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> BOJACK 1803BK/1803B Low Voltage DC Motor Speed Controller User Manual

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Model: 1803BK / 1803B | Brand: BOJACK

INTRODUCTION

This manual provides essential information for the safe and efficient operation of your BOJACK 1803BK/1803B Low Voltage DC Motor Speed Controller. This device is designed to control the speed of DC motors by adjusting the Pulse Width Modulation (PWM) duty cycle. Please read this manual thoroughly before installation and use to ensure proper functionality and to prevent damage.

KEY FEATURES

- Adjustable duty cycle: 0% - 100%
- Integrated switch function for power control.
- Start-up LED light indicator.
- Equipped with a 2A self-recovery fuse for overcurrent protection.
- Compact design for various applications.

TECHNICAL SPECIFICATIONS

Model	1803BK / 1803B
Input Voltage	DC 2.2V - 15V
Output Voltage	DC 1.8V - 15V

Maximum Continuous Output Current	2A
Maximum Output Power	30W
Adjustable Duty Cycle	0% - 100%
Fuse Type	2A Self-recovery fuse
Dimensions	Approximately 6.22 x 3.74 x 0.71 inches (Package Dimensions)
Weight	Approximately 0.634 ounces
Material	Copper
Display Type	LED (for start-up indicator)

IMPORTANT SAFETY INFORMATION

- **DO NOT** connect this DC motor speed controller directly to household 220V AC power. This device is designed for DC voltage only.
- Ensure the input voltage is within the specified range of DC 2.2V-15V. Exceeding this range can damage the device.
- Always use an appropriately rated fuse (slightly higher than your expected maximum current) to ensure safe operation and protect against overcurrent.
- Verify correct polarity (+/-) when connecting power and motor leads to prevent damage to the controller and motor.
- Keep the device away from moisture, extreme temperatures, and flammable materials.
- Installation and wiring should be performed by individuals familiar with basic electronics and safety procedures.
- In case of malfunction or unusual behavior, disconnect power immediately.

PACKAGE CONTENTS

Each package typically includes:

- 2 x BOJACK 1803BK/1803B Low Voltage DC Motor Speed Controller units

Note: Additional components like power supplies, motors, or wiring are not included and must be sourced separately.

SETUP AND WIRING

Before proceeding, ensure all power sources are disconnected. Refer to the wiring diagram below for

proper connections.

