

DIY Power Supply for Flashing & Coding

DIY for a very affordable power supply. Flashing can take a while, and it's very important that the voltage remains stable. The car can easily draw 30 or 40 amps while flashing, and a typical battery charger cannot supply that much steady current.

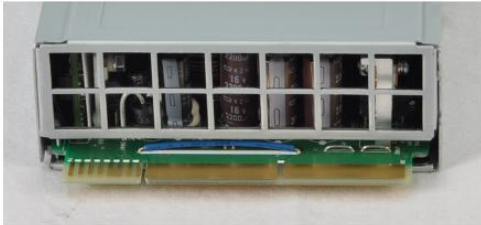
You can build your own power supply for under \$30 using an old server power supply. There's not much demand for obsolete server parts, so you can scoop them up cheap.

I used a **DPS-700EB** power supply for an obsolete Dell server. These power supplies are easily available for under \$20, and they can put out **65amps of clean power** at a voltage of your choosing.

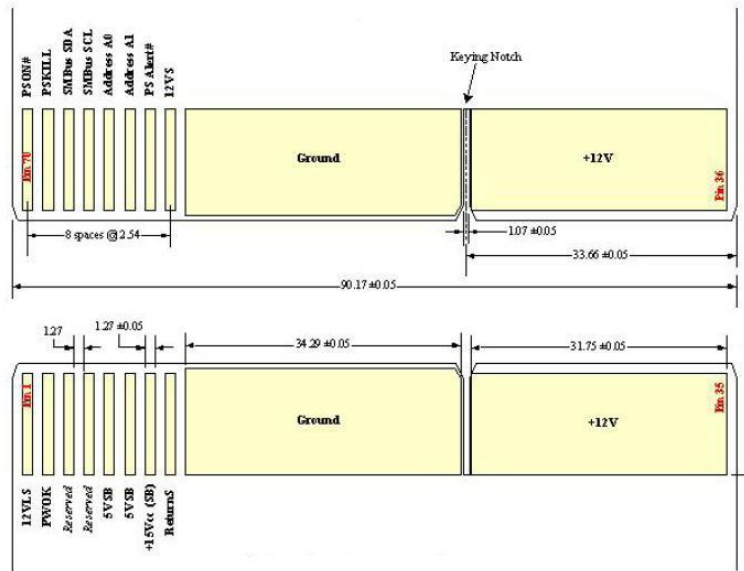


Delta DPS-750EB PS Full Pinout

Connect PS ON and PS Kill to ground to power up.



Description	Pin#	Pin#	Description
12VLS	1	70	PSON#
PWOK	2	69	PSKill
Reserved	3	68	SMBus SDA
Reserved	4	67	SMBus SCL
5VSB	5	66	Address A0
5VSB	6	65	Address A1
15Vcc (SB)	7	64	PSAlert#
ReturnS	8	63	12VLS
Ground	9	62	Ground
Ground	10	61	Ground
Ground	11	60	Ground
Ground	12	59	Ground
Ground	13	58	Ground
Ground	14	57	Ground
Ground	15	56	Ground
Ground	16	55	Ground
Ground	17	54	Ground
Ground	18	53	Ground
Ground	19	52	Ground
Ground	20	51	Ground
Ground	21	50	Ground
Ground	22	49	Ground
+12V	23	48	+12V
+12V	24	47	+12V
+12V	25	46	+12V
+12V	26	45	+12V
+12V	27	44	+12V
+12V	28	43	+12V
+12V	29	42	+12V
+12V	30	41	+12V
+12V	31	40	+12V
+12V	32	39	+12V
+12V	33	38	+12V
+12V	34	37	+12V
+12V	35	36	+12V

