

Buildalot ca-07-45740

Buildalot Specialty Ca-07-45740 Carbon Brushes for Black & Decker KR500RE Drill User Manual

INTRODUCTION

This manual provides essential instructions for the installation, operation, and maintenance of your Buildalot Specialty Ca-07-45740 carbon brushes. These brushes are designed as direct replacements for original parts 832998-04 and 832998-05 in Black & Decker KR500RE drills. Proper installation and care will ensure optimal performance and longevity of your power tool.

SETUP AND INSTALLATION

Safety Precautions

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

Installation Steps

1. **Locate the Brush Holders:** Identify the carbon brush access points on your Black & Decker KR500RE drill. These are typically small caps or covers on the side of the motor housing.
2. **Remove Old Brushes:** Carefully unscrew or unclip the brush caps. Gently pull out the old carbon brushes, noting their orientation. Disconnect the wire lead from the drill's internal connection point.
3. **Inspect Commutator:** While the brushes are removed, inspect the commutator (the copper segments on the motor's armature). It should be clean and smooth. If it's excessively worn or dirty, professional servicing may be required.
4. **Install New Brushes:** Connect the wire lead of the new Buildalot carbon brush to the corresponding internal connection point in the drill. Carefully insert the new carbon brush into its holder, ensuring it slides in smoothly and makes proper contact with the commutator. The spring should provide gentle pressure.
5. **Secure Brush Caps:** Replace and tighten the brush caps securely. Do not overtighten.

6. **Test the Drill:** Reconnect the drill to the power supply. Briefly run the drill at a low speed to allow the new brushes to seat properly. Initial sparking is normal but should reduce quickly. If excessive sparking or unusual noises persist, disconnect power and re-check installation.



Image: Buildalot Specialty Ca-07-45740 Carbon Brushes. These brushes are designed for optimal contact with the motor's commutator.

OPERATING INSTRUCTIONS

After successful installation of the carbon brushes, your Black & Decker KR500RE drill should operate as intended. Allow the drill to run for a short period (approximately 1-2 minutes) without load to help the new brushes conform to the shape of the commutator. This 'seating' process is crucial for efficient power transfer and brush longevity. During initial use, minor sparking is normal. If sparking is excessive or the drill performs poorly, refer to the troubleshooting section.

MAINTENANCE

Carbon brushes are wear-and-tear components and require periodic inspection and replacement. The lifespan of carbon brushes depends on the intensity and frequency of drill usage.

- **Regular Inspection:** Periodically check the carbon brushes for wear. If they are worn down to approximately one-quarter of their original length, or if the drill exhibits reduced power, excessive sparking, or intermittent operation, it is time for replacement.
- **Keep Clean:** Ensure the drill's ventilation slots are clear of dust and debris to prevent overheating, which can accelerate brush wear.
- **Replace in Pairs:** Always replace both carbon brushes at the same time, even if one appears less worn. This ensures balanced performance and prevents premature wear on the new brush.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Drill not starting or intermittent operation	Worn-out carbon brushes, poor brush contact, loose wiring.	Check and replace carbon brushes. Ensure brushes are properly seated and wires are securely connected.
Excessive sparking at the motor	Worn brushes, dirty/damaged commutator, improper brush seating.	Replace brushes. Clean commutator if dirty. Allow new brushes to seat properly. If sparking persists, professional inspection of the commutator may be needed.
Reduced power or speed	Worn brushes, motor overload.	Replace carbon brushes. Avoid overloading the drill.
Unusual noise from motor	Worn brushes, damaged bearings, foreign object.	Inspect brushes for wear. If noise persists after brush replacement, seek professional service.

SPECIFICATIONS

- **Model:** Buildalot Specialty Ca-07-45740
- **Compatibility:** Black & Decker KR500RE Drill
- **Replaces OEM Parts:** 832998-04, 832998-05
- **Dimensions:** 6 x 7 x 13 mm (approximate, as per product description)
- **Quantity:** 2 carbon brushes per package
- **Manufacturer:** Buildalot

WARRANTY INFORMATION

This product is typically covered by a standard return policy. For specific details regarding returns or replacements, please refer to the retailer's policy at the time of purchase. Generally, a 30-day refund/replacement policy applies for manufacturing defects.

CUSTOMER SUPPORT

For further assistance or inquiries regarding your Buildalot carbon brushes, please contact the manufacturer or your point of purchase. Ensure you have your product model number (Ca-07-45740) and purchase details available when contacting support.

You can often find support contact information on the [Buildalot brand page](#) or through the retailer where the product was purchased.