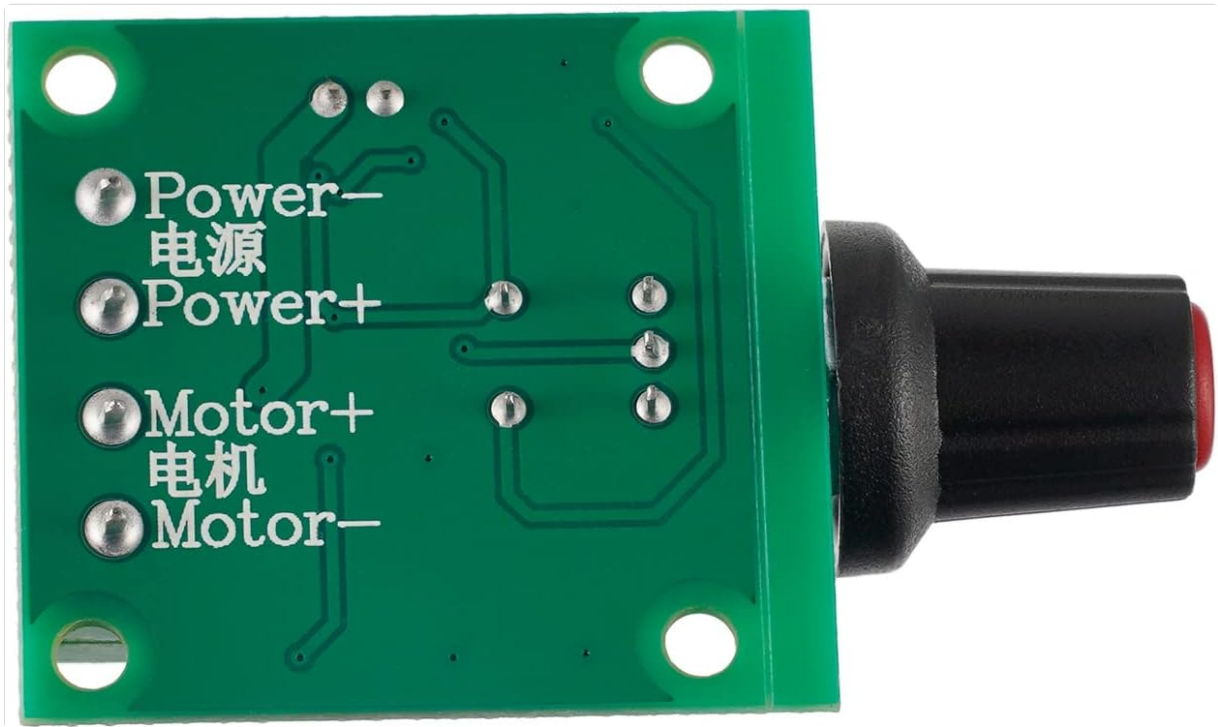


Image: Back view of the BOJACK 1803BK/1803B DC Motor Speed Controller showing clearly labeled Power and Motor terminals.

- 1. Identify Terminals:** The controller has four clearly marked screw terminals:
 - **Power+:** Positive input for the DC power supply.
 - **Power-:** Negative input for the DC power supply.
 - **Motor+:** Positive output for the DC motor.
 - **Motor-:** Negative output for the DC motor.
- 2. Connect Power Supply:** Connect the positive (+) terminal of your DC power supply (within 2.2V-15V) to the "Power+" terminal on the controller. Connect the negative (-) terminal of your DC power supply to the "Power-" terminal. Ensure a secure connection.
- 3. Connect DC Motor:** Connect the positive (+) lead of your DC motor to the "Motor+" terminal on the controller. Connect the negative (-) lead of your DC motor to the "Motor-" terminal.
- 4. Verify Connections:** Double-check all connections for correct polarity and tightness to prevent short circuits or damage.

