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> Mellif Mini Circular Saw, Cordless Tile Saw Compatible with DeWalt 20V MAX Battery, 3200RPM, 3 Blades 3-1/2", Max Cutting Depth 1-2/11", Laser Guide for Wood, Plastic, Soft Metal (Tool Only)

## WITLIGHT ZS-881829L

# Mellif Mini Circular Saw Instruction Manual

Model: ZS-881829L

Brand: WITLIGHT

## 1. INTRODUCTION

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This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your Mellif Mini Circular Saw. Please read this manual thoroughly before first use and keep it for future reference.

The Mellif Mini Circular Saw is a versatile cordless tool designed for precise cutting of various materials, including wood, plastic, soft metal, and ceramic tile. It features a powerful brushless motor, laser guide, and adjustable cutting depth for enhanced accuracy and efficiency.



Figure 1.1: Mellif Mini Circular Saw (Battery not included)

This image displays the Mellif Mini Circular Saw, highlighting its compact design and compatibility with DeWalt 20V MAX batteries. The battery is shown attached to the tool, emphasizing that it is sold separately.

## 2. SAFETY INFORMATION

**WARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.**

### General Power Tool Safety Warnings:

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.
- Always wear appropriate personal protective equipment, including safety glasses, hearing protection, and gloves.
- Ensure the tool is switched off before making any adjustments, changing accessories, or storing power tools.
- Do not force the power tool. Use the correct power tool for your application.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation.

### Circular Saw Specific Safety Warnings:

- Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing. If both hands are holding the saw, they cannot be cut by the blade.
- Do not reach underneath the workpiece. The guard cannot protect you from the blade below the workpiece.

- Adjust the cutting depth to the thickness of the workpiece. Less than a full tooth of the blade teeth should be visible below the workpiece.
- Never hold the workpiece in your hands or across your leg while cutting. Secure the workpiece to a stable platform.
- Always use blades of the correct size and type for the material being cut.
- Ensure the blade guard is functioning correctly before each use.

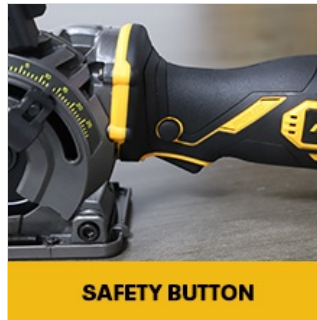


Figure 2.1: Safety Button

This image shows a close-up of the safety button on the Mellif Mini Circular Saw, which must be pressed before activating the trigger to prevent accidental starts.

### 3. PRODUCT COMPONENTS

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Familiarize yourself with the parts of your Mellif Mini Circular Saw:

