

Legion Meter USB

User Manual



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## 1

## Introduction

#### **Patents**

PLX Devices Inc. currently has patents pending on the charge accelerator hardware, firmware, and algorithms.

#### Warnings

Do not use this product and its accessories in any way other than specified by PLX Devices Inc. PLX Devices Inc. is not liable for accidents or damage caused by misuse of this product.

Do not tamper, disassemble, or modify this product. This may cause an accident, fire, electric shock, or product malfunction.

#### **Features**

- 1. Plug and Play: Installs in Seconds
- 2. Integrated High Contrast Organic LED Display
- 3. Reads USB Voltage, Current, and Power
- 4. Resettable Battery Capacity Counter
- 5. Dynamically Switchable Apple and Android Charge Accelerator
- 6. Compatible with all USB Ports

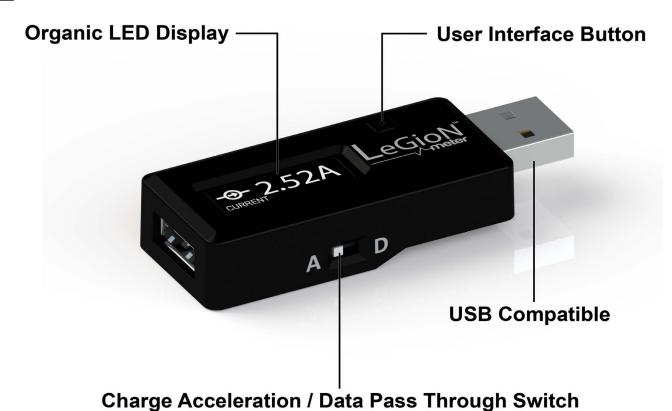
#### **Package Contents**

- 1. Legion Meter Unit
- 2. Quickstart Guide





## **?** Overview



**Intelligent OLED Display** 

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Shows the power in Watts your USB port is currently delivering to your device.

Shows the current in Amps your USB port is currently delivering to your device.



Shows the voltage of your USB port.



Resettable milliwatt-hours counter used to diagnose battery storage capacity.



Charge accelerator mode allows you to optimize the charge speed of any USB port.

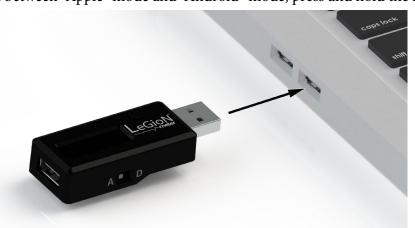


## **3** Operating Legion Meter

#### Charging Your Device with Legion Meter

- 1. Insert the USB Male A end of Legion Meter into any USB power source and make sure the data pass through slide switch is in the "A" position to enable accelerated charging.
- 2. Press the interface button until the Mode screen is accessed and select your charge accelerator mode.

**NOTE:** To switch between "Apple" mode and "Android" mode, press and hold the interface button.



3. Plug in any USB charging cable to the USB Female A end of Legion Meter.

**NOTE:** Connecting the cable improperly may cause serious damage to the device. Any damage caused by misuse is not covered by the warranty.

4. Insert the other end of your cable into the charging port of the device you want to charge.



### **Toggling Menus**

To toggle through the menus, press and release the user interface button located to the right of the OLED display.



#### **About Legion Meter Menus**

Five different menus may be displayed on Legion Meter's OLED display. These menus include Voltage, Current, Power, Milliwatt Hour, and Charge Accelerator mode selection.

#### Voltage, Current, and Power

The Voltage, Current, and Power modes allow you to use Legion Meter as a multimeter for any USB port.

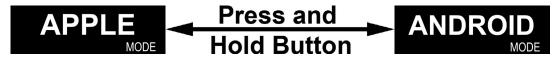
#### **Storage Capacity**

The Milliwatt Hour mode is useful for analyzing the storage capacity of batteries. To reset the mWh counter, press and hold the user interface button while in the Milliwatt Hour mode until the counter resets to zero.

#### Charge Accelerator Mode

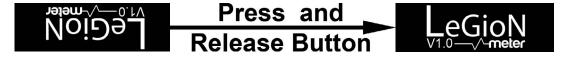
The Charge Accelerator mode has two modes of operation: Apple mode and Android mode. This user selectable mode dynamically converts any USB port to optimize the charge speed by signaling your mobile device to safely draw the maximum amount of charge possible. To switch modes, press and hold the user interface button while in the charge accelerator mode until the screen changes, as shown below.

**NOTE:** Switch must be in charge accelerator ("A") position for Charge Accelerator mode to be effective.



#### **Display Oreintation**

In some cases, Legion Meter's display may appear upside down to the user. If you would like to change the orientation of the display, press the user interface button while on the "Legion Meter" screen that appears when Legion Meter is initially plugged into a USB port, as shown below.



