

**18650**

**OTGP MOBILE 18650 USB PHONE CHARGER**

**VERSION 1.1**

# Operation Guide

[English]



Use this QR Code or visit [manuals.onetruegem.com](https://manuals.onetruegem.com) to download the most recent operation guide.

## Purchase Date

## Serial Number

(found on bottom or rear of main component)

## Warranty Overview

This product has a ONE (1) YEAR warranty providing protection from manufacturer defects, elemental, and accidental damage.

For warranty and returns information, visit **[support.onetruegem.com](http://support.onetruegem.com)**.



## SAFE USE AND WARNINGS

DO NOT STORE OR USE ANY PART OF THIS PRODUCT IN HIGH HEAT CONDITIONS OR PLACE IN DIRECT SUNLIGHT.

DO NOT ATTEMPT TO CHARGE BATTERIES OTHER THAN 18650 or 17670.

DO NOT EXPOSE THE 18650 CHARGER TO MOISTURE OR ALLOW TO GET WET.

REMOVE BATTERIES UPON BEING FULLY CHARGED AND PLACE IN STORAGE BOX WHEN NOT IN USE; DO NOT PLACE OTHER ITEMS INSIDE THE BATTERY BOX AS IT MAY CAUSE BATTERIES TO “SHORT.”

KEEP AWAY FROM SMALL CHILDREN AND ANIMALS.

DO NOT REFRIGERATE BATTERIES.

ALWAYS UNPLUG THE CHARGER FROM ITS POWER SOURCE WHEN NOT IN USE.

DO NOT ATTEMPT TO USE DAMAGED BATTERIES.

DO NOT MODIFY THE POWER OR TRAVEL ADAPTER TO FIT INTO AN ELECTRICAL OUTLET NOT INTENDED.

USING OR DISCARDING THIS PRODUCT IN A MANNER NOT INTENDED MAY CAUSE AN EXPLOSION.

DO NOT DISPOSE OF IN FIRE OR TRASH CANS; UNITED STATES CUSTOMERS MAY VISIT **EARTH911.COM** FOR THE NEAREST RECYCLING PARTNER OR FACILITY.

# Contents

Introduction .....	7
What's Included .....	8
Travel Information.....	10
Charging Electronics: Overview.....	11
18650 USB Output .....	12
Power Adapter.....	13
Car Adapter or USB Port .....	15
Using the Car Adapter .....	15
Using a USB Port.....	16
Charging an 18650 Battery .....	17
Electrical Outlet.....	17
Car Adapter or USB Port .....	18
Using the Car Adapter .....	18
Using a USB Port.....	18
Mobile 18650 Simultaneous Charging .....	19
Travel Adapter.....	20

Charging Combinations .....	22
Mini-B USB Connectivity.....	22
Micro-B USB Connectivity.....	23
Proprietary Connectivity .....	24
<b>Questions and Troubleshooting.....</b>	<b>26</b>
<b>Technical Information.....</b>	<b>28</b>
<b>Warranty Information.....</b>	<b>29</b>

# Introduction

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**The OTGP Mobile 18650 USB Phone Charger is designed to charge individual 18650 lithium batteries and power small, portable electronics including mobile phones, headsets, electronic readers, media players, game and global positioning systems, wireless modems/routers, and many other devices that can be powered by Universal Serial Bus (USB).**

# What's Included

**Note:** If you purchased a customizable version, some components may not be listed or included.

**18650 USB Charger:** Charges a single protected or unprotected 18650 Battery.

**Car Adapter:** Powers the Mobile 18650 Charger and mobile devices while on-the-go.

**Battery Box:** Storage case for 18650 Batteries.

**Mini-B USB Cable (2 included):** Short Mini-B USB cable connects the 18650 Charger to a mobile device while the longer one connects the 18650 Charger to a power source.

**Micro-B USB Adapter (2 included):** Converts a Mini-B USB connection to Micro-B USB.

**Lithium 18650 Battery (3 included):** Batteries used in high-power electronics, capable of charging portable devices while installed in the 18650 Charger.

**Power Adapter:** Powers the Mobile 18650 Charger or other mobile devices through its USB Port.

**Travel Adapter:** An ungrounded adapter enabling the Power Adapter to be used in other countries or with other mobile electronics, including netbooks and laptops.

