TDPRO 48V 1000W Brush Speed Motor Controller

TDPRO 48V 1000W Brush Speed Motor Controller User Manual

Model: 48V 1000W Brush Speed Motor Controller

1. Product Overview

The TDPRO 48V 1000W Brush Speed Motor Controller is designed for electric scooters, e-bikes, tricycles, mini bikes, pocket bikes, go-karts, ATVs, and mopeds. This controller manages the power delivery to a 48V 1000W brushed motor, ensuring efficient and reliable operation.

Image 1: Side view of the TDPRO 48V 1000W Brush Speed Motor Controller, showing its compact design and heat sink fins.

2. Specifications

Rated Voltage	48V DC
Match Motor	48V 1000W Brushed Motor
Conversion Efficiency	95%
Under Voltage Protection	42V ± 0.5V
Speed Regulator (Throttle)	1-4V
Material	Metal
Item Weight	8 ounces

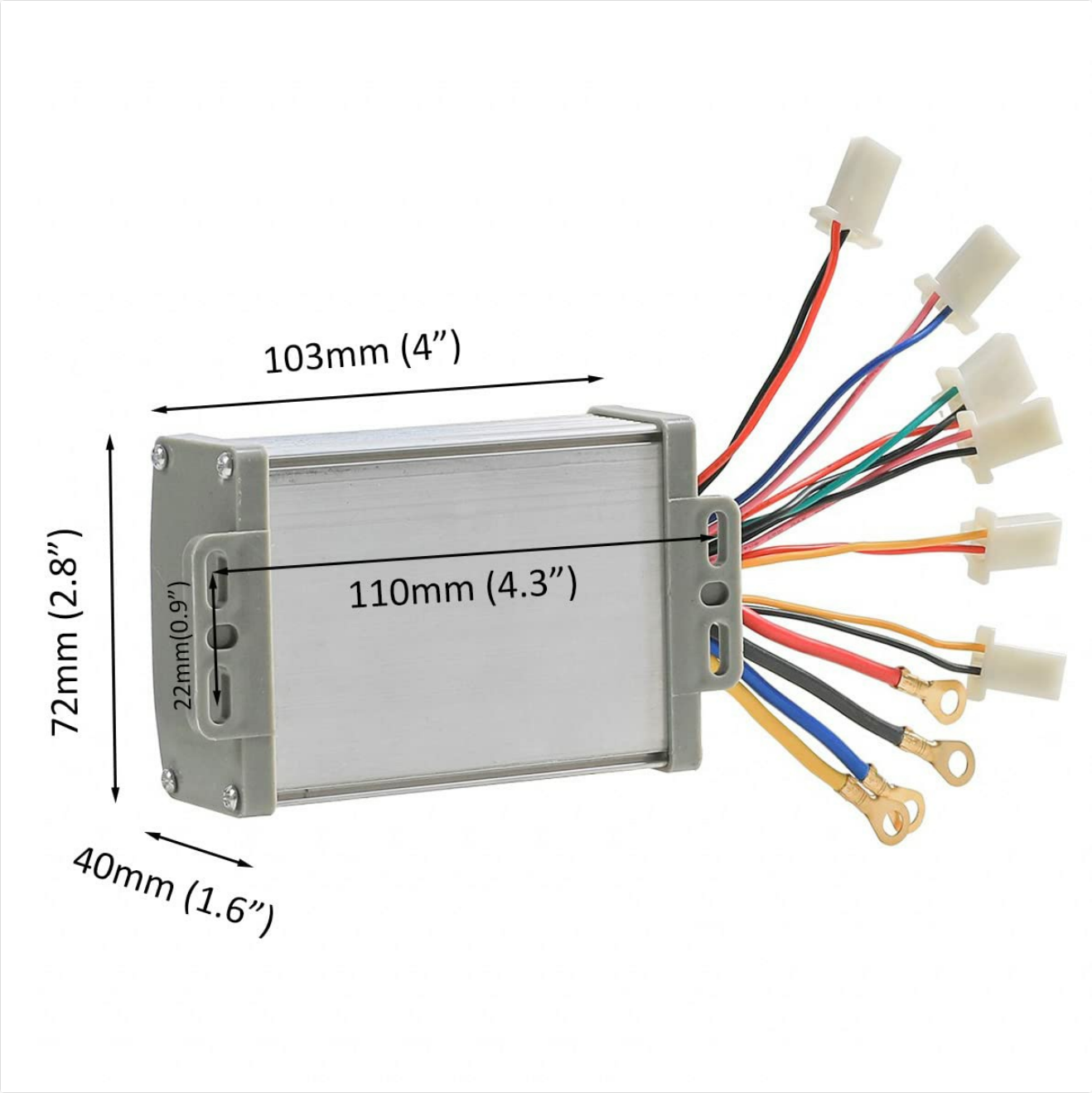

Image 2: Dimensions of the TDPRO 48V 1000W Brush Speed Motor Controller, showing length, width, and height measurements.

3. Installation and Wiring

Proper wiring is essential for the correct and safe operation of the motor controller. This controller features 8 connectors. Refer to the diagram below for detailed connection points.

Image 3: Detailed wiring diagram for the TDPRO 48V 1000W Brush Speed Motor Controller, illustrating each of the 8 connector functions.

3.1 Connector Identification

1. **Battery:** Connects to the 48V battery pack. Ensure correct polarity (positive and negative).
2. **Motor:** Connects to the 48V 1000W brushed motor. Ensure correct polarity.
3. **Brake:** Connects to the brake lever switch. Activates motor cut-off when brakes are applied.
4. **Brake Light:** Connects to the brake light.
5. **Indicator Light:** Connects to the vehicle's indicator light.
6. **Ignition Lock:** Connects to the ignition switch. Powers the controller on/off.
7. **Charger Port:** Connects to the battery charger.
8. **Derailleur (Throttle):** Connects to the throttle unit for speed control.

3.2 Essential Connections

For basic operation, the following four connections are mandatory:

- Battery

- Motor
- Ignition Lock
- Derailleur (Throttle)

Other connectors provide optional functions and can be connected based on your specific application requirements.
Caution: Always ensure power is disconnected before making or changing any wiring connections. Incorrect wiring can damage the controller, motor, or battery.

