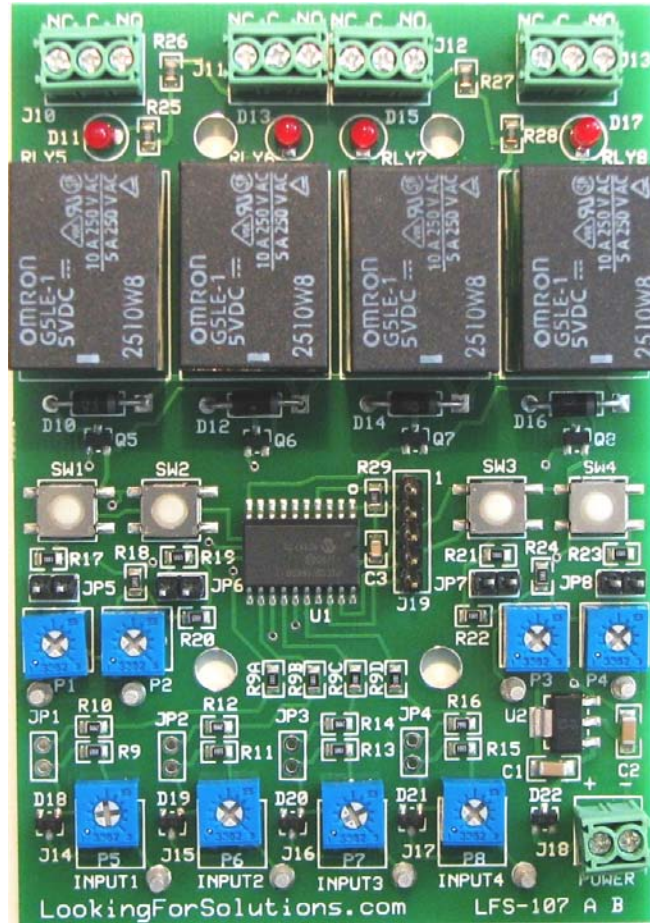




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## 4 Channel Relay Timer Board

Model LFS107B

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## 1- Introduction

LFS107B is a 4 channel relay timer board. It provides four independent relay timers. Each relay timer can be set for adjustable ON and OFF times. The ON and OFF times can be set anywhere from 1 second to 5 minutes or 1 minute to 5 hours. When a relay turns ON (energizes), it provides a contact closure. It also turns on the corresponding red LED.

### Powering the Relay Timer board

Powering the Board: Apply 5 Vdc across J18 Terminal Block. [Note the polarities and voltage level. Applying a larger voltage could damage the board.](#)

### Operating the Relay Timer board

To set a relay timer from 1sec to 5 minutes, leave JP5 (Chan1), JP6 (Chan2), JP7 (Chan3), JP8 (Chan4) jumpers open.

To set a relay timer from 1 minute to 5 hours, short JP5 (Chan1), JP6 (Chan2), JP7 (Chan3), JP8 (Chan4) jumpers.

To set the ON times for a relay, adjust potentiometer P5 (Chan1), P6 (Chan2), P7 (Chan3), P8 (Chan4).

Test Points TP5 (Chan1), TP6 (Chan2), TP7 (Chan3), TP8 (Chan4) represent the set ON time voltage for each relay channel. The ON time can be set from 0 to 5 volts. 0 volts represents 1 second (or 1 minute). 5 volts represents 5 minutes (or 5 hours).

To set the OFF times for a relay, adjust potentiometer P1 (Chan1), P2 (Chan2), P3 (Chan3), P4 (Chan4)

Test Points TP1 (Chan1), TP2 (Chan2), TP3 (Chan3), TP4 (Chan4) represent the set OFF time voltage for each relay channel. The OFF time can be set from 0 to 5 volts. 0 volts represents 1 second (or 1 minute). 5 volts represents 5 minutes (or 5 hours).

When jumpers JP5 (Chan1), JP6 (Chan2), JP7 (Chan3), or JP8 (Chan4) are shorted (Before Power up), pressing momentary switches SW1 (Chan1), SW2 (Chan2), SW3 (Chan3), or SW4 (Chan4) resets the corresponding relay.

**Example** - Set Channel 1 alarm for 30 minutes of ON time and 2 hours of OFF time. This time frame falls within the 1 minute to 5 hours period. Jumper JP5. Set potentiometer P5 so that TP5 measures 500 mV which corresponds to 30 minutes of ON time (30 minutes is 10% of 5 hours or 5 volts). Set potentiometer P1 so that TP1 measures 2.0V which corresponds to 2 hours of OFF time (2 hours is 40% of 5 hours or 5 volts).

## 2- Specifications

Relay	Four SPDT, Form C – 5 Volts
Relay Contact Rating	3A @ 120 VAC, 3A @ 30 VDC
Power Supply	5 Vdc @ 320 mA
Relay ON time	1 sec to 5 minutes or 1 minute to 5 hours
ON time adjust	Set via potentiometers P5→ P8
Relay OFF time	1 sec to 5 minutes or 1 minute to 5 hours
OFF time adjust	Set via potentiometers P1→ P4
Relay turn ON indication	Red LED
Reset a Relay	Set via momentary switches (JP5→ JP8 are shorted)
Alarm indication	Red LED
Power & Input connections	Terminal Block
Output contact closure connections	Terminal Block
Mounting Holes	0.167” diameter, 4 PLCS, DIN Rail mountable
Operating Ambient Temperature	-40 to 85 °C (-40 to 185 °F)
Operating Relative Humidity	25 to 85%RH
PC Board size	2.80 x 4.05 inches (71.1 x 102.8mm)

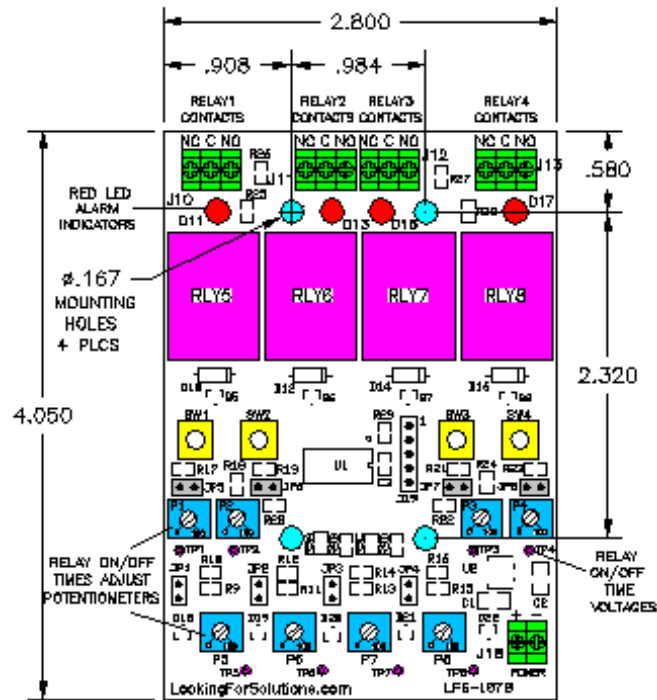


Figure 1 – General Dimensions - LFS107B

### 3- Troubleshooting

Here is a list of items to check for any troubleshooting:

- Make sure the Board is powered not exceeding 5 Volts and at the correct polarity.
- Place the proper jumpers (JP5→JP8) for 1 minute to 5 hours ON/OFF times and resetting a relay.