

Voodoo Lab
PEDAL POWER 4x4

User's Manual

www.voodoolab.com

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Introduction

Pedal Power 4x4 is a high-current capable power supply for pedal effects and accessories. With eight independent, filtered and regulated output sections, Pedal Power 4x4 can properly power modern DSP-based effects and all 9V battery operated pedals.

Nearly all DSP-based effects made today are supplied with digital switching power adapters, which produce significant high frequency noise. Because Pedal Power 4x4 is an audiophile quality linear (analog) supply, there are no digital artifacts to introduce into your signal path. And, its ultra low-noise design keeps the most sensitive vintage and boutique analog pedals dead quiet.

All linear, transformer-based power supplies generate heat. While other high-power linear supplies operate at excessively high internal temperatures (which will limit their long term reliability), Pedal Power 4x4 includes many exclusive design features to keep internal temperatures within proper limits to guarantee long-term reliability.

Designed to meet the needs of professional users, Pedal Power 4x4 provides clean, consistent power, even under the poor AC line conditions often found on stage. Completely isolated output sections eliminate ground loops and unwanted interactions between effects, resulting in lower noise and noticeably improved tone.

All Voodoo Lab products are designed and manufactured in the U.S.A.

Unpacking

Your Voodoo Lab Pedal Power 4x4 box should contain the following:

Pedal Power 4x4 unit

Warranty card

AC line cord

DC Power cables:

- 5.5x2.1mm right angle barrel connectors (6)

- 5.5x2.1mm straight barrel connectors (2)

- 5.5x2.5mm right angle “red” barrel (1)

- 3.5mm right angle mini plug (1)

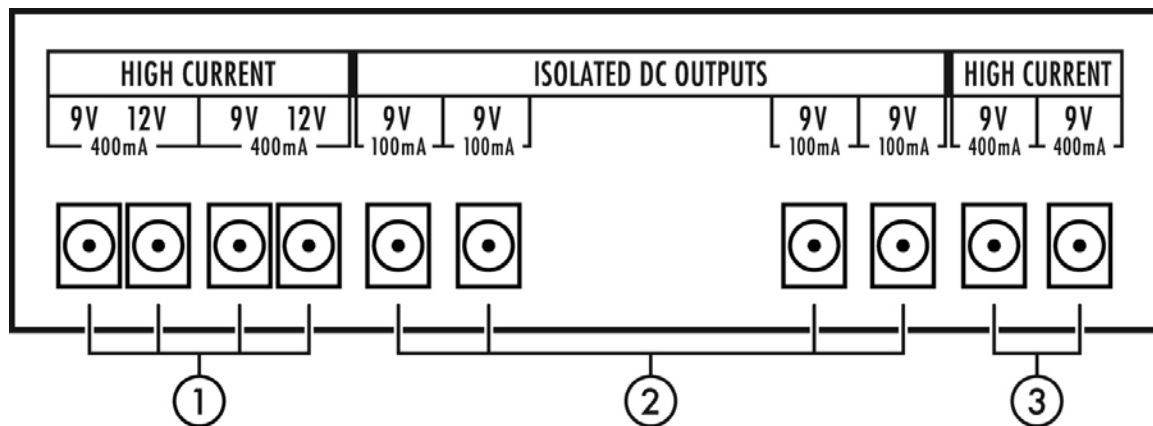
- 9V battery snap (1)

Connections

Pedal Power 4x4 is powered directly from mains using the supplied AC line cord. This is a standard computer-type IEC line cord, so it's easy to obtain a replacement or different length.

Important: *Pedal Power 4x4 is manufactured to operate from a specific supply voltage (100V, 120V or 240V) which is marked on the bottom of the unit. Attempting to operate at the wrong voltage may cause permanent damage.*

All 9V outputs can also power ordinary low-current battery operated pedals.



(1) 9V and 12V high-current output pairs. Each pair is an isolated output section providing up to 400mA.

Note: The 9V and 12V outputs within a pair are not isolated from each other (their negative terminals are common). It is preferred to use only one from each pair. If using both, combined output should not exceed 400mA.

(2) 9V outputs. Use for all ordinary pedals which operate from a 9V battery or require less than 100mA.

(3) 9V high-current outputs. Use for all devices which require 400mA or less.

DC Power Cables

The Pedal Power end of each supplied DC power cable has a black barrel connector. The other end has either another identical barrel connector (center negative), a 5.5x2.5mm *red* barrel (center positive) or a 3.5mm mini-plug (tip positive). Use the standard right-angle black barrel connector cables with most common 9V battery operated pedals.

Before powering your pedal with a standard black barrel connector, you must verify that the pedal requires “center negative” polarity to prevent damage. Some common exceptions with their power jacks wired for “center positive” are the Fulltone ‘69, SoulBender, and Octafuzz pedals and Moogerfoogers. Reverse polarity cables are available from Voodoo Lab to properly power these pedals.

Strymon

All Strymon pedals (including the larger format Timeline) can be powered from any of the high-current 9V outputs using a standard black 5.5x2.1mm barrel cable.

Important: *Strymon pedals should **only** be powered from the 9V outputs. Attempting to power from a 12V output will permanently damage the pedal. Don’t do it, we warned you!*

Boss Pedals

There are two types of Boss pedals which operate from a 9V battery. These are identified by the type of power supply specified, either PSA or ACA. Almost all Boss pedals specify the PSA type adapter and operate at 9V. Boss pedals which specify the ACA type adapter require a higher voltage and should be powered by a 12V output.

