Wokyo TF-100

Wokyo TF-100 5-Pin Electric Scooter LCD Display and Thumb Throttle User Manual

Model: TF-100

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1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Wokyo TF-100 5-Pin Electric Scooter LCD Display and Thumb Throttle. Please read this manual thoroughly before use to ensure proper function and safety.



Figure 1.1: The Wokyo TF-100 5-Pin Electric Scooter LCD Display and Thumb Throttle unit.

2. Product Overview

The Wokyo TF-100 is an integrated unit combining a thumb throttle and an LCD display, designed for electric scooters. It offers convenient control and real-time data monitoring.

Key Features:

- **2-in-1 Functionality:** Combines throttle control and an LCD display into a single unit, simplifying your scooter's controls.
- **Clear LCD Display:** Provides essential real-time information such as speed, battery level, and distance traveled for a safe and informed ride.
- **Convenient Thumb Throttle Control:** Allows for easy acceleration and speed adjustment with a simple thumb movement.
- **Waterproof and Durable Design:** Built with a waterproof plug to withstand various weather conditions,

ensuring reliable and long-lasting performance.



Figure 2.1: The TF-100 display showing various metrics on an electric scooter.

3. Compatibility

This TF-100 5-pin electric thumb throttle is designed to work with electric scooter controllers that adopt **Protocol 2**. It is compatible with models such as Kugoo M4 and Kugoo Pro, as well as other scooters using the same communication protocol.

Important: Before purchasing or installing, please verify that your electric scooter's controller uses Protocol 2 to ensure compatibility.



Figure 3.1: Visual representation of compatibility with Kugoo M4 and Pro scooters.

4. Installation

The thumb throttle is designed for straightforward installation. However, it is crucial to follow the wiring diagram precisely to avoid damage or malfunction.

Installation Steps:

1. Ensure your electric scooter is powered off and the battery is disconnected before beginning installation.
2. Locate the existing throttle or the designated mounting area on your scooter's handlebars.
3. Mount the TF-100 unit securely onto the handlebar using the provided clamp and screws.
4. Connect the 5-pin waterproof connector from the TF-100 unit to the corresponding port on your scooter's controller.
5. **Crucial:** Refer to the wiring diagram below and ensure each wire is connected correctly according to its function (e.g., Red for positive, Black for negative, Green for RX, Yellow for TX, Blue for DS). Incorrect wiring

can render the unit unusable.

6. Once connected, secure any loose cables to prevent interference with steering or moving parts.
7. Reconnect the battery and power on your scooter to test the functionality.



Figure 4.1: Detailed wiring diagram for the 5-pin connector. Ensure correct connections for Red (+), Black (-), Green (RX), Yellow (TX), and Blue (DS).



Figure 4.2: Product dimensions and a close-up of the 5-pin connector.

5. Operating Instructions

The TF-100 unit features an intuitive interface with two main buttons for control and display navigation.

Button Functions:

