Makita DHS680Z

Makita DHS680Z Brushless 18 V Li-ion Circular Saw Instruction Manual

Model: DHS680Z

1. Introduction

Thank you for choosing the Makita DHS680Z Brushless 18 V Li-ion Circular Saw. This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your new tool. Please read this manual thoroughly before first use and keep it for future reference.



Figure 1.1: Makita DHS680Z Brushless 18 V Li-ion Circular Saw.

2. Safety Information

Always observe basic safety precautions to reduce the risk of fire, electric shock, and personal injury. Keep this manual for future reference.

General Power Tool Safety Warnings

- **Work Area Safety:** Keep work area clean and well lit. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.
- **Electrical Safety:** Avoid body contact with earthed or grounded surfaces. Do not expose power tools to rain or wet conditions.
- **Personal Safety:** Always wear eye protection, hearing protection, and appropriate respiratory protection. Dress properly. Do not wear loose clothing or jewelry. Keep hair, clothing and gloves away from moving parts.
- **Tool Use and Care:** Do not force the power tool. Use the correct power tool for your application. Disconnect the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.

Circular Saw Specific Safety Warnings

- **Cutting Procedure:** Hold the power tool by insulated gripping surfaces when performing an operation where the cutting accessory may contact hidden wiring or its own cord.
- **Kickback:** Kickback is the result of misuse or incorrect operating procedures. Maintain a firm grip with both hands

on the saw and position your body and arm to allow you to resist kickback forces.

- **Blade Guard:** Always ensure the lower guard is properly closed before each use. Never jam the lower guard open.

3. Package Contents

The Makita DHS680Z Brushless 18 V Li-ion Circular Saw package typically includes the following items:

- Makita DHS680Z Circular Saw (Bare Unit)
- 6-1/2" C.T. Saw Blade 24T (A-85092)
- Hex Wrench 5 (783203-8)

Note: Batteries and Charger are Sold Separately.

4. Key Features

The Makita DHS680Z Circular Saw is designed with advanced features for optimal performance and user safety:

- **Automatic Torque Drive Technology (ADT):** This feature automatically adjusts the torque and speed according to the load condition, ensuring efficient cutting.
- **Ultra-lightweight Design:** Features a magnesium baseplate, blade casing, and safety cover for reduced weight and improved handling.
- **Electric Brake:** Stops the blade within 3-5 seconds after the trigger is released, enhancing operator safety.
- **LED Job Light:** Illuminates the cut line for improved visibility and precise cutting performance.
- **Blower Function:** Clears sawdust from the cut line, maintaining visibility during operation.
- **Two-Stage Safety Switch:** Prevents accidental startup.
- **Soft Start:** Ensures smooth start-ups and increased gear life.



Figure 4.1: LED job light illuminating the cut line.



Figure 4.2: Battery charge indicator for convenient monitoring.

5. Setup

5.1 Battery Installation

1. Ensure the tool is switched off and the trigger is locked.
2. Align the battery pack with the battery housing on the tool.
3. Slide the battery pack into the housing until it clicks into place. Ensure it is securely latched.
4. To remove, press the release button on the battery pack and slide it out.



Figure 5.1: Makita DHS680Z with an 18V Li-ion battery installed.

5.2 Blade Installation/Removal

1. Disconnect the battery pack from the tool.
2. Press the shaft lock button to prevent the blade from rotating.
3. Using the provided hex wrench, loosen the hex bolt that secures the blade.
4. Lift the lower blade guard and carefully remove the old blade.
5. Clean the blade flanges. Install the new blade, ensuring the teeth are pointing in the direction of rotation indicated on the tool.
6. Tighten the hex bolt securely with the hex wrench while holding the shaft lock button.