**Water-Resistant Pouch:** Carry only the essentials when the entire set isn't needed.

**Peripheral Extension Cable and Adapter:** Extend the length of a USB connection. The cable can also be used for computer peripherals, such as printers and scanners, separately from the set; it will not transmit data between a mobile device and computer.

**Battery Strap (2 included):** Use a strap to secure a battery inside of the 18650 USB Charger's cradle.

**This product outputs Direct Current in a manner that mobile devices will perceive as Alternative Current (plugged into an electrical receptacle).**

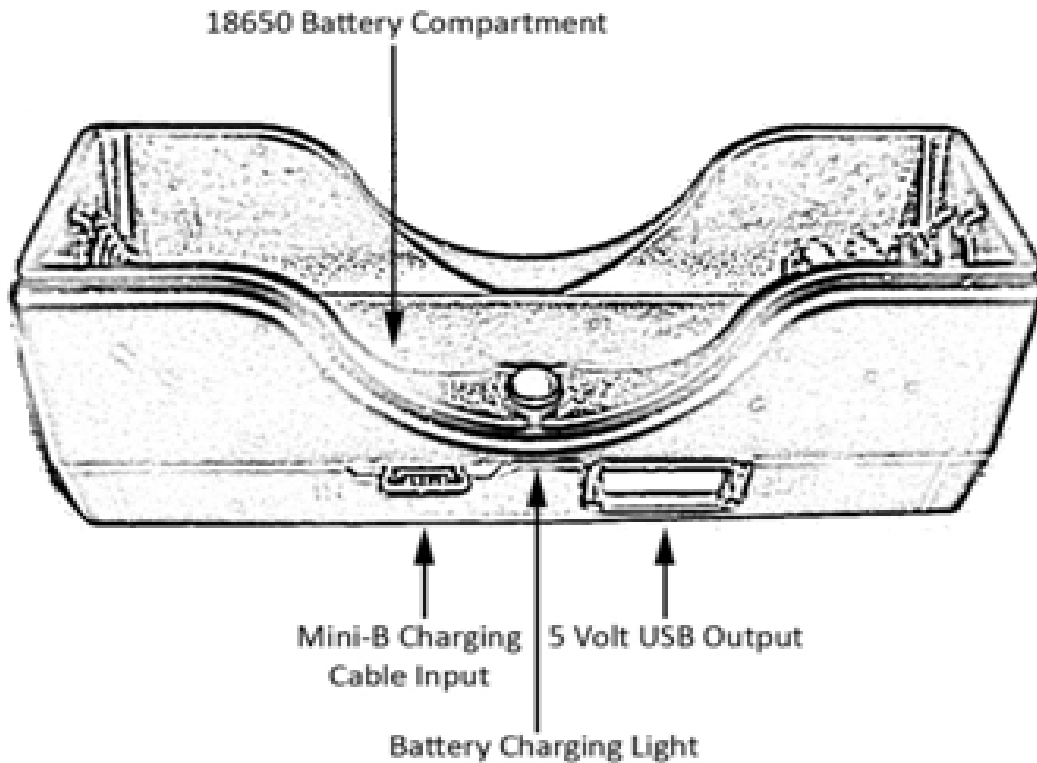
# Travel Information

This mobile charger powers devices, such as mobile phones, through the use of removable 18650 lithium batteries. To be safe for transportation, batteries must be in their battery box with no other articles inside. If other items are present in the battery box, remove them.

The Power Adapter included with this product is “double insulated”; it does not require grounding. The Travel Adapter included with this set, while not grounded, is compatible with many electronics rated for worldwide use, **excluding those producing cold/cool or hot/heated air and large appliances.**

The Travel Adapter does not convert power, only the electrical connection to allow a Power Adapter to fit into the appropriate electrical receptacle.

None of the electronics in this set are water- or weather-proof/resistant. For elemental and abrasive protection, use the included water-resistant pouch.



While the USB charging capability of this device works with many mobile devices, it is not guaranteed to work with all. Do not attempt to power internet tablets and larger devices with any part of this product.