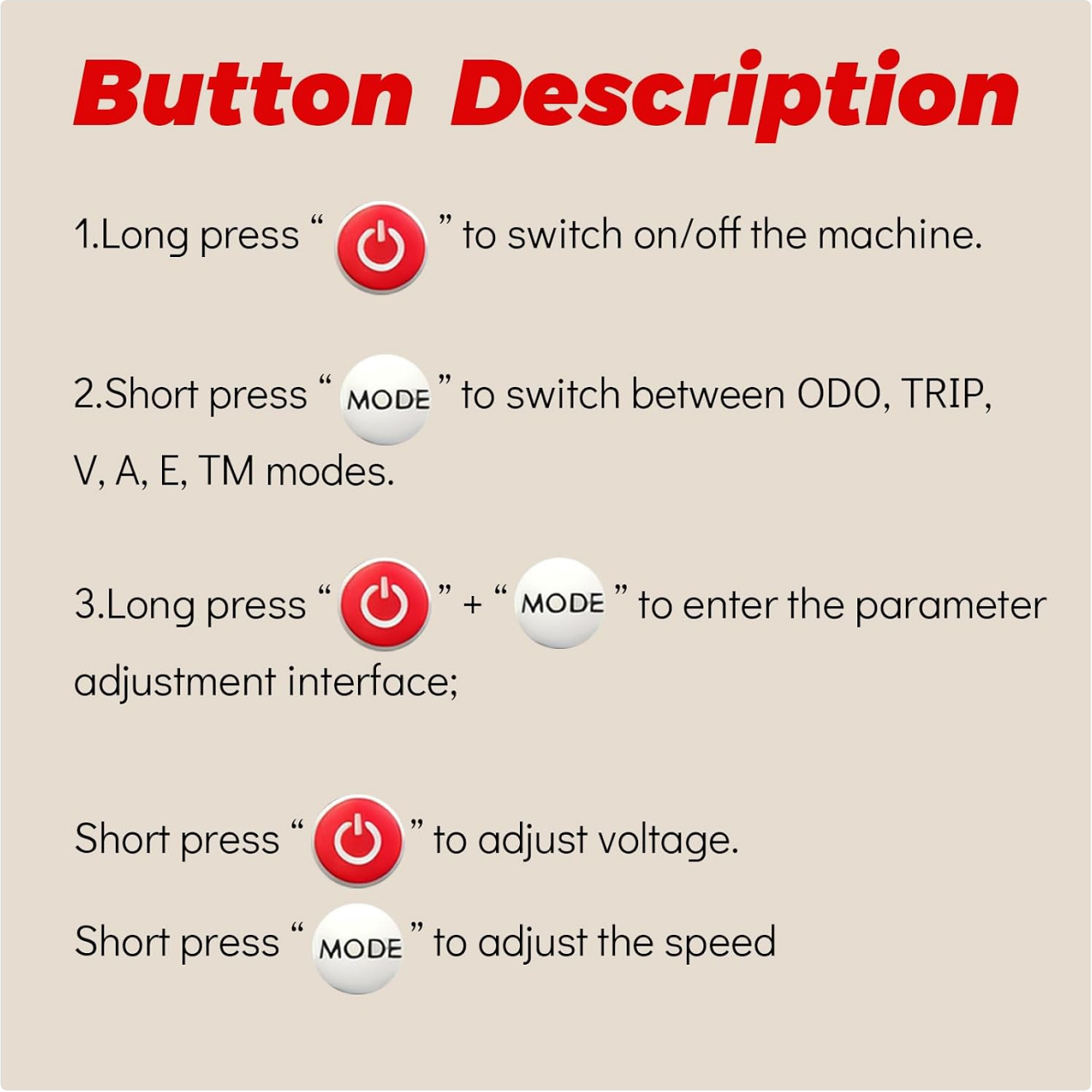


Figure 5.1: Illustration of the power and mode buttons and their functions.

- **Power Button ( ):**
  - **Long Press:** Switches the scooter's power ON or OFF.
  - **Short Press (in parameter adjustment mode):** Adjusts voltage settings.
- **Mode Button (MODE):**
  - **Short Press:** Cycles through display modes (ODO - Odometer, TRIP - Trip Distance, V - Voltage, A - Amperage, E - Error Code, TM - Time).
  - **Short Press (in parameter adjustment mode):** Adjusts speed settings.
- **Entering Parameter Adjustment Interface:**
  - **Long Press Power Button + Mode Button simultaneously:** Enters the parameter adjustment interface for advanced settings.

LCD Display Information:

The integrated LCD provides real-time data to enhance your riding experience:

- **Speed:** Displays current riding speed (km/h or mph).
- **Battery Level:** Indicates remaining battery charge.
- **Distance Traveled:** Shows Odometer (total distance) and Trip (current trip distance).
- **Gear:** Displays the current power assist level or gear.
- **Error Codes:** May display error codes if a system fault is detected.



Figure 5.2: A close-up view of the TF-100 LCD display, showing speed, trip distance, and battery indicator.

6. Specifications

Feature	Detail
Model Number	TF-100 (5 PIN)

Feature	Detail
Brand	Wokyo
Material	Acrylonitrile Butadiene Styrene (ABS)
Item Dimensions (L x W x H)	11 x 9.4 inches (approx. 27.9 x 23.9 cm)
Item Weight	0.2 Pounds (approx. 90.7 grams)
Compatibility	Electric scooter controllers using Protocol 2 (e.g., Kugoo M4/Pro)
Voltage Range	36V-48V

7. Maintenance

To ensure the longevity and optimal performance of your TF-100 display and throttle, follow these maintenance guidelines:

- **Cleaning:** Wipe the display and throttle unit with a soft, damp cloth. Avoid using abrasive cleaners or solvents that could damage the screen or plastic.
- **Connection Check:** Periodically inspect the 5-pin connector for any signs of wear, corrosion, or loose connections. Ensure it remains securely plugged in.
- **Physical Inspection:** Check the mounting clamp for tightness and ensure the unit is not loose on the handlebar. Inspect the throttle lever for smooth operation and any physical damage.
- **Water Exposure:** While designed to be waterproof, avoid submerging the unit in water. If exposed to heavy rain, wipe it dry as soon as possible.

8. Troubleshooting

If you encounter issues with your TF-100 unit, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Display does not power on.	◦ Loose or incorrect wiring. ◦ Scooter battery is dead or disconnected. ◦ Incompatible controller protocol. ◦ Unit malfunction.	◦ Check all 5-pin connections according to the wiring diagram (Figure 4.1). ◦ Ensure scooter battery is charged and properly connected. ◦ Verify your scooter's controller uses Protocol 2. ◦ If issues persist, contact customer support.
Throttle does not respond.	◦ Loose connection. ◦ Throttle mechanism obstruction. ◦ Unit malfunction.	◦ Check 5-pin connections. ◦ Ensure the thumb lever moves freely without obstruction. ◦ Contact customer support if the problem continues.

Problem	Possible Cause	Solution
Incorrect speed or distance readings.	◦ Incorrect parameter settings. ◦ Sensor issue (less common for integrated unit).	◦ Enter parameter adjustment mode (Long Press Power + Mode) to check and adjust wheel diameter or other relevant settings. ◦ If problem persists, contact support.

9. Warranty and Support

For warranty information, technical support, or any questions not covered in this manual, please contact Wokyo customer service through your original point of purchase or visit the official Wokyo store online.
Wokyo Store Link: Visit the Wokyo Store on Amazon
When contacting support, please have your product model (TF-100) and purchase details ready.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question