

CONTROL MODULE ASSEMBLY

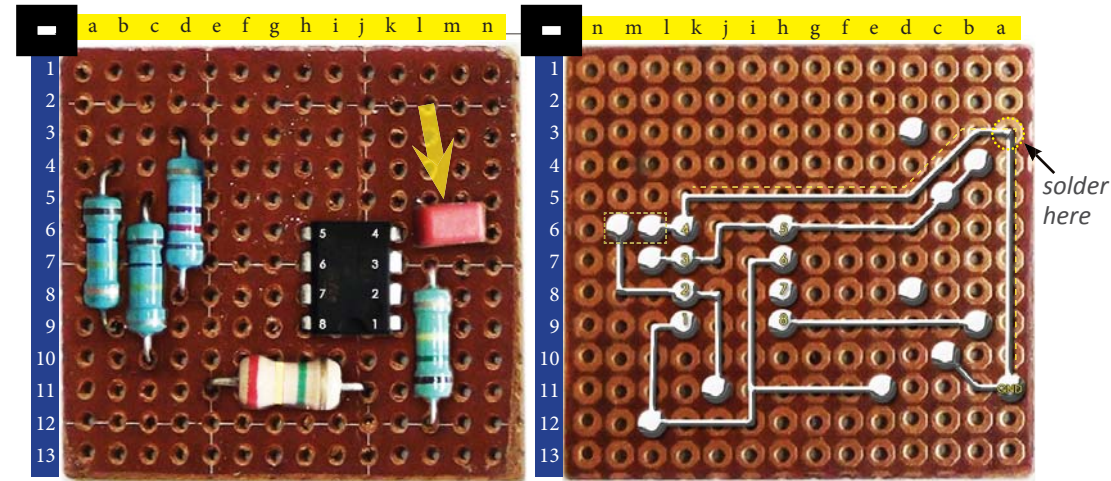
7

Insert & solder 0.1 uf capacitor

The 0.1 uf capacitor controls the frequency or the number of pulses per second. In this case, 4 cycles per second or 4 hertz, with each pulse reversing in polarity from the previous.

- » Solder the 0.1uf capacitor into L6 & M6 of the circuit board.
- » Connect a lead wire from M6 to K8 (or pin #2 of LM358).
- » Connect a lead wire from K6 to A11 (GND). You may need to solder two lead wires or so together to cover the distance between these points. Also, apply a solder at A3 to secure this lead wire to the board.
- » Connect L6 to K6 using just the tip of the soldering iron or use lead wire when needed.

Compare your work to the updated soldering diagram on the right.



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Insert & solder the two 18v zener diodes

The two 28v zener diodes are part of the power monitor circuit. Through these diodes, the LEDs will only flash when the total voltage is above 20 volts. Otherwise, the control module power source must be recharged or replaced with fresh alkaline batteries.

- » Solder the first zener diode with the cathode (black band) lead into G8, while the other (anode) lead into F8 of the board. Vertical orientation of the zener is the only way it can be inserted in such a tight space like this one.
- » Solder the other zener diode with its cathode lead wire into E4, and the other lead wire into E8.
- » Connect E8 to F8. Then, connect G8 & H8.

Compare your work to the updated soldering diagram on the right.