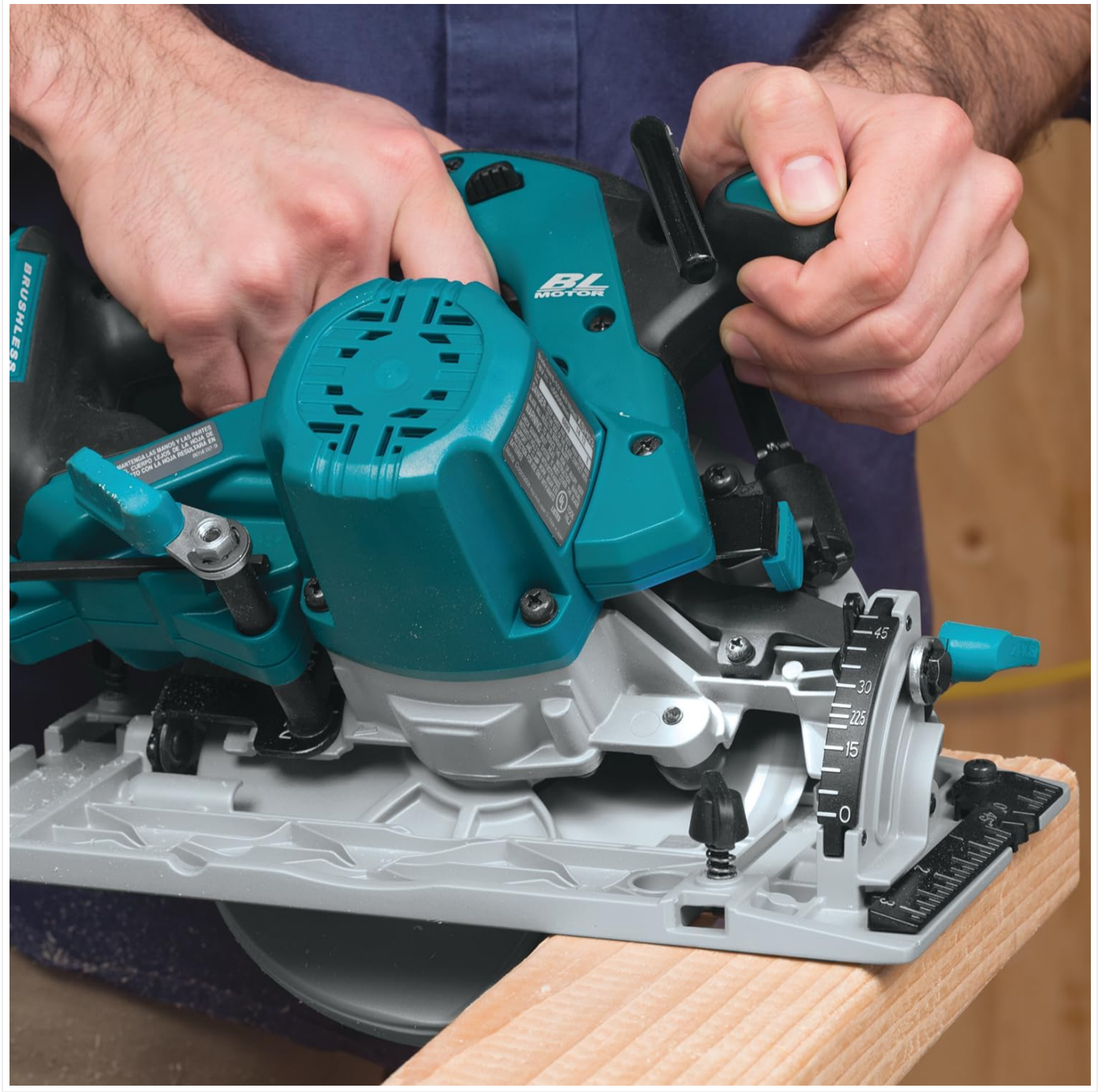


Figure 5.2: Using the hex wrench to change the saw blade.