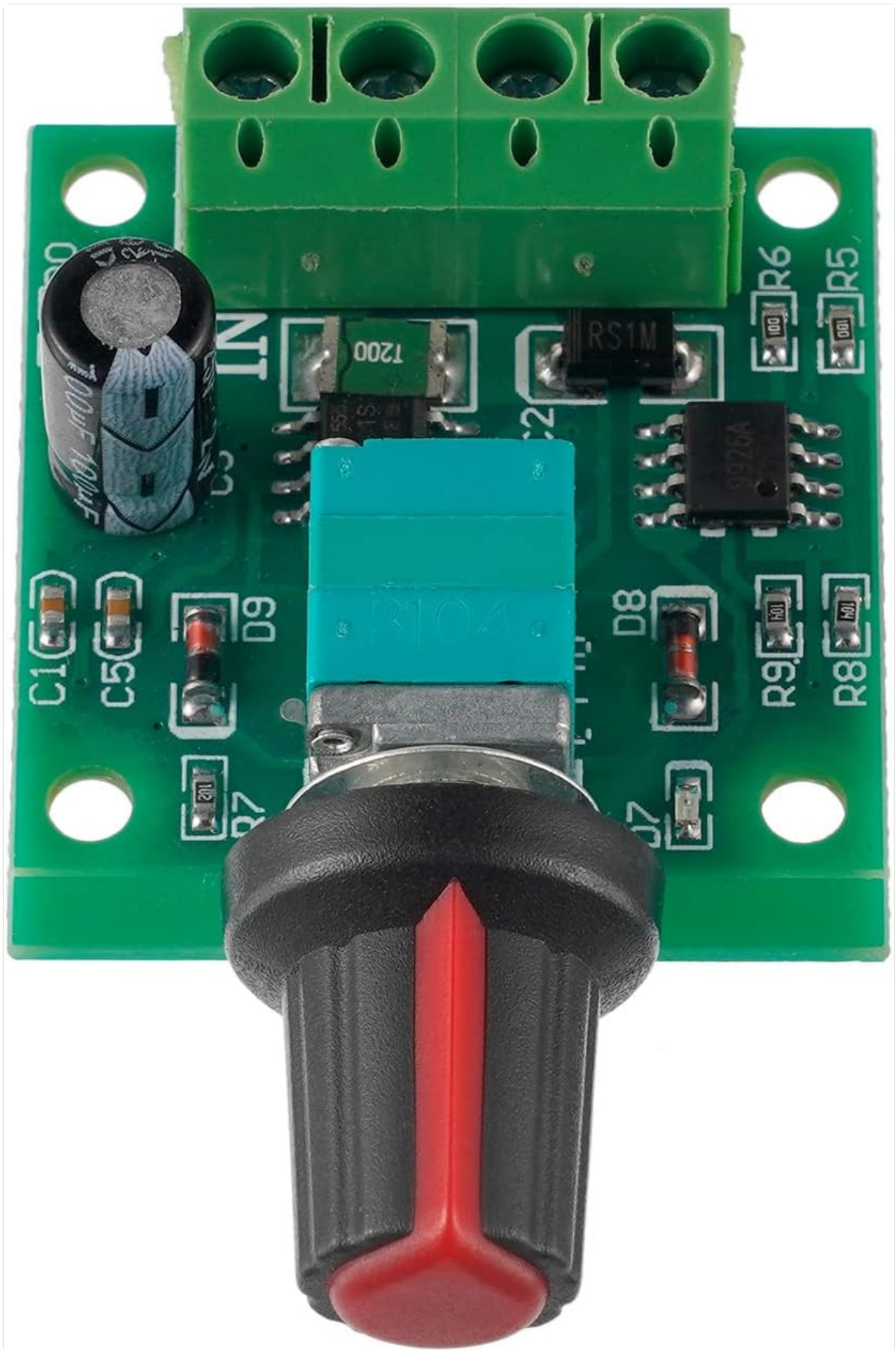


Image: Top view of the BOJACK 1803BK/1803B DC Motor Speed Controller, showing the potentiometer knob and terminal block.

OPERATING INSTRUCTIONS

1. **Power On:** Once all connections are secure, connect your DC power supply. The integrated switch on the potentiometer knob controls the power to the motor. Turn the knob clockwise until you hear a click and the start-up LED illuminates, indicating the controller is powered on.
2. **Adjust Motor Speed:** Continue turning the potentiometer knob clockwise to increase the motor speed. Turning the knob counter-clockwise will decrease the motor speed. The speed can be adjusted from 0% to 100% of the motor's maximum speed at the given input voltage.
3. **Observe LED Indicator:** The LED light indicates that the controller is active and supplying power.
4. **Power Off:** To turn off the motor and controller, rotate the potentiometer knob counter-clockwise until you hear a click and the LED light turns off.

