



## Introduction

Congratulations on your purchase of the Mission 529. This product is designed to be intuitive to setup and operate, and to provide many years of trouble free service. However, we recommend that you take a few moments to read through this User Manual in order to get the best possible experience with your new device.

## What is the 529

The Mission 529 is the world's first USB to effects pedal power converter. The 529 converts any USB power supply such as a wall charger, rechargeable battery pack, or computer USB port into five isolated 9V effects pedal power outputs. You can chain two 529's together via USB link, to power up to 10 pedals.



## What's in the box?

1 x Mission 529 Power Converter  
 1 x 5V 12W Wall power supply  
 1 x 10' USB cable  
 1 x 3' USB cable  
 5 x 3' 2.1mm power cables  
 1 x 10,000mAh rechargeable Lithium Ion battery pack (optional)

## Safety

Read, Keep & Follow these instructions  
 Heed all warnings  
 Clean only with dry cloth  
 Do not use this apparatus near water  
 Do not expose the apparatus to dripping or splashing and ensure that no objects filled with liquids, shall be placed on the apparatus

**WARNING: To reduce the risk of fire or electric shock do not expose this apparatus to rain or moisture**

Unplug this apparatus during storms or when unused for long periods of time  
 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions  
 Only use attachments/accessories specified by the manufacturer

Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening." Refer all servicing to qualified service personnel. Service is required when the apparatus has been damaged in any way, such as:

- Power-supply cord or plug is damaged
- Liquid has been spilled or objects have fallen into the apparatus
- The unit has been exposed to rain or moisture
- The unit is dropped or the enclosure is damaged
- The unit does not operate normally or changes in performance in a significant way

Dismantling, rewiring, removing components or otherwise altering the function of the unit may cause unexpected behavior and will invalidate the warranty.



## Power

Each 529 can support a maximum of 1200mA (4 x 150mA, and 1 x 500mA). This is dependent on the USB power source. The 529 is provided with a 2.4A USB plug-in power supply which can power up to two 529's. When using a plug-in power supply or battery other than those supplied with the 529, check the specifications to determine the power output.

Most USB plug in power supplies, and batteries are rated for 1A, or 2.4A. When using a 1A power supply the outputs will be limited to a total of 1000mA (1A). This is usually enough for one digital pedal, and two or three analog pedals. When chaining two 529's together to power 10 pedals then you will most likely need a 2.4A supply.

The 529 can be powered from a USB port on a desktop or laptop computer. The power output will depend on the specific computer. These are commonly limited to 500mA. Check the specifications for your computer. If the USB port is limited to 500mA, this will be the maximum the 529 will be able to provide to the pedals. This is normally enough for 3 or 4 analog pedals.

## Batteries

One of the most useful features of the 529, is it enables powering of effects pedals from a standard portable USB battery pack. There are hundreds of different batteries available at a wide range of capacities and price points.

The 529 is available with an optional Mission 529 Verified 10,000mAh battery. This battery is ideal for powering a pedal board, and is our preferred battery pack for the 529. See the battery feature list for more details.

Most USB battery packs should work with the 529. Mission has tested other battery packs. Look for the Mission 529 Verified logo when choosing a battery pack. The logo indicates Mission has tested that battery for compatibility and performance.

The length of time you can run your pedals on a battery depends on the total power consumption of the pedals, and the capacity and condition of the battery. The below table provides some examples of typical battery life you can expect for new, fully charged 10,000mAh and 3,000mAh batteries.

Pedals	10k mAh	3k mAh
3 Analog	30 hours	9 hours
5 Analog	24 hours	7 hours
1 Analog, 1 Digital	16 hours	5 hours
4 Analog, 1 Digital	13 hours	4 hours

Please note these are examples. To determine a more accurate estimate for your particular pedal board, add the total power draw for all your pedals, and then add 166mA nominal power draw for the 529 itself. Divide this into the capacity of your battery in mAh. The result will be an estimate in hours that your pedalboard will run on a fully charged battery.



## Connections

Connect the USB In on the 529 to the included USB wall charger using a USB A-B cable. When USB power is present the LED's next to the outputs will illuminate blue.