6. Operating Instructions

6.1 Adjusting Cutting Depth

To adjust the cutting depth, loosen the depth adjustment lever. Move the base plate up or down to the desired depth, aligning the indicator with the scale. Tighten the lever firmly.



Figure 6.1: Adjusting the cutting depth using the lever and scale.

6.2 Adjusting Bevel Angle

For angled cuts, loosen the bevel adjustment knob. Tilt the saw to the desired angle (up to 45 degrees) as indicated on the bevel scale. Tighten the knob securely.

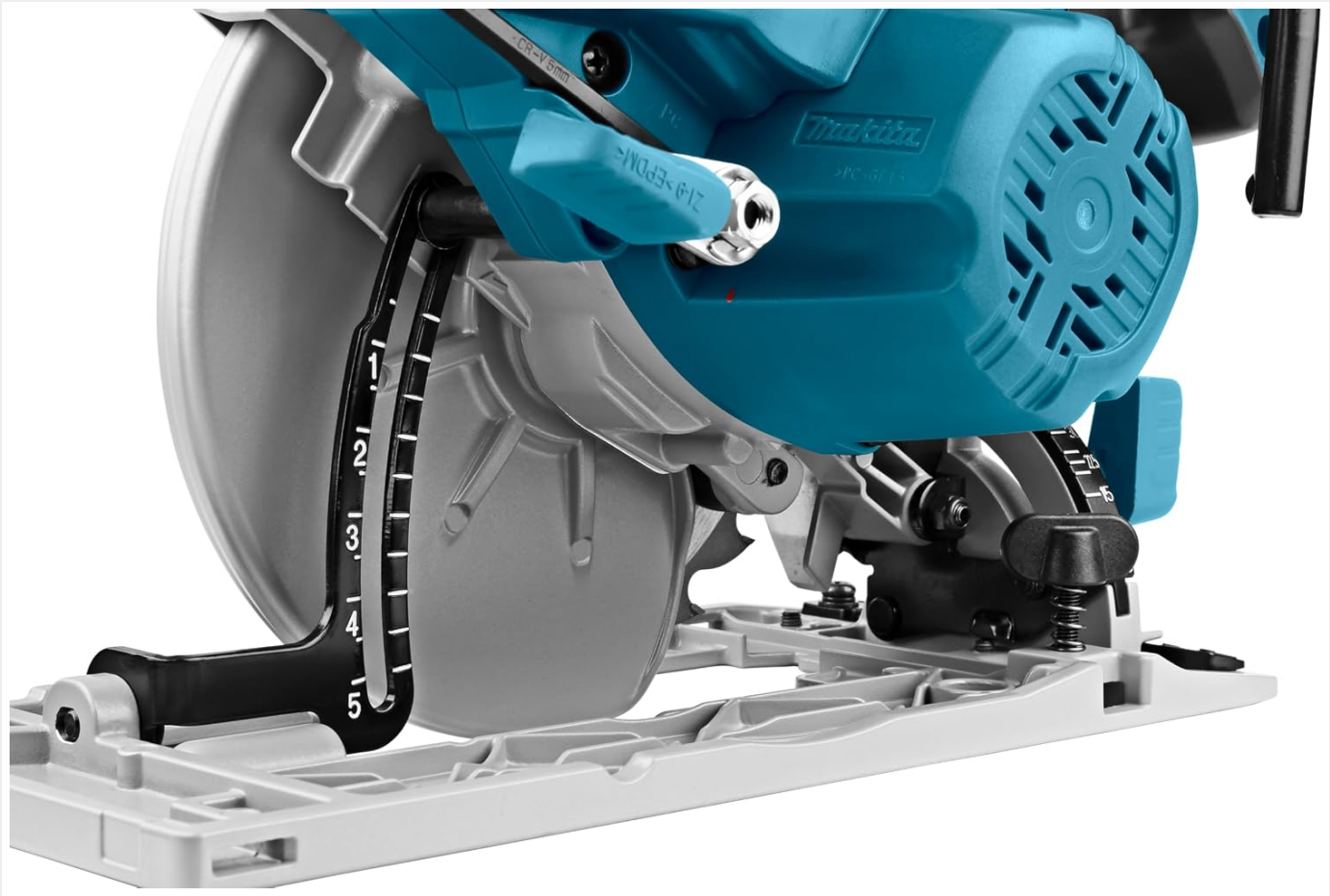


Figure 6.2: Setting the bevel angle for angled cuts.

