

## Generic XY-0004

# Generic 20Pcs Carbon Motor Brushes

## PRODUCT INSTRUCTION MANUAL

### Introduction

This manual provides essential information for the proper use, maintenance, and replacement of the Generic 20Pcs Carbon Motor Brushes. These brushes are critical components for various electric motors and power tools, facilitating the transfer of electrical current to the rotating parts of the motor. The set includes 20 carbon brushes across 10 different sizes, designed for broad compatibility and efficient performance.

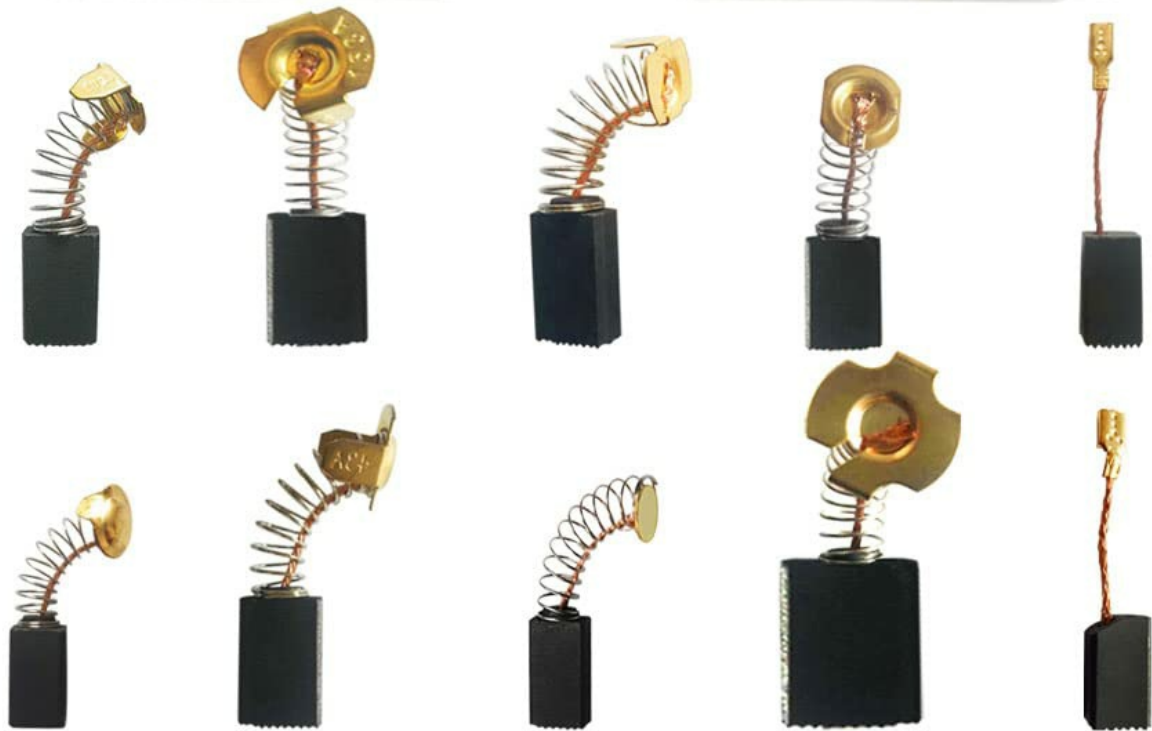
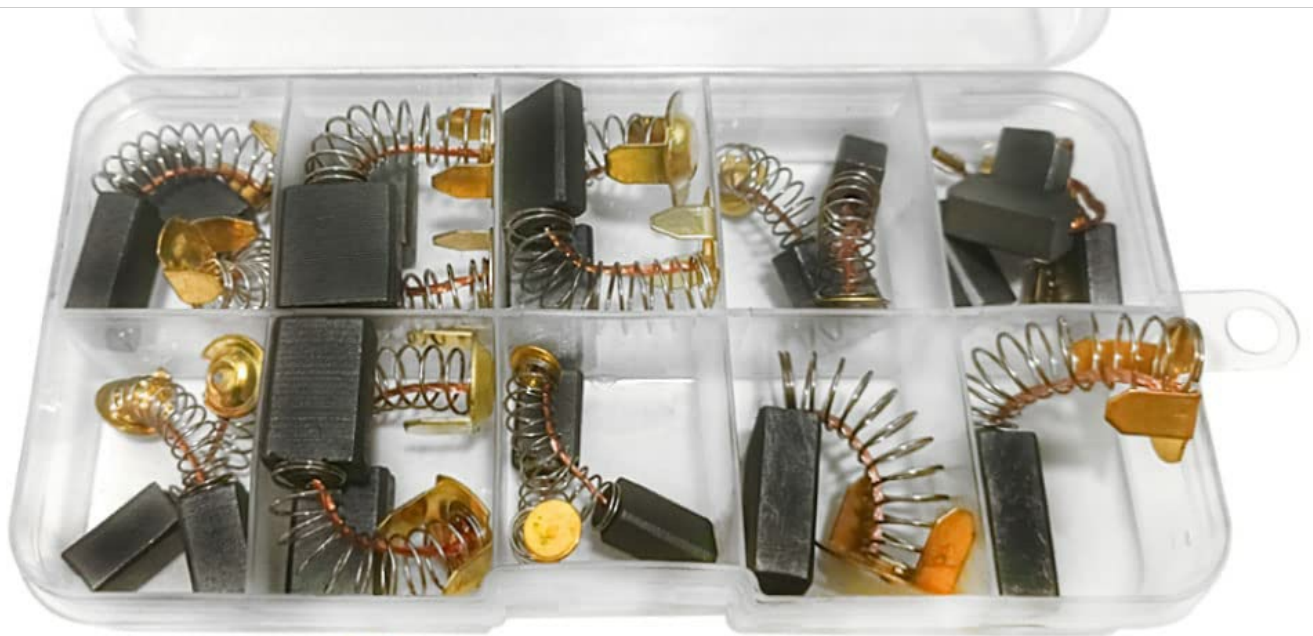


