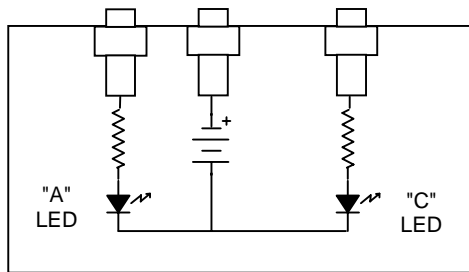
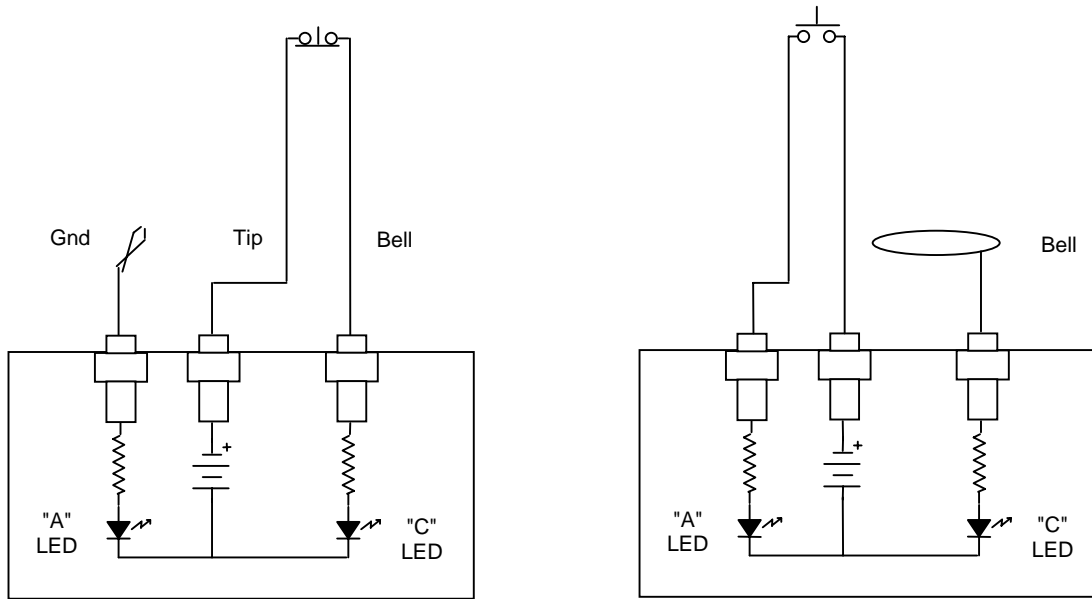


## Foil/Epee Weapon Tester



The basic circuit consists of two LEDs, two current limiting resistors, three sockets, and a battery. Values for the resistors depends on the battery voltage and LED types chosen. 47-470 ohms would be a typical range of choices for battery voltages of 3-9 VDC. The sockets are best scavaged from an old epee, since the 10 mm and 15 mm spacing can be obtained from the plastic socket holder. You can also use banana plug sockets obtained from Radio Shack, though the socket diameter is not exactly correct, it will work.

**Testing a foil** - The figure marked "Foil" below schematically shows a foil and body cord plugged into the tester. A working foil should illuminate the "C" LED through the normally closed switch in the foil tip. No "C" light indicates an open circuit somewhere; a broken wire or serious corrosion of the spring, barrel, or screws. Depressing the tip should extinguish the "C" LED. Failure to extinguish usually means that the tip wire has been shorted out, usually pinched by the grip or sometimes the insulation has failed in the blade. You can also connect the ground clip of the body cord to the foil bell guard, which should illuminate the "A", too. Both LEDs should now switch on/off with the tip switch movement, which checks the last of the body cord wires.



Foil

Epee

**Testing an epee** - The figure marked "Epee" above schematically shows an epee and body cord plugged into the tester. A working epee should illuminate neither LED through the normally open switch in the epee tip. Either LED illuminated indicates a shorted circuit somewhere; the "A" LED indicates a wire-to-wire short or tip switch short, the "C" LED indicates a short from tip wire to blade or bell guard, which is often found pinched behind the grip. When the tip is depressed all the way down, the "A" LED should illuminate. Failure to do so indicates either a badly adjusted contact spring or a break in the wiring somewhere.