IMAYCC US220

IMAYCC Remote Battery Disconnect Switch 12V with LED Voltage Display, Model US220 User Manual

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your IMAYCC Remote Battery Disconnect Switch, Model US220. This device is designed to protect your vehicle's 12V battery from discharge due to long-term parking, parasitic draws, or forgotten lights, while also offering an anti-theft measure. It features both manual and remote control operation, along with an integrated LED voltage display and low voltage protection.

2. Product Overview

The IMAYCC Remote Battery Disconnect Switch is a robust solution for managing your vehicle's battery connection. It includes the main switch unit, two remote controls, and necessary installation hardware.

Key Features:

- **Remote Control Operation:** Conveniently disconnect or connect your battery from a distance.
- **Manual Override:** A physical button on the unit allows for direct control.
- **LED Voltage Display:** Real-time monitoring of your battery's voltage.
- **Low Voltage Protection:** Automatically disconnects the battery to prevent deep discharge.
- **Anti-Theft Functionality:** Disconnecting the battery can deter theft.
- **Wide Application:** Suitable for cars, RVs, trucks, tractors, ATVs/UTVs, and boats.

Components:

- Main Disconnect Switch Unit
- Two Remote Controls
- Mounting Hardware (L-shaped brackets, wrench)

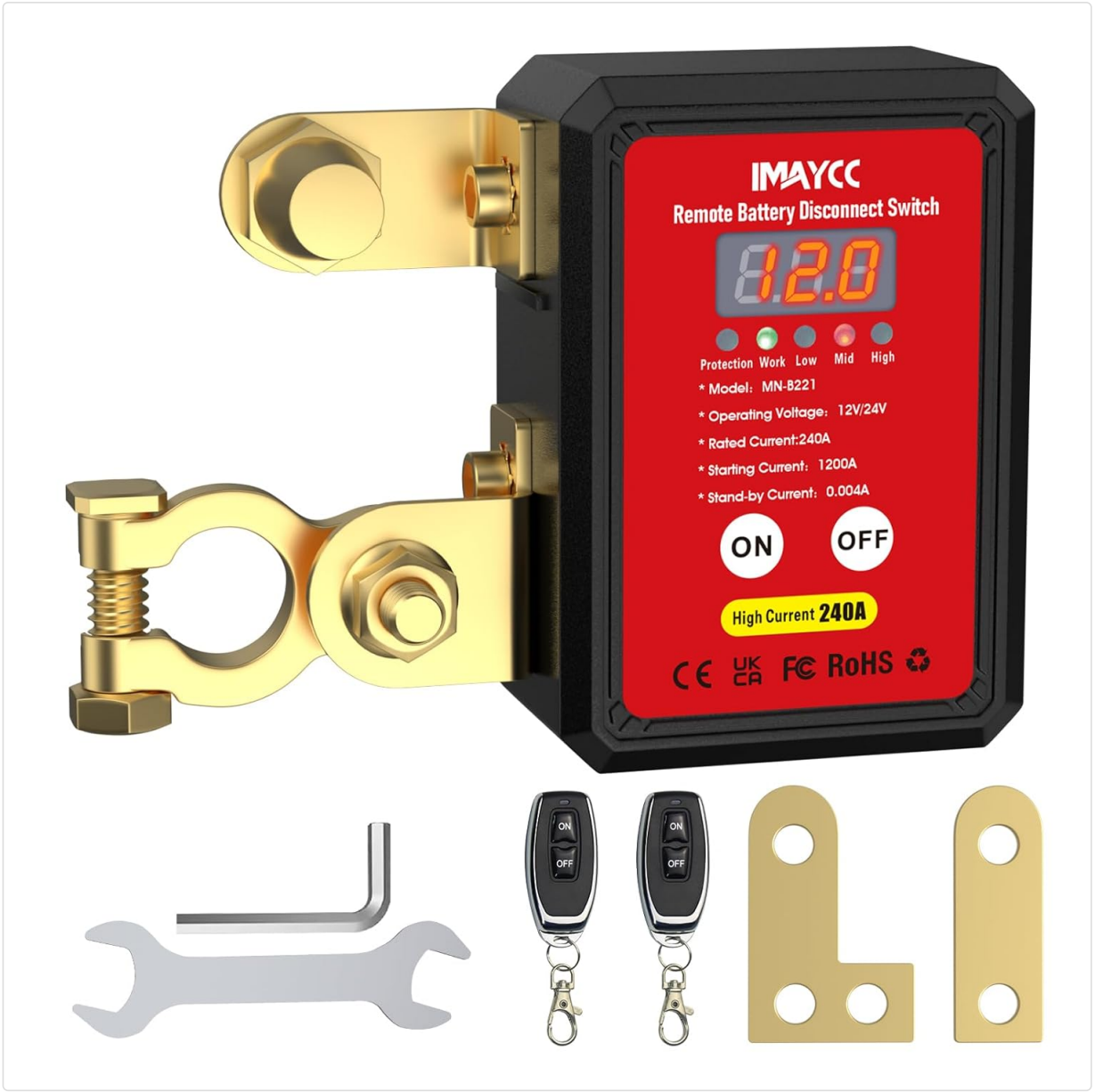

Figure 2.1: The IMAYCC Remote Battery Disconnect Switch unit with included remote controls and installation tools.

