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## VEVOR JZ48V1800W

# VEVOR 1800W 48V Brushless DC Motor Kit User Manual

Model: JZ48V1800W

## 1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation, installation, and maintenance of your VEVOR 1800W 48V Brushless DC Motor Kit. This kit is designed for various DIY electric vehicle projects, including go-karts, e-bikes, motorcycles, and scooters, offering high power and efficient performance.

Please read this manual thoroughly before installation and use to ensure proper function and to prevent damage or injury. Keep this manual for future reference.



Image 1.1: Overview of the VEVOR 1800W 48V Brushless DC Motor Kit, showing the motor, controller, throttle grip, and assembly hardware.

## Safety Precautions

- Always disconnect power before performing any installation, maintenance, or troubleshooting.
- Ensure all electrical connections are secure and properly insulated to prevent short circuits.
- Wear appropriate personal protective equipment (PPE) during installation and operation.
- Do not operate the motor in wet conditions or expose it to extreme temperatures outside its specified range.
- Verify that the voltage and wattage of your power source match the motor's specifications.

## 2. PACKAGE CONTENTS

The VEVOR 1800W 48V Brushless DC Motor Kit includes the following components:

- 1 x 48V 1800W Brushless Motor

- 1 x Motor Controller
- 1 x Twistgrip Throttle
- 1 x Set of Assembly Hardware (nuts, bolts, wrench, sprocket)
- 1 x User Manual (this document)

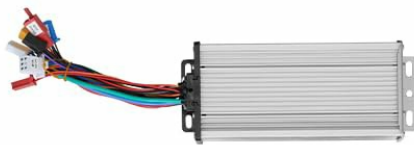
## Comprehensive Assembly Kit



1 x 48V 1800W Brushless Motor



1 x Twistgrip Throttle



1 x Motor Controller



1 x Set of Assembly Hardware

Image 2.1: Visual representation of the comprehensive assembly kit, including the motor, throttle grip, controller, and various hardware pieces.

### 3. SPECIFICATIONS

Refer to the table below for detailed technical specifications of the VEVOR 1800W 48V Brushless DC Motor Kit.



Image 3.1: Diagram showing the motor with key dimensions and a table of specifications.

Feature	Specification
Item Model Number	JZ48V1800W
Rated Power	1800W

Feature	Specification
Voltage	48V DC
Rated Torque	4 N·m
Rated Rotation Speed	4500 RPM
No-load Speed	5600 RPM
Rated Speed (16-inch wheel)	36.7 MPH
No-load Speed (16-inch wheel)	46 MPH
Shaft Size	0.5 x 0.6 inches / Ø12 x 14.5 mm
Rotation	CW / CCW (Dual Direction)
Load Capacity	≤ 330.7 lbs / 150 kg
Applicable Gear Ratio	9 teeth / 11 teeth: 64 teeth
Sprocket Chain Type	T8F-9 teeth / T8F-11 teeth
Product Weight	11.2 lbs / 5.1 kg
Product Dimensions	5.3 x 4.2 x 4.4 inches / 134 x 107 x 112 mm

## 4. SETUP AND INSTALLATION

This section outlines the general steps for installing the motor kit. Detailed wiring diagrams are provided to assist with electrical connections.

### Motor Mounting

1. Identify a suitable mounting location on your vehicle frame that can securely support the motor's weight and dimensions.
2. Ensure adequate clearance for the motor, sprocket, and chain.
3. Use appropriate bolts and nuts (provided in the assembly hardware kit) to firmly attach the motor to the frame. Ensure all fasteners are tightened to prevent vibration and movement during operation.

### Electrical Connections

The motor controller is the central hub for all electrical connections. Refer to the wiring diagram below for correct connections. Incorrect wiring can damage the components or lead to unsafe operation.