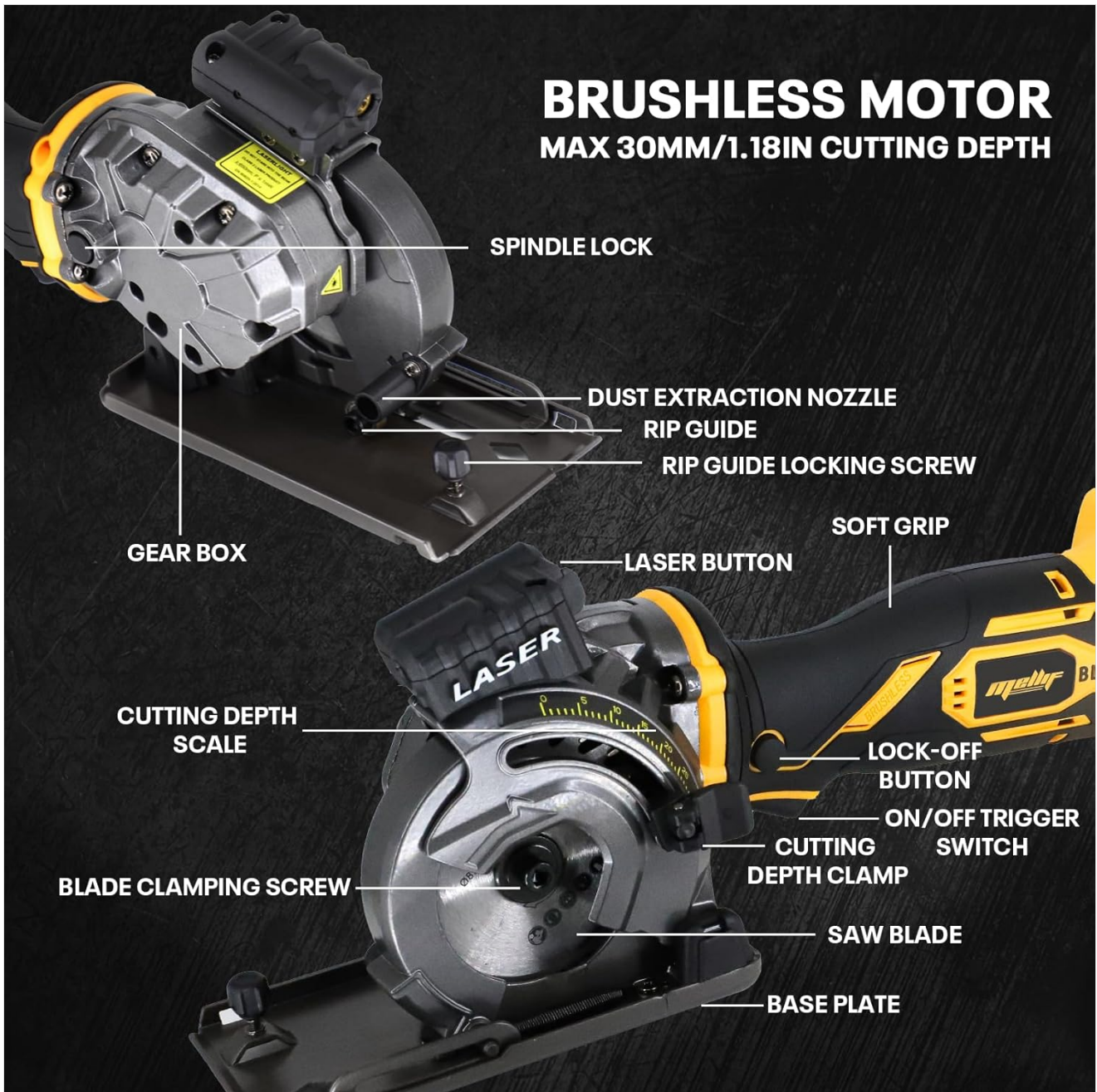


Figure 3.1: Key Components

This diagram labels the main components of the circular saw, including the spindle lock, dust extraction nozzle, rip guide, laser button, cutting depth scale, blade clamping screw, base plate, lock-off button, on/off trigger switch, and saw blade.