4. Operating Instructions

1. **Power On:** Turn the ignition key to the "ON" position. The indicator light (if connected) should illuminate.
2. **Throttle Control:** Gently twist the throttle to engage the motor. The speed will increase proportionally with the throttle input (1-4V range).
3. **Braking:** Apply the brakes as needed. The brake switch will cut power to the motor, and the brake light (if connected) will activate.
4. **Power Off:** Turn the ignition key to the "OFF" position to power down the system.

Safety Note: Always operate your electric vehicle responsibly and in accordance with local laws and regulations. Wear appropriate safety gear.

5. Maintenance

The TDPRO 48V 1000W Brush Speed Motor Controller is designed for durability and requires minimal maintenance. Follow these general guidelines:

- **Keep Dry:** Protect the controller from water and excessive moisture to prevent internal damage.
- **Clean Connections:** Periodically inspect all wiring connections to ensure they are secure and free from corrosion.
- **Avoid Overheating:** Ensure the controller has adequate ventilation. While designed for efficiency, prolonged heavy loads in enclosed spaces can lead to overheating.
- **Regular Inspection:** Check for any visible damage to the controller casing or wiring.

6. Troubleshooting

If you encounter issues with your motor controller, consider the following basic troubleshooting steps:

- **No Power:**
  - Check battery connections and ensure the battery is charged.
  - Verify the ignition lock is correctly wired and in the "ON" position.
  - Inspect all power cables for breaks or loose connections.
- **Motor Not Responding to Throttle:**
  - Ensure the throttle unit is properly connected to the "Derailleur (Throttle)" port.
  - Check the throttle wiring for damage.
  - Confirm the motor is correctly connected to the "Motor" port.
- **Intermittent Operation:**
  - Inspect all 8 connections for looseness or corrosion.

- Ensure the brake switch is not stuck in the "ON" position, which would cut motor power.

If problems persist after checking these points, it is recommended to consult a qualified technician or contact TDPRO customer support.

For further assistance, please visit the TDPRO brand page on Amazon.