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› [SparkFun JST Battery Removal Tool - Standard 2-pin JST-PH Connector - Board Dimensions: 35mm x 16mm x 9 mm](#)

## SparkFun JST Battery Removal Tool

# SparkFun JST Battery Removal Tool User Manual

Model: JST Battery Removal Tool

## 1. INTRODUCTION

This manual provides instructions for the safe and effective use of the SparkFun JST Battery Removal Tool. This tool is designed to facilitate the disconnection of standard 2-pin JST-PH connectors (2mm pitch) from their housings, particularly useful for LiPo battery connections.

The tool helps prevent damage to wires and connectors, and avoids discomfort to fingers during the disconnection process.



Figure 1: The SparkFun JST Battery Removal Tool. This image shows the black, 3D-printed tool with the SparkFun logo and a keychain hole, designed for safely disconnecting JST-PH connectors.

## 2. KEY FEATURES

- Designed for standard 2-pin JST-PH connectors (2mm pitch).
- Protects fingers and wires during disconnection.
- Integrated keychain hole for portability and storage.
- Features a wire channel for downward sliding removal against a surface.
- Suitable for users who frequently swap LiPo batteries.

## 3. SETUP

The SparkFun JST Battery Removal Tool requires no assembly or complex setup. It is ready for use directly out of the packaging.

Ensure the tool is clean and free of debris before use to prevent any interference with the connector.

## 4. OPERATING INSTRUCTIONS

Follow these steps to safely disconnect a 2-pin JST-PH connector using the tool:

- 1. Identify the Connector:** Locate the 2-pin JST-PH female connector (typically on the battery) and the corresponding male connector (typically on the board or device).
- 2. Position the Tool:** Hold the SparkFun JST Battery Removal Tool in one hand. Slide the tool over the JST-PH female connector. The tool is designed to slide from either the top or bottom side of the connector.
- 3. Grip the Male Connector:** With your other hand, firmly hold the male connector on the board to provide stability.
- 4. Disconnect:** Gently pull the JST female connector away from the male connector using the tool. The tool's internal "triangle blocks" are designed to grip the wings of the female connector, aiding in its removal.
- 5. Alternative Method (Wire Channel):** If disconnecting against a flat surface, you may slide the tool downward, utilizing the integrated wire channel to accommodate the battery wires.

#### **Important Note:**

**This tool is not intended for inserting a JST female connector into a male connector.** Insertion should be done manually.

**Obstruction Warning:** The tool works best when the JST male connector is populated on the edge of a board. Certain board designs with the JST male connector facing inward or with nearby components may obstruct the tool's use.

## **5. MAINTENANCE**

The SparkFun JST Battery Removal Tool requires minimal maintenance:

- Cleaning:** Wipe the tool with a dry, soft cloth to remove any dust or debris. Do not use harsh chemicals or abrasive materials.
- Storage:** Store the tool in a dry place, away from direct sunlight and extreme temperatures. The keychain hole allows for convenient storage with other tools or on a hook.
- Inspection:** Periodically inspect the tool for any signs of wear or damage. While 3D printed, it is designed for durability, but excessive force or improper use can cause damage.

## **6. TROUBLESHOOTING**

| <b>Problem</b>                                       | <b>Possible Cause</b>                             | <b>Solution</b>  |
|--|---|--|
| Tool does not slide over connector easily.           | Misalignment; Obstruction from board components.  | Ensure the tool is aligned correctly with the JST-PH female connector. Check if surrounding components on the board are blocking the tool. The tool may not be suitable for all board layouts. |
| Connector is difficult to remove even with the tool. | Connector is very tight; Incorrect pulling angle. | Apply steady, firm pressure. Ensure you are pulling straight away from the male connector. Avoid twisting.   |

| Problem                                    | Possible Cause   | Solution   |
|--|--|--|
| Tool appears damaged or has imperfections. | Manufacturing variation (3D printed); Physical stress. | Minor imperfections are normal for 3D printed parts. If functionality is affected, contact SparkFun support. Avoid applying excessive force. |

## 7. SPECIFICATIONS

- Product Name:** SparkFun JST Battery Removal Tool
- Compatible Connector Type:** Standard 2-pin JST-PH (2mm pitch)
- Dimensions (L x W x H):** 35mm x 16mm x 9mm (1.38 x 0.71 x 0.39 inches)
- Weight:** Approximately 3.15 grams (0.11 ounces)
- Material:** 3D Printed Polymer
- Features:** Keychain hole, Wire channel

## 8. WARRANTY INFORMATION

For information regarding warranty coverage and terms for SparkFun products, please refer to the official SparkFun Electronics website or contact their customer support directly. Warranty terms typically cover manufacturing defects.

## 9. SUPPORT AND CONTACT INFORMATION

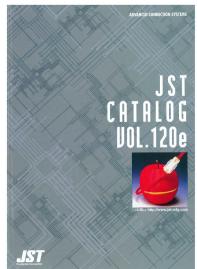
If you encounter issues or have questions not covered in this manual, please contact SparkFun Electronics support:

- Website:** [www.sparkfun.com](http://www.sparkfun.com)
- Support Page:** Refer to the support section on the SparkFun website for FAQs, forums, and contact options.

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## Related Documents - JST Battery Removal Tool

|   |  |
|---|--|
|  | <p><a href="#">JST Connector Catalog Vol. 120e: Comprehensive Guide to Electronic Connectors</a></p> <p>Explore the extensive JST Connector Catalog Vol. 120e, featuring a wide range of high-quality electronic connectors including SH, SHD, SHL, ACH, EH, XH, and many more. Discover detailed specifications, dimensions, and applications for various wire-to-board and board-to-board solutions.</p> |
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|    | <p><a href="#"><b>JST-BT035 Bluetooth Headset User Guide and Specifications</b></a></p> <p>Comprehensive user guide for the JST-BT035 Bluetooth headset, including setup instructions, product specifications, pairing methods, charging details, usage tips, and important warnings.</p>  |
|    | <p><a href="#"><b>A Beginner's Guide to the ESP8266: Wi-Fi Microcontroller Projects</b></a></p> <p>Learn how to use the ESP8266 Wi-Fi microcontroller with this comprehensive beginner's guide. Covers hardware setup, Arduino IDE programming, networking, and IoT projects.</p>  |
|    | <p><a href="#"><b>Toshiba Satellite 4000/4010/4020 Series Field Replaceable Unit Documentation</b></a></p> <p>Detailed guide for field replaceable unit (FRU) documentation for Toshiba Satellite 4000, 4010, and 4020 series laptops. Includes step-by-step instructions for removing and replacing components such as the battery, keyboard, HDD, expansion memory, system board, cooling fan, and display components.</p> |
|   | <p><a href="#"><b>VONIA Luchtontvochtiger Handleiding</b></a></p> <p>Deze handleiding bevat essentiële informatie over de veiligheid, het gebruik en de afvalverwerking van de VONIA Luchtontvochtiger. Leer hoe u het apparaat correct installeert, bedient en onderhoudt voor optimale prestaties en een gezonde leefomgeving.</p>   |
|  | <p><a href="#"><b>Prodrive Technologies Iris Linear Motor Catalogue</b></a></p> <p>Comprehensive catalogue detailing the Prodrive Technologies Iris line of short stroke linear motors, including performance specifications, mechanical dimensions, and application information.</p>  |