

## YTKavq 502025 200mAh

# YTKavq 3.7V 200mAh 502025 Lithium Polymer Battery Instruction Manual

Model: 502025 200mAh

## 1. INTRODUCTION

This manual provides essential information for the safe and effective use of your YTKavq 3.7V 200mAh 502025 Lithium Polymer Ion Rechargeable Battery. Please read these instructions carefully before installation and operation to ensure optimal performance and safety.

## 2. SAFETY INFORMATION

**WARNING: Improper handling of lithium batteries can lead to fire, explosion, or severe injury. Always follow these safety guidelines:**

- Ensure the battery's connector type, polarity, and physical size match your device before purchasing and installation. Incorrect polarity will damage the device or the new battery.
- Do not short-circuit the battery terminals.
- Do not expose the battery to extreme temperatures (above 60°C or below -20°C), direct sunlight, or fire.
- Do not puncture, drop, crush, or disassemble the battery.
- Keep the battery away from water and moisture.
- Do not use the battery if it shows signs of damage, swelling, or leakage.
- This battery is a non-power battery and is not suitable for high-current devices such as UAVs, model aircraft, electric toys, or power tools.
- Dispose of batteries according to local regulations. Do not dispose of in household waste.

## 3. PRODUCT OVERVIEW

The YTKavq 502025 is a compact 3.7V 200mAh Lithium Polymer rechargeable battery, designed for various

low-power electronic devices. It features a 2P PH 2.0mm pitch connector for easy integration.



Figure 1: YTKavq 3.7V 200mAh 502025 Lithium Polymer Battery with PH2.0mm connector.



Figure 2: Detailed view of the JST-PH2.0 connector, also known as mCPX.



Figure 3: Battery dimensions (5x20x27mm) and integrated protection features including overcharge, overdischarge, temperature, short circuit, overvoltage, and overcurrent protection.

## 4. SETUP AND INSTALLATION

Before installing the battery, carefully verify the following:

- **Connector Type:** Ensure your device requires a JST PH2.0mm connector.
- **Polarity:** Confirm that the polarity (positive and negative wire orientation) of the battery's connector matches your device's connector. Mismatched polarity can cause severe damage.
- **Battery Size:** Check that the physical dimensions of the 502025 battery (5 x 20 x 27mm) fit within your device's battery compartment.

Once compatibility is confirmed, carefully plug the battery's connector into the corresponding port on your device. Avoid forcing the connector.

## 5. OPERATING INSTRUCTIONS

This battery is designed for use in various low-power electronic applications. It is a non-power battery, meaning

it is not suitable for devices requiring high discharge currents.

## 5.1 Charging

Charge the battery using a compatible charger designed for 3.7V Lithium Polymer batteries. The maximum charge voltage is 4.25V, and the standard charging current is 0.1A, with a maximum of 0.2A. Charging should occur within a temperature range of 0°C to 45°C.

## 5.2 Usage

The battery provides a nominal voltage of 3.7V. The standard discharge current is 0.1A, with a maximum of 0.2A. The discharge voltage should not drop below 2.75V to prevent damage to the battery. This battery is suitable for devices such as:

- MP3/MP4 players
- Bluetooth wireless headsets
- GPS devices
- Baby monitors
- Game consoles (e.g., Game Boy)
- Smart watches
- Monitoring units
- POS machines
- Dashcams
- Mobile power banks
- Bluetooth speakers
- VR glasses
- Beauty devices
- Pet trackers
- Ring video doorbells



Figure 4: Examples of applications for the YTKavq battery, including car navigation, card speakers, electronic products, monitoring equipment, medical equipment, and LED lamps.

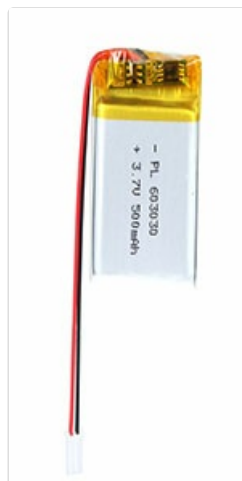


Figure 5: Further examples of compatible devices such as smartwatches, early education machines, Bluetooth speakers, Bluetooth earphones, driving recorders, cameras, electronic door locks, and massagers.

## 6. MAINTENANCE AND STORAGE

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### 6.1 General Care

- Keep the battery clean and dry.
- Avoid physical shocks or impacts to the battery.
- Do not attempt to open or modify the battery.

### 6.2 Storage

When not in use for extended periods, store the battery in a cool, dry place with a temperature range of -20°C to 60°C. It is recommended to store the battery at approximately 50% charge to prolong its lifespan. Avoid storing fully charged or fully discharged batteries for long durations.