**Included Accessories:**

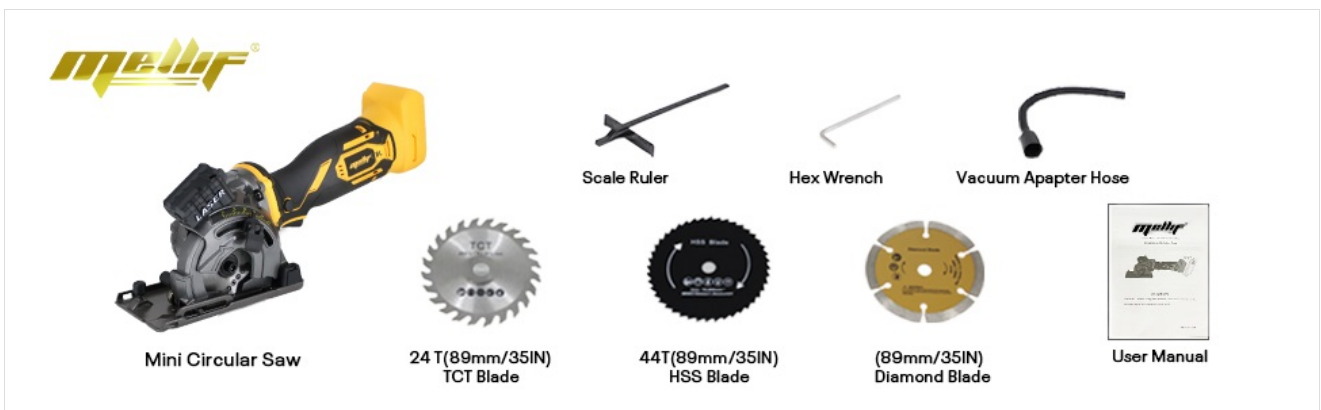


Figure 3.2: Package Contents

This image shows the Mellif Mini Circular Saw along with its standard accessories: a scale ruler, hex wrench, vacuum adapter hose, 24T TCT blade, 44T HSS blade, and diamond blade, plus the user manual.

- **24T (89mm) TCT Blade:** For cutting wood and other soft materials.
- **44T (89mm) HSS Blade:** For cutting plastic and thin metal.
- **(89mm) Diamond Blade:** For cutting tile, drywall, and backerboard.
- **Scale Ruler:** For precise straight cuts.
- **Hex Wrench:** For blade changes.
- **Vacuum Adapter Hose:** For dust extraction.

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Video 3.1: Unboxing of Mellif Mini Saw. This video demonstrates the unboxing process, showing all components and accessories included with the Mellif Mini Circular Saw.

## 4. SETUP

### 4.1 Battery Installation

The Mellif Mini Circular Saw is compatible with DeWalt 20V MAX batteries (not included). Ensure the battery is fully charged before use.

1. Align the battery with the tool's battery port.
2. Slide the battery into the tool until it clicks securely into place.
3. To remove, press the battery release button and slide the battery out.

### 4.2 Blade Installation and Replacement

Always ensure the tool is disconnected from the battery before changing blades.

## STEPS FOR REPLACING BLADE



**1**  
Take down the protective shell



**2**  
Press the Spindle Lock Button



**3**  
Use the supplied wrench to loose the blade inside, turning the wrench clockwise, take out the hex head screw and gasket



**4**  
Press the Lock-Off Button, then press the Base Plate and take off the blade inside, replace the replacement one



**5**  
Place the hex head screw and gasket, tighten the blade by turning the wrench counterclockwise

Figure 4.1: Blade Replacement Steps

This visual guide illustrates the five steps for safely replacing the saw blade: removing the protective shell, pressing the spindle lock button, loosening the blade with the supplied wrench, removing the old blade, and installing the new blade by tightening the hex head screw and gasket.

1. Take down the protective shell.
2. Press the Spindle Lock Button to secure the blade.
3. Use the supplied hex wrench to loosen the blade inside, turning the wrench clockwise. Take out the hex head screw and gasket.
4. Press the Lock-Off Button, then press the Base Plate and take off the blade.
5. Place the new blade, hex head screw, and gasket. Tighten the blade by turning the wrench counterclockwise.

### 4.3 Adjusting Cutting Depth

The cutting depth can be adjusted from 0-30mm (1.18 inches) to suit your material thickness.

