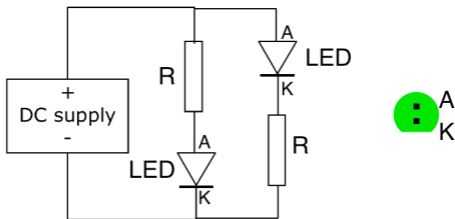


Light-emitting diodes (LEDs) must be connected to a DC supply via current limiting resistors. Two possible arrangements are shown in the diagram.



R is the resistor and it doesn't matter which direction this is connected. The two terminals of the LED are designated A (anode) and K (cathode). It **does matter** which way these are connected. The K lead is identified in a new LED as having the shorter lead. It is also the lead closer to the flat segment on the flange of the LED body.

The voltage drop across a LED of the type in this pack is typically 2V and it requires about 15mA (.015A) of current for reasonable brightness. (**Do not exceed 50mA.**) The value of resistor is calculated as:

$$(\text{Supply voltage} - 2\text{V}) \div \text{Current required}$$

For a 12V supply and 15mA current, the required resistor is $10 \div 0.015 = 667$ ohms. The nearest standard resistor value is 680 ohms.