



bare power supply cover

N Nikdfish

VIEW IN BROWSER

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Summary

I had a few of these bare 12v 30a power supply units around that are cheap & work well but have a virtually...

[Hobby & Makers](#) > [Electronics](#)

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I had a few of these bare 12v 30a power supply units around that are cheap & work well but have a virtually unprotected terminal strip for the 120v & 12v connections. I made up a cover for the terminals end of the supply that includes a fused, switched AC connector, a voltage readout and 3 12v supply connections made up of Anderson Power Pole connectors.

I made use of the Anderson Power Pole virtual punch by loughkb: <https://www.thingiverse.com/thing:2783449>

The cover is held in place by 3 M3 screws (2 on one side, 1 on the other). I was fortunate that all 3 units, acquired from the same [Amazon](#) supplier (eTopxizu 12v 30a Dc Universal Regulated Switching Power Supply), had their tapped holes in the same locations.
<https://www.amazon.com/gp/product/B00D7CWSCG>

The fused switched power inlet, also from [Amazon](#), is this one: Ximimark 3 Pcs Sodial(R) Inlet Male Power Socket with Fuse Switch 10A 250V 3 Pin.

<https://www.amazon.com/gp/product/B07F3YLSVQ>

Some trimming of the mounting tabs is needed to accommodate the case front thickness

The voltage readout, also from [Amazon](#), is this one: Bayite 3 Wire 0.36" DC 0~30V Digital Voltmeter Gauge Tester Blue LED Display Panel Mount

<https://www.amazon.com/gp/product/B00YALV0NG>

The display is held in place by a couple of drops of cyanoacrylate glue on the tabs on the backside of the case front

Print Settings

Printer Brand:

Creality

Printer:

Ender 3

Rafts:

No

Supports:

No

Resolution:

0.2mm

Infill:

15%

Filament:

[

generic PLA](<http://www.amazon.com/s?url=search-alias&field-keywords=generic+PLA&tag=thingiverse09-20>)

Notes:

Rotate the model to print face down. No need for supports. It can be printed using a coarse setting (I used 0.28 mm for one print) without issue.

Post-Printing

Most components should snap in place, but glue can be used if needed for the display and power inlet.

Use appropriate wire thickness for your intended application & crimp or solder fittings as needed for good mechanical & electrical connections. Use heat shrink or equivalent as needed to ensure a safe construction.

Wire length should be just long enough to make your connections before securing the shell on the supply. Pre-bending the wire a bit can help fold the extra neatly as the shell is pushed onto the supply.

How I Designed This

The model was done in Tinkercad & can be found here:

<https://www.tinkercad.com/things/ezNIfDOuzyn-power-supply-cover>

You can ungroup & modify if different mounting hole positions are needed.

Category: Electronics

This remix is based on



bare power supply cover

by NikDFish

Model files



power-supply-cover.stl

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com/thing/1234567)

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