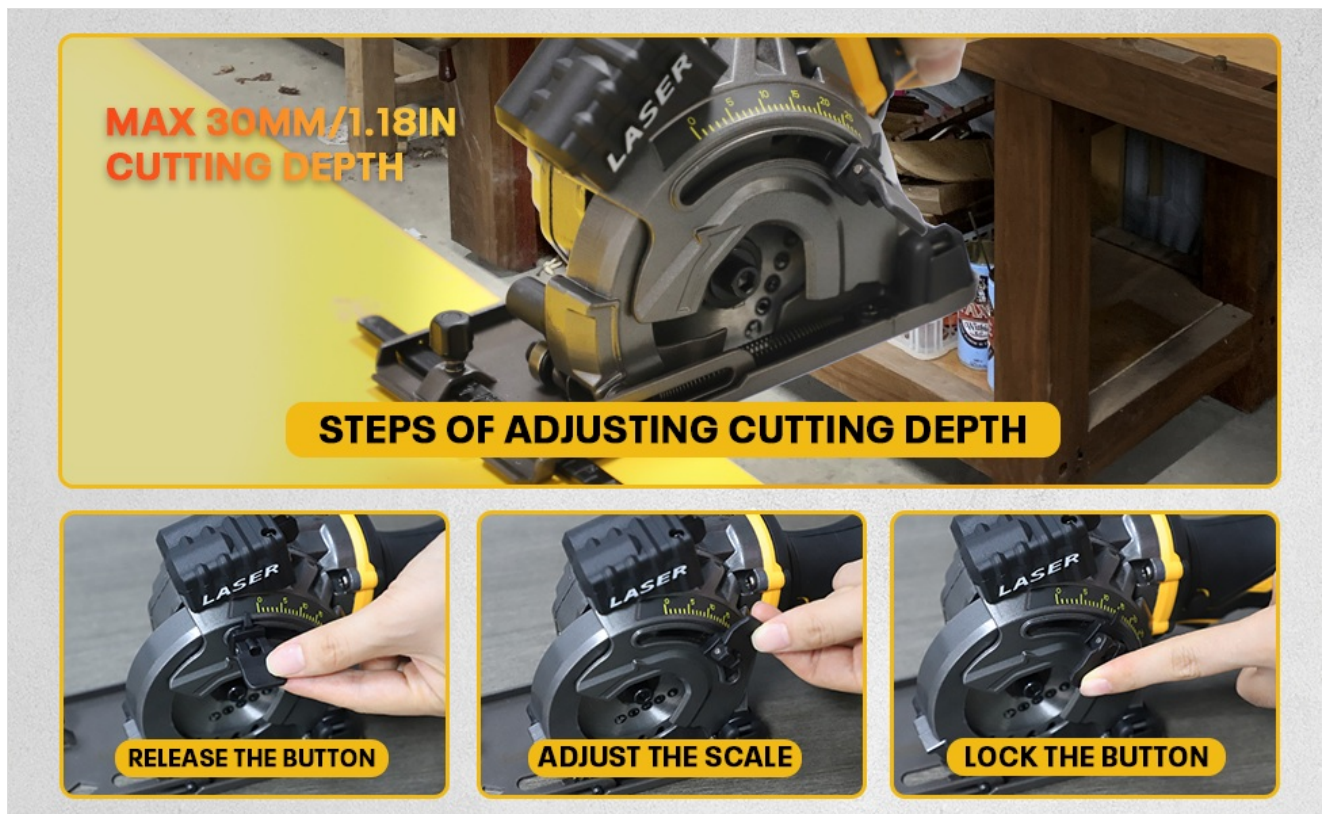


Figure 4.2: Adjusting Cutting Depth

This image sequence demonstrates how to adjust the cutting depth: release the button, adjust the scale to the desired depth, and then lock the button to secure the setting.

1. Release the depth adjustment button.
2. Adjust the scale to your desired cutting depth.
3. Lock the button to secure the setting.

### 4.4 Attaching Dust Extraction Nozzle

For a cleaner work environment, attach the vacuum adapter hose to the dust port.



Figure 4.3: Dust Extraction Nozzle

A close-up view of the dust extraction nozzle, designed to connect to a vacuum or dust collection system for a cleaner workspace.

Connect the vacuum adapter hose to the dust port on the saw and then to your vacuum or dust collection system.

## 5. OPERATING INSTRUCTIONS

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### 5.1 Powering On/Off

To operate the saw, first press the Lock-off button, then press the On/Off trigger switch. Release the trigger to turn off the saw.

### 5.2 Using the Laser Guide and Scale Ruler

The integrated laser guide and scale ruler assist in making precise, straight cuts.

## MORE PRECISE CUTTING WITH LASER GUIDE & SCALE RULER



Figure 5.1: Precise Cutting with Laser Guide

This image demonstrates the saw in action, showing the laser guide projecting a line onto the workpiece to ensure accurate and straight cuts. The scale ruler is also visible, aiding in precise measurements.



Figure 5.2: Laser Guide

A detailed view of the laser guide mechanism, showing its placement and how it projects a line for cutting accuracy.

