Einhell TC-SM 216

Einhell TC-SM 216 Sliding Miter Saw Instruction Manual

Model: TC-SM 216

1. Introduction

This instruction manual provides essential information for the safe and efficient operation, setup, and maintenance of your Einhell TC-SM 216 Sliding Miter Saw. Please read this manual thoroughly before using the tool to ensure proper handling and to prevent injury or damage.
The Einhell TC-SM 216 sliding miter saw is designed for precise sawing and cutting tasks in home workshops and garages. Featuring a 1600 W motor, it uses a 216 mm diameter blade (30 mm bore). The saw includes a smooth sliding function for wide workpieces, a rotating table with quick-set detents for common angles, and a left-tilting saw head for miter cuts. It offers a cutting width of up to 305 mm at 90° and 210 mm at 45°. A visible integrated laser guides cuts. Workpiece supports and a clamping device secure longer materials. The high-quality tungsten carbide saw blade ensures clean cuts, and a spindle lock simplifies blade changes. A dust funnel and 36 mm extraction port, or the included dust bag, manage sawdust.

2. General Safety Instructions

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.

2.1 Work Area Safety

- Keep the 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.

2.2 Electrical Safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs

with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

2.3 Personal Safety

- Always wear eye protection. Use safety glasses, goggles, or a face shield.
- Wear hearing protection when operating the saw.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.
- Do not overreach. Keep proper footing and balance at all times.
- Always use a dust mask if operations create dust.

2.4 Miter Saw Specific Safety

- Always secure the workpiece with the clamping device. Do not hold the workpiece by hand.
- Ensure the blade is sharp and correctly installed.
- Never attempt to remove cut-off material while the blade is rotating.
- Allow the blade to reach full speed before beginning a cut.
- Do not operate the saw without all guards in place.

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3. Components and Features

Familiarize yourself with the various parts and key features of your Einhell TC-SM 216 Miter Saw for safe and effective operation.

Figure 3.1: Overall view of the Einhell TC-SM 216 Sliding Miter Saw, showing its main components.

Figure 3.2: A user operating the miter saw, demonstrating a typical cutting scenario. Always wear appropriate safety gear.

Figure 3.3: Detailed view of the smooth sliding mechanism, essential for cutting wider materials.

Figure 3.4: The saw blade positioned over a workpiece, illustrating the cutting action.

Figure 3.5: The integrated dust collection funnel, designed to capture sawdust during operation.

Figure 3.6: The miter angle scale on the rotating table, showing clear markings for precise angle adjustments.

Figure 3.7: The spindle lock button, used to secure the saw blade for safe and easy blade changes.

Key Features Overview:

216 mm Saw Blade: Equipped with a high-quality 216 mm diameter tungsten carbide saw blade for precise and clean cuts.

Max. 305 mm Cutting Width: The sliding function allows for a maximum cutting width of 305 mm, accommodating wide workpieces.

Max. 65 mm Cutting Depth: Capable of cutting materials up to 65 mm deep at 90 degrees.

Integrated Laser Guide: Projects a visible line for precise alignment of cuts.

Dust Funnel: An efficient dust funnel behind the blade, along with a 36 mm extraction port, helps manage sawdust.

Powerful Motor: 1600 W motor for efficient cutting.

Rotating Table: Precise angle adjustment with quick-set detents for common miter angles.

Tilting Saw Head: Saw head tilts to the left for accurate bevel cuts.

Workpiece Supports: Left and right extensions for supporting longer materials.

Clamping Device: Secures workpieces during cutting operations.

Easy Blade Change: Spindle lock and easily accessible blade screw facilitate quick and safe blade replacement.

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4. Setup

4.1 Unpacking and Assembly

1. Carefully remove all components from the packaging.
2. Inspect the tool for any signs of damage. Do not operate a damaged tool.
3. Ensure all included components are present: miter saw unit, tungsten carbide saw blade, dust bag, workpiece supports, and clamping device.
4. Mount the saw securely to a stable workbench using appropriate fasteners (not included).
5. Attach the dust bag or connect a suitable dust extraction system to the 36 mm extraction port.

4.2 Adjusting Workpiece Supports and Clamping Device

Extend the workpiece supports on both sides to provide stable support for longer materials. Position the

clamping device to firmly secure the workpiece against the fence and table before making any cuts.

4.3 Initial Blade Check

Verify that the pre-installed saw blade is securely fastened and free from damage. Ensure the blade guard operates smoothly and retracts properly during operation.

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5. Operating Instructions

5.1 Making Straight Cross Cuts (90° Miter, 0° Bevel)

1. Ensure the rotating table is locked at the 0° position.
2. Place the workpiece firmly against the fence and secure it with the clamping device.
3. Lower the saw head slightly to align the blade with your cut line, using the integrated laser guide for precision.
4. Start the motor and allow the blade to reach full speed (5200 RPM).
5. Slowly lower the saw head through the workpiece, maintaining a steady, controlled motion. For wider pieces, utilize the sliding function by pulling the saw head forward, lowering it, and pushing it back through the material.
6. Once the cut is complete, release the trigger and allow the blade to stop rotating before raising the saw head.

5.2 Making Miter Cuts

1. Unlock the rotating table.
2. Adjust the table to the desired miter angle (e.g., 45°). Use the quick-set detents for common angles.
3. Lock the rotating table securely at the chosen angle.
4. Proceed with the cut as described for straight cross cuts, ensuring the workpiece is properly supported and clamped.