Image: An organized clear storage box containing 20 carbon motor brushes of various sizes, each with its spring and copper connector.

## Product Overview and Contents

The Generic Carbon Motor Brush set provides a comprehensive collection of replacement brushes for a wide range of electric tools and motors. Each set contains 20 brushes, with two brushes for each of the 10 distinct sizes. These brushes are crafted from a durable carbon and copper alloy, featuring a stainless steel spring design for extended life and tightly wound copper wire to prevent dislodgement.

- **Quantity:** 20 pieces (2 of each size)
- **Material:** Carbon and Copper Alloy
- **Design Features:** Stainless steel spring, tight copper wire
- **Storage:** Organized in a 10-compartment storage box



Image: A visual representation of the 20-piece set, highlighting that there are 10 distinct types of carbon brushes, with two of each type included.

## Setup and Identification

Before replacing any carbon brushes, ensure the power tool or electric motor is completely disconnected from its power source to prevent electrical shock or injury. Carbon brushes are wear items and must be replaced with the correct size and type to ensure proper motor function and longevity.

1. **Safety First:** Always unplug the tool or motor from the power outlet.
2. **Access Brushes:** Locate and open the brush caps or access panels on your motor.
3. **Remove Old Brushes:** Carefully remove the worn carbon brushes. Note their orientation.
4. **Identify Correct Size:** Compare the old brush with the various sizes provided in this kit. Use the detailed dimensions provided in the specifications section to find the exact match.



Image: A detailed diagram illustrating the 10 different carbon brush types included in the set, each labeled with its specific dimensions (length, width, height) in inches for accurate identification.

## Operating Principle (Function of Carbon Brushes)

Carbon brushes are essential components in many electric motors, particularly universal motors and DC motors. Their primary function is to conduct electricity between the stationary wires (stator) and the rotating wires (rotor/armature) of the motor. As the motor operates, the carbon brushes slide against a commutator or slip rings, transferring current to power the rotation. Over time, due to friction and electrical arcing, carbon brushes wear down and require replacement to maintain motor performance.





Image: A magnified view of a single carbon brush, highlighting its key components: the solid carbon block, the coiled spring that provides tension, and the copper wire connecting it to the motor's electrical system.

## Maintenance and Replacement

Regular inspection of carbon brushes is crucial for the longevity and efficiency of your power tools and motors. Worn brushes can lead to reduced performance, excessive sparking, or complete motor failure.

1. **Inspection Frequency:** Inspect brushes periodically, especially if the tool shows signs of reduced power or unusual noise.
2. **Signs of Wear:** Look for brushes that are significantly shortened, chipped, or have uneven wear patterns. Excessive sparking from the motor's commutator is a strong indicator of worn brushes.
3. **Replacement Procedure:**
  - Ensure power is disconnected.
  - Remove the old, worn brush.
  - Insert the new, correctly sized carbon brush, ensuring the spring provides proper tension and the brush slides

freely in its holder.

