

OPERATION AND INSTALLATION FOR SINGLE CHANNEL FUME HOOD ALARM - MODEL 54L829

SUFFIX	SWITCH TYPE
H1	Sash Height (18")
T1	Temperature (135°F)
P1	Pressure (0.07 to 0.15 in w. g.)
P2	Pressure (0.15 to 0.50 in w. g.)
V1	Voltage (120 VAC)

REPLACEMENT PARTS	
19705	Circuit Board
Various	Switch Assemblies

OPTIONS	
54L831A	DPDT Relay

POWER ADAPTER = 49982

OPERATION:

This alarm is designed to provide audible and visual signaling in the event of emergency conditions as indicated by closure of a remote switch. (Refer to installation sheet provided with switch for instructions for mounting the switch). Alarm requires a 15 VDC low voltage power supply for operation.

The alarm lamp and buzzer are off under normal conditions (alarm contacts "open"). The alarm circuits can be tested by holding the "Test" push button. The alarm lamp will flash and the audible buzzer will sound as long as the "Test" button is pressed. The audible silence feature can be tested by momentarily pressing the "Silence" push button while holding the "Test" push button. The audible buzzer will stop sounding immediately and stay off until the "Test" push button is released. Both the alarm lamp and buzzer will automatically reset when the "Test" push button is released.

The alarm lamp will immediately start flashing and the alarm buzzer will immediately sound under emergency conditions (alarm contacts "closed"). The buzzer can be silenced indefinitely by momentarily pressing the "Silence" push button. Pressing the "Test" push button will have no effect on the alarm signaling. Both the alarm lamp and buzzer will automatically reset when conditions return to normal (contacts "Open").

An optional external relay can be installed that will become energized under emergency conditions and while the test push button is pressed. The external relay has both normally open and normally closed contacts that can be used to control two-speed motors, switch damper positions, and activate security annunciator systems and remote signaling devices.

INSTALLATION:

1. Make cutout in corner post of fume hood at desired height, see Figure 1.

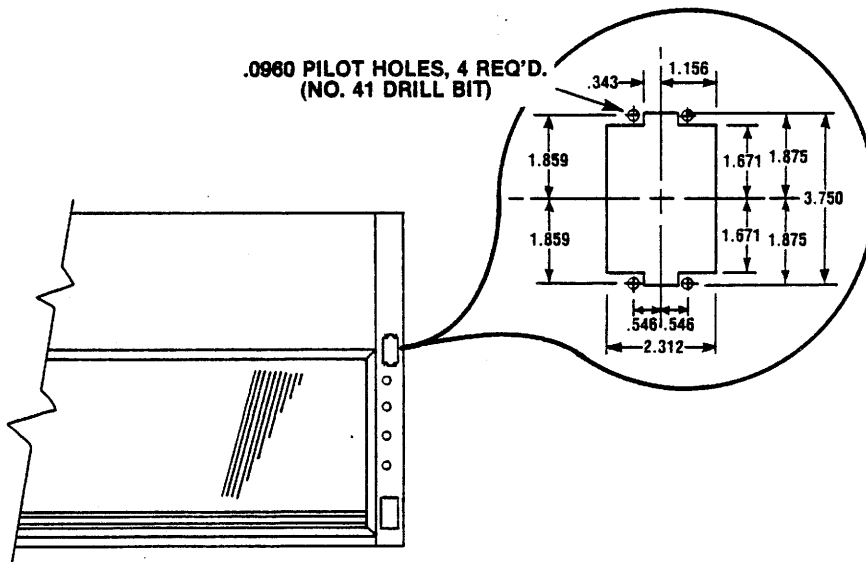


FIGURE 1

2. Attach the circuit board to the mounting assembly by removing push buttons, hex nuts, and washers from switches and inserting switch studs through holes in mounting assembly. Secure with the hex nuts and washers and re-attach push buttons. See Figure 2.