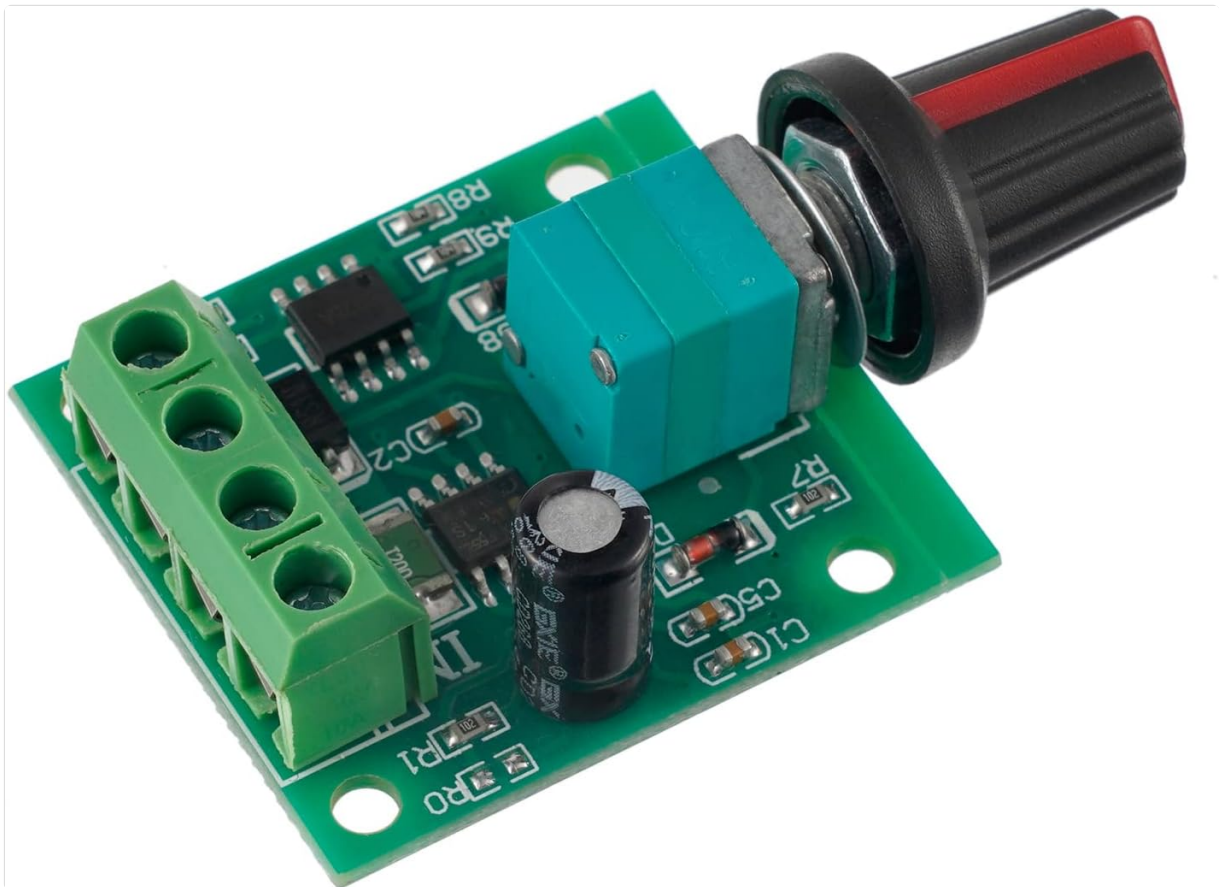


Image: Angled view of the BOJACK 1803BK/1803B DC Motor Speed Controller, highlighting the compact size and control knob.

MAINTENANCE

- **Cleaning:** Keep the controller clean and free from dust and debris. Use a dry, soft cloth for cleaning. Do not use liquids or solvents.
- **Fuse:** The controller features a self-recovery fuse. If an overcurrent event occurs, the fuse will temporarily disconnect. Allow it to cool down, and it will automatically reset. If frequent disconnections occur, check your motor load and power supply.
- **Storage:** Store the controller in a dry, cool environment when not in use.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Motor does not run / LED off.	No power supply, incorrect wiring, potentiometer turned off.	Check power supply connection and voltage. Verify wiring polarity. Turn potentiometer knob clockwise until it clicks and LED lights up.
Motor runs intermittently or stops.	Overcurrent protection activated (fuse tripped), loose connections, motor fault.	Reduce motor load. Check for short circuits. Ensure all connections are tight. Allow fuse to cool and reset. Inspect motor for issues.
Motor speed cannot be adjusted.	Faulty potentiometer, incorrect wiring.	Ensure potentiometer knob is securely attached and functioning. Recheck wiring.
Controller gets excessively hot.	Overload, insufficient ventilation.	Reduce motor load. Ensure adequate airflow around the controller. Verify motor current draw is within 2A.

WARRANTY AND SUPPORT

BOJACK products are manufactured to high-quality standards. For specific warranty information or technical support, please refer to the retailer where the product was purchased or visit the official BOJACK website. Keep your purchase receipt as proof of purchase.

For further assistance, please contact BOJACK customer service through the platform of purchase.