

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

[manuals.plus](#) /

> [BOJACK](#) /

> [BOJACK 1/2W Carbon Film Resistor Kit Instruction Manual](#)

BOJACK BJ-5%-1/2W

BOJACK 1/2W Carbon Film Resistor Kit Instruction Manual

Model: BJ-5%-1/2W

[Introduction](#)

[Features](#)

[Specifications](#)

[Usage](#)

[Maintenance](#)

[Troubleshooting](#)

[Safety](#)

[Support](#)

1. INTRODUCTION

This manual provides essential information for the BOJACK 1000 Pcs 25 Values Resistor Kit (Model: BJ-5%-1/2W). This kit is designed for electronic projects, offering a comprehensive assortment of 1/2W carbon film resistors with a 5% tolerance. Please read these instructions carefully to ensure proper use and handling of the components.



Image 1: The BOJACK 1000 Pcs Resistor Kit, showcasing the clear plastic case with labeled compartments for various resistor values.

2. PRODUCT FEATURES

The BOJACK Resistor Kit offers a versatile selection for various electronic applications:

- **Comprehensive Assortment:** Contains 1000 pieces across 25 different resistance values, suitable for a wide range of DIY projects and experiments.
- **Standard Values:** Includes common values from 1 Ohm to 1M Ohm, such as 1Ω, 2.2Ω, 3.3Ω, 4.7Ω, 10Ω, 22Ω, 47Ω, 68Ω, 100Ω, 150Ω, 220Ω, 330Ω, 470Ω, 1KΩ, 1.5KΩ, 2KΩ, 2.2KΩ, 4.7KΩ, 5.6KΩ, 10KΩ, 15KΩ, 22KΩ, 47KΩ, 100KΩ, and 1MΩ.
- **Reliable Performance:** Features 1/2W carbon film resistors with a ±5% tolerance, designed for stable electrical connections.
- **Durable Construction:** Equipped with thicker metal pins for improved connectivity and longevity.
- **RoHS Compliant:** Manufactured to meet environmental standards.



Image 2: The resistor kit opened, displaying the organized individual bags of resistors within the clear case.



Image 3: Close-up view of four individual bags of BOJACK carbon film resistors, each labeled with its resistance value, tolerance, and quantity.

3. SPECIFICATIONS

Parameter	Value
Product Type	Carbon Film Resistor Kit
Model Number	BJ-5%-1/2W
Quantity	1000 pieces
Number of Values	25 distinct values
Resistance Range	1 Ohm (Ω) to 1 Megaohm (M Ω)
Tolerance	\pm 5%
Power Rating	1/2 Watt (W)
Compliance	RoHS Compliant, Lead-Free

Parameter	Value
Dimensions (Package)	6.22 x 4.29 x 1.89 inches
Weight (Package)	11.46 ounces

4. SETUP AND USAGE

4.1 Identifying Resistor Values

Resistor values are typically identified using a color code system printed on their body. This kit primarily uses 4-band and 5-band color codes. The included packaging lid provides a helpful reference chart.



Image 4: The lid of the BOJACK resistor kit, featuring a detailed color code chart for 4-band and 5-band resistors, including multiplier and tolerance values.

4.1.1 4-Band Resistor Color Code:

1. **Band 1:** First significant digit.
2. **Band 2:** Second significant digit.

3. **Band 3:** Multiplier (power of 10).
4. **Band 4:** Tolerance (e.g., Gold for $\pm 5\%$, Silver for $\pm 10\%$).

4.1.2 5-Band Resistor Color Code (for higher precision):

1. **Band 1:** First significant digit.
2. **Band 2:** Second significant digit.
3. **Band 3:** Third significant digit.
4. **Band 4:** Multiplier (power of 10).
5. **Band 5:** Tolerance (e.g., Brown for $\pm 1\%$, Red for $\pm 2\%$).

Note: The resistors in this kit are 5% tolerance, typically indicated by a gold band.

4.2 General Usage Guidelines

- **Selection:** Always verify the required resistance value and power rating for your circuit before selecting a resistor.
- **Insertion:** Gently bend the leads of the resistor to fit into breadboards or PCB holes. Avoid excessive force to prevent damage to the component or board.
- **Soldering:** When soldering, apply heat quickly and efficiently to avoid overheating the resistor, which can alter its value or damage it. Use appropriate soldering techniques.
- **Power Rating:** Ensure the resistor's $1/2W$ power rating is sufficient for the current and voltage it will handle in your circuit. Exceeding the power rating can cause the resistor to overheat and fail.