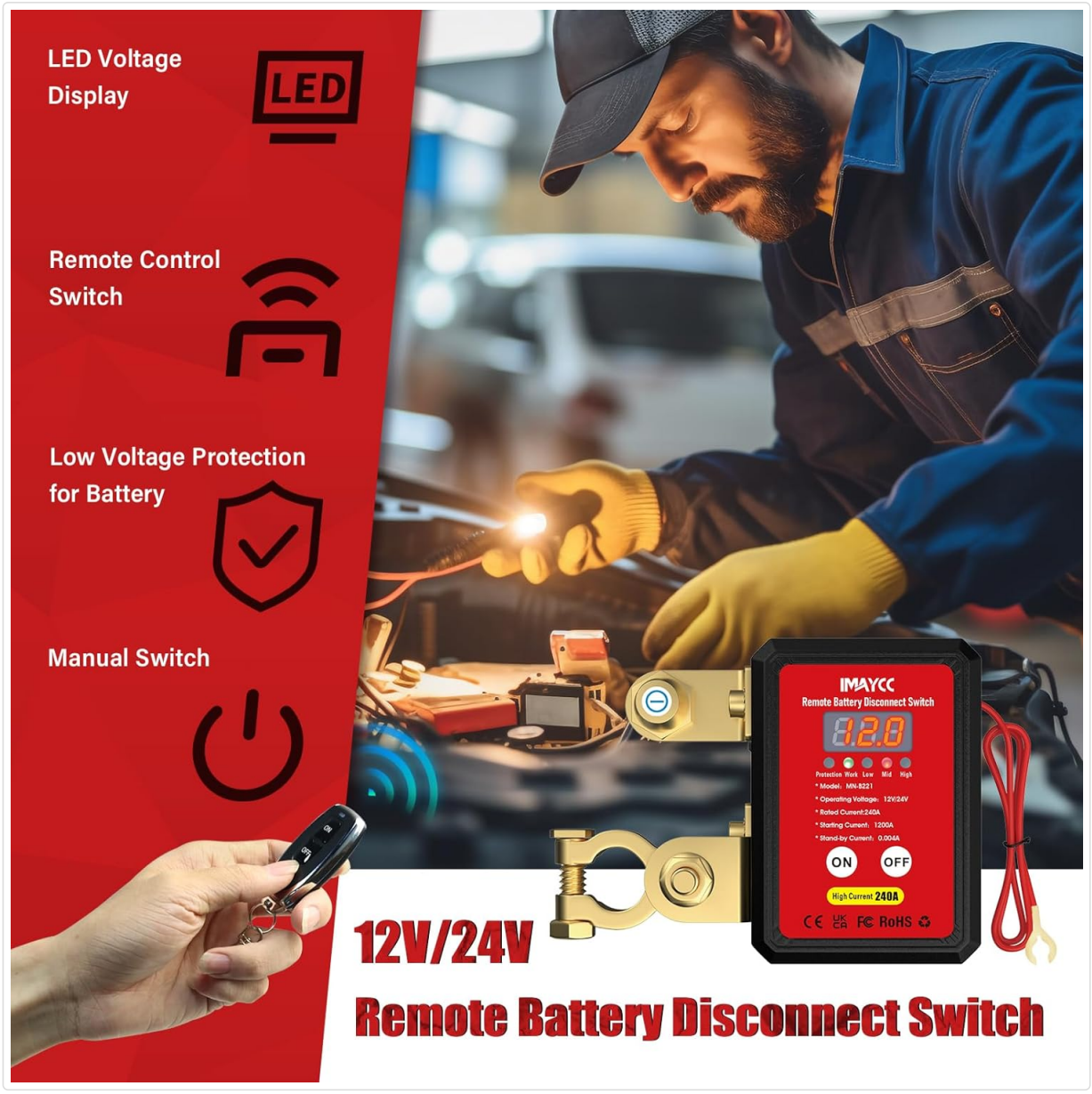

Figure 2.2: Overview of key features including LED Voltage Display, Remote Control Switch, Low Voltage Protection, and Manual Switch.

3. Safety Information

Please read and understand all safety instructions before installing or operating this device. Failure to do so may result in property damage, injury, or death.

- Always disconnect the negative terminal of the battery first before working on any electrical system.
- Wear appropriate personal protective equipment, including safety glasses and gloves.
- Ensure all connections are tight and secure to prevent arcing or poor performance.
- Do not attempt to modify the device.
- Keep the device away from water and excessive heat.
- Ensure the vehicle is turned off and the ignition key is removed before installation.

4. Setup and Installation

The IMAYCC Remote Battery Disconnect Switch is designed for easy installation on most 12V vehicle batteries. It supports both top-mounting and side-mounting configurations.

Installation Steps:

1. **Prepare the Vehicle:** Ensure the vehicle is off and the ignition key is removed. Disconnect the negative terminal of the battery first, then the positive terminal.
2. **Choose Mounting Option:** Decide whether to top-mount the switch directly onto the battery terminal or use the provided L-shaped brackets for side-mounting. For side-mounting, replace the existing tabs on the switch with the L-shaped brackets.
3. **Connect to Positive Terminal:** Attach the main terminal of the disconnect switch to the positive (+) post of your vehicle's battery. Ensure a secure and tight connection.
4. **Connect Vehicle Cable:** Connect your vehicle's positive cable to the other terminal of the disconnect switch.
5. **Connect Red Wire:** Attach the thin red wire from the disconnect switch to the positive (+) terminal of the battery. This provides power to the switch's internal electronics and LED display.
6. **Reconnect Negative Terminal:** Reconnect the vehicle's negative (-) battery terminal.
7. **Test Functionality:** Use the remote control or the manual button on the unit to turn the battery connection ON and OFF. Verify the LED display shows the battery voltage when ON.