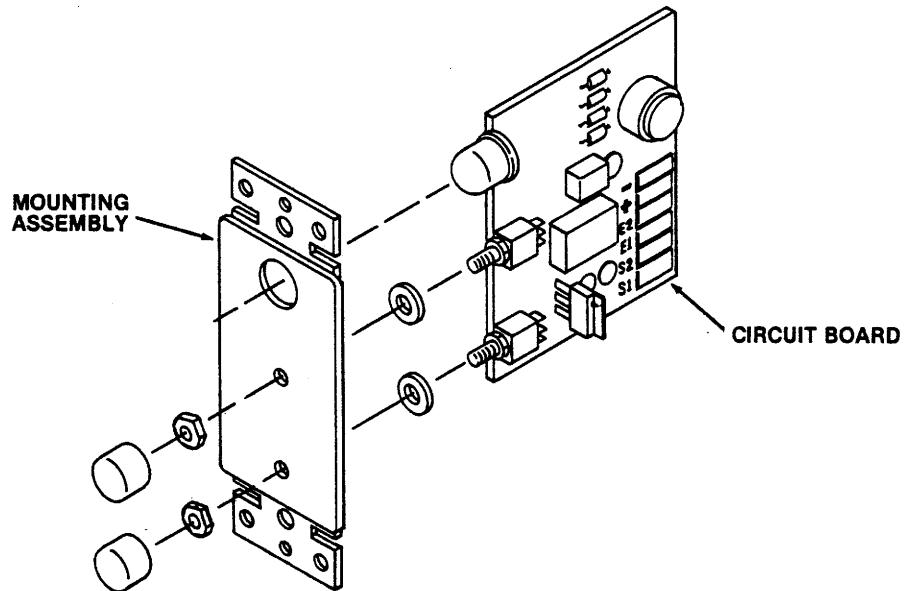


FIGURE 2

NOTE: Connections to the circuit board are made to the quick-connect terminals on the board by raising the lever arm, inserting wire, and pressing back down on lever arm to hold wire in place. No tools or additional parts are needed.

3. Route power adapter leads through the cutout and connect to the + and - terminals on the circuit board. Be careful to observe correct polarity as marked on the adapter. See Figure 3.
4. Connect the wire ends of the power adapter cable to the alarm contacts S1 and S2 on the circuit board. Make sure that switch makes contact to signal emergency conditions. See Figure 3.
5. Connect coil leads of optional external relay to relay contacts E1 and E2 on circuit board. Coil will be energized when emergency conditions occur. Coil must be 12 VDC with at least 120 Ω resistance (100 mA maximum current draw).
6. Install the circuit board assembly directly to the cutout using four No. 4 x .50" sheet metal screws. See Figure 3.

NOTE: A single gang (3.5" deep) knockout box (Hamilton Part No. 48805) can be field installed when required to meet local codes. Break off tabs on mounting assembly to allow removal of alarm without removing the box. The mounting assembly then attaches to the box like a standard receptacle using two No. 6-32 x .875" flat head milled slot screws.

