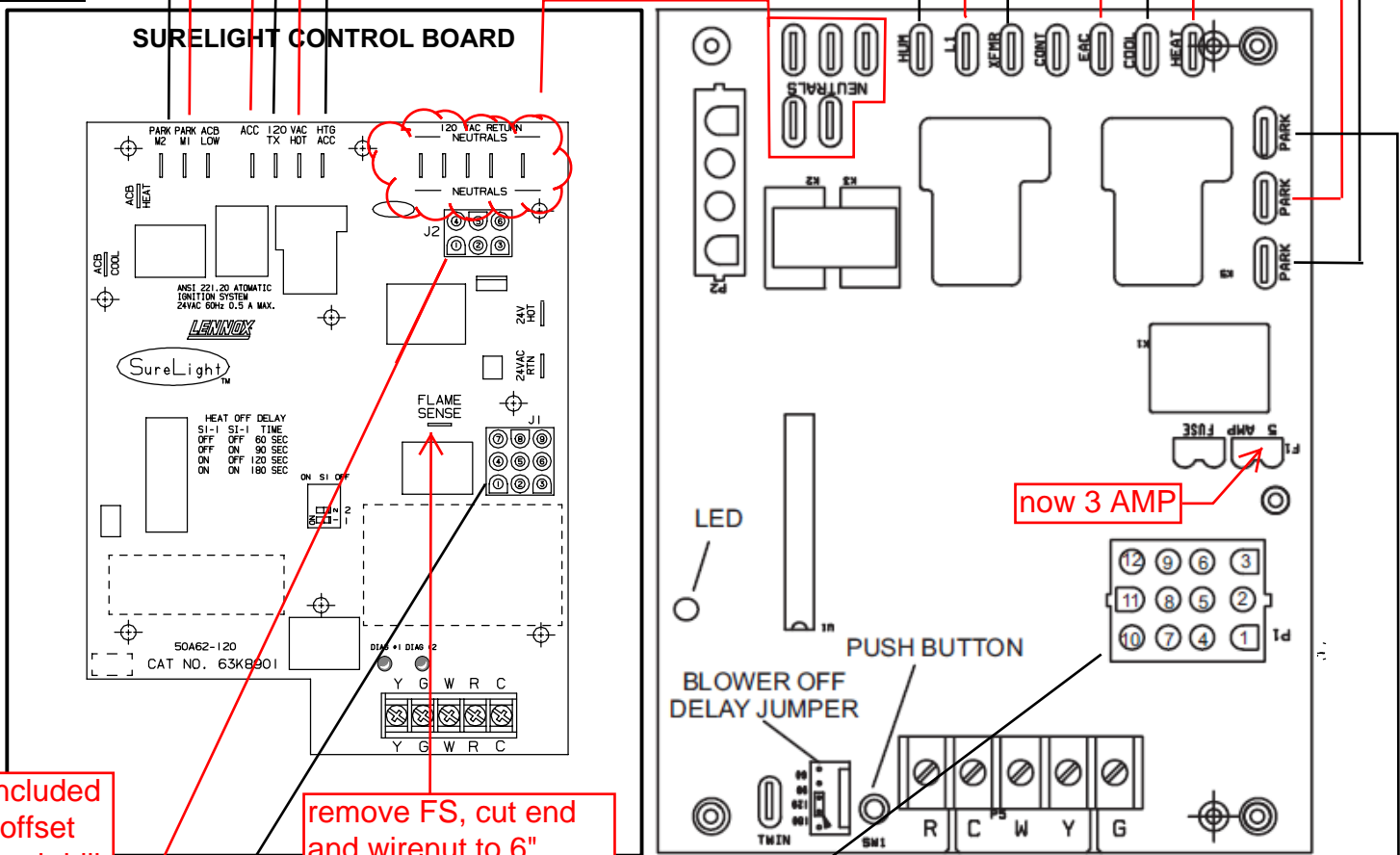


0120



**Form No.**  
**538077-01**

**G27M**  
**19V36**  
**Conversion**

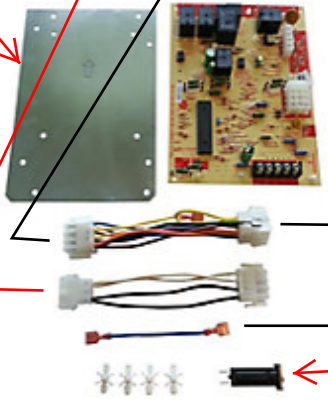


not included  
 now offset  
 IFC and drill  
 3/16" holes

remove FS, cut end  
 and wirenut to 6"  
 "white" wire provided  
 snap into pin 2