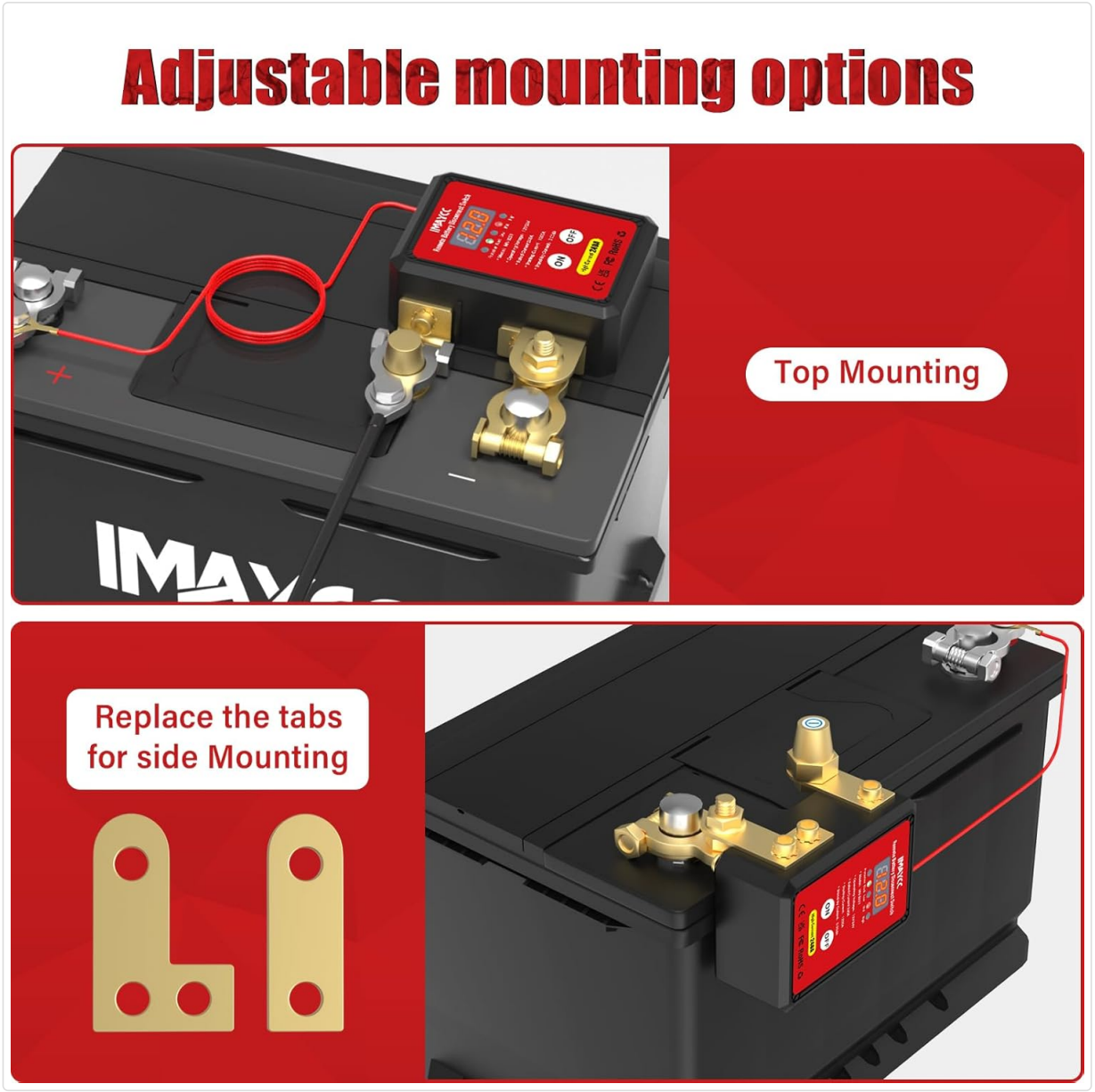

Figure 4.1: The switch supports both top-mounting and side-mounting configurations using the provided L-shaped brackets.

---

5. Operating Instructions

The disconnect switch can be operated via the included remote controls or directly on the unit.

5.1 Remote Control Operation

- Press the **ON** button on the remote to connect the battery. The LED display on the unit will illuminate and show the current battery voltage.
- Press the **OFF** button on the remote to disconnect the battery. The LED display will turn off, and power to the vehicle will be cut.

5.2 Manual Operation

- A manual ON/OFF button is located on the switch unit. Press this button to toggle the battery connection.

5.3 LED Voltage Display

- The integrated LED display shows the real-time voltage of your vehicle's battery when the switch is in the ON position. This allows for quick monitoring of battery health.

