

## Tbest Tbest7g56bv80fd-04

# Tbest Electric Throttle Control Handlebar Grip with LED Display User Manual

Model: Tbest7g56bv80fd-04

## 1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Tbest Electric Throttle Control Handlebar Grip with LED Display. This product is designed for electric scooters, bicycles, tricycles, and other electric vehicles operating within a 12V-99V voltage range.

## Package Contents

- 1 x Right Handlebar (Throttle Control with LED Display)
- 1 x Left Handle Grip
- 1 x 2-meter Wiring Harness



Figure 1: Overview of the Tbest Electric Throttle Control Handlebar Grip set, showing the right-hand throttle with integrated LED display and the matching left-hand grip.

## 2. SPECIFICATIONS

Feature	Specification
Material	Aluminium Alloy + Rubber
Color	Blue
Package Weight	Approx. 0.3 Kilograms (285g)
Wire Length	Approx. 2 meters (78.7 inches)
Speed Control Type	3-gear switch (High, Middle, Low speed)
Compatibility (Vehicle)	12V-99V Electric Bicycles, Scooters, Tricycles, and other Electric Vehicles
Handlebar Diameter Fitment	22.2mm
Working Voltage (Throttle)	DC 0.8-4.2V
Working Voltage (Battery Indicator)	12-84V (Automatic identification)
Battery Compatibility	Lithium battery, lead-acid battery, etc.

## 3. SETUP AND INSTALLATION

Proper installation is crucial for the safe and correct operation of your electric throttle. Ensure your vehicle's handlebar has a 22.2mm diameter for proper fitment.

### Installation Steps

1. Remove existing handlebar grips.
2. Slide the new left handle grip onto the left side of the handlebar.
3. Slide the right handlebar (throttle control) onto the right side of the handlebar. Secure it firmly.
4. Proceed with the wiring connections as detailed below.



Figure 2: Exploded view illustrating the components of the throttle control and grip for installation.

## Wiring Diagram and Connections

**Caution: Incorrect wiring can lead to damage to the Hall sensor or LED display. If you are not a professional, please pay close attention to the wire order.**

- **Yellow Wire:** Power positive. Connect to the battery's positive terminal (e.g., +24V, +36V, +48V).
- **Red Wire:** Throttle positive (+5V).
- **Green Wire:** Throttle signal wire.
- **Black Wire:** Throttle negative.

For 3-gear speed control (if your controller supports it):

- **White Wire:** High speed.

- **Blue Wire:** Middle speed (shared line).
- **Brown Wire:** Low speed.

**Note:** The 3-gear speed control function will only work if your electric vehicle's controller supports speed regulation.