6.3 Making a Cut

1. Ensure the workpiece is securely clamped.
2. Hold the saw firmly with both hands.
3. Depress the safety switch and then the trigger to start the saw. Allow the blade to reach full speed before beginning the cut.
4. Guide the saw along the cutting line, applying steady, even pressure. Do not force the saw.
5. Once the cut is complete, release the trigger. The electric brake will stop the blade quickly.



Figure 6.3: Operating the circular saw to cut a wooden board.

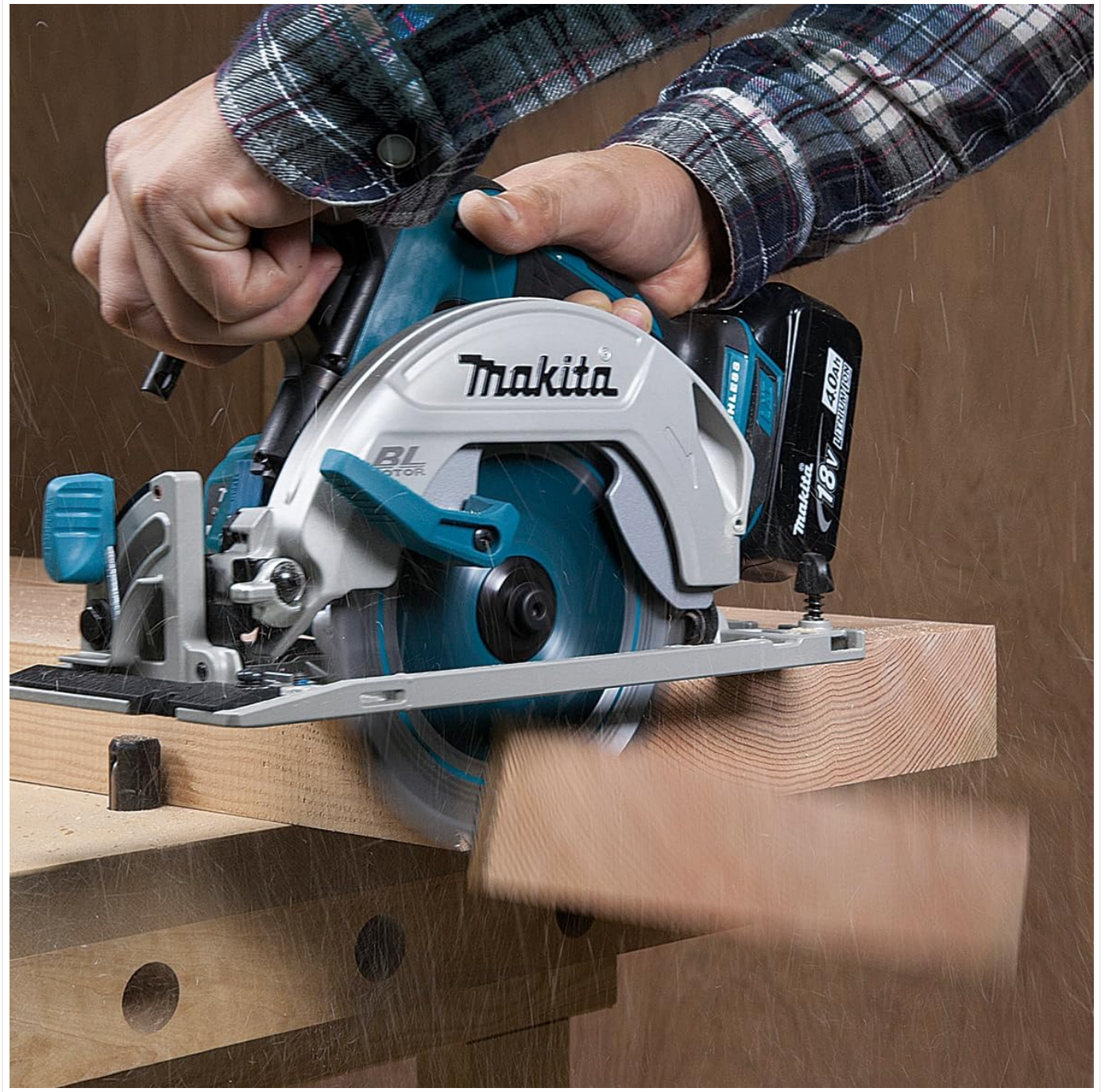


Figure 6.4: Using the saw with an optional guide rail for precise, straight cuts.

7. Maintenance

Regular maintenance ensures the longevity and optimal performance of your Makita DHS680Z Circular Saw.

7.1 Cleaning

- Always disconnect the battery before cleaning.
- Use a soft cloth to wipe down the tool. Do not use harsh chemicals or abrasive cleaners.
- Regularly clear sawdust and debris from the blade guard, motor vents, and base plate to ensure smooth operation and prevent overheating.

