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Metabo KGS 216 M

Metabo KGS 216 M Miter and Radial Saw Kit

Model: 613216900

INTRODUCTION

The Metabo KGS 216 M is a versatile miter and radial saw designed for precise cutting of various materials, primarily wood. This kit includes the saw, a "Precision cut wood - Classic" carbide saw blade, two table extenders, a cutting stop, a material clamp, a saw blade change tool, a cable winder, and a chip collection bag. It features a precise cut line (PCL) system using an LED for accurate shadow line indication, an integrated chip collection funnel for efficient dust extraction, and flexible angle adjustments for common cutting tasks.

The saw is equipped with extendable and removable table wideners for supporting long workpieces and a quick-release clamp for secure fastening. Its ergonomic handles ensure easy transport. This manual provides essential information for the safe and effective operation, setup, and maintenance of your Metabo KGS 216 M miter and radial saw.



Image: The Metabo KGS 216 M miter and radial saw, showcasing its main components and the included saw blade.

SAFETY INSTRUCTIONS

Always observe the following general safety precautions when operating the Metabo KGS 216 M miter and radial saw to prevent injury and damage to the tool.

- **Read the Manual:** Before operation, thoroughly read and understand all instructions and safety warnings provided in this manual.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including safety glasses, hearing protection, and a dust mask. Avoid loose clothing or jewelry that could get caught in moving parts.
- **Work Area:** Ensure your work area is clean, well-lit, and free of clutter. Keep children and bystanders away from the operating area.
- **Power Source:** Connect the saw only to a power source that matches the specifications listed on the tool's nameplate.
- **Secure Workpiece:** Always secure the workpiece firmly with the material clamp before cutting. Never attempt to hold the workpiece by hand.
- **Blade Safety:** Ensure the saw blade is sharp, clean, and correctly installed. Never operate the saw without the blade guard in place.
- **Avoid Overreaching:** Maintain proper footing and balance at all times. Do not overreach while operating the saw.
- **Unplug When Not in Use:** Disconnect the saw from the power supply before making any adjustments, changing

accessories, or when the tool is not in use.

- **Dust Extraction:** Utilize the integrated chip collection system or connect an external dust extractor to minimize dust exposure.
- **Maintenance:** Regularly inspect the saw for damage or wear. Do not use a damaged tool.

COMPONENTS OVERVIEW

Familiarize yourself with the main components of your Metabo KGS 216 M miter and radial saw:

- **Saw Head:** Contains the motor, saw blade, and blade guard.
- **Saw Blade:** The cutting accessory, typically a carbide-tipped blade for wood.
- **Blade Guard:** Retracts during cutting to expose the blade and covers it when the saw head is raised.
- **Handle:** Ergonomically designed for comfortable and secure grip during operation and transport.
- **Miter Table:** The rotating base that allows for angle adjustments for miter cuts.
- **Angle Scale and Lock:** For setting and securing the miter angle.
- **Bevel Adjustment:** Mechanism to tilt the saw head for bevel cuts.
- **Precise Cut Line (PCL) LED:** Projects a shadow line of the blade onto the workpiece for accurate alignment.
- **Dust Collection Port/Bag:** For connecting a dust extractor or using the included chip collection bag.
- **Table Extenders:** Extendable supports for long workpieces, can be removed.
- **Material Clamp:** Secures the workpiece to the miter table for safe cutting.
- **Slide Rails (Radial Function):** Allows the saw head to slide forward and backward for wider cuts.



Image: Top view of the Metabo KGS 216 M, highlighting the miter table with angle markings and the extendable supports.

SETUP

Proper setup is crucial for safe and accurate operation of your miter saw.

1. Unpacking and Assembly

Carefully remove all components from the packaging. Ensure all listed accessories are present. Follow the assembly instructions provided in the separate assembly guide (if applicable) to attach any necessary parts, such as the dust bag or table extenders.

2. Mounting the Saw Blade

Ensure the saw is unplugged before attempting to change or mount the blade. Use the provided saw blade change tool. Follow the rotation direction arrows on the blade and the saw. Securely fasten the blade nut.

3. Positioning the Saw

Place the saw on a stable, level workbench or stand. Ensure there is sufficient space around the saw for the workpiece and for safe operation. If cutting long materials, attach the extendable table wideners for proper support.



Image: The Metabo KGS 216 M demonstrating the use of its extendable and removable table wideners for supporting longer workpieces.