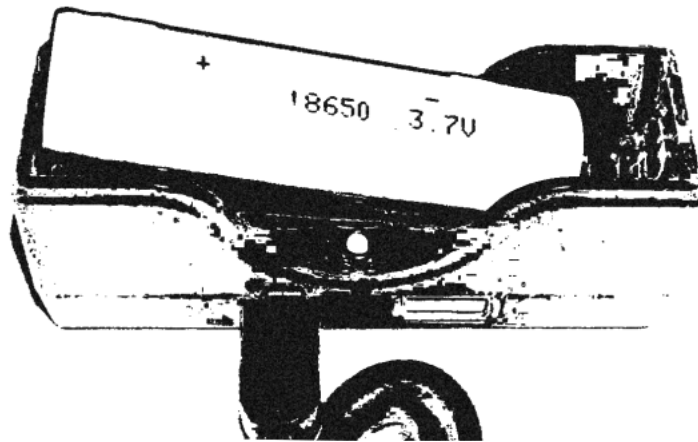
USB-A Male Connector

This operation guide refers to the USB Type A Male Connector for connectivity options.

# Charging Electronics: Overview

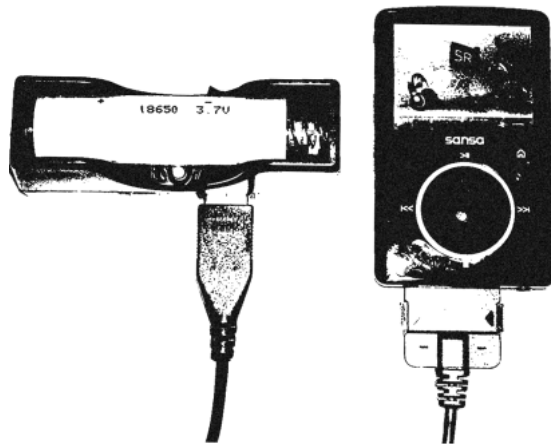
There are various ways to connect mobile devices to the Mobile 18650 Charger Set, including the 18650 Charger's USB Port, Power Adapter, and Car Adapter. You may use your mobile device's detachable USB cable or any of the included cables, adapters, and combinations of each to enhance charging options.

## 18650 USB Output



Insert an 18650 Battery into the Charger while observing polarity; the Negative "-" end of the battery should be inserted first and the Positive "+" last.

Next, connect the preferred cable or cable combination to the 18650 Charger's USB Port.

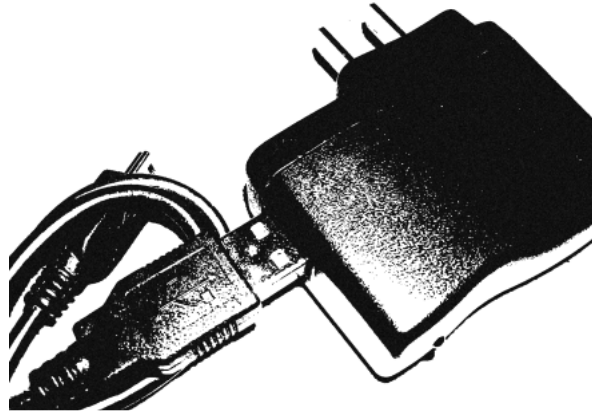


Finally, plug your device into the other end of the USB cable; it should immediately begin charging. If not, ensure that the battery is installed correctly, in good condition, and try again. Try an alternate battery if one does not work or is exhausted.

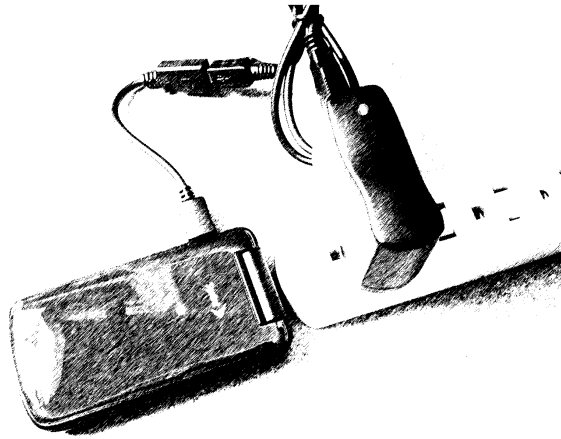
If your device still does not charge, it may require additional or proprietary cables, adapters, or may be incompatible with this Charger.

### Power Adapter

There are various ways to connect mobile devices to the Power Adapter's USB Port. You may use a mobile device's detachable USB cable, the included long Mini-B USB Cable or Mini-B USB Cable in conjunction with a Micro-B USB Adapter.



Plug the USB-A Male end of a mobile device's cable or the long Mini-B USB cable into the Power Adapter's USB Port. Plug the adapter into an electrical outlet; its green light will illuminate to indicate it is working.



Plug the other end into a mobile device.