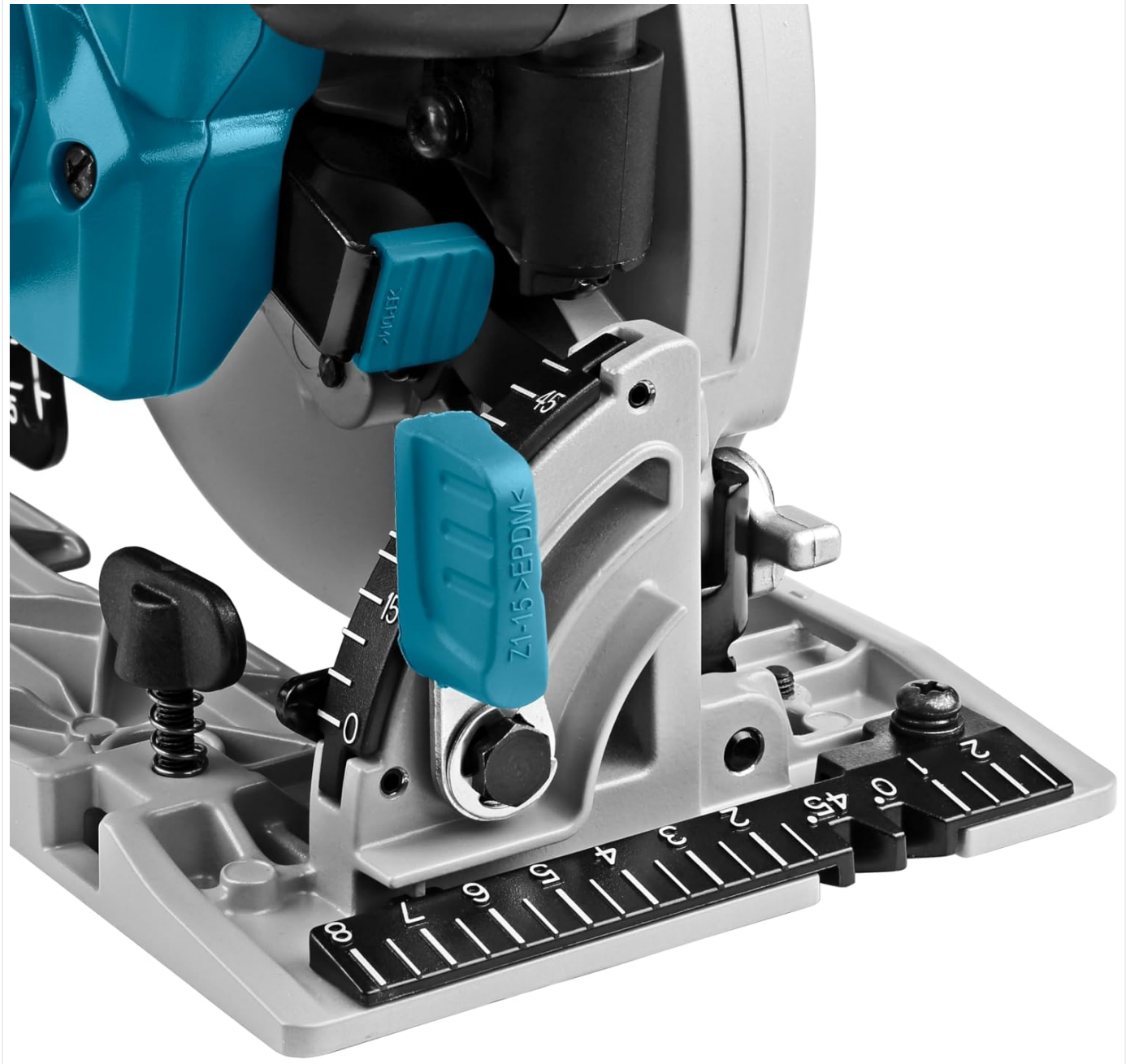


Figure 7.1: Dust port for connecting to a vacuum system to manage sawdust.

7.2 Blade Care

- Inspect the blade regularly for sharpness and damage. A dull or damaged blade can cause kickback and poor cuts.
- Replace worn or damaged blades immediately.
- Keep blades clean and free of resin buildup.

8. Troubleshooting

This section addresses common issues you might encounter with your Makita DHS680Z Circular Saw.

Problem	Possible Cause	Solution
Saw does not start	Battery not charged or improperly installed; Safety switch not engaged; Tool malfunction.	Check battery charge and re-install; Ensure safety switch is fully depressed before trigger; Contact service center if problem persists.

Problem	Possible Cause	Solution
Poor cut quality / Blade binding	Dull or damaged blade; Incorrect cutting depth; Workpiece not secured; Improper feed rate.	Replace blade; Adjust cutting depth; Secure workpiece firmly; Adjust feed rate.
Excessive vibration	Loose blade; Damaged blade; Motor issue.	Check blade tightness; Replace blade; Contact service center.
Sawdust accumulation on cut line	Blower function obstructed; No dust extraction.	Clear any obstructions from the blower port; Consider attaching a dust extractor.

9. Specifications

Technical specifications for the Makita DHS680Z Brushless 18 V Li-ion Circular Saw:

Attribute	Value
Model Number	DHS680Z
Voltage	18 Volts
Blade Diameter	6.5 Inches (165 mm)
No Load Speed	5000 RPM
Max Cutting Depth (90°)	57 mm
Max Cutting Depth (45°)	41 mm
Item Weight	3.3 kg
Power Source	Battery Powered
Handle Material	Plastic
Special Features	Lightweight

10. Warranty and Support

10.1 Warranty Information

The Makita DHS680Z Brushless 18 V Li-ion Circular Saw comes with a**3-year Manufacturer Limited Warranty**. Please retain your proof of purchase for warranty claims. For full warranty terms and conditions, refer to the official Makita website or contact Makita customer service.

10.2 Customer Support

For technical assistance, spare parts, or service inquiries, please visit the official Makita website or contact their customer support. You can also find more information and products at the Makita Store on Amazon.
Makita offers a comprehensive national network of 9 Makita Factory Service Centres and a convenient alternative to in-

person trips to a Makita Factory Service Centre through their Repair by Mail / Direct Repair service.

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