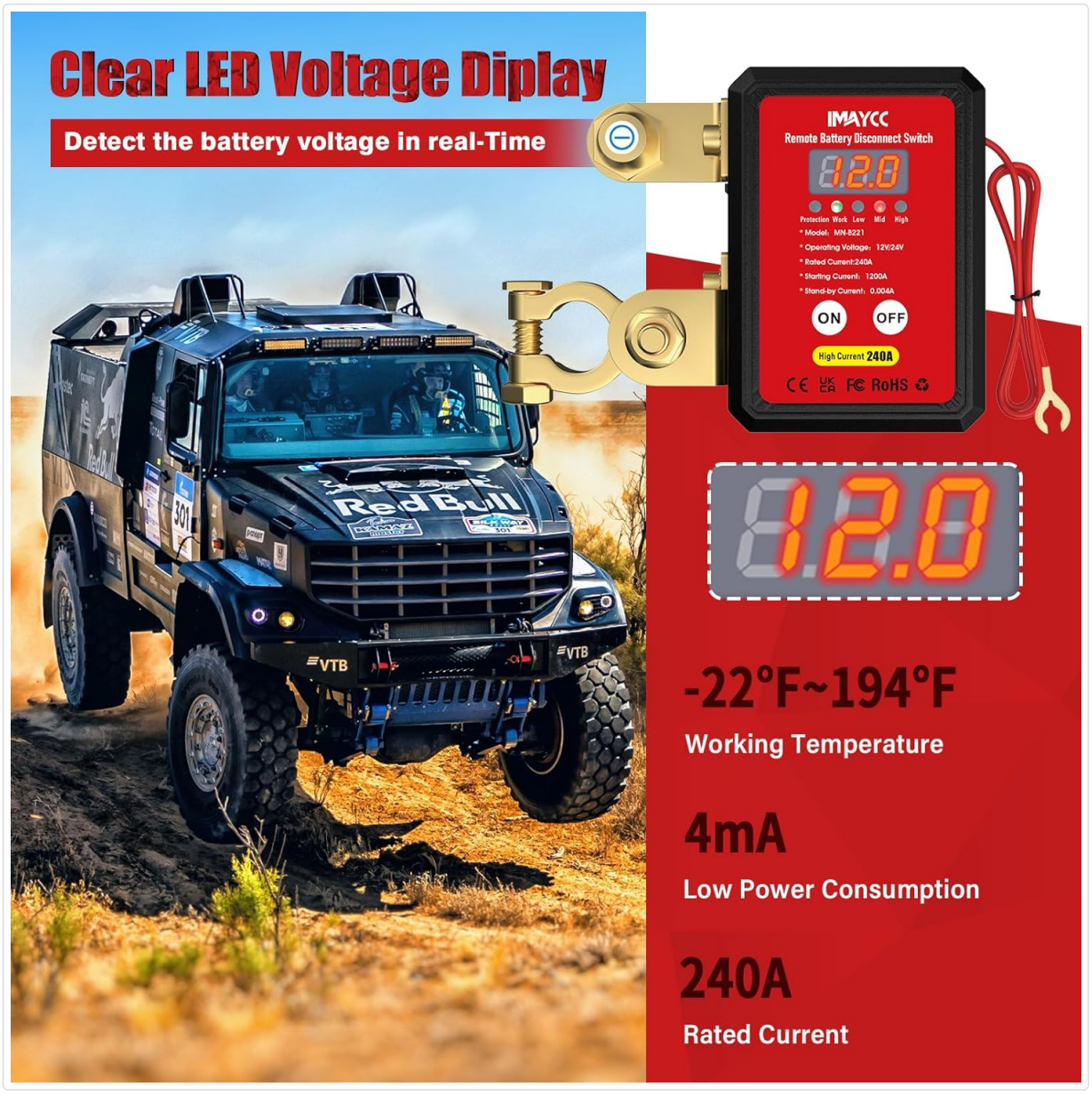

Figure 5.1: The LED display provides clear, real-time battery voltage readings.

5.4 Low Voltage Protection

- When the battery voltage drops to **11.8V**, the remote control function will be disabled, and the device will automatically cut off power after 120 seconds to prevent further discharge.
- When the battery voltage is higher than **13.2V** (typically when the engine is running and the alternator is charging), the remote control will be temporarily disabled to prevent accidental disconnection during driving.