Your device should immediately begin charging. If not, ensure that connections are correct, secure, and try again.

If your device still does not charge, it may require additional or proprietary cables, adapters, or may be incompatible with the Power Adapter.

### Car Adapter or USB Port

The included car adapter can be used to power mobile devices while on-the-go, independently, or in conjunction with the Mobile 18650 Charger.

First, decide which connectivity option to use.

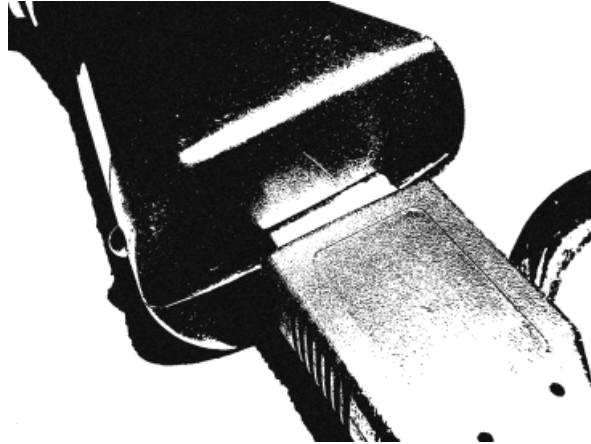
#### Using the Car Adapter

Plug the car adapter into a vehicle's 12 Volt Auxiliary/Accessory Power Socket; its red light will illuminate to indicate it is working. If there is no illumination, ensure your vehicle's ignition is in the "ON" position; it is not necessary to fully start a vehicle.

Follow the instructions in the next section to continue.

## Using a USB Port

**Note:** The included Mini-B cables and Micro-B USB adapters can be used to transmit data when connected to a computer but is not guaranteed to work with all mobile devices.



Plug your device into a USB Port or car adapter using its detachable USB cable or one supplied by the Mobile 18650 USB Charger Set.

Your device should immediately begin charging. If not, ensure that connections are correct, secure, and try again.

If your device still does not charge, it may require additional or proprietary cables, adapters, or may be incompatible with the car adapter or certain USB Ports

# Charging an 18650 Battery

## Electrical Outlet

Plug the USB-A Male end of a Mini-B USB cable into the Power Adapter's USB Port. Plug the adapter into an electrical outlet; its green light will illuminate to indicate it is working.

Plug the other end of a Mini-B USB cable into the connection marked "IN" on the 18650 Charger. Its green battery charging light will illuminate to indicate it is functioning properly.

Insert an 18650 Battery into the Charger while observing polarity; the Negative "-" end of the battery should be inserted first and the Positive "+" last.

The battery charging light will illuminate green when a battery is fully charged and red while charging. Depending on its condition, a battery may take several hours to fully charge.

## Car Adapter or USB Port

First, decide which connectivity option to use.

### Using the Car Adapter

Plug the car adapter into a vehicle's 12 Volt Auxiliary/Accessory Power Socket; its red light will illuminate to indicate it is working. If there is no illumination, ensure your vehicle's ignition is in the "ON" position; it is not necessary to fully start a vehicle.

Follow the instructions in the next section to continue.

### Using a USB Port

Plug the USB-A Male end of a Mini-B USB cable into a USB Port or the car adapter.

Plug the other end of a Mini-B USB cable into the connection marked "IN" on the 18650 Charger. Its green battery charging light will illuminate to indicate it is functioning properly.

Insert an 18650 Battery into the Charger while observing polarity; the Negative "-" end of the battery should be inserted first and the Positive "+" last.

The battery charging light will illuminate green when a battery is fully charged and red while charging. Depending on its condition, a battery may take several hours to fully charge.

## **Mobile 18650 Simultaneous Charging**

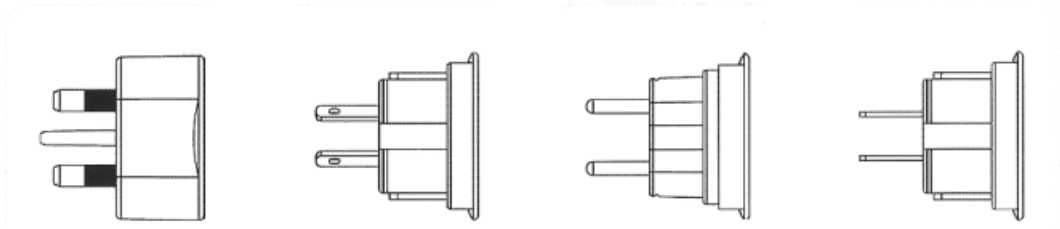
The Mobile 18650 Charger can simultaneously charge an 18650 Battery while also powering a mobile device.