## 7. TROUBLESHOOTING

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

- **No Power:** Ensure the battery is fully charged and correctly connected to the device. Check for any loose connections.
- **Short Battery Life:** Verify that the device's power requirements are within the battery's specifications. High-current draw devices are not compatible. Ensure the battery is being charged correctly.
- **Battery Not Charging:** Check the charger and charging cable for damage. Ensure the charging temperature is within the specified range (0°C to 45°C).
- **Physical Damage:** If the battery appears swollen, leaking, or damaged, discontinue use immediately and dispose of it safely.

If problems persist, contact the manufacturer or supplier for further assistance.

## 8. SPECIFICATIONS

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# PL502025 Specification

- Product Size: 5\*20\*27mm
- Standard 3.7v
- Nominal capacity: 200mAH
- Charging voltage: 4.2V
- Discharge voltage: 2.75V
- Recharging current: Standard 0.1A max 0.2A
- Charging temperature: 0°C–45°C
- Discharge current: Standard 0.1A max 0.2A
- Store temperature: –20°C–60°C
- Certification: MSDS

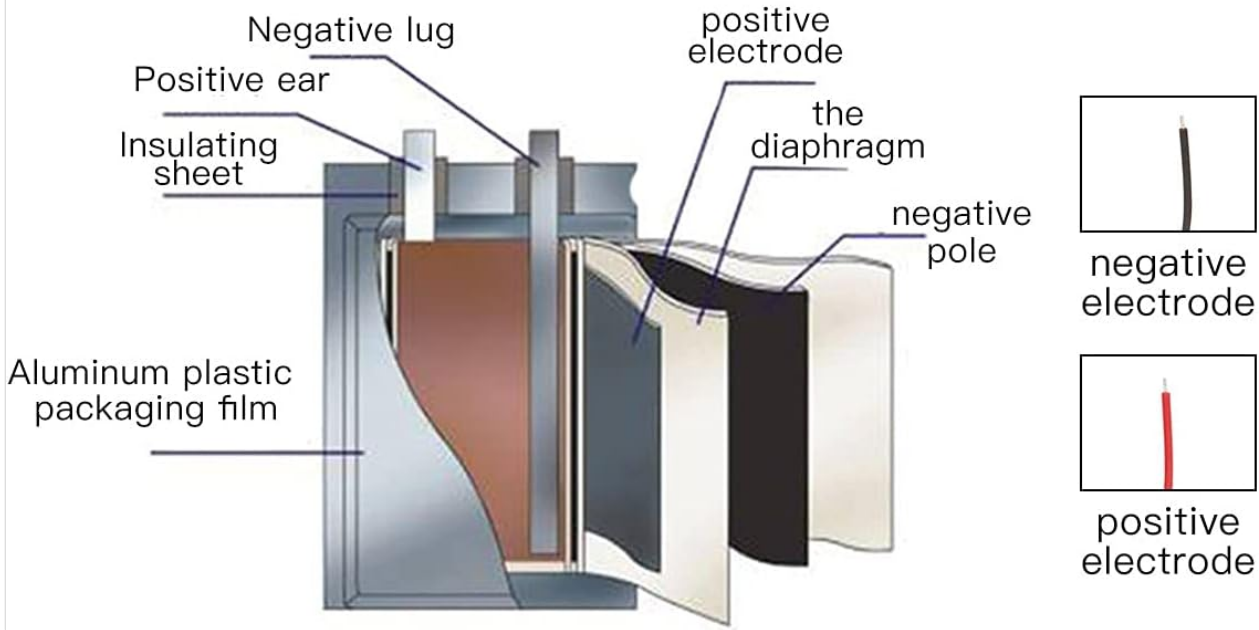


Figure 6: Detailed specifications and internal structure diagram of the PL502025 battery.

| Feature                     | Detail                               |
|-----------------------------|--------------------------------------|
| Model                       | 502025                               |
| Battery Type                | Lithium Polymer Ion (Li-Po)          |
| Nominal Voltage             | DC 3.7V                              |
| Nominal Capacity            | 200mAh                               |
| Product Size (T*W*L)        | 5 x 20 x 27mm / 0.2" x 0.79" x 1.06" |
| Connector Type              | JST PH2.0mm (2P)                     |
| Cable Length                | 5cm / 2"                             |
| Net Weight                  | 5g                                   |
| Maximum Charge Voltage      | 4.25V                                |
| Standard Recharging Current | 0.1A (Max 0.2A)                      |
| Charging Temperature        | 0°C to 45°C                          |

| Feature                    | Detail          |
|----------------------------|-----------------|
| Discharge Voltage          | 2.75V           |
| Standard Discharge Current | 0.1A (Max 0.2A) |
| Storage Temperature        | -20°C to 60°C   |
| Certification              | MSDS            |
| Reusability                | Rechargeable    |

## 9. WARRANTY AND SUPPORT

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Specific warranty details are not provided in the product information. For warranty claims, technical support, or further inquiries, please contact your retailer or the manufacturer, YTKavq, directly through their official channels or the platform where the product was purchased.