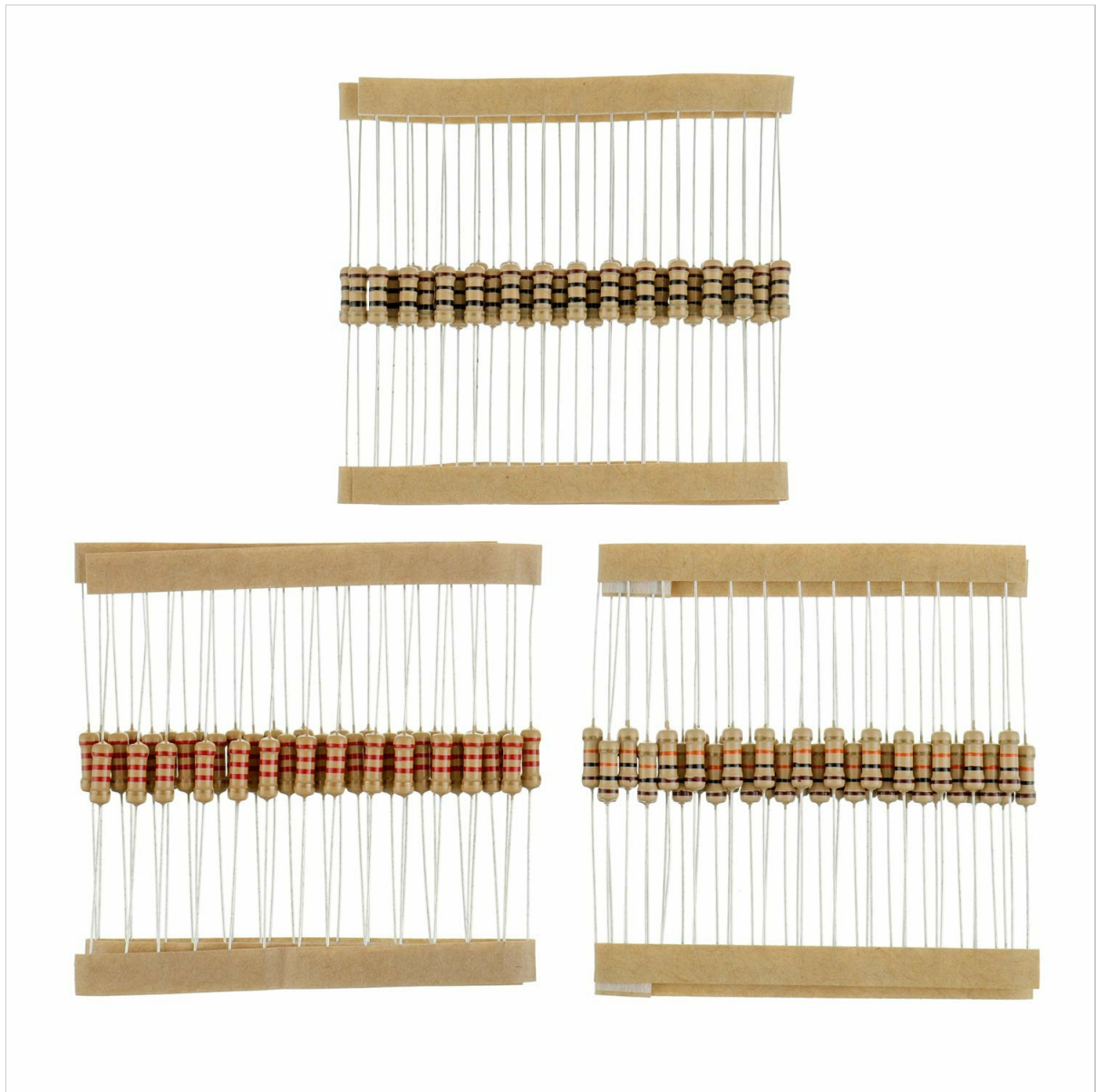


Image 5: Strips of BOJACK carbon film resistors, showing their physical appearance and color bands for value identification.

5. MAINTENANCE

Resistors are passive components and generally require minimal maintenance. However, proper storage is crucial for their longevity and usability:

- **Storage:** Keep resistors in their original packaging or a dedicated component organizer to prevent leads from bending or tangling. Store them in a cool, dry place away from direct sunlight and excessive humidity.
- **Cleanliness:** Ensure the leads remain clean and free from oxidation for reliable electrical connections.
- **Organization:** Maintain the organization of different values to easily locate the correct resistor for your projects.

6. TROUBLESHOOTING

While resistors are generally reliable, issues can arise. Here are common troubleshooting steps:

- **Incorrect Resistance Value:**

- **Check Color Code:** Re-verify the color bands against a resistor color code chart (refer to Section 4.1).
- **Measure with Multimeter:** Use a multimeter to measure the actual resistance. Ensure the resistor is not connected in a circuit during measurement.
- **Tolerance:** Remember that resistors have a tolerance ($\pm 5\%$ for this kit), so the measured value may slightly deviate from the nominal value.

- **Resistor Overheating/Burning:**

- **Power Rating Exceeded:** This is the most common cause. The resistor's 1/2W power rating might be insufficient for the current flowing through it. Calculate the power dissipation ($P = I^2R$ or $P = V^2/R$) in your circuit and use a resistor with a higher power rating if necessary.
- **Short Circuit:** Check for any short circuits in your circuit that might be causing excessive current flow through the resistor.

- **Open Circuit (Resistor Failure):**

- **Physical Damage:** Inspect the resistor for any visible damage, such as cracks or burnt marks.
- **Lead Connection:** Ensure the leads are properly soldered or inserted into the breadboard, making good electrical contact.
- **Measure with Multimeter:** A multimeter set to resistance mode should show an "OL" (Over Limit) or infinite resistance reading if the resistor is open.

7. SAFETY INFORMATION

Please observe the following safety precautions:

- **Choking Hazard:** This product contains small parts. Keep away from children under 3 years of age to prevent accidental ingestion.
- **Electrical Safety:** Always exercise caution when working with electrical circuits. Ensure power is disconnected before making or changing connections.
- **Proper Tools:** Use appropriate tools for handling and soldering electronic components.
- **Ventilation:** When soldering, ensure adequate ventilation to avoid inhaling fumes.

8. WARRANTY AND SUPPORT

For any questions, technical assistance, or concerns regarding your BOJACK Resistor Kit, please contact the manufacturer or your point of purchase. Please refer to your purchase documentation for specific warranty details.

Manufacturer: BOJACK

Website: [BOJACK Official Store on Amazon](#)