A mobile device's original, detachable USB cable (if not Mini-B or Micro-B USB) is required to use this feature in addition to those provided with this Charger; charge time will be increased using this method.

To do so, follow the steps in this manual to charge an 18650 Battery using the Power or Car Adapter and plug your mobile device into the 18650 Charger.

If a battery becomes fully charged in the process but your device has not, remove the battery and place it in its storage box – your mobile device will continue to charge without a battery installed in the Mobile 18650 USB Charger. Another 18650 Battery may be charged without affecting a mobile device but an 18650 Battery's charge time will increase.

## Travel Adapter



The included Travel Adapter enables you to use electronics almost anywhere on Earth. Use a single or series of adapters to convert your mobile device's electrical connection to be suitable for use in other countries.

The Power Adapter included with this product is fully compatible for worldwide use; most mobile devices,

including laptops and netbooks, may also use this adapter as well as other electronics with the following exceptions:

- Do not use the Travel Adapter with large appliances.
- Do not use the Travel Adapter with any electrical device that produces cold/cool or hot/heated air.

Note: The Travel Adapter option with two flat blades designed for North American electrical receptacles may be manually adjusted for use in Australia.

Is your mobile device compatible with the Travel Adapter? Visit **[onetruegem.com](http://onetruegem.com)** to contact us and provide information about your product so that we can determine if it can be used with the Travel Adapter.

# Charging Combinations

The Mobile 18650 USB Phone Charger is not limited to the charging combinations described in this guide. Its parts can be separated to power two or more devices if a mobile device's original, detachable USB cable is available.

## Mini-B USB Connectivity

18650 Charger and one battery, Short or long Mini-B USB Cable <sup>1</sup> : Use the included Power or Car Adapter with the other included Mini-B USB Cable to charge another device.
18650 Charger and one battery, Extension Cable <sup>2</sup> , Short or long Mini-B USB Cable
Power Adapter, Short or long Mini-B USB Cable: Use the 18650 Charger or Car Adapter with the other included Mini-B USB Cable to charge another device.
Power Adapter, Short or long Mini-B USB Cable, 18650 Charger and one battery, Short or long Mini-B USB Cable
Power Adapter, Extension Cable, Short or long Mini-B USB Cable
Power Adapter, Extension Cable, Short or long Mini-B USB Cable, 18650 Charger and one battery, Short or long Mini-B USB Cable
Car Adapter, Short or long Mini-B USB Cable: Use the 18650 Charger or Power Adapter with the other included Mini-B USB Cable to charge another device.

Car Adapter, Short or long Mini-B USB Cable, 18650 Charger and one battery, Short or long Mini-B USB Cable
Car Adapter, Extension Cable, Short or long Mini-B USB Cable
Car Adapter, Extension Cable, Short or long Mini-B USB Cable, 18650 Charger and one battery, Short or long Mini-B USB Cable

## Micro-B USB Connectivity

18650 Charger and one battery, Short or long Mini-B USB Cable, Micro-B USB Adapter: Use the included Power or Car Adapter with the other included Mini-B USB Cable and Micro-B USB Adapter to charge another device.
18650 Charger and one battery, Extension Cable, Short or long Mini-B USB Cable, Micro-B USB Adapter
Power Adapter, Short or long Mini-B USB Cable, Micro-B USB Adapter: Use the 18650 Charger or Car Adapter with the other included Mini-B USB Cable and Micro-B USB Adapter to charge another device.
Power Adapter, Short or long Mini-B USB Cable, 18650 Charger and one battery, Short or long Mini-B USB Cable, Micro-B USB Adapter
Power Adapter, Extension Cable, Short or long Mini-B USB Cable, Micro-B USB Adapter
Power Adapter, Extension Cable, Short or long Mini-B USB Cable, 18650 Charger and one battery, Short or long Mini-B USB Cable, Micro-B USB Adapter