### Data Pass Through Switch

When the integrated data pass through slide switch (shown below) is in Charge Accelerated mode ("A" position), the USB port's data lines (D+ and D-) are physically disconnected. This prevents any data from being transferred or synced, providing ultimate safety for your data while accelerating your charge speed at the same time. However, if you would like to enable data pass through on your Legion Meter, simply move the slide switch to Data Pass Through mode ("D" position).





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### **Product Care and Maintenence**

Your Legion Meter is a product of superior design and should be treated with care. The guidelines below will allow you to enjoy this product for years to come.

#### Storage

Legion Meter should be stored at room temperature in cool or shaded areas, ideally between 10°C (50°F) to 25°C (77°F).

#### Safety

PLX Devices, Inc. DOES NOT recommend disassembling this product on your own accord. Disassembly of the product will result in void of warranty. If you believe your unit is damaged or needs to be replaced, contact technical support at www.plxdevices.com for inspection and replacement information. Only qualified personnel should service this product. Faulty service may be dangerous and may invalidate any warranty applicable to the device.

#### Exposure to Liquid or Moisture

Do not expose this product to liquid or moisture. Liquids can get into and affect the internal components of the product, and moisture can lead to corrosion. This may result in product malfunction, fire, and/or electric shock. Even if Legion Meter appears dry and operating normally after exposure, corrosion can still occur and pose a safety hazard.

#### Exposure to Heat

Do not operate or store this product in or near a heat source, or under direct sunlight for extended periods of time. Excessive heat can damage the plastic enclosures. If your Legion Meter is exposed to liquid or moisture, do not attempt to dry your Legion Meter with a heat source, such as a microwave oven or hair dryer.

#### Disposal

For those in the United States, please visit the following website for more information on proper electronics disposal laws and guidelines:

http://www.electronicsrecycling.org/public/

Be aware that different states might have different laws regarding proper disposal of electronics.



#### **Patents Pending**

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## **Technical Specifications**

#### **Legion Meter**

Voltage Range: 3.0 - 6.0 Volts Current Range: 0 - 3.7 Amps Power Range: 0 - 22.2 Watts

Operating Temperature: 0 - 85 Degrees Celsius

Connector Type: 1 USB Male A, 1 USB Female A (Gold Plated)

Display: High Contrast OLED 128 x 32 Pixels Physical Dimensions: 2.5 x 0.9 x 0.5" (6.3 x 2.3 x 1.3 cm)

Weight: 0.8oz

Meters: Voltage, Current (in/out), Power, mWh Counter

Intellectual Properties: PLX Intelligent Battery Monitoring and Metering, PLX USB Charge Accelerator

Human Interface: 1 Digital Push Button, 1 Slide Switch

Construction: ABS Plastic

Modes: Power Metering, Current Counter, Charge Accelerator

**TERMS OF USE** – PLX Devices Inc. does not guarantee product functionality with any third party device. Implementation and integration of PLX products with any other device(s) must be done at your own risk.

**LIMITED WARRANTY** – PLX Devices Inc. warrants this product to be free from defects for 1 year from the date of purchase. If applicable, non-serviceable items are excluded from stated warranty. Serviceable goods must be determined by PLX Devices to be defective before any warranty or replacement is issued. PLX Devices' obligation under warranty shall be limited to repairing or replacing, under the discretion of PLX Devices, any part proven defective. This warranty is limited to the repair or replacement of parts in the manufactured good and the necessary labor done to affect its repair or replacement.

SERVICE UNDER WARRANTY – In the unlikely event that your PLX Devices hardware should fail during the warranty period, a Return Material Authorization number (RMA) must be first retrieved from PLX Devices Customer Support. Support can be contacted through email: rma@plxdevices.com or by phone: +1-408-745-7591. All serviceable goods must be packaged securely with proof of purchase, RMA number, with all shipping charges prepaid and shipped to PLX Devices Inc. Goods returned under warranty must be received by PLX Devices Inc. within (10) business days after the RMA number has been issued. Goods received after this period is

subject to fees for the service of repair or replacement. All repaired or replaced items shall be warranted for the remainder of the original product warranty.

**RETURNS AND RESTOCKING FEE** – All returns must be within 30 days of receipt. A 15% restocking fee will apply to applicable PLX Devices products returned for refund. All returns are to be packed in original condition including packaging, documentation, manuals, and accessories. Returns that do not include all the accessories and components may be returned to the customer or charged on a per item basis. The customer assumes responsibility for product until receipt at PLX Devices Inc. Shipping via an insurable carrier is recommended. Any unauthorized shipping charges will be billed to the customer or shipment will be refused.

**DISCLAIMER** – PLX Devices Inc. shall not be liable for direct, special, incidental, or consequential damages resulting from any legal theory including, but not limited to, lost profits, downtime, goodwill, damage, injury to persons, or replacement of equipment and property due to improper installation, integration and/or misuse of any PLX Devices Inc.'s product(s). This warranty applies to the original purchaser of product and is non-transferable. All implied warranties shall be limited in duration to the said 1 year warranty period.



