



Schematic

Assembly Instructions

Make sure that the kit contains all components.

Start installing components in the following order. Always double check position/orientation of the component before soldering. First solder one pad only, then check if the component is seated right. Adjust as necessary by reheating the soldered pad. Then finish the other pads.

R1: 1k ohm resistor

R2: 100k ohm resistor

Bend the leads and insert into the PCB holes. Solder from the back.

D1: 1N4148 diode

Same as the resistors. Make sure to match the orientation marked on the PCB.

C1: 10pF/100V ceramic capacitor

C2: 0.1uF/100V ceramic capacitor

Insert straight into the PCB holes. Solder from the back. No polarity.

L1: 100uH inductor

No polarity. Long lead can go in either holes.

Q1, Q2: KSP06 NPN transistor

Insert in the orientation marked on the PCB.

LED1: 70V filament LED

Watch for the polarity - a small hole on the LED lead

should match the dot on the PCB (marks Anode/+). Apply small amount of solder on the pads first, then apply some flux (recommended). Then place the LED in place and heat up the pads, one at a time, being careful not to move the LED. Using a piece of masking tape to hold the LED in place will help.

Filament LEDs are very fragile! Use extra care in handling them.

SW1: Mercury tilt switch

Install on the back side of the PCB. Bend the lead so that it lies flat on the PCB.

AAA battery clips

These are larger metal components, so make sure to heat them well before applying solder. Solder one joint first, and check to make sure it's seated well. Correct the straightness if you need, by reheating the first solder joint. Then solder the rest.

After all components are soldered, carefully check for bridged/shorted joints. Connect the battery and see if it works.