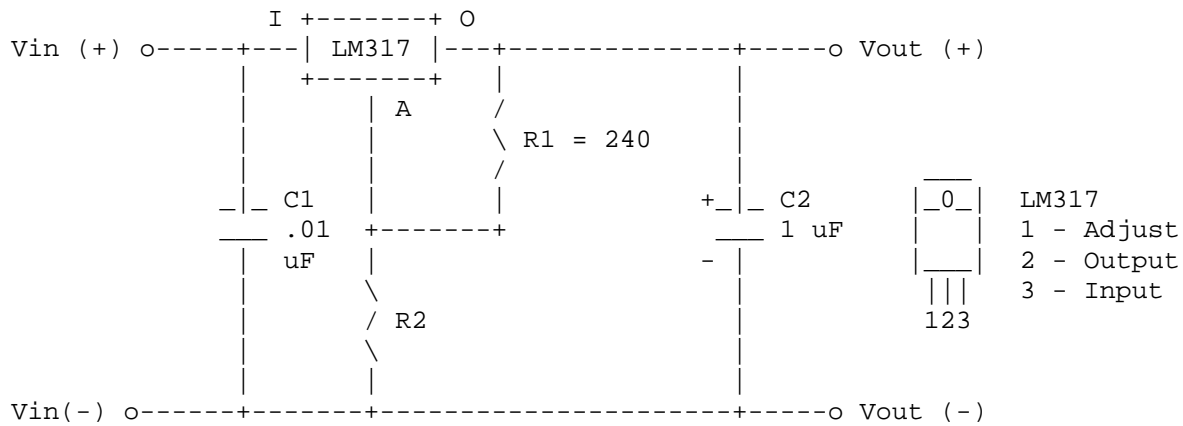


Adjustable power supply using LM317



For the LM317:

- $R2 = (192 \times V_{out}) - 240$, where $R2$ in ohms, V_{out} is in volts and must be at between 1.2 V and 35 V.
- V_{in} should be at least 2.5V greater than V_{out} . Select a wall adapter with a voltage at least 2.5 V greater than your regulated output at full load
- Maximum output current is 1 A. Use proper heatsink for LM317 if it has to dissipate more than 1W.
- The tab of the LM317 is connected to the center pin.

Equation for calculating the output voltage when $R1$ and $R2$ are known:

$$V_{out} = 1.25V * (1 + R2/R1) + I_{adj} * R2$$

Where I_{adj} is typically in the range of 50 microamperes.