4. Connecting Dust Collection

Attach the included chip collection bag to the dust port, or connect a suitable dust extractor hose for more efficient dust removal. The integrated chip collection funnel works in conjunction with the soft start feature for effective chip extraction.

OPERATING

The Metabo KGS 216 M offers precise and efficient cutting for various applications.

1. Making Straight Cuts (Crosscuts)

1. Set the miter table to 0 degrees and lock it.
2. Place the workpiece firmly against the fence.
3. Use the material clamp to secure the workpiece.
4. Lower the saw head slightly to engage the Precise Cut Line (PCL) LED, aligning the shadow line with your cut mark.
5. Start the saw, allow the blade to reach full speed, then slowly lower the saw head through the workpiece.
6. Once the cut is complete, release the trigger and allow the blade to stop before raising the saw head.



Image: A close-up view of the saw blade and the Precise Cut Line (PCL) LED projecting a shadow line onto the workpiece for accurate cutting.

2. Miter Cuts

1. Unlock the miter table and rotate it to the desired angle (e.g., 45 degrees for corner joints). The saw allows quick adjustment to common angles with locking points.
2. Lock the miter table securely in place.
3. Proceed with the cut as described for straight cuts, ensuring the workpiece is clamped securely.

3. Bevel Cuts

1. Adjust the saw head tilt mechanism to the desired bevel angle (from -2 to 47 degrees).
2. Lock the bevel adjustment securely.
3. Perform the cut, ensuring the workpiece is stable and clamped.

4. Using the Radial (Pull) Function

For wider workpieces, the saw head can be pulled forward along the slide rails.

1. Pull the saw head fully forward towards you.
2. Start the saw and allow the blade to reach full speed.
3. Slowly push the saw head backward through the workpiece.
4. Release the trigger and allow the blade to stop before raising the saw head.



Image: A user operating the Metabo KGS 216 M miter saw, demonstrating its use in a workshop setting with a dust collection hose attached.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Metabo KGS 216 M saw.

- **Cleaning:** After each use, unplug the saw and clean off sawdust and debris from the motor vents, blade guard, and table. Use a brush or compressed air. Do not use solvents.
- **Blade Inspection:** Regularly inspect the saw blade for sharpness, damage, or missing carbide tips. A dull or damaged blade can cause kickback and poor cut quality. Replace blades as needed.
- **Blade Replacement:** Refer to the "Setup" section for general blade replacement guidelines. Always use the correct size and type of blade for your saw and application.
- **Slide Rails:** Keep the slide rails (for the radial function) clean and free of debris. Apply a thin coat of non-silicone lubricant if movement becomes stiff.
- **Electrical Cord:** Inspect the power cord for any cuts, fraying, or damage. Do not use the saw if the cord is damaged.
- **Fasteners:** Periodically check all screws and fasteners to ensure they are tight.

TROUBLESHOOTING

Here are some common issues and their potential solutions:

Problem	Possible Cause	Solution
Saw does not start	No power supply; damaged cord; faulty switch	Check power outlet and circuit breaker; inspect cord; contact service center if switch is faulty.
Poor cut quality (rough, splintering)	Dull or incorrect blade; improper feed rate; workpiece not secured	Replace blade; use appropriate blade for material; ensure workpiece is clamped firmly; adjust feed rate.
Excessive vibration or noise	Loose blade; damaged blade; worn bearings	Check blade tightness; replace damaged blade; contact service center for bearing issues.
Dust collection ineffective	Dust bag full; clogged port/hose; improper connection	Empty dust bag; clear any blockages; ensure secure connection to dust extractor.
Blade binds in workpiece	Workpiece not supported; dull blade; improper alignment	Use table extenders; replace blade; ensure proper alignment before cutting.

If you encounter issues not listed here or if solutions do not resolve the problem, please contact Metabo customer support or an authorized service center.

SPECIFICATIONS

Technical data for the Metabo KGS 216 M Miter and Radial Saw Kit:

Feature	Detail
Manufacturer	Metabo
Model Number	613216900
Product Dimensions (L x W x H)	51 x 34.8 x 76 cm
Weight	13.4 Kilograms
Power Source	Corded Electric
Voltage	230 Volts (AC)
Power	1200 Watts
Blade Material	Carbide
Recommended Surface	Wood
Special Features	Large cutting capacity due to pull function, Precise Cut Line (PCL) LED
Included Components	Saw, carbide saw blade, 2 table extenders, cutting stop, material clamp, saw blade change tool, cable winder, chip collection bag
Certification	CE
Country of Origin	China

