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› 3.7V Lipo Battery 800mAh Rechargeable Lithium ion Polymer Battery 603040 with JST Connector User Manual

## Liter energy battery 603040

# 3.7V Lipo Battery 800mAh Rechargeable Lithium ion Polymer Battery 603040

Brand: Liter energy battery | Model: 603040

## INTRODUCTION

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This manual provides essential information for the safe and effective use of your Liter energy battery 3.7V 800mAh Lithium Polymer battery. Please read this manual thoroughly before using the product to ensure proper operation, maximize battery life, and prevent potential hazards.



Image of the 3.7V 800mAh Lithium Polymer battery with JST connector.

## SAFETY INFORMATION

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Lithium Polymer batteries require careful handling. Adhering to these safety guidelines is crucial to prevent damage, injury, or fire.

- **Charge Li-Po battery with Li-Po battery charger only.** Using an incompatible charger can lead to overcharging and damage.
- **Charge the Li-Po battery on a heat resistant surface.** Avoid charging on flammable materials.
- **Inspect the Li-Po battery before charging and operating.** Do not charge or use a damaged, swollen, or leaking battery.
- **Do not charge the Li-Po battery unattended.** Always monitor the charging process.
- **Do not allow Li-Po cells to overheat at any time.** If the battery becomes excessively hot, discontinue use and charging immediately.
- **Do not over-discharge the Li-Po battery.** Discharging below its minimum voltage can permanently damage the battery.
- **Ensure correct polarity: Red = Positive (+), Black = Negative (-).** Never connect or let the two wires touch each other to avoid short circuits. Double-check the soldering and connection of the red and black wires to prevent reverse polarity, which may damage your device.

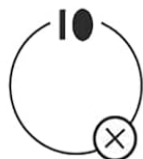
# Multiple Protection



Overcharge  
protection



Overdischarge  
protection



Short Circuit  
protection



Overvoltage  
protection



Overcurrent  
protection



Icons illustrating the multiple protection features of the battery: overcharge, overdischarge, short circuit, overvoltage, and overcurrent protection.

## PRODUCT FEATURES

The Liter energy battery 603040 is designed with advanced features for reliable and safe power delivery:

- **High-Quality Lithium Polymer:** Provides excellent safety performance and discharge characteristics.
- **Integrated Protective IC:** Safer than average batteries, offering longer life and more charge cycles.
- **PCM Protection Function:** Includes overload protection, short circuit protection, and over temperature protection for enhanced safety.
- **Compact and Lightweight:** Extremely thin and light, yet offers a huge capacity for its size.
- **Low Self-Discharge:** Maintains charge over longer periods when not in use.
- **Standard JST Connector:** Equipped with a 2P PH2.0mm Pitch JST connector for broad compatibility.

## SETUP AND INSTALLATION

Before connecting the battery, ensure your device is compatible with a 3.7V Lithium Polymer battery and the JST connector type.

1. **Verify Connector Type:** Confirm that the 2P PH2.0mm Pitch JST connector on the battery matches your

device's port. If the connector does not match, it may need to be replaced by a qualified technician, paying close attention to battery polarity.

2. **Check Polarity:** The battery wires are color-coded: Red for Positive (+) and Black for Negative (-). Ensure these align correctly with your device's input terminals. Incorrect polarity can damage the battery and your device.
3. **Secure Connection:** Gently but firmly insert the JST connector into the corresponding port on your device until it clicks into place. Avoid forcing the connector.
4. **Physical Fit:** Before ordering, please confirm the battery size (40\*30\*5.8mm LxWxH) fits the available space in your device. This battery is not suitable for drones.

## Battery connector

<b>H</b>	<b>5.8mm</b>
<b>W</b>	<b>30mm</b>
<b>L</b>	<b>40mm</b>



**40mm**



**Connector : JST-PH-2.0**

**30mm**

Diagram showing the dimensions (length, width, height) of the 603040 battery and a close-up of the JST-PH-2.0 connector.



Detailed close-up views of the JST connector, showing its pin configuration.

## OPERATING INSTRUCTIONS

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To ensure optimal performance and longevity of your battery, follow these operating guidelines:

- **Initial Charge:** It is recommended to fully charge the battery before its first use.
- **Charging:** Always use a dedicated Li-Po battery charger. Monitor the battery during charging and ensure it is placed on a non-flammable surface. The typical charge ending voltage is  $4.20 \pm 0.03V$ .
- **Discharging:** Avoid over-discharging the battery. The discharge ending voltage is 2.75V. Stop using the device powered by the battery if you notice a significant drop in performance or voltage.
- **Temperature Range:** Operate the battery within the specified temperature ranges: Charge Temperature:  $0^{\circ}C \sim 45^{\circ}C$ ; Discharge Temperature:  $-20^{\circ}C \sim 60^{\circ}C$ .

## MAINTENANCE AND STORAGE

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Proper maintenance and storage are essential for extending the life of your Lithium Polymer battery.

- **Long-Term Storage:** For long storage periods, keep the battery at 40-60% charge (approximately 3.7V-4.0V).
- **Regular Charging (Storage):** If stored for extended periods, we recommend charging the battery every 3 months to maintain its voltage within the recommended storage range.
- **Storage Environment:** Store the battery in a cool, dry place, away from direct sunlight, heat sources, and flammable materials.
- **Avoid Prolonged Discharge:** Do not leave the battery fully discharged for a long time, as this can cause irreversible damage.

