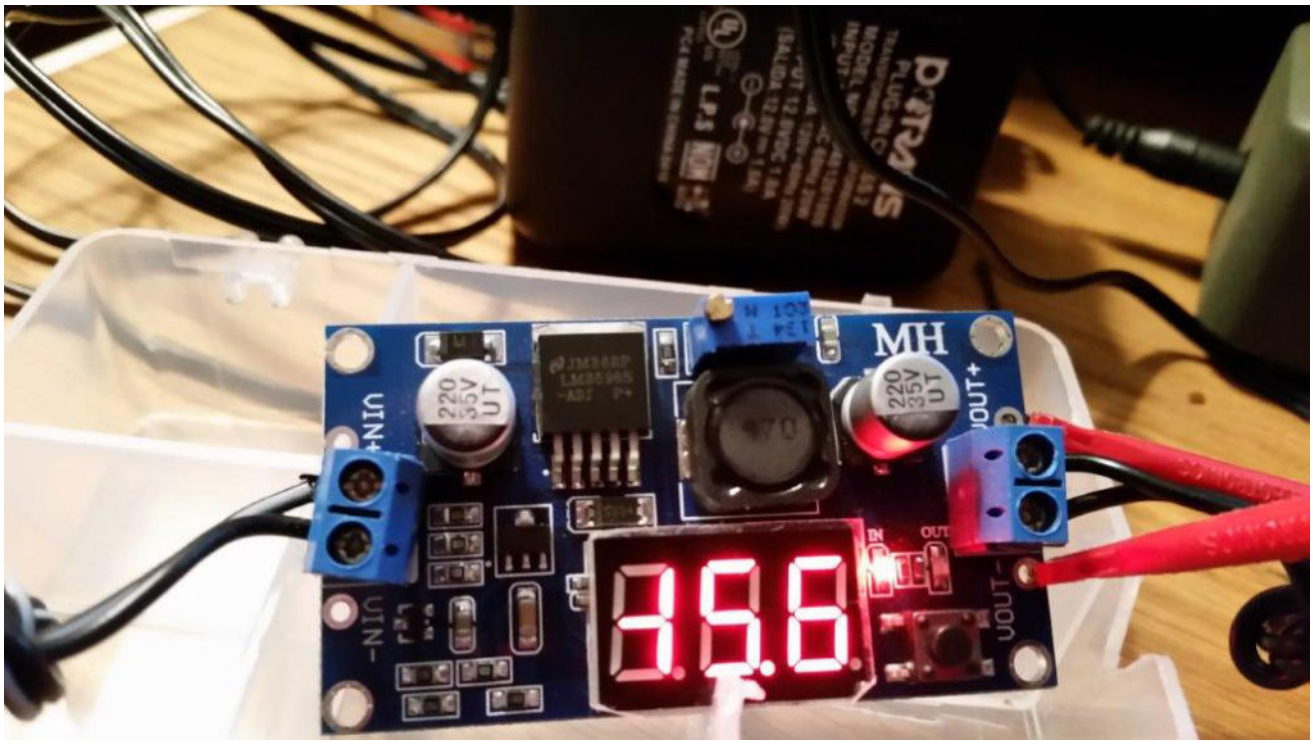
Making your own PSA out of unregulated supply