Check the current draw of the pedals you are going to connect. The user guide or manufacturers web site will normally have this information. Pedals with a current draw less than 150mA can be connected to any output. Pedals with greater than 150mA current draw should be connected to the 500mA output.

Connect your 9V pedals to the appropriate power outputs using the supplied power cables. Note that all outputs are center pin negative. Use an appropriate polarity reversal adapter, if using center pin positive pedals.

Check that your pedals are functioning correctly. If there is a fault on the pedal or the output, the LED on that output will turn off.



## Specifications

### Input

5V USB 2.0 Type B

### Outputs

4 x 9V 150mA

1 x 9V 500mA

1 x 5V USB Type A

Min: 160mA

Max: 2400mA

**All 9V outputs center pin NEGATIVE**

### Quiescent Current

160mA

### Dimensions

4.5" x 1.75" x 1"

0.25lbs

### Construction

Aluminum case

Blue anodized



## Expansion

Up to two 529 units may be connected together via the USB link to provide a maximum of ten 9V pedal power outputs.

**WARNING: Do not attempt to connect more than two 529 units together via USB as you may exceed the current handling capacities of the system.**

Connect the USB IN on the first 529 to a 2.1A – 2.4A output from a USB battery or power supply.

Connect the USB OUT from the first 529, to the USB IN on the second 529 using a USB A-B cable.

## Mounting

The 529 weighs 0.25lbs and can safely be mounted to the top or underside of a pedalboard using hook and loop tape. For free-standing use, self-adhesive pads may be applied to the underside of the enclosure.

**WARNING: Do not attempt to dismantle the enclosure, drill into the enclosure, or remove and replace the enclosure screws. Doing so could damage the unit, and may invalidate the warranty.**



## FCC Declaration of Conformity

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that of the receiver.

Consult the dealer or an experienced radio/TV technician for help.



**Mission Engineering Inc**  
**529 Power Converter**



## Warranty Information

Mission guarantees that the Mission Hardware Products that you have purchased from Mission are free from defects in materials or workmanship under normal use during the Limited Warranty Period. The Limited Warranty Period starts on the date of purchase. Your dated sales or delivery receipt, showing the date of purchase of the product, is your proof of the purchase date. You may be required to provide proof of purchase as a condition of receiving warranty service. You are entitled to hardware warranty service according to the terms and conditions of this document if a repair to your Mission Hardware Product is required within the Limited Warranty Period.

During the Limited Warranty Period, Mission will, at its discretion, repair or replace any defective component. All component parts or hardware products removed under this Limited Warranty become the property of Mission. In the unlikely event that your Mission Hardware Product has recurring failures, Mission, at its sole discretion, may elect to provide you with a replacement unit that is the same or equivalent to your Mission Hardware Product in performance, or provide a refund of the purchase price. This is your exclusive remedy for defective products.

It is mandatory that the unit product number and serial number be made available when requesting a warranty service event. Failure to do so may result in the event being deemed out of warranty by Mission or Authorized Service Providers.

Mission may repair or replace Mission Hardware Products with new or previously used products or parts equivalent to new in performance and reliability, or with equivalent products to an original product that has been discontinued. Replacement parts are warranted to be free from defects in material or workmanship for ninety days, or for the remainder of the Limited Warranty Period of the Mission Hardware Product they are replacing, whichever is longer.

### **Transfer**

The warranty is applicable to the original purchaser of new Mission hardware products purchased from Mission Engineering Inc, or a Mission Authorized Dealer. Warranty is not applicable to purchases of used products and/or purchases from unauthorized sellers. No refunds of the purchase price will be made by Mission to the original or any subsequent owner.

### **Limited Warranty Period**

The Limited Warranty Period for power products is one year. The Limited Warranty Period commences on the date of original shipment from Mission to the initial customer, dealer or reseller. The manufacturing date recorded on the product, or the shipping date recorded on the original shipping notification whichever is the later will be the sole indication of the warranty commencement date.

For latest warranty information visit <https://missionengineering.com/warranty>