## TROUBLESHOOTING

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If you encounter issues with your battery, consider the following:

- **Battery Not Charging:** Ensure you are using a compatible Li-Po charger. Check the connection for proper seating and polarity. Inspect the battery for any physical damage or swelling.
- **Battery Not Powering Device:** Verify the battery is charged. Check the connector for a secure fit and correct polarity. Ensure the battery's voltage and capacity are suitable for your device's requirements.
- **Short Battery Life:** Ensure the battery is fully charged before use. Review your device's power consumption. Avoid extreme temperatures during operation.
- **Connector Mismatch:** As noted in the setup section, if the connector does not fit your device, it may require replacement. This is not a defect of the battery itself but a compatibility issue.

## TECHNICAL SPECIFICATIONS

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Detailed specifications for the Liter energy battery 603040:

Specification	Value
Voltage	3.7V
Typical Capacity	800mAh
Material	Lithium Polymer

Connector Type	2P PH2.0mm Pitch JST
Product Dimensions (LxWxH)	40 x 30 x 5.8 mm (1.57 x 1.18 x 0.23 inches)
Item Weight	0.317 ounces
Charge Ending Voltage	4.20 ± 0.03V
Discharge Ending Voltage	2.75V
Max. Charging Current	0.5C (5°C ~ 45°C)
Max. Discharging Current	0.5C (-20°C ~ 60°C)
Battery Protection Circuit (PCM)	Included

Capacity: 800mAh

Voltage: 3.7V

Charge Ending Voltage: 4.20 ± 0.03V

Discharge Ending Voltage: 2.75V

Max. Charging Current: 0.5C (5°C ~ +45°C)

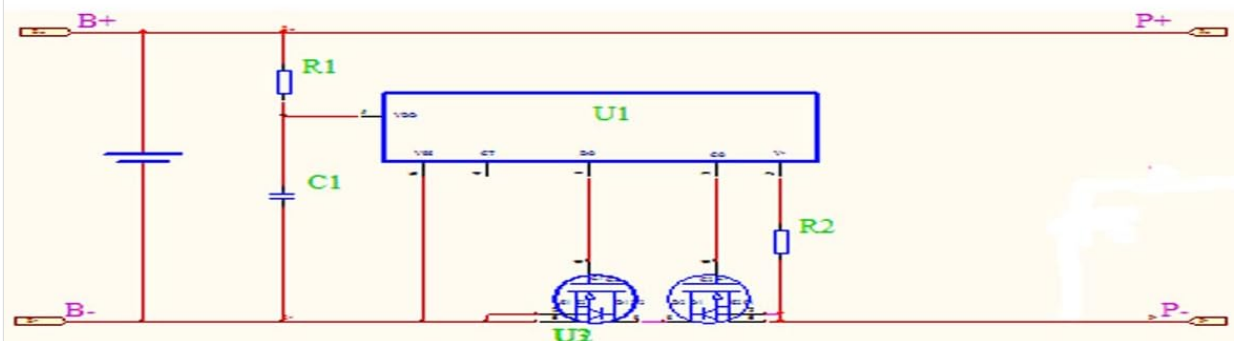
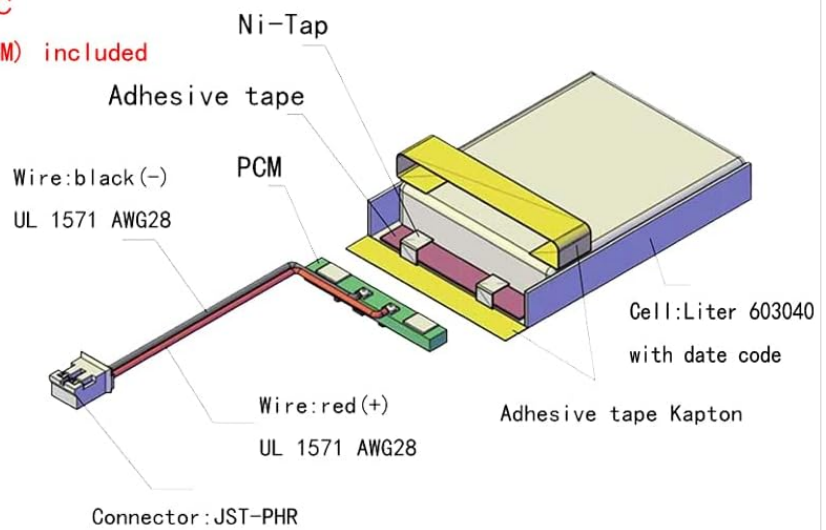
Max. Discharging Current: 0.5C (-20°C ~ +60°C)

Charge Temperature: 0 ~ 45°C

Discharge Temperature: -20 ~ +60°C

Battery Protection Circuit (PCM) included

**Liter 603040**



Technical diagram detailing the battery's internal structure, wiring (red for positive, black for negative), PCM (Battery Protection Circuit), and key electrical specifications like voltage, capacity, and charging/discharging parameters.

## PRODUCT APPLICATIONS

This 3.7V 800mAh Lithium Polymer battery is suitable for a wide range of portable electronic devices that require a

compact and reliable power source with a JST connector. Common applications include:

- Digital Cameras
- Car Recorders
- Smart Watches
- Bluetooth Headsets
- Tablet PCs
- Home Security Systems
- Bluetooth Earplugs
- WiFi Transmitters



Visual representation of various devices where the battery can be used, including cameras, car recorders, smartwatches, Bluetooth headsets, tablet PCs, home security systems, Bluetooth earplugs, and WiFi transmitters.

## WARRANTY AND SUPPORT

Your satisfaction is important to us. If you have any questions or concerns regarding your Liter energy battery, please do not hesitate to contact us through the Amazon message system. We are committed to providing excellent service and support.

For more information about Liter energy battery products, please visit our official store: [Liter energy battery Store](#).

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