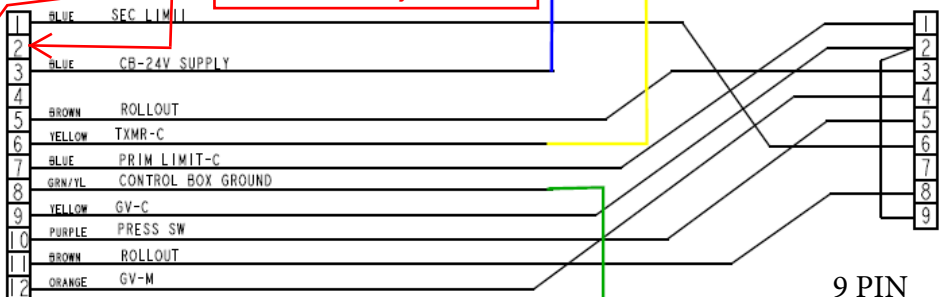
to flame sensor

KITS BOARD  
 83M00 30W25  
 Y7761 100925-03



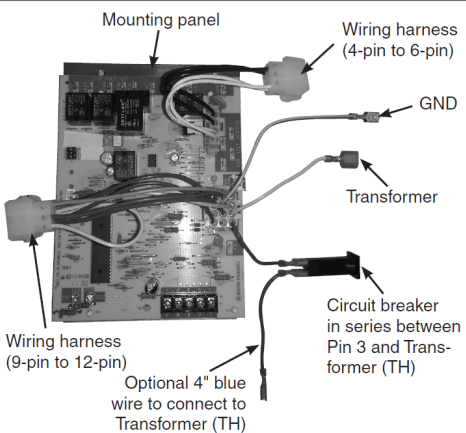
not included join wires

Leaded Transformer  
 R C

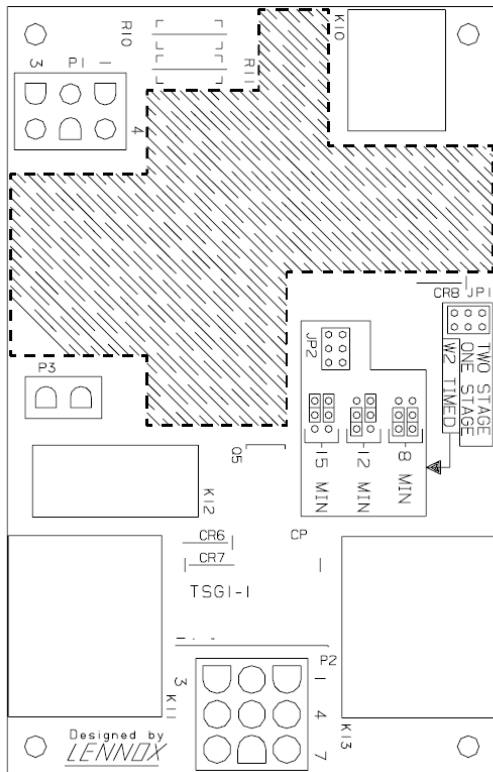


9 PIN  
 CONTROL  
 BOARDS

new 70W16 ignitor kit  
 must relocate as per IOM



- 24L8501**
- 56L8301**
- 63K8901**
- 97L4801**



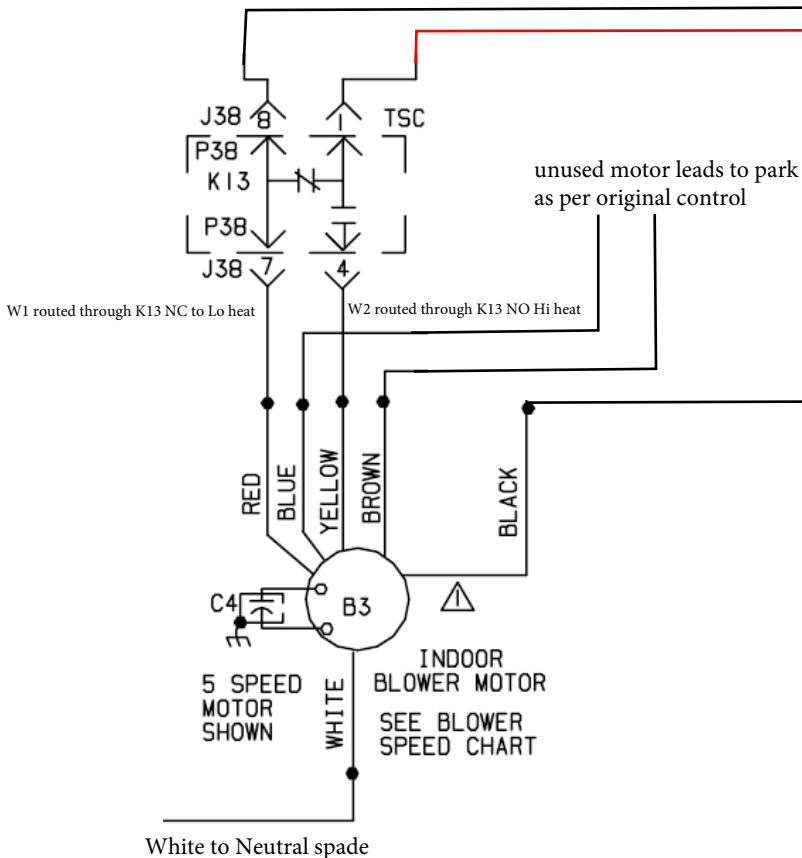
Transfer wires from 24L85 as per diagram and connect harness adapters  
 6 pin to 4 pin and  
 9 pin to 12 pin  
 wire 12 pin 3 to xfmr 24v  
 wire 12 pin 6 to xfmr com  
 wire 12 pin 8 to chassis ground  
 ACB LOW moves to park

TSC 9 pin 8 = ACB LOW wire  
 TSC 9 pin 1 moves to HEAT  
 TSC 9 pin 4 wires to HI heat motor speed  
 TSC 9 pin 7 wires to Lo heat motor speed

UNIT	FACTORY CONNECTED SPEED TAP			MOTOR SPEEDS AVAILABLE
	COOL	HIGH HEAT	LOW HEAT	
	02-60, 3-75	BLK	YEL	
04-100	BLK	BRN	BLUE	5
05-120	BLK	BRN	RED	5