5.3 Making Bevel Cuts

1. Ensure the rotating table is locked at the 0° miter position.
2. Unlock the saw head tilt mechanism.
3. Tilt the saw head to the desired bevel angle (up to 45° to the left).
4. Lock the saw head securely at the chosen angle.
5. Proceed with the cut as described for straight cross cuts, ensuring the workpiece is properly supported and clamped.

5.4 Using the Laser Guide

The integrated laser guide projects a line onto the workpiece, indicating the exact path of the saw blade. Activate the laser before positioning your workpiece to ensure accurate alignment with your marked cut line.

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6. Maintenance

6.1 Cleaning

- Always disconnect the saw from the power supply before cleaning.
- Regularly empty the dust bag or dust extraction system.
- Use a brush or compressed air to remove sawdust and debris from the motor housing, blade guard, and sliding mechanism.
- Keep the laser lens clean for optimal visibility.

6.2 Saw Blade Replacement

WARNING:
Ensure the saw is unplugged before attempting to change the blade.

1. Press and hold the spindle lock button (refer to Figure 3.7 for location) to prevent the blade from rotating.
2. Use the appropriate tool (e.g., wrench) to loosen the blade screw.
3. Carefully remove the old blade, noting its rotation direction.
4. Install the new 216 mm (30 mm bore) tungsten carbide blade, ensuring the teeth are oriented correctly for cutting.
5. Tighten the blade screw firmly while holding the spindle lock.
6. Check that the blade guard moves freely after replacement.

6.3 Lubrication

Periodically apply a light lubricant to the sliding mechanism to ensure smooth operation.

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7. Troubleshooting

Problem	Possible Cause	Solution
Saw does not start	No power supply; Faulty switch; Overload protection activated	Check power connection; Contact service center; Allow motor to cool down
Poor cutting performance / Rough cuts	Dull or damaged blade; Incorrect blade type for material; Blade installed incorrectly	Replace blade; Use appropriate blade; Reinstall blade correctly
Excessive sawdust accumulation	Dust bag full; Extraction port blocked; Ineffective dust collection system	Empty dust bag; Clear blockage; Ensure dust extraction system is properly connected and functioning
Laser guide not visible or inaccurate	Laser lens dirty; Laser misaligned	Clean laser lens; Refer to service manual for laser adjustment (if applicable) or contact service
Sliding mechanism stiff	Lack of lubrication; Accumulation of dust/debris	Clean and lubricate sliding rails

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8. Specifications

Model: TC-SM 216

Power Input: 1600 W

Voltage: 240 V

No-Load Speed: 5200 RPM

Saw Blade Diameter: 216 mm

Saw Blade Bore: 30 mm

Max. Cutting Width (90°): 305 mm

Max. Cutting Width (45°): 210 mm

Max. Cutting Depth (90°): 65 mm

Miter Angle Range: -45° to +45°

Bevel Angle Range: 0° to 45° (left)

Product Dimensions (L x W x H): 75.7 x 67.7 x 49.5 cm

Weight: 12.5 kg

Dust Extraction Port: 36 mm

Blade Material: Carbide

Recommended Surface: Wood, Metal, Plastic (with appropriate blade)

Special Features: Sliding function, Laser guide, Quick-set detents, Workpiece clamp, Workpiece supports

9. Warranty and Support

Einhell products are manufactured with quality and longevity in mind. This product comes with a limited warranty. For specific warranty terms and conditions, please refer to the documentation included with your purchase or visit the official Einhell website.

Additionally, Einhell offers extended product services. By registering your Einhell product online within 30 days of purchase, you can extend the warranty on your Einhell device to 3 years. This also applies to Einhell Power X-Change batteries, if applicable to your purchase.

For technical support, spare parts, or warranty claims, please contact Einhell customer service or visit their official website for detailed contact information.

Figure 9.1: Einhell 3-Year Warranty logo, indicating extended warranty upon online registration for eligible products.

Related Documents - TC-SM 216

	Einhell TC-SM 2131/2 Dual: Originalbetriebsanleitung This manual provides essential operating instructions, safety guidelines, technical specifications, and maintenance information for the Einhell TC-SM 2131/2 Dual sliding mitre saw. Learn how to safely and effectively use your Einhell mitre saw for various cutting tasks.
	Einhell TC-SM 2131/2 Dual Sliding Mitre Saw: Official Operating Manual & Safety Guide Get the official operating manual for the Einhell TC-SM 2131/2 Dual sliding mitre saw. This guide covers safety instructions, setup, usage, and maintenance for woodworking professionals and DIY enthusiasts.
	Einhell TC-TC 800 Fliesenschneidmaschine Bedienungsanleitung Umfassende Bedienungsanleitung für die Einhell TC-TC 800 Fliesenschneidmaschine. Enthält Sicherheitshinweise, technische Daten, Montage-, Betriebs- und Wartungsanleitungen sowie Garantieinformationen.
	Einhell TC-SM 2131/2 Dual Radial Mitre Saw Operating Instructions Comprehensive operating instructions and safety information for the Einhell TC-SM 2131/2 Dual radial mitre saw. Learn about its features, setup, usage, and technical specifications.
	Einhell TC-SM 2131/1 Dual Торцовочная пила Руководство пользователя Полное руководство пользователя для торцовочной пилы Einhell TC-SM 2131/1 Dual, охватывающее безопасность, эксплуатацию, технические характеристики, обслуживание и гарантию. Содержит подробные инструкции и схемы.
	Instrukcja Obsługi Einhell TC-SM 2131/1 Dual - Piła Ukośna Oryginalna instrukcja obsługi dla piły ukośnej Einhell TC-SM 2131/1 Dual. Zawiera informacje o bezpieczeństwie, użytkowaniu, danych technicznych i konserwacji.