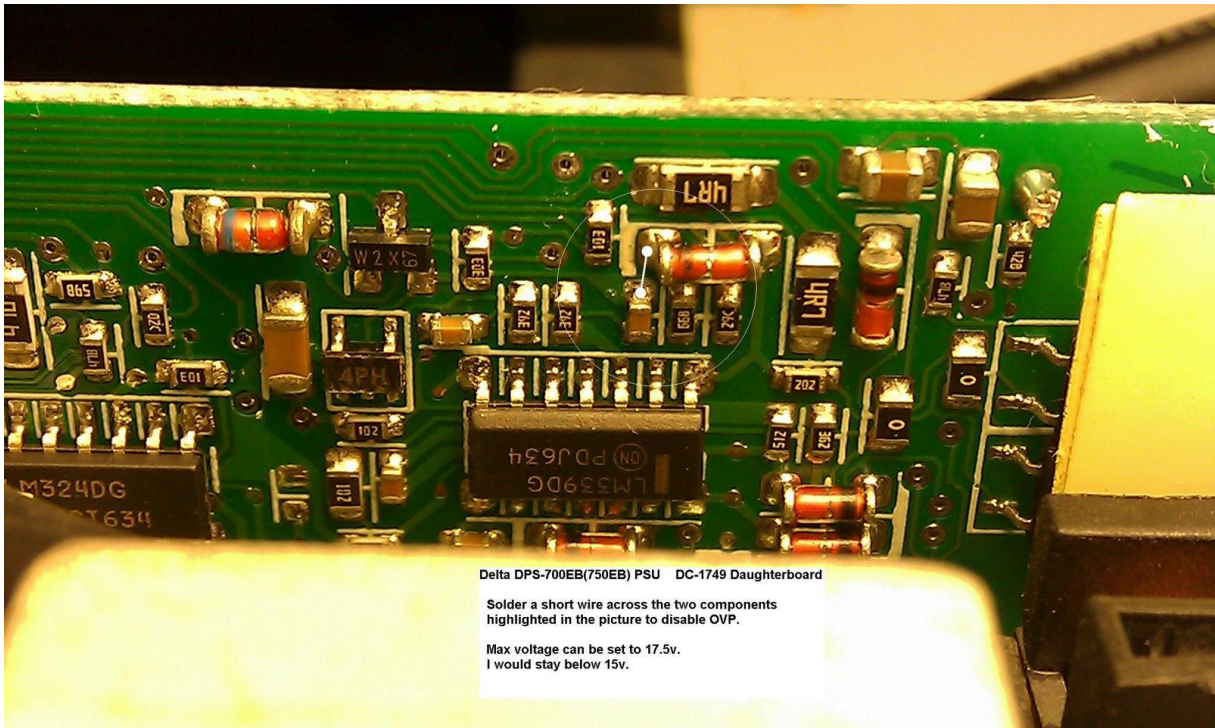


My power supply is attached to jumper cables, and it will put out exactly 14 volts and up to 65 amps.

First you need to make the power supply turn on. That involves connecting the PS ON# (pin70), PSKill (pin69), and ground (pin 53-62) together. I simply soldered a yellow jumper wire between the three pins to power it up.

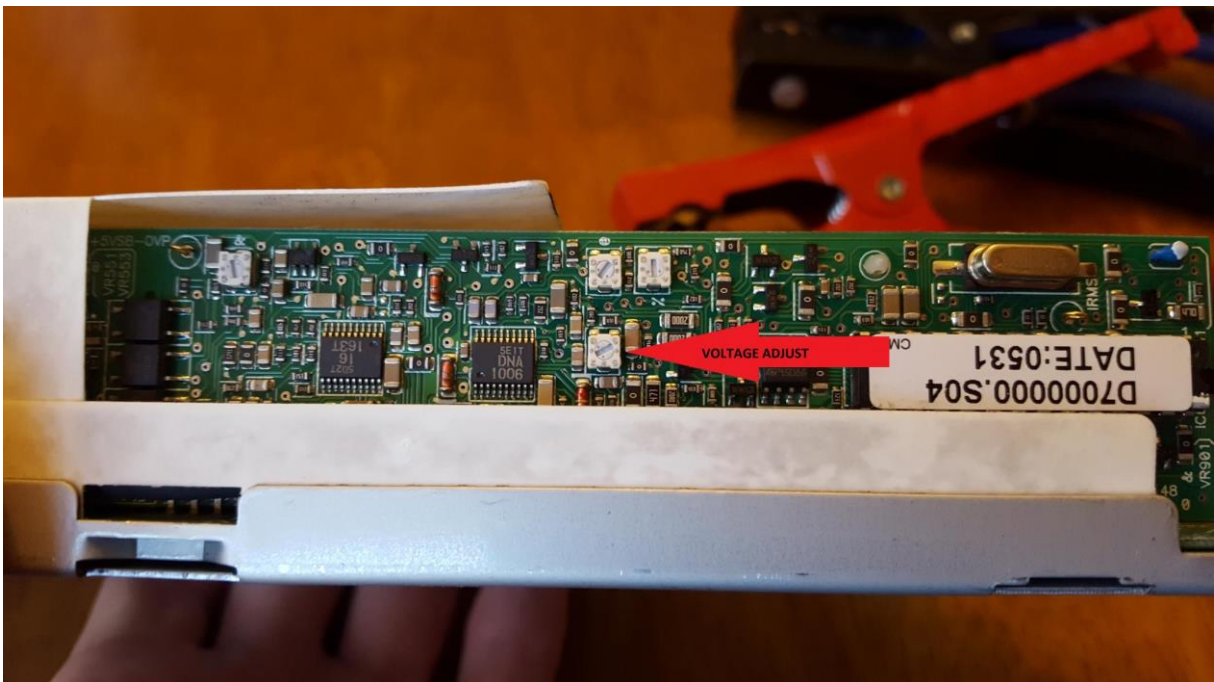


Upon plugging in the power supply, you should see the green light come on. If the light turns orange, the internal voltage is set above over-voltage protection. Since we need around 14v anyway, we will be disabling OVP. Simply solder a bridge between the pictured components.



