Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

Makita CB304

Makita CB304 Carbon Brush Set Instruction Manual

Model: CB304

Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Makita CB304 Carbon Brush Set. Carbon brushes are critical components in many electric power tools, facilitating the transfer of electrical current to the motor's commutator. Proper installation and timely replacement ensure optimal tool performance and longevity.

Setup: Installation Guide

Safety Precautions

- Always disconnect the power tool from the power source before attempting any installation, maintenance, or repair.
- Wear appropriate personal protective equipment (PPE), such as safety glasses.
- Ensure the work area is clean and well-lit.
- If unsure about any step, consult a qualified technician.

Tools Required

- Screwdriver (appropriate type for your tool's brush caps)
- Clean cloth

Installation Steps

1. **Disconnect Power:** Unplug the power tool from the electrical outlet or remove the battery pack.
2. **Locate Brush Caps:** Identify the brush caps on the motor housing. These are typically plastic or metal caps that secure the carbon brushes in place.
3. **Remove Old Brushes:** Unscrew the brush caps. Carefully pull out the old carbon brushes and their springs. Note their orientation for reference.
4. **Clean Commutator (Optional but Recommended):** If accessible, gently wipe the commutator (the copper segments inside the motor) with a clean, dry cloth to remove any carbon dust buildup. Do not use abrasive materials.
5. **Insert New Brushes:** Insert the new Makita CB304 carbon brushes into the brush holders. Ensure they slide in smoothly and the spring applies pressure to the brush. The carbon brush should fit snugly but not be forced.
6. **Secure Brush Caps:** Screw the brush caps back into place, ensuring they are tightened securely but not

overtightened.

7. **Test Tool:** Reconnect the power tool to the power source. Briefly run the tool at a low speed to allow the new brushes to seat properly. Some minor sparking is normal during the initial run-in period.



Figure 1: A pair of Makita carbon brushes with their springs, shown alongside a red and white Makita box. The box is labeled 'Makita CB-303', indicating a similar product model, while the product itself is the CB304 set.

Operation Guidelines

Initial Run-in

After installing new carbon brushes, it is recommended to run the tool without load for a few minutes. This allows the brushes to properly seat and conform to the shape of the commutator, reducing initial sparking and ensuring efficient current transfer.

Normal Operation

Once the brushes are seated, the tool can be used normally. The carbon brushes are designed to wear down over time as they make contact with the spinning commutator. This wear is normal and indicates proper function.

Maintenance and Care

Regular Inspection

Periodically inspect the carbon brushes, especially if the tool shows signs of reduced performance. The frequency of inspection depends on tool usage. For heavy use, inspect every few months; for light use, annually.

When to Replace

Replace carbon brushes when they are worn down to approximately 1/4 inch (6mm) or less, or if they appear chipped, cracked, or no longer make consistent contact with the commutator. Worn brushes can lead to reduced power, excessive sparking, and potential damage to the motor.

Troubleshooting Common Issues

Reduced Power or Intermittent Operation

- **Cause:** Worn or improperly seated carbon brushes.
- **Solution:** Inspect brushes for wear. Ensure they are properly installed and making full contact with the commutator.

Excessive Sparking

- **Cause:** New brushes not yet seated, worn brushes, or dirty commutator.

- **Solution:** Allow new brushes to run-in. Replace worn brushes. Clean commutator if necessary.

Unusual Noise

- **Cause:** Brushes not seating correctly or foreign debris in the motor.
- **Solution:** Re-check brush installation. If noise persists, professional inspection may be required.

Product Specifications

Manufacturer	Makita
Part Number	CB304
Item Weight	4 ounces
Product Dimensions	7 x 5 x 3 inches
Item Model Number	CB304
Item Package Quantity	1
ASIN	B00J2MZM0U
Date First Available	October 16, 2014

Warranty and Support

For information regarding warranty, technical support, or service, please contact Makita customer service or visit the official Makita website. Keep your purchase receipt as proof of purchase.

Makita Official Website: www.makitatools.com

© 2024 Makita Corporation. All rights reserved.
This manual is subject to change without notice.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B00J2MZM0U

More documents and user manuals: **https://manuals.plus/**