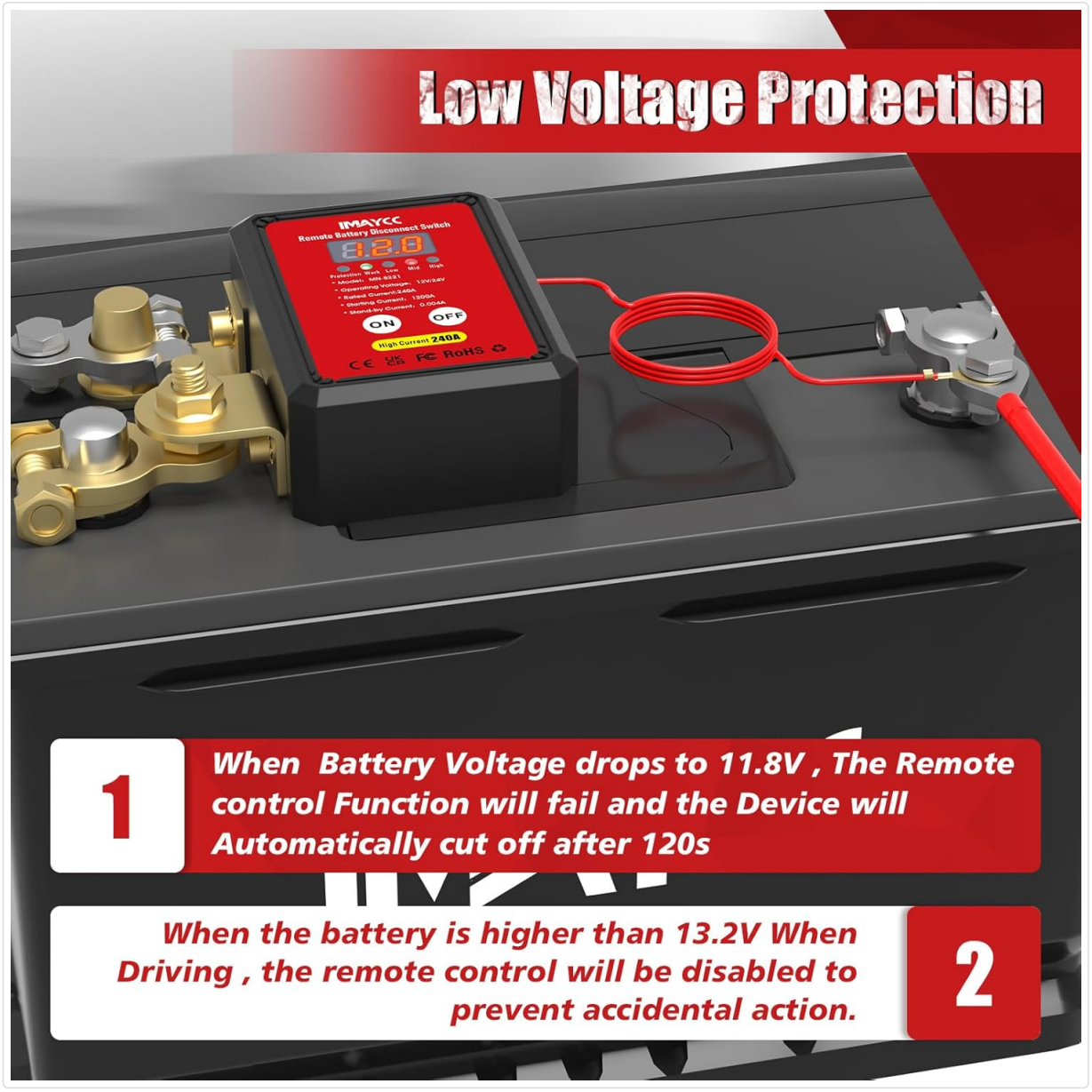

Figure 5.2: Explanation of the low voltage protection and remote control disablement features.

6. Maintenance

Regular maintenance ensures optimal performance and longevity of your battery disconnect switch.

- **Check Connections:** Periodically inspect all electrical connections to ensure they remain tight and free from corrosion. Loose connections can lead to arcing and poor performance.
- **Clean Unit:** Keep the switch unit clean and free from dirt, dust, and moisture. Use a dry cloth for cleaning.
- **Battery Health:** Monitor your battery's overall health. While the switch protects against discharge, it cannot fix a failing battery.

7. Troubleshooting

If you encounter issues with your IMAYCC Remote Battery Disconnect Switch, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Switch does not turn ON/OFF via remote.	Remote battery is dead; Remote out of range; Battery voltage too high (above 13.2V) or too low (below 11.8V); Faulty remote.	Replace remote battery; Move closer to the unit; Check battery voltage; Try manual operation; Contact support if remote is faulty.
LED display is off or shows incorrect voltage.	Switch is OFF; Loose red wire connection; Faulty unit.	Turn switch ON; Check the red wire connection to the positive battery terminal; Contact support if unit is faulty.
Battery still drains with switch OFF.	Incorrect wiring; Internal fault in the switch.	Review installation steps carefully; Ensure all connections are correct; Contact support.
Switch fails to operate after some time.	Internal component failure; Exposure to extreme conditions.	Ensure the unit is installed in a protected environment. If the unit has failed, contact customer support for assistance.