KGS 216 M 613216

512

88

710

476

350

272

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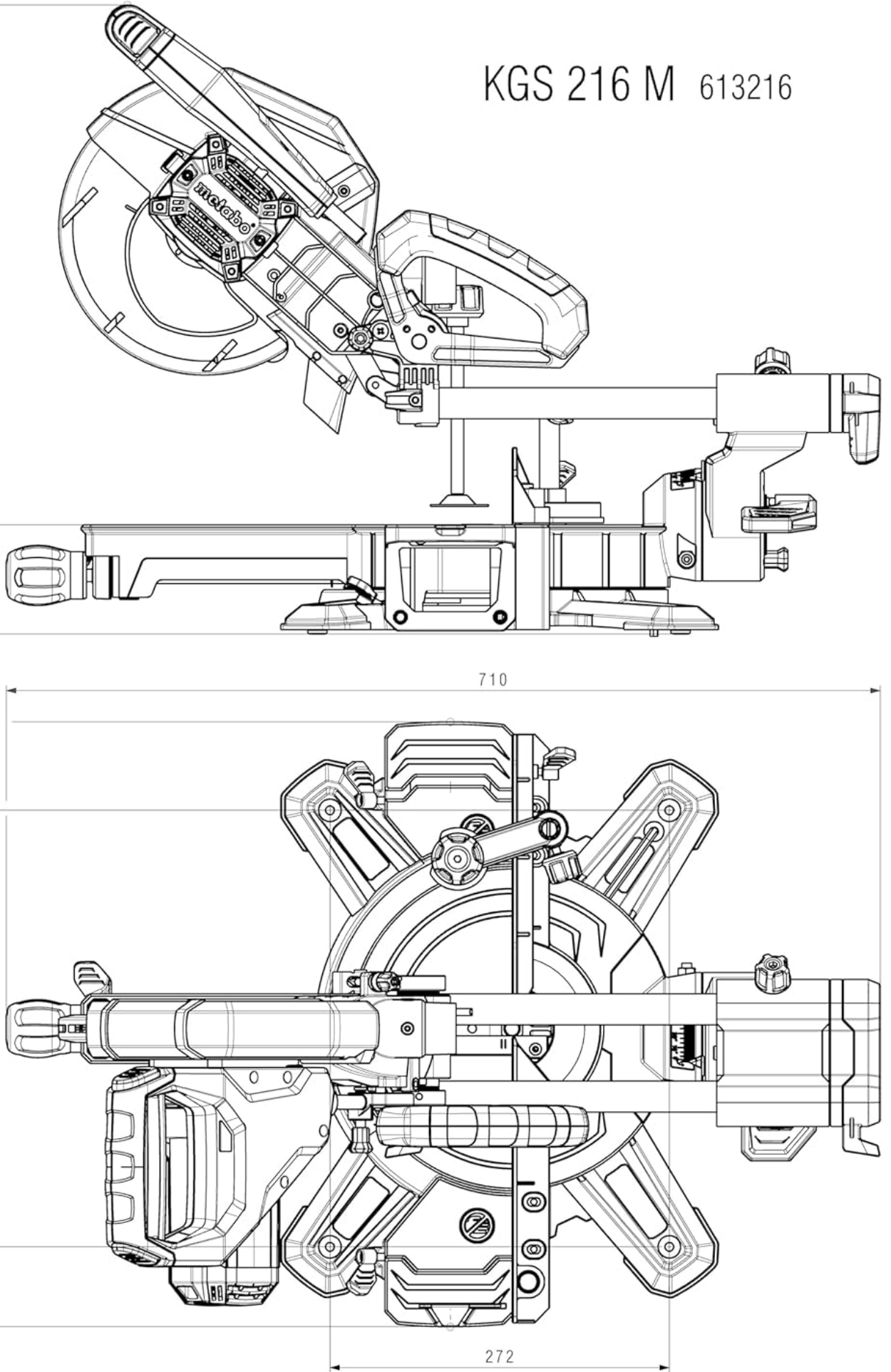


Image: Technical drawing of the Metabo KGS 216 M, illustrating its dimensions and structural layout.

WARRANTY AND SUPPORT

Metabo provides a 1-year availability for spare parts for the KGS 216 M miter and radial saw. For specific warranty terms, technical support, or to locate an authorized service center, please refer to the official Metabo website or contact their customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.

You can find more information and contact details on the official Metabo website: www.metabo.com

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