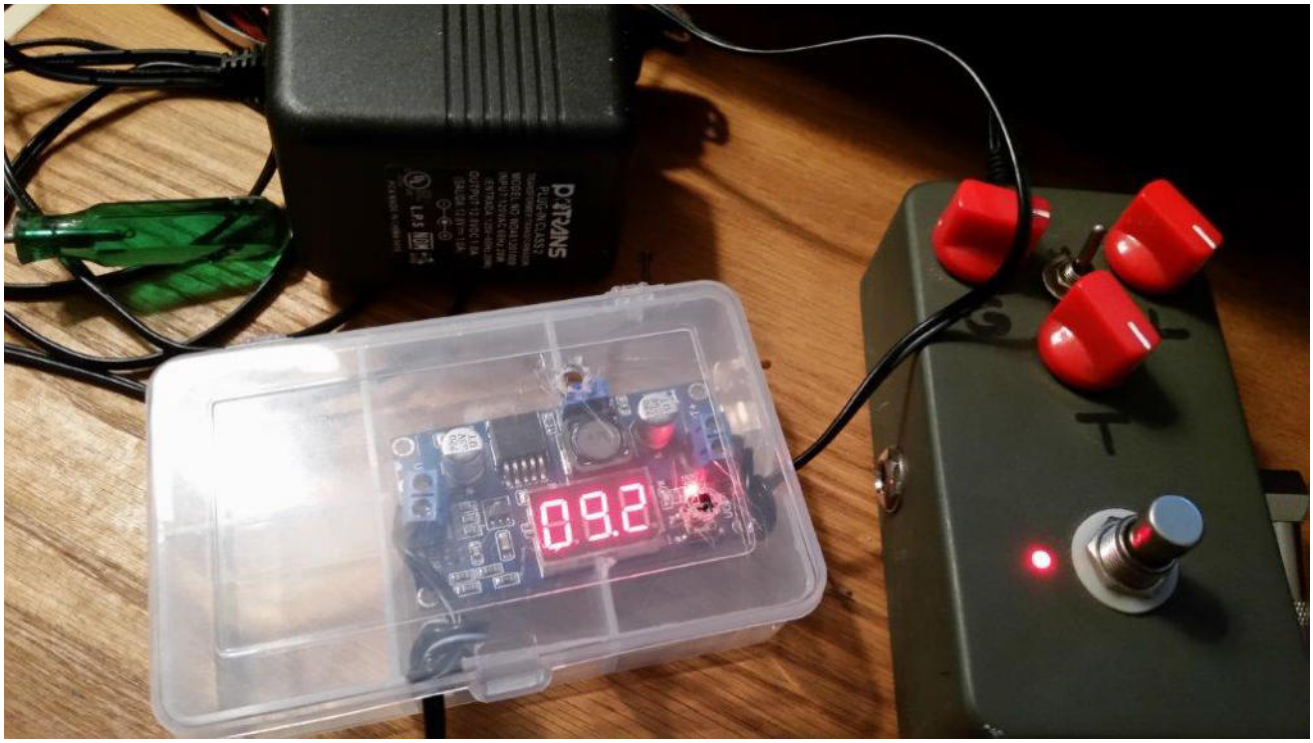
by **nylonperro** » 10 Jan 2016, 21:51

Since I cannot figure out why 3 Boss PSAs have died ($80 + tax/shipping + hassle) I went a different route.

The Texas Instruments LM2596 is a workhorse step-down voltage regulator. When I went online, the Elves in China have turned the ref design into a board. For $2-$6 depending on origination & shipping, you can get one.

It can handle 0.4-40 V at up to 3Amps. Polarity protection on input - the telecom-sourced wallwart I am using had a center-positive connector I snipped off. The one I got off Ebay has a nice display with toggle voltage on input or output - search Ebay or Googlazon for "LM2596".





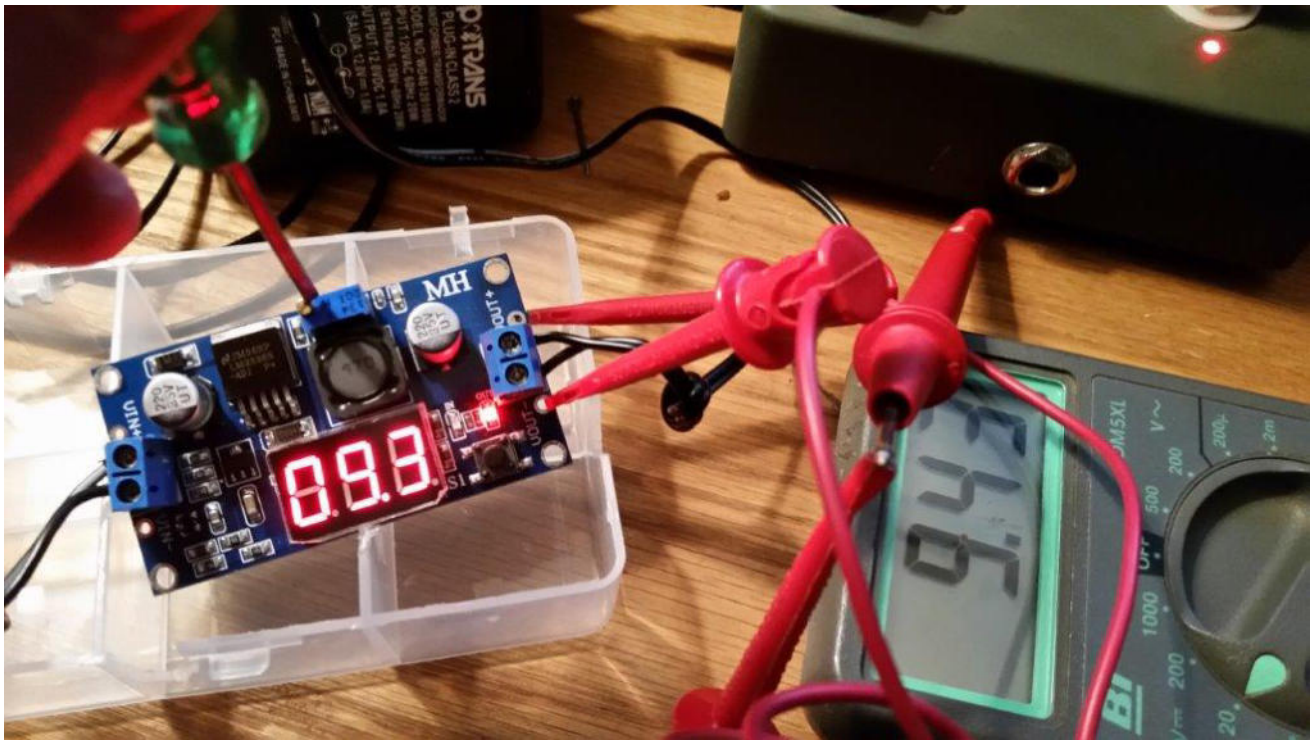
Conclusion: for a few bucks you can take an unregulated supply & tune/regulate output voltage for your PSA pedals.

nylonperro

Re: Making your own PSA out of unregulated supply

by **nylonperro** » 10 Jan 2016, 21:56

There is a small multi-turn resistor to adjust the output voltage. The other hole in case is to toggle input/output voltage on LED.



nylonperro

Re: Making your own PSA out of unregulated supply

by **Dirk** » 11 Jan 2016, 19:33

Well great, let us know how it works out.

Dirk

Re: Making your own PSA out of unregulated supply

by **sclitheroe** » 12 Jan 2016, 02:50

If you have access somehow to a scope, it would be interesting to see what the ripple on the output looks like - how clean do you think the voltage out is?

sclitheroe

Re: Making your own PSA out of unregulated supply

by **Laurie** » 12 Jan 2016, 04:10

This is much goodness.

I've been doing something similar (and slightly simpler) for years. It needs a 7809 regulator and two capacitors.

Laurie