# Easy Assembly for DIYers

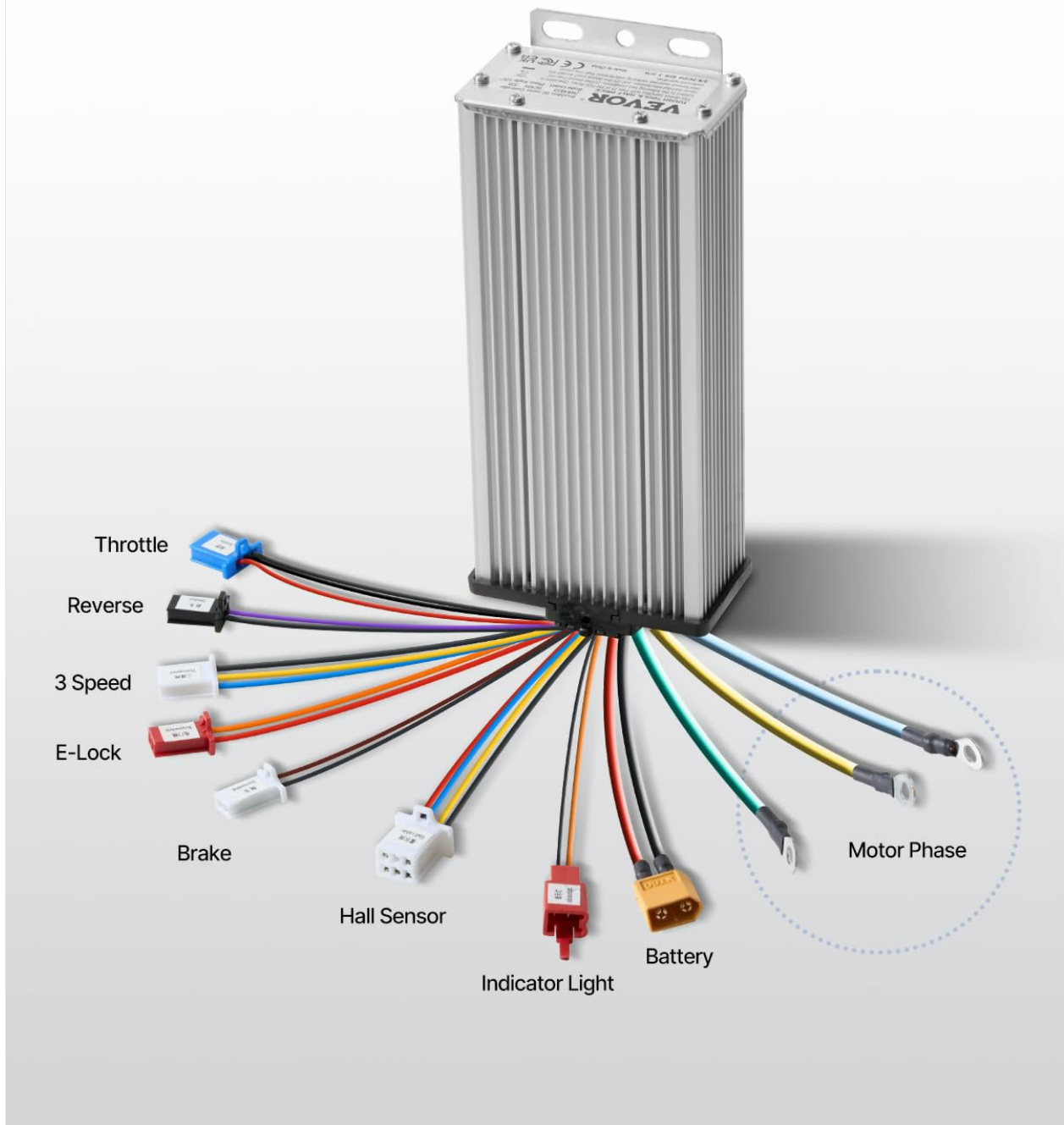


Image 4.1: Detailed wiring diagram for the motor controller, illustrating connections for throttle, reverse, speed, E-lock, brake, Hall sensor, indicator light, battery, and motor phase.

- **Motor Phase Wires:** Connect the three thick motor phase wires (typically yellow, green, blue) from the motor to the corresponding motor phase terminals on the controller.
- **Battery Connection:** Connect the main battery positive and negative terminals to the controller's battery input. Ensure correct polarity. The controller features an XT60 connector for enhanced power connection stability.
- **Throttle Grip:** Connect the twistgrip throttle to the designated throttle port on the controller.
- **Brake Levers:** Connect the brake signal wires from your brake levers to the controller's brake input. This enables motor cut-off when braking.