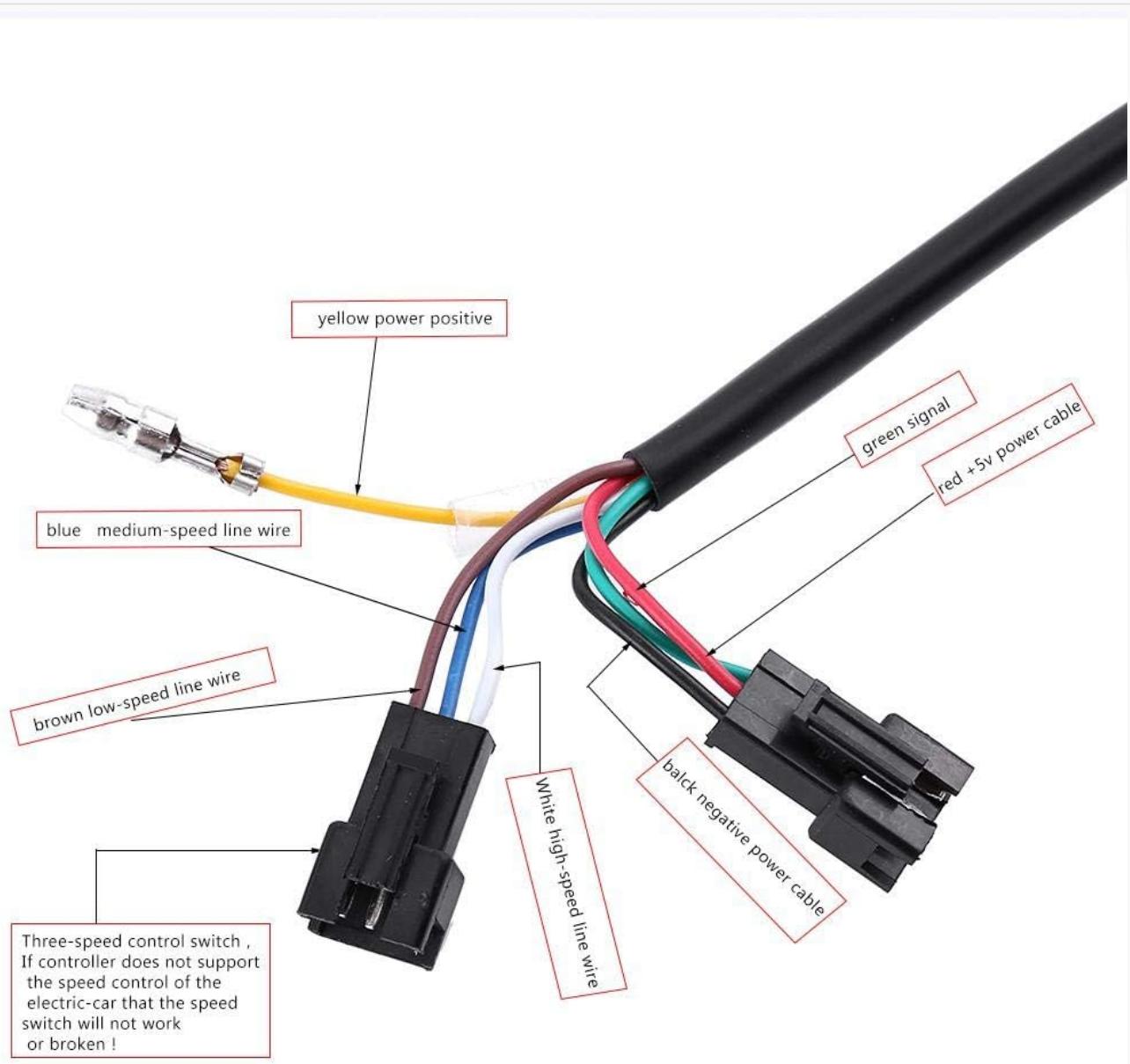


Figure 3: Detailed wiring diagram showing the connections for power, throttle, and speed control wires.

## 4. OPERATING INSTRUCTIONS

### Throttle Control

The right handlebar functions as the throttle. Twist the grip to control the speed of your electric vehicle. The throttle provides a smooth and responsive acceleration.

### LED Display for Battery Level

The integrated LED display shows the real-time voltage value, allowing you to accurately determine the remaining battery charge. The system automatically identifies voltages between 12V and 84V.



Figure 4: Close-up view of the LED display, which shows the current battery voltage.

## Interpreting Battery Voltage

Refer to the following table to understand the battery level based on the displayed voltage. The maximum voltage indicates a full charge, while the minimum voltage indicates an exhausted battery.

Nominal Voltage	Max Voltage (Full)	Min Voltage (Empty)
12V	12V	9V
24V	29V	21V
36V	42V	29V
48V	54V	39V
60V	72V	49V
72V	84V	60V

This feature helps prevent unexpected power loss during travel and assists in assessing the health of your lithium battery.

## Speed Gear Switch

The throttle includes a 3-gear switch (High, Middle, Low) to adjust the speed of your electric vehicle. This function requires your vehicle's controller to support speed regulation for it to be effective.

## 5. MAINTENANCE

To ensure the longevity and optimal performance of your Tbest Electric Throttle Control Handlebar Grip, follow these general maintenance guidelines:

- Keep the grips clean and free from dirt, dust, and moisture. Use a soft, damp cloth for cleaning.
- Regularly inspect the wiring for any signs of wear, fraying, or damage. Ensure all connections are secure.
- Avoid exposing the product to extreme temperatures or direct sunlight for prolonged periods.
- Do not use harsh chemicals or abrasive cleaners on the grips or LED display.

## 6. TROUBLESHOOTING

If you encounter issues with your electric throttle, refer to the following common problems and solutions:

- **Problem:** The 3-gear speed switch has no effect.  
**Solution:** This function requires your electric vehicle's controller to support speed regulation. If your controller does not have this capability, the switch will not function.
- **Problem:** The throttle or LED display is not working, or there is a burning smell.  
**Solution:** Immediately disconnect power. This often indicates incorrect wiring. Review the wiring diagram in Section 3 and ensure all connections are made correctly. Incorrect wiring can cause damage to the Hall sensor or LED tube. If unsure, consult a professional.
- **Problem:** Inaccurate battery voltage reading.  
**Solution:** Ensure the yellow power positive wire is correctly connected to the battery's positive terminal. Verify that the battery itself is functioning correctly and is within the 12V-84V operating range.

## 7. WARRANTY AND SUPPORT

Specific warranty information for the Tbest Electric Throttle Control Handlebar Grip is not provided in this manual. Please refer to your purchase documentation or contact the retailer/manufacturer directly for details regarding warranty coverage and customer support.