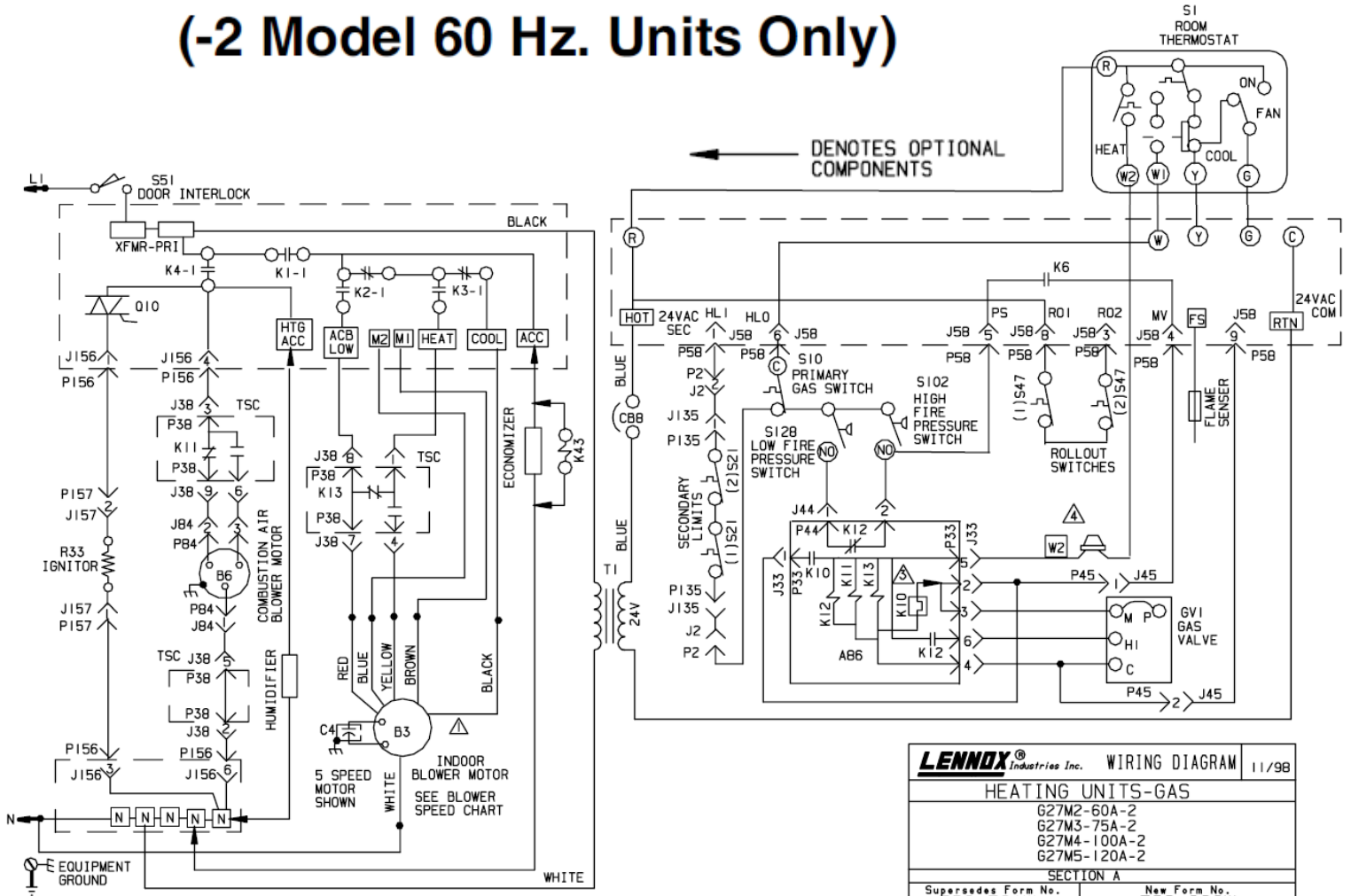
  

BLOWER SPEED SELECTION						
HI ← → LO						
SPEED TAP	BLK	BRN	YEL	RED	4	
	BLK	BRN	BLUE	YEL	RED	5





# TYPICAL G27M WIRING DIAGRAM (-2 Model 60 Hz. Units Only)



<b>LENNOX</b> Industries Inc.		WIRING DIAGRAM	11/98
HEATING UNITS-GAS			
G27M2-60A-2			
G27M3-75A-2			
G27M4-100A-2			
G27M5-120A-2			
SECTION A			
Supersedes Form No.		New Form No.	
532,791W		532,982W	
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