Car Adapter, Short or long Mini-B USB Cable, Micro-B USB Adapter: Use the 18650 Charger or Power Adapter with the other included Mini-B USB Cable and Micro-B USB Adapter to charge another device.
Car Adapter, Short or long Mini-B USB Cable, 18650 Charger and one battery, Short or long Mini-B USB Cable, Micro-B USB Adapter
Car Adapter, Extension Cable, Short or long Mini-B USB Cable, Micro-B USB Adapter
Car Adapter, Extension Cable, Short or long Mini-B USB Cable, 18650 Charger and one battery, Short or long Mini-B USB Cable, Micro-B USB Adapter

## Proprietary Connectivity

18650 Charger and one battery, Your Cable: Use the included Power and Car Adapter with the included Mini-B USB Cables and/or Micro-B USB Adapters to charge two other devices. You may also use your cable with the Power or Car Adapter.
18650 Charger and one battery, Extension Cable, Your Cable
Power Adapter, Your Cable: Use the 18650 Charger and Car Adapter with the included Mini-B USB Cables and/or Micro-B USB Adapters to charge two other devices. You may also use your cable with the 18650 Charger or Car Adapter.
Power Adapter, Short or long Mini-B USB Cable, 18650 Charger and one battery, Your Cable
Power Adapter, Extension Cable, Your Cable

Power Adapter, Extension Cable, Short or long Mini-B USB Cable, 18650 Charger and one battery, Your Cable
Car Adapter, Your cable: Use the 18650 Charger and Power Adapter with the included Mini-B USB Cables and/or Micro-B USB Adapters to charge two other devices. You may also use your cable with the 18650 Charger or Power Adapter.
Car Adapter, Short or long Mini-B USB Cable, 18650 Charger and one battery, Your Cable
Car Adapter, Extension Cable, Your Cable
Car Adapter, Extension Cable, Short or long Mini-B USB Cable, 18650 Charger and one battery, Your Cable

<sup>1</sup>Two Mini-B USB Cables of different lengths and two Micro-B USB Adapters are included. Both are capable of transmitting power and data.

<sup>2</sup>The extension cable can only transmit power.

# Questions and Troubleshooting

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## **How many times can the batteries be charged?**

Each battery can retain approximately 90% power with 500 charge cycles.

## **My mobile device is charging but acting odd – what’s going on?**

Use the longer Mini-B USB cable; it has a “ferrite core” to suppress electromagnetic interference.

## **Why does the charging light flicker?**

The charging light has what’s known as a bi-color LED; the two colors shown by the bulb are red and green. Red will illuminate while charging and green near the end of a charge cycle; in between these phases, you may see the color orange (red and green simultaneously on) and

temporarily flicker before the charging light illuminates solid green, indicating a fully charged battery.

### **What is the purpose of simultaneous charging?**

Simultaneous charging allows a battery to charge while also charging a mobile device; this feature will increase the overall charge time of both components.

### **Does the charger have discharge protection?**

The unprotected batteries included with this product are safe in the 18650 Charger; if a battery's power is near 2.75 Volts, the charger protects it from further discharge by turning off USB output.

### **Do I need to use a "charge only" cable for my wireless modem/router?**

No. Version 1.1 of this product allows a wireless modem/router to be used with any cable. A "charge only" cable may be required when charging a wireless modem/router from a computer or other USB Port.

# Technical Information

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## CORE CHARGER CHARACTERISTICS

**Form Factor:** USB Type A Female

**Output:** 5.10 Volts  $\pm 9\%$  at 500mA  $\pm 8\%$

**Energy Terminals:** 4.05 Volts

**Discharge Threshold:** 2.75 Volts

## ENERGY STORAGE CHARACTERISTICS

**Rated:** 3.7 Volts

**Maximum:** 4.15 Volts  $\pm 1\%$

**Capacity:** 2,200mAh (8.14Wh per energy storage, total of 24.42Wh)

**Recovery Rate:** Up to 6 Hours, 30 Minutes per cell

## POWER ADAPTER

**Rated:** 100 to 240 Volts at 150mA (automatic)

**Frequency:** 50 or 60Hz (automatic)

**Output (USB):** 5.0 Volts at 500mA

## CAR ADAPTER

**Input:** 12 to 24 Volts

**Output:** 5 Volts at 1,000mA

# Warranty Information

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The Mobile 18650 USB Phone Charger by ONETRUEGEM, LLC is for personal, non-commercial use and has a Manufacturer's, Elemental and Accidental Warranty which expires ONE (1) YEAR from the actual shipment or in-person sale date. This warranty is nontransferable; only the original intended end-user may exercise warranty rights. Manufacturer defects, Elemental or Accidental damage to any part of this product will be repaired or replaced at no charge once ONETRUEGEM, LLC receives the components under distress. Theft and vandalism are not covered. This warranty may be used a maximum of one time during the warranty period with no extension to the original warranty or new warranty issuance; this means that if a component is damaged and we repair or replace it, the one-time-use warranty for this product will be exhausted. Our service to customers does not end when a warranty has expired; we may be contacted at any time for assistance.