- **Hall Sensor:** Connect the Hall sensor wires from the motor to the controller's Hall sensor port.
- **Other Connections:** Connect any additional accessories such as E-lock, 3-speed switch, reverse switch, or indicator lights according to the provided diagram.

After all connections are made, double-check them for security and correctness before applying power.

## 5. OPERATING INSTRUCTIONS

Once the motor kit is correctly installed and wired, follow these steps for operation:

# Powerful Control System

with new-generation controller



### 3-Level Speed

Adapt to various terrains



### Reverse Function

Smooth reverse in tight spaces



### Electronic Brake

Sensitive response

Image 5.1: Illustration of the powerful control system, highlighting 3-level speed, reverse function, and electronic brake capabilities.

1. **Power On:** Turn on the main power switch (if applicable) to supply power to the controller.
2. **Soft Start:** The motor adopts intelligent soft-start technology, ensuring a smooth and safe startup process. Avoid sudden full throttle application.
3. **Speed Control:** Gently twist the throttle grip to accelerate. The controller supports 3-level speed adjustment, allowing adaptation to various terrains and riding preferences.
4. **Braking:** Apply the brake levers to slow down or stop. The electronic brake feature provides sensitive response and cuts off motor power for safety.
5. **Reverse Function:** If connected, use the reverse switch to engage reverse mode. This is useful for maneuvering in tight spaces. The controller ensures smooth reverse operation.
6. **Power Off:** When finished, turn off the main power switch.

### **Motor Rotation**

The motor supports both Clockwise (CW) and Counter-Clockwise (CCW) rotation, allowing for versatile application depending on your vehicle's drive system requirements.

# CW & CCW Dual Rotation

Forward and reverse dual-mode control

## 0.5-inch

Shaft Diameter

## 0.6-inch

Shaft Length



Image 5.2: The motor's shaft and sprocket, indicating its capability for both forward (CW) and reverse (CCW) rotation.

## 6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your VEVOR motor kit.

- **Cleaning:** Keep the motor and controller free from dirt, dust, and moisture. Use a dry cloth to wipe down surfaces. Avoid using water or harsh chemicals.
- **Connections:** Periodically check all electrical connections for tightness and corrosion. Re-tighten any loose

connections.

- **Wiring:** Inspect wiring for any signs of wear, fraying, or damage. Replace damaged wires immediately.
- **Sprocket and Chain:** Ensure the sprocket and chain are clean and properly lubricated. Check for excessive wear and replace if necessary. Maintain proper chain tension.
- **Motor Housing:** Inspect the motor housing for any physical damage or signs of overheating. The 100% copper core motor is designed for excellent heat and cold resistance, but proper ventilation is still important.

## 7. TROUBLESHOOTING

This section addresses common issues you might encounter with your motor kit. For problems not listed here, contact VEVOR customer support.

Problem	Possible Cause	Solution
Motor does not start	No power to controller; Loose connections; Faulty throttle; Controller error	Check battery connection and charge; Inspect all wiring; Test throttle function; Reset controller by cycling power.
Motor runs intermittently	Loose wiring; Overheating; Low battery voltage	Check all connections; Allow motor/controller to cool down; Charge battery.
Motor lacks power/speed	Low battery charge; Overload; Incorrect speed setting; Worn components	Charge battery fully; Reduce load; Check speed setting on controller/throttle; Inspect chain/sprocket for wear.
Unusual noise from motor	Loose mounting; Damaged bearings; Debris in motor	Check motor mounting bolts; Contact support for internal motor issues; Clean motor area.
Controller indicator light not on	No power; Faulty controller	Verify battery connection and charge; Contact VEVOR support.

## 8. WARRANTY AND SUPPORT

VEVOR products are designed for durability and performance. For warranty information, technical support, or service inquiries, please visit the official VEVOR website or contact their customer service department.

**VEVOR Official Website:** [www.vevor.com](http://www.vevor.com)

Please have your model number (JZ48V1800W) and purchase details ready when contacting support.