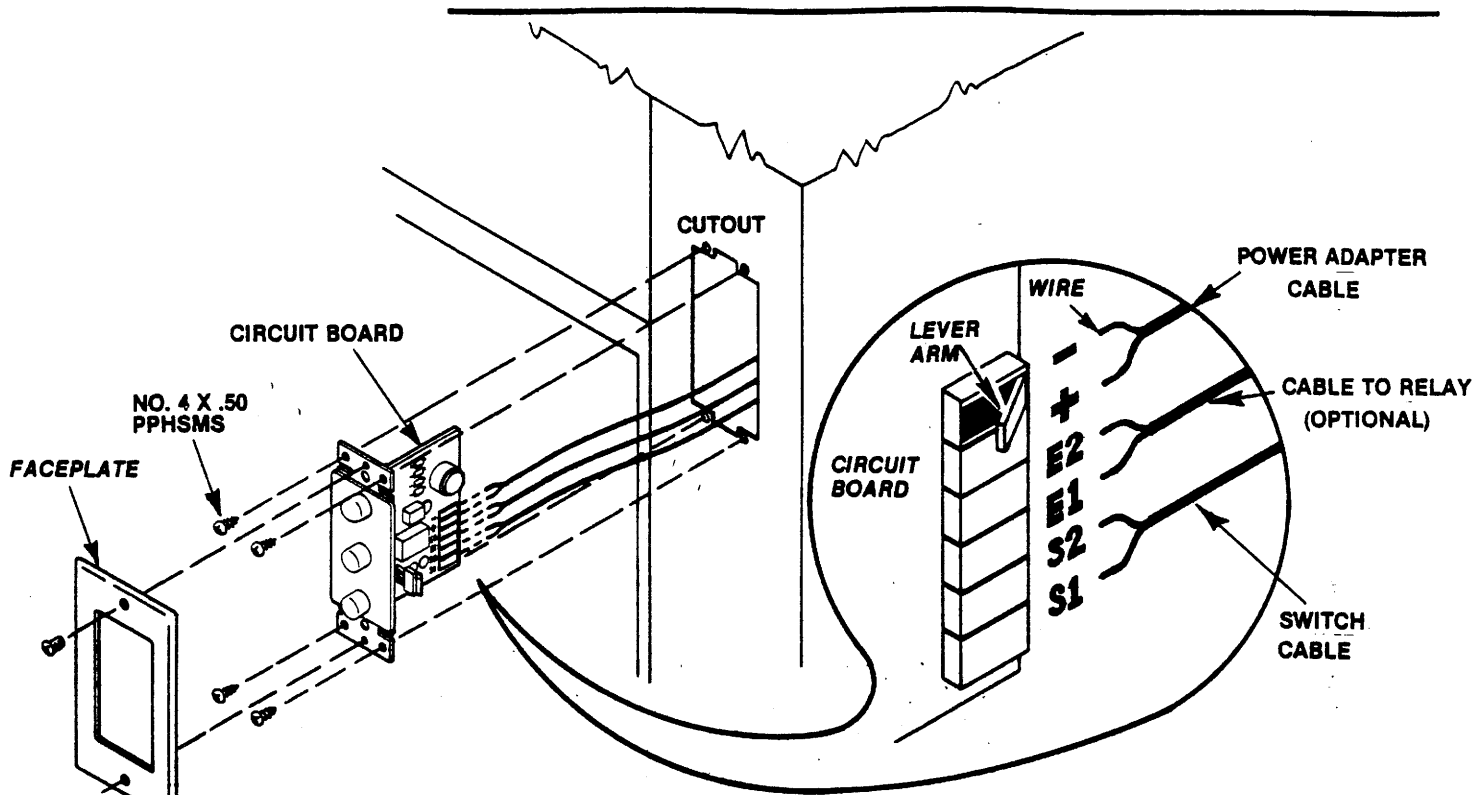


FIGURE 3

7. Install the faceplate to the mounting assembly using the two No. 6-32 x .25" oval head nylon screws provided. Make sure that the legends on the faceplate and mounting assembly are both oriented properly so they are readable.
8. Plug power adapter into 115 VAC outlet (either field supplied or field wired factory outlet) on top of hood. See Figure 4.