- Reattach the brush cap or access panel securely.
- Always replace both brushes in a motor, even if only one appears worn, to ensure balanced performance and prevent premature wear of the new brush.

4. **Storage:** Store unused carbon brushes in their original storage box in a dry, cool place to protect them from damage and environmental factors.



Image: A collection of various carbon brush types, displayed in pairs, showcasing the different designs of springs and carbon blocks available in the set.

## Troubleshooting Common Issues

Many common motor issues can be attributed to worn or faulty carbon brushes. Here are some symptoms and their potential solutions:

Symptom	Possible Cause	Solution
Motor not starting or intermittent operation	Severely worn or stuck carbon brushes.	Inspect and replace carbon brushes. Ensure they move freely in their holders.
Excessive sparking at the commutator	Worn brushes, incorrect brush size, or dirty commutator.	Replace brushes. Clean the commutator if necessary.
Reduced motor power or speed	Partially worn brushes or poor contact.	Replace brushes.
Burning smell or unusual noise	Overheating due to poor brush contact or motor overload.	Replace brushes. If the issue persists, consult a professional.

## Specifications

This set includes 20 carbon motor brushes, with 2 pieces for each of the 10 specified models. Below are the detailed dimensions for each brush type:

Model #	Dimensions (Length x Width x Height)
103#	0.26 x 0.39 x 0.67 in
153#	0.26 x 0.53 x 0.70 in
303#	0.20 x 0.43 x 0.71 in
411#	0.26 x 0.35 x 0.55 in
21#	0.26 x 0.30 x 0.51 in
43#	0.28 x 0.43 x 0.70 in
50#	0.20 x 0.31 x 0.51 in
6-100#	0.20 x 0.31 x 0.60 in
100#	0.24 x 0.31 x 0.55 in
44#	0.278 x 0.67 x 0.75 in

- **Material:** Carbon + Copper Alloy
- **Color:** Grey + Brass
- **Package Dimensions:** 6.85 x 5.35 x 1.26 inches
- **Item Weight:** 0.07 Kilograms (approx. 2.4 ounces)
- **Model Number:** XY-0004
- **Manufacturer:** Generic



Image: The storage box with compartments, clearly indicating where each specific model number of carbon brush is located for easy identification and organization.







## Warranty and Support

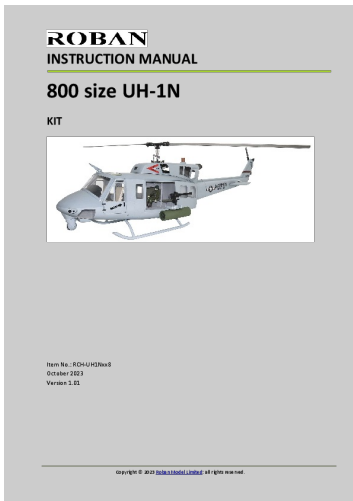
For specific warranty information regarding this product, please refer to the documentation provided by the manufacturer or contact the seller directly. As a general guideline, carbon brushes are wear-and-tear items and their lifespan depends heavily on the application and usage conditions.

If you encounter any issues or have questions about the product, it is recommended to contact the seller or manufacturer for assistance. Please have your purchase details and product model number (XY-0004) ready when seeking support. For further assistance, you may visit the Generic Store on Amazon: [Generic Store](#)



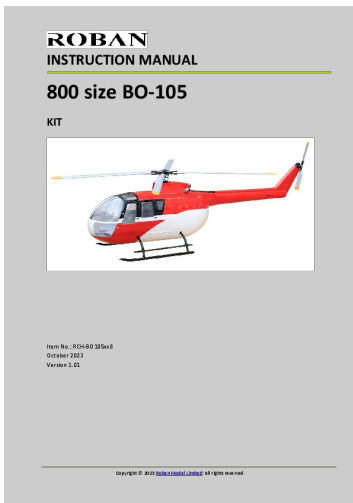
Related Documents - XY-0004

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	<p><a href="#">Towing Mirror Installation Guide: CETM-0004, CETM-0011</a></p> <p>Comprehensive installation instructions for replacing vehicle mirrors with model numbers CETM-0004 and CETM-0011. Includes step-by-step removal of factory mirrors and installation of new towing mirrors.</p>
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BLUEWHALE 1: Comprehensive Equipment and Component Specification

Detailed technical specification listing all equipment, systems, and components for the vessel BLUEWHALE 1, published by Star Information Systems AS. lang:i-klingson **score:8** filesize: 630.13 K page\_count: 299 document date: 0000-00-00