Boss Twin pedals, such as the DD-20 (which require more than 100mA), should be powered from a 9V high-current output.

Line 6

Tone Core pedals, plus Pocket POD can be powered from any available 9V output, or the M5 using any high-current output with a standard *black* 5.5x2.1mm barrel cable.

You can power Line 6 modeling pedals, DL4 or MM4, using the 12V outputs with a *red* 5.5x2.5mm barrel cable. This does not match the rating of the supplied Line 6 adapter, but does correctly power these pedals. Note that PODxt & HD, M9, M13 and the JM4 Looper cannot be powered by Pedal Power 4x4.

TC Electronic

TC Electronic's Nova pedals such as the Delay, Modulator and Reverb are powered from any high-current 12V output using a standard black 5.5x2.1mm barrel cable. This does not match the rating of the supplied TC Electronic adapter, but does correctly power these pedals.

Other TC Electronic pedals which can be powered from a 9V battery, such as the Classic and TonePrint series can operate from any 9V output.

Eventide

The Eventide stompboxes (TimeFactor, ModFactor, PitchFactor and Space) can be powered from any 9V or 12V high-current output using the *red* 5.5x2.5mm barrel cable. The 12V output does not match the rating of the supplied Eventide adapter, but does correctly power these pedals.

Important: While you can power the Eventide stompboxes from either 9V or 12V high-current outputs, do NOT operate two Eventide pedals from the same isolated section by using both 9V and 12V jacks of the pair. This WILL exceed the 400mA current rating.

Additional Cables

The DC power cables supplied with your Pedal Power 4x4 are suitable for most common pedal effects. If you need additional cables, different lengths, reversed polarity, or a special connector, these are available from Voodoo Lab at our online store.

Also available are adapter cables:

Split Output Adapter: Provides two output jacks from a single Pedal Power 4x4 output. One side is ground lifted to minimize the possibility of ground loops and added noise.

Voltage Doubler Adapter: Combines two Pedal Power 4x4 outputs to make 18V or 24V. Ideal for MXR Flanger and various Fulltone and Keeley products.

See the entire selection and purchase cables online at:

www.voodoolab.com/cables.htm

About Isolation

Pedal Power 4x4 has eight isolated output sections. This is sometimes referred to as “galvanic isolation” and means that there is no direct electrical connection between each output. Similarly, when you power your effects with batteries, they are also isolated because there is no electrical connection between the batteries.

Most power supplies are not isolated. Their output jacks are simply bussed together or use a daisy chain cable. This allows unwanted electrical current to flow between the outputs, commonly called a ground loop. The result is added noise. The isolated outputs of Pedal Power 4x4 eliminate this noise.

Another benefit of isolation is that you can power both negative ground and positive ground effects with Pedal Power 4x4. Negative ground effects are by far the most common, however the Fuzz Face and Octavia are some well known examples of positive ground circuits. Attempting to power positive ground pedals together with negative ground pedals from a non-isolated power supply will not work and may even damage the supply.

There are a couple of other tricks you can get from an isolated supply like Pedal Power 4x4. You can use a special Y-cable (voltage doubler cable) which connects two 9V outputs in series to provide an isolated 18V, or use the 12V outputs to get 24V. Occasionally, a pedal requires a bipolar supply, using two batteries for +9V and -9V. Isolated outputs work fine for this, non-isolated supplies do not.

Specifications

Input: Standard IEC connector
120V 50/60Hz (North America model)
100V 60Hz (Japan model)
220-240V 50/60Hz (Europe/Australia model)

Model and input power are marked on bottom of unit.

Outputs: 5.5x2.1mm barrel connectors center negative
Short circuit protected.

Two 9V or 12VDC - 400mA

Two 9VDC - 400mA

Four 9VDC - 100mA

Physical: 7.0" wide x 3.4" deep x 1.8" tall (178 x 86 x 46 mm)
2.0 lbs (0.9 kg)

Special: Toroidal power transformer

Warranty (North America only)

Voodoo Lab warrants this product against defects that are due to faulty material or workmanship for a period of five years from the date of original retail purchase. This warranty does not include damage to the product resulting from accident or misuse. This warranty is given to the original purchaser only and it is not assignable to any other person.

If the product should become defective within the warranty period, Voodoo Lab will repair it or replace it free of charge, provided it is returned freight prepaid to Voodoo Lab with a valid RMA (return material authorization) number.

This warranty shall not apply to any goods that have been repaired or altered by anyone other than the manufacturer. There are no warranties which extend beyond the terms described herein. Should you experience any difficulty with this Voodoo Lab product, contact us as described below. If it is determined that the product must be returned to the factory for repair, you will be issued an RMA and given shipping and packaging instructions.

Warranty (outside North America)

Outside North America, please contact your region's distributor for warranty information.

How to Reach Us

You can reach us by any of the following:

Tel: 707 545 0600

Mail: Voodoo Lab

3165 Coffey Lane, Santa Rosa, CA 95403 U.S.A.

Email: info@voodoolab.com

Please check our forum for answers to common questions:

www.voodoolab.com/forum