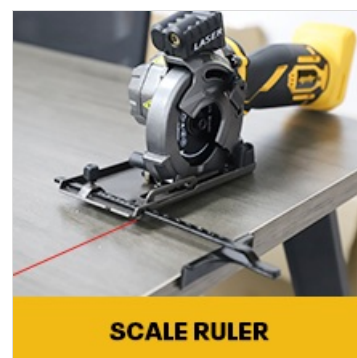


Figure 5.3: Scale Ruler

This image highlights the integrated scale ruler on the saw's base plate, used for guiding precise cuts along a straight edge.

### 5.3 Cutting Different Materials

Select the appropriate blade for the material you are cutting:

- **Wood:** Use the 24T TCT blade.
- **Plastic/Thin Metal:** Use the 44T HSS blade.
- **Tile/Drywall/Backerboard:** Use the Diamond blade.



Figure 5.4: Blade Types

This image displays the three types of blades included with the saw: a TCT blade for wood, an HSS blade for plastic and thin metal, and a diamond blade for tile and masonry.

# MULTI-MATERIAL CUTTING



Figure 5.5: Multi-Material Cutting

This composite image shows the Mellif Mini Circular Saw being used to cut different materials, including wood, plastic, soft metal, and ceramic tile, demonstrating its versatility.

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Video 5.1: Multi-functional Mellif Mini Circular Saw. This video showcases the saw's ability to cut various materials, including wood, steel plates, and ceramic tiles, demonstrating its versatility and performance.

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Video 5.2: Cuts The Wood Block Smoothly. This video focuses on the saw's performance when cutting a wooden block, highlighting the smooth and efficient cutting action.

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Video 5.3: How To Use Mellif Circular Saw. This video provides a comprehensive demonstration of how to use the Mellif Circular Saw, covering various operational aspects.

## 6. MAINTENANCE

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### 6.1 Cleaning

- Always disconnect the battery before cleaning.
- Regularly clean the tool's ventilation openings to prevent overheating.
- Wipe down the tool with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- Clear any sawdust or debris from the blade guard and base plate.

### 6.2 Blade Care

- Inspect blades before each use for damage, dullness, or missing teeth. Replace damaged blades immediately.
- Keep blades sharp for optimal performance and safety.
- Store blades properly to prevent damage and corrosion.

## 7. TROUBLESHOOTING

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Problem	Possible Cause	Solution
Saw does not start	Battery not installed correctly or discharged. Safety lock-off button not pressed.	Ensure battery is fully inserted and charged. Press the lock-off button before the trigger.
Saw cuts slowly or binds	Dull or incorrect blade. Improper cutting depth. Forcing the tool.	Replace with a sharp, appropriate blade. Adjust cutting depth. Do not force the saw; let the tool do the work.
Excessive dust	Dust extraction hose not connected or clogged.	Ensure hose is securely connected and clear of obstructions.
Laser guide not working	Laser battery depleted or laser button not activated.	Check and replace the replaceable built-in electronic battery for the laser. Ensure the laser button is pressed.

## 8. SPECIFICATIONS

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Feature	Detail
Model Number	ZS-881829L
Brand	WITLIGHT
Power Source	Battery Powered (Compatible with DeWalt 20V MAX batteries)

Feature	Detail
Motor Type	Brushless
No-Load Speed	MAX 3200 RPM
Blade Diameter	3-1/2 inches (89mm)
Max Cutting Depth	1-2/11 inches (30mm)
Special Features	Laser Guide, Depth Adjustment, Spindle Lock, Dust Extraction Port
Item Weight	3.96 lbs (Tool Only)
Product Dimensions	15"L x 4.3"W x 5.9"H



Figure 8.1: Brushless Motor Performance

This image highlights the brushless motor of the Mellif Mini Circular Saw, emphasizing its maximum no-load speed of 3200 RPM for efficient cutting.

## 9. WARRANTY AND SUPPORT

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The product comes with a limited warranty. For detailed warranty information and customer support, please refer to the contact information provided with your purchase or visit the official WITLIGHT website. For technical assistance or service inquiries, please contact WITLIGHT customer service.