The following explains the Manufacturer's, Elemental and Accidental Warranty in detail, with examples, written in CAPITAL LETTERS for clarity. ONETRUEGEM, LLC, its manufacturers and associates may appear as "we," "our," or "us" and customers, potential and actual, may be referred to as "you."

ONETRUEGEM, LLC WILL WARRANT THIS PRODUCT FOR A PERIOD OF ONE (1) YEAR FROM THE ACTUAL SHIPMENT OR IN-PERSON SALE DATE TO ALL CUSTOMERS, DOMESTIC AND INTERNATIONAL, TO BE FREE FROM MANUFACTURER DEFECTS, ELEMENTAL AND ACCIDENTAL DAMAGE. DAMAGE CAUSED TO THE AFFECTED DEVICE(S) MUST RENDER COMPONENTS COMPLETELY UNUSABLE. ONETRUEGEM, LLC IS THE SOLE INTERPRETER OF WHAT QUALIFIES AS MANUFACTURER DEFECTS, ELEMENTAL AND ACCIDENTAL DAMAGE AS OUTLINED BELOW:

MANUFACTURER DEFECTS INCLUDES AND IS LIMITED TO:

- OPERABILITY FAILURE UNDER NORMAL CONDITIONS
- LOOSE CONNECTIONS WHILE PERFORMING GENERAL MAINTENANCE

ELEMENTAL DAMAGE INCLUDES AND IS LIMITED TO:

- WIND (HURRICANE/TYPHOON, TORNADO, SEVERE WIND-RELATED DAMAGE)

- WATER (FLOODING, TSUNAMIS, SNOW, ICE AND WATER-RELATED DAMAGE)
- EARTH (EROSION, MUDSLIDES, EARTHQUAKES OR DAMAGE DUE TO NATURALLY DISTRESSED GEOGRAPHY)
- FIRE (FIRE CAUSED BY NATURAL WEATHER PATTERNS OR NATURAL DISASTERS ONLY)
- LIGHTNING (DIRECT DAMAGE CAUSED BY LIGHTNING STRIKE)

ACCIDENTAL DAMAGE INCLUDES AND IS LIMITED TO:

- FALLING FROM ANY HEIGHT
- HEAVY WEIGHT/CRUSHING FORCE
- ANIMALS OF ANY SIZE

FOR ALL CUSTOMERS, DOMESTIC AND INTERNATIONAL, WE WILL:

- REPAIR OR REPLACE 18650 CHARGER
- REPAIR OR REPLACE 18650 BATTERIES
- REPAIR OR REPLACE THE CAR ADAPTER
- REPAIR OR REPLACE ALL APPLICABLE CABLES
- REPAIR OR REPLACE THE POWER ADAPTER
- REPAIR OR REPLACE THE TRAVEL ADAPTER
- REPAIR OR REPLACE CONTAINERS (POUCH, BATTERY STORAGE BOX)
- REPAIR OR REPLACE BATTERY STRAP(S)
- REPAIR OR REPLACE THE ENTIRE PRODUCT

ONETRUEGEM, LLC, ITS MANUFACTURERS AND ASSOCIATES WILL NOT PROVIDE WARRANTY SERVICE DUE TO INTENTIONAL DAMAGE OR ABUSE AND ARE NOT RESPONSIBLE FOR ANY DEVICE WHICH HAS BEEN DAMAGED AS A RESULT OF BEING CONNECTED TO ANY PART OF THIS PRODUCT. YOU MUST SEND PRODUCTS COVERED UNDER WARRANTY TO ONETRUEGEM, LLC FOR REPAIR OR REPLACEMENT. SHIPPING FEES AND RELATED EXPENSES FOR SENDING ITEMS TO US FOR WARRANTY SERVICE ARE NOT REFUNDED. WHEN ONETRUEGEM, LLC, ITS MANUFACTURERS AND ASSOCIATES RETURN ITEMS COVERED UNDER THE WARRANTY PERIOD, ALL FEES AND EXPENSES, INCLUDING SHIPPING, ARE PAID BY US.

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