Mannesmann M12502

Brüder Mannesmann M12502 Electric Drill User Manual

Model: M12502

1. Safety Instructions

Always observe basic safety precautions when using electric tools to reduce the risk of fire, electric shock, and personal injury. Read all instructions before operating this product.

General Power Tool Safety

- **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.
- **Electrical Safety:** Power tool plugs must match the outlet. Never modify the plug. Do not use any adapter plugs with earthed (grounded) power tools. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges, and refrigerators.
- **Personal Safety:** Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol, or medication. Always wear eye protection. Use dust masks, non-skid safety shoes, hard hats, or hearing protection for appropriate conditions.
- **Tool Use and Care:** Do not force the power tool. Use the correct power tool for your application. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Store idle power tools out of the reach of children.

Specific Drill Safety

- Hold the power tool by insulated gripping surfaces when performing an operation where the cutting accessory may contact hidden wiring or its own cord.
- Always ensure the workpiece is securely clamped or held before drilling.
- Do not touch the drill bit immediately after use as it may be extremely hot.
- Ensure the chuck is tightened securely before operation.

2. Product Overview

The Brüder Mannesmann M12502 Electric Drill is designed for various drilling and screwing tasks. It features a robust motor, variable speed control, and adjustable torque settings for versatile applications.

Figure 1: Brüder Mannesmann M12502 Electric Drill, showing the main body, chuck, and handle.

Key Features:

- **Torque Preselection:** 23 torque settings plus one dedicated drilling stage.
- **Variable Speed:** Electronically adjustable speed from 0 to 850 RPM.
- **Direction Control:** Clockwise and anti-clockwise rotation for drilling and screwing.
- **Keyless Chuck:** 10 mm quick-release chuck for easy bit changes.
- **Power:** 300 Watt motor.
- **Ergonomics:** Anti-slip handle for comfortable and secure grip.

3. Setup

3.1 Attaching Drill Bits/Screwdriver Bits

1. Ensure the drill is unplugged from the power source.
2. Rotate the front part of the keyless chuck counter-clockwise to open the jaws.
3. Insert the desired drill bit or screwdriver bit into the chuck, ensuring it is centered and fully seated.
4. Rotate the front part of the keyless chuck clockwise to tighten the jaws firmly around the bit. Hand-tighten only; do not use tools to tighten the chuck.

3.2 Setting Torque and Mode

The torque preselection ring is located behind the chuck.

- **Screwing Mode:** Rotate the torque ring to one of the 23 numbered settings. A lower number indicates less torque, suitable