Delta DPS-700EB(750EB) PSU DC-1749 Daughterboard
Solder a short wire across the two components highlighted in the picture to disable OVP.
Max voltage can be set to 17.5v.
I would stay below 15v.

Now we can set the voltage where we want it with a combination of resistors and adjustments to the internal voltage regulation pot. I found that a 1K-Ohm resistor soldered between 12VS (pin 63) and ground allows for a voltage adjustment between 13.75v-14.25v.



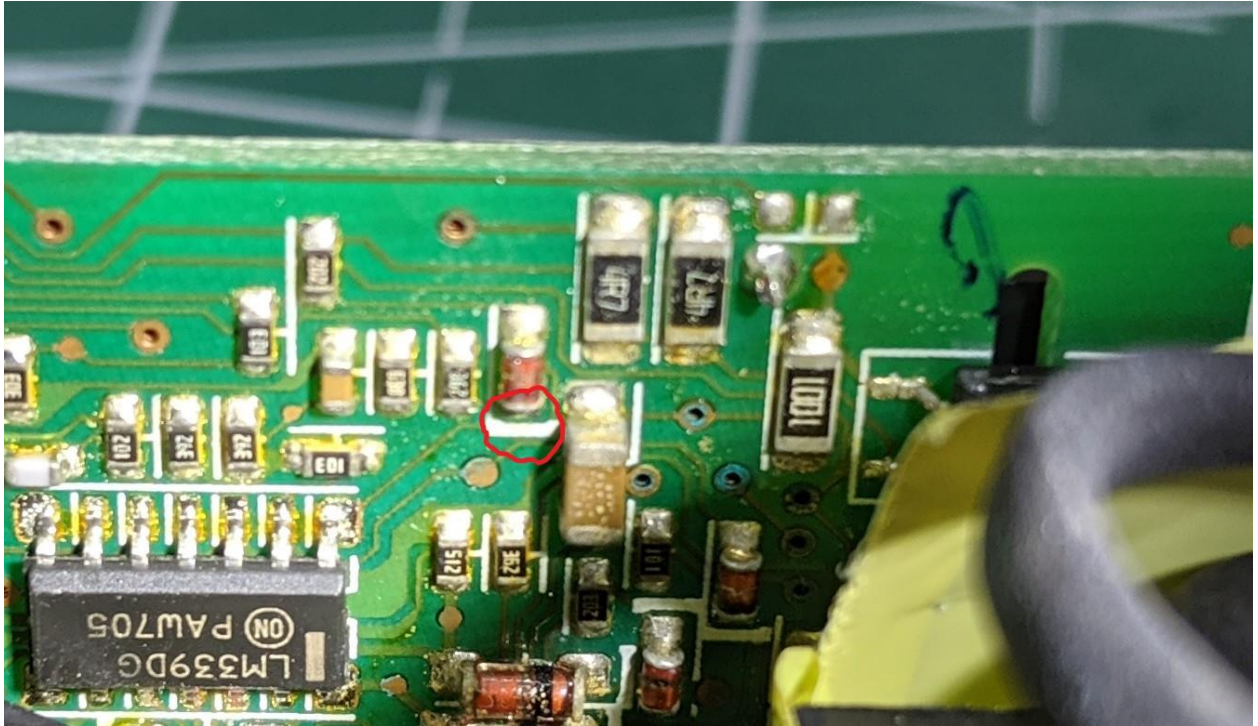
Now simply solder jumper cables to the positive and negative terminals, and test your power supply. I wrapped the exposed connections with electrical tape.

This is simply a guide, it is your responsibility to ensure the safety of yourself and your vehicle. Make sure you get the polarity correct. **DON'T CONNECT IT BACKWARDS!**

I've been having great luck with mine. It's small and light, stays cool, and the fan noise is reasonable. I've used mine for hours using ISTA-P, and it works perfectly. I've tried several other power supplies, but they were either too loud, too large, or they couldn't hold voltage under load. The DPS-700eb has worked fantastic for me. These are built to power computers, so they put out clean power.

Disabling OVP on a DPS750-EB (Rev A) w/ different daughterboard

I purchased a DPS-750EB (Rev A) on eBay with plans to do this project. I got to the point where I had to disable the over-voltage protection on the daughter board and noticed I had one different than what is in the OP. My **board was model number DC-2173** instead of DC-1749. You can see below that the diode is in a different location. I've circled the side you have to solder to. The large resistor next to it goes to ground, so it can be used.



Here you can see the bridge done. Pardon the crappy solder job, it's much smaller than it looks in the image. After that it worked as expected:

