

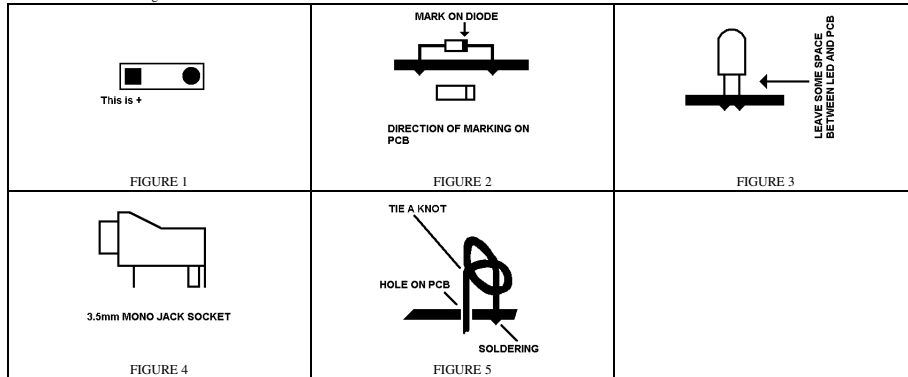
EMERGENCY LIGHTING

PRODUCT CODE: M00270020

DESCRIPTION: This is just to simulate the Emergency Lighting that you see in most of the shopping mall, factory, office..... but is mini version.

READ BEFORE INSTALLATION:

- Put the component on the side of screen printing and solder on the back of PCB without printing.
- Placing direction of component.
- 1. On component, longer leg is "+".
- 2. On PCB marking, square pad as Figure 1 is always "+".
- 3. For diode, please install as Figure 2.
- Do not put the LED to very bottom, just install as Figure 3.
- For 9V Battery Adaptor, Red is B+ and Black is B-. Also, please tie a knot after the red and black wire has passed the neighbors hole before soldering. This is similar to Figure 5.

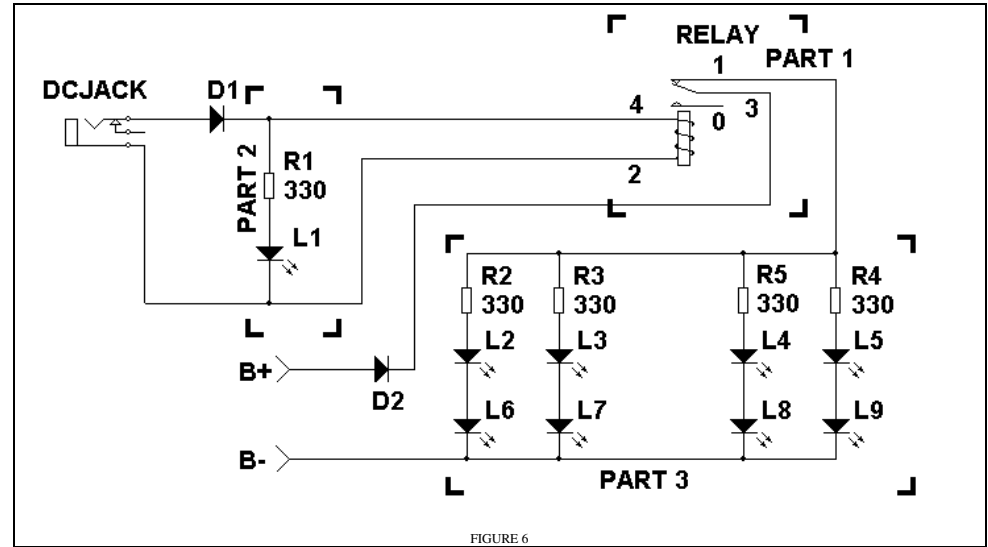


CIRCUIT EXPLANATION:

Please read the below together with the circuit diagram in Figure 6.

- The function of D1 and D2 is to prevent reverse power supply.
- Part 1 is the brain of the whole equipment. The look of the component is a big rectangles box. Actually, this is a relay. A relay is an electrical operated switch. When voltage exists at the two pin of input, the path of conduction would be changed. You can think that there is a little man sitting inside the relay. He would change the path of conduction when he has got the signal from input.
- Part 2 is a general LED, this would light up when there is power is coming from DCJACK. DCJACK is connected to an external adaptor.
- Part 3 is a set of general LED. This would light up when the conduction path inside the relay is changed due to lack of power from the DCJACK.
- Summary of above
 1. When power exists in the DCJACK, L1 would be on. In the relay, the conduction path is from B+, D2, leg of 3 of relay, leg of 0 of relay and nothing. So L2 to L9 are off.
 2. When power does not exist in the DCJACK, L1 would be off. In the relay, the conduction path now is from B+, D2, leg of 3 of relay, leg of 1 of relay, R2, R3, R4 and R5, and LED from L2 to L9, and then back to B-. So L2 to L9 are on. Of course, you must install a battery during the time of operation.

CIRCUIT DIAGRAM:



INSTALLATION:

Just install the component to the PCB M00260036 according to below table.

ITEM	SYMBOL ON PCB	DESCRIPTION	OUTLOOK	DIRECTION IS IMPORTANT?
1	R1	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
2	R2	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
3	R3	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
4	R4	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
5	R5	RESISTOR, 330 ohms	ORANGE, ORANGE BROWN	NO
6	D1	DIODE, IN 4001	FIGURE 2	FIGURE 2
7	D2	DIODE, IN 4001	FIGURE 2	FIGURE 2
8	L1	LED	RED	YES
9	L2	LED	TRANSPARENT	YES
10	L3	LED	TRANSPARENT	YES
11	L4	LED	TRANSPARENT	YES
12	L5	LED	TRANSPARENT	YES
13	L6	LED	TRANSPARENT	YES
14	L7	LED	TRANSPARENT	YES
15	L8	LED	TRANSPARENT	YES
16	L9	LED	TRANSPARENT	YES
17	DCJACK	3.5mm MONO JACK SOCKET	FIGURE 4	YES
18	RELAY	RELAY	A BIG RECTANGLE BOX	YES
19	B+, B-	9V BATTERY ADAPTOR	RED WIRE, BLACK WIRE	YES

- To play this kits, you must use external DC adaptor (You can use our product M00270013 or other similar adaptor) and 9V battery together.