



## **Technical Specifications - The Ultimate USB Rechargeable Battery Backup Cable**



### **Technical Specifications**

- 2500mAh polymerized lithium-ion battery
- Smart Backup Battery Feature to Charge Quickly
- Normal Voltage 3.7V
- Charging Voltage: 4.2V
- Charging Current: Std.1750mA
- Charging time: 3 hours
- Charge Method: Constant Current, Constant voltage
- Volumetric Energy Density 554 Wh/l
- Gravimetric Energy Density 196Wh/kg
- Battery weighs: 1.60 oz. [47 gm]
- Battery measures: 18.10mm (D) by 64.80mm (H) by 9 mm (W)
- Package weighs: 5.6 oz. [159 gm]
- Ambient Temperature Charge (0 to 40°C)
- Ambient Temperature Discharge (-20 to 60°C)
- Operating temperature: 32 to 95°F [0 to 35°C]
- Storage temperature: [-20 to 50°C]

### **Summary Of XP1 power cable Rechargeable Longer Battery Life**

The XP1 power cable uses a Lithium-ion battery. Lithium-ion Batteries are design for approximately 300 charge/discharge cycles. A cycle of a charge/discharge consists of an extended charging period, and an extended discharging period. A quick charge which would be less than 30 minutes does not constitute a full charge/discharge cycle.



There are many issues related to charge cycles related to how long the XP1 power cable battery will perform at its best and how long it will last. A user should expect the same performance from the XP1 power cable as they do their internal battery built into the iPhone and iPod. We do have some recommendations for users of our product and for iPhones and iPods and this is related to your charging patterns, Do you use it until the battery runs out completely? Use it for an hour or two and recharge. The temperature, storage should be maintained between [-10 to 45°C. Lithium-ion batteries work best when the user does not frequent complete discharge the battery. The XP1 power cable is designed to be plugged in all the time when a user uses their USB synch/charging function and this is good because the user

is less likely to complete discharge the XP1 power cable battery as well as completely discharging the battery built into the iPhone and iPod. Partial discharge is how to save the battery life and our product is designed to encourage this type of battery charging pattern by the user. A partial discharge is anything less than a full discharge. This is all about discharging. Do not worry about the charging function because our X-Power 1 is designed to shut off and control

overcharging. One last point we would like to make is that an occasional full discharge is actually good and some battery experts would say is desirable because this does calibrate the battery.

Lithium-ion batteries are design so they do not significantly degrade, or develop "memory", even if charged at irregular intervals. Charging is easy with the X-Power 1 because all you have to do is attached the USB connector to your computer. In addition, you can use an AC power adapter and charge with external power. We recommend users use the AC wall adapter for extended charging, rather than the USB cable which you attached to your computer.

## Frequently Asked Questions

### ***1. What capacity is the XP1 power cable rechargeable battery and how does it compare to other rechargeable batteries which are not built into the cable and plug directly into the iPhone or iPod?***

The Backup Battery is 2500 mAh. Other batteries which plug directly without a cable between the iPhone/iPod connector and the rechargeable battery are typically 1000 mA to 1200 mA.

### ***2. How many hours does the XP1 power cable provided of battery time per charge?***

Additional talk time 4.5 hours on 3G and 9 hours on 2G. Up to 5.4 hours additional on Wi-Fi. Standby time up to 270 hours. Audio Playback up to 20 hours and Video Playback 6 hours. These are approximately and we cannot guarantee exact times.

### ***3. With the XP1 power cable built into the cable can I use it just as I use a normal synch/charging USB cable which come with the product?***

Yes. You use it exactly as you do a normal synch/charge USB cable. Just plug the XP1 power cable into the computer with the USB connector and the iPhone/iPod battery and XP1 power cable charge at the same time. In addition, you can plug the XP1 power cable into a power source with an AC power adapter and connector the iPhone/iPod and also charge at the same time. The XP1 power cable charges the iPhone/iPod, and only then will it charge up the XP1 power cable rechargeable battery. The circuitry in the XP1 power cable battery knows when to



automatically stop charging the iPhone/iPod, which preserves the remaining charge in the battery, as well as protects the iPhone or iPod.

#### **4. Why build the rechargeable battery into the cable so that it doesn't stick out the *bottom* or go on the back of the iPhone/iPod?**

The main advantage of our XP1 power cable design with the battery backup in the cable is that the rechargeable battery products on the market are like the Kensington and Richard Solo which have the iPhone Apple connector attached to them directly without a cable. The battery unit plugs into the iPhone/iPod directly without a cable in between as in our design and patent. This is a major issue because the Kensington and Richard Solo design product is that it extends the height of the iPhone when attached, resulting in a unwieldy form factor.

The other advantage of our design and patent are that you can put the rechargeable battery in your pocket and the cable will come out of your pocket and can extend as far as need to allow a user to put the iPhone to their ear. The weight of the battery is not hanging off the iPhone however it is in a users pocket and not a problem.

Designs with the backup battery is in a case covering the back of the iPhone is often a performance problem. This type of configuration results in covering the antenna of the iPhone, and can result in weak reception and transmission of phone calls.

*"iPod is a trademark of Apple Inc., registered in the U.S. and other countries. iPhone is a trademark of Apple Inc. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards*