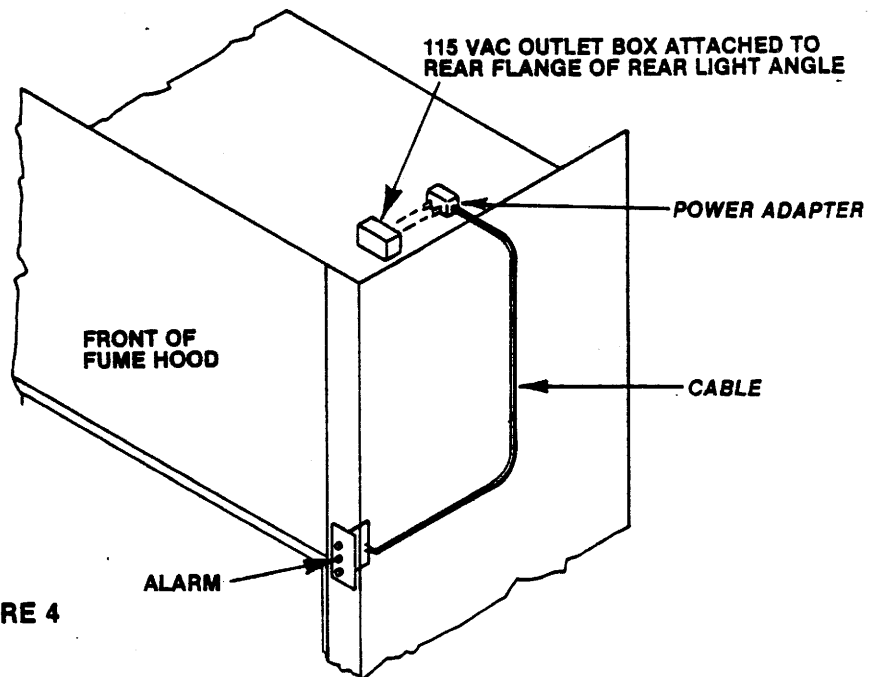
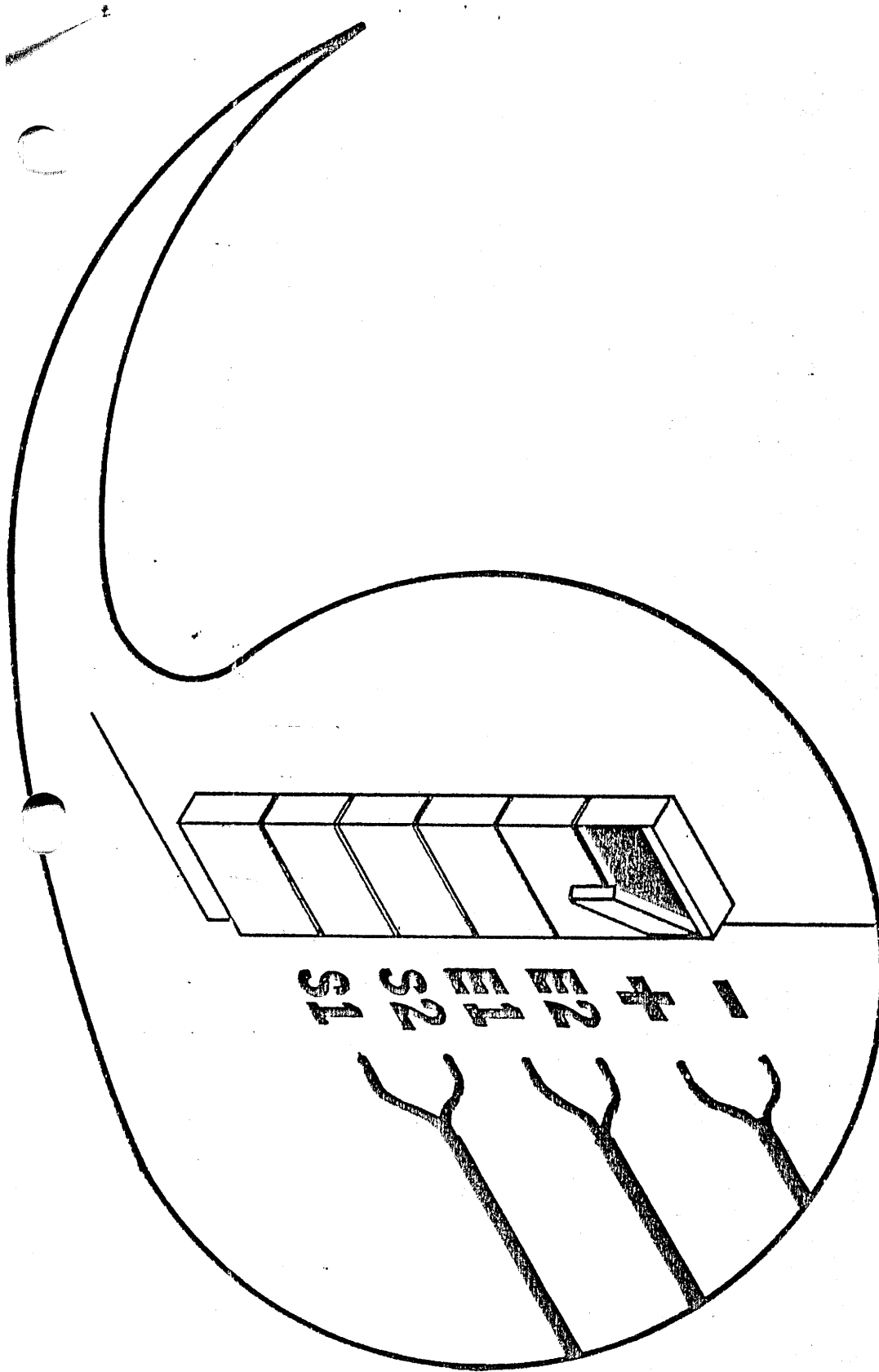


FIGURE 4



FACTORY

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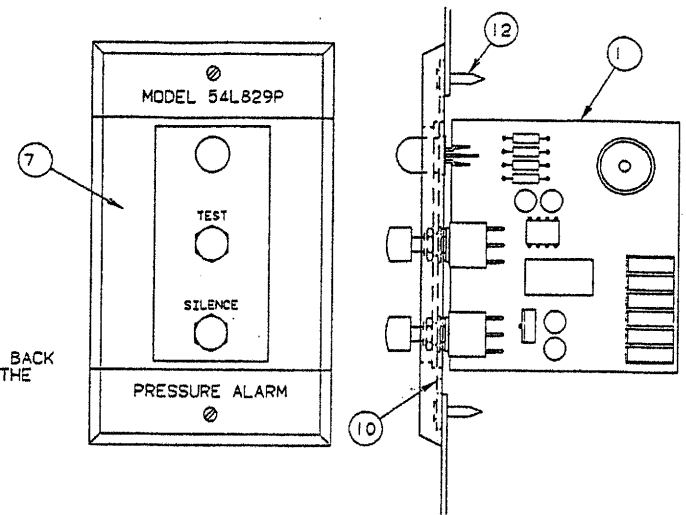
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PRODUCT NUMBER		54L829P1		54L829P2		
NO.	DESCRIPTION	DRWG. NO.	PART NO.	QTY	PART NO.	QTY
1	ALARM CIRCUIT BOARD	B-19705	19705	1	19705	1
2	KNOCKOUT BOX	A-48785	48785	1	48785	1
3	RECEPTACLE	A-49380	49468	1	49468	1
4	POWER ADAPTER	B-49982	49982	1	49982	1
5	OPERATING INST. PL-391	NONE	56064	1	56064	1
6	COVER	A-59406	59406	1	59406	1
7	FLUSH PLATE, PRESSURE	B-59407	59409	1	59409	1
8	TUBING	A-328865	328865	1	328865	1
9	SWITCH ASSEMBLY	C-347299	349024	1	347969	1
10	MOUNTING ASSEMBLY	A-349023	349023	1	349023	1
11	SENSOR BAG ASM	A-349026	349026	1	349026	1
12	PPHMS #4 X .50	NONE	1140408	4	1140408	4
13	PPHMS #10 X .50	NONE	3941008	2	3941008	2
PRESSURE SWITCH RANGE (IN. W. G.)			0.07" - 0.15"		0.15" - 0.50"	

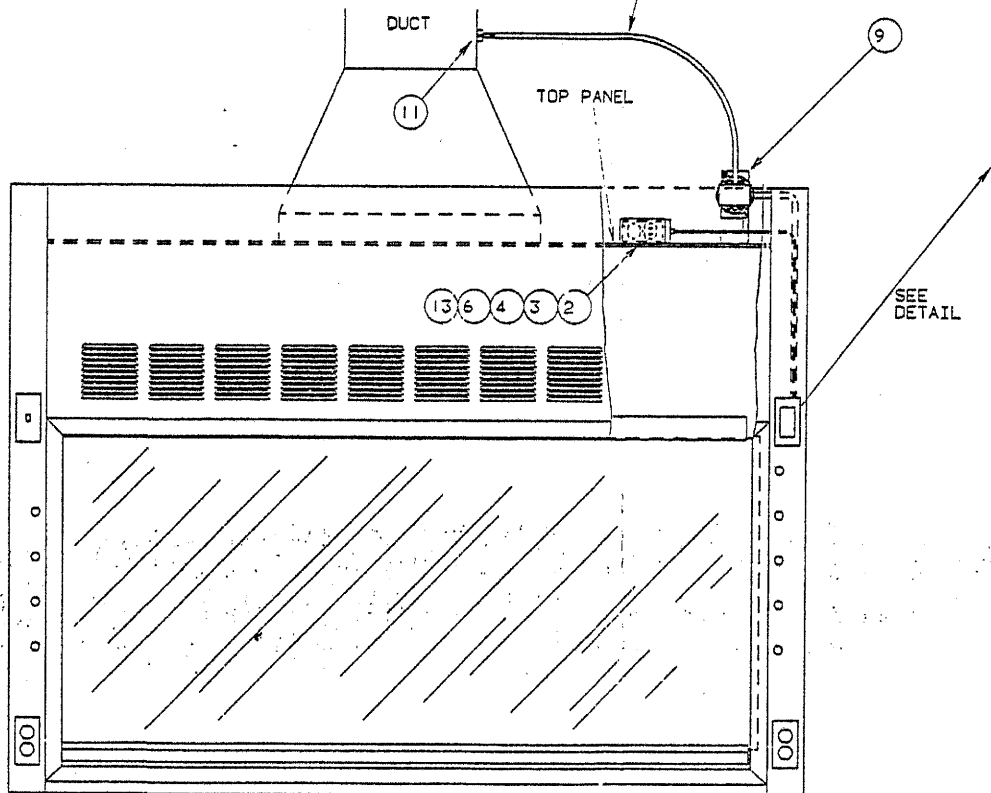
See item 11

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NOTE: ATTACH SWITCH ASSEMBLY TO BACK OF REAR LIGHT ANGLE WITH THE TWO PPHSMS PROVIDED.



REFER TO DRAWING A-36L001-51 FOR DETAIL OF PANEL CUTOUT



FACTORY

INSP. 31
MAY 8 1989

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NOTE: 54L829P1 IS SHOWN

REV	DATE	NAME	REVISION
1			REVISD TO MATCH VENDOR BOARD LAYOUT
2			RELEASED ON ECN L13067
			MASTER

54L829P1

MATERIAL	DIMENSION TOLERANCE UNLESS OTHERWISE SPECIFIED	PEANOSKY DRAWN 10-18-88 APPROVED NKD
SPECIFICATION	ONE DECIMAL PLACE TWO DECIMAL PLACES THREE DECIMAL PLACES	SCALE 1/8
TITLE	PRESSURE ALARM	4L829P1