8. Specifications

Specification	Value
Model Number	US220
Operating Voltage	12 Volts
Rated Current	240 Amps
Starting Current	1200 Amps
Stand-by Current	0.004 Amps (4mA)
Operation Mode	ON-OFF
Switch Type	Push Button (Manual), Remote Control
Material	Aluminum
Product Dimensions (L x W x H)	8 x 7 x 7 cm (approx. 3.15 x 2.76 x 2.76 inches)
Item Weight	522 g (approx. 1.15 lbs)
Working Temperature	-22°F to 194°F (-30°C to 90°C)

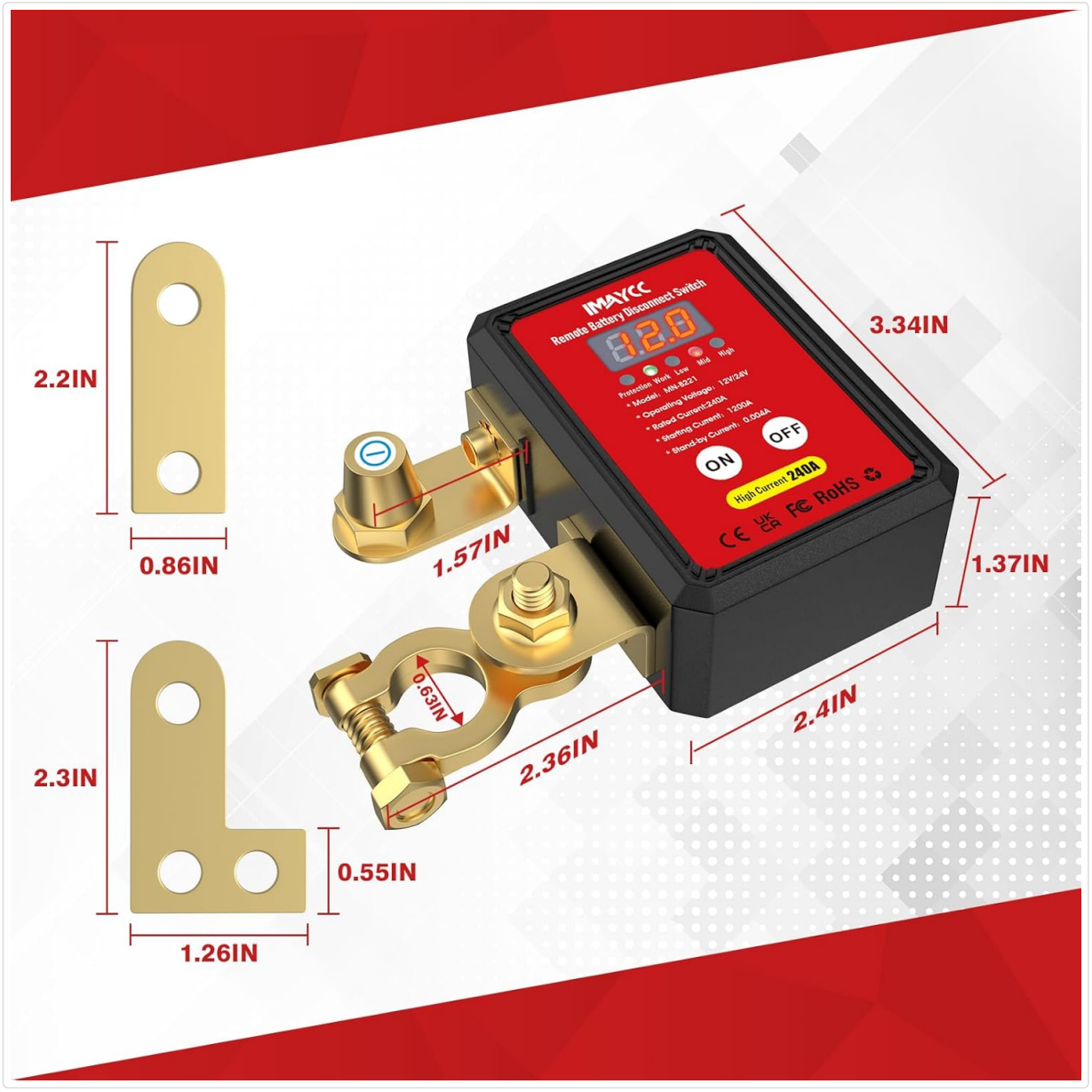

Figure 8.1: Detailed dimensions of the disconnect switch unit and mounting brackets.

9. Warranty and Support

For warranty information or technical support, please refer to the product packaging or contact IMAYCC customer service through your purchase platform. Please have your model number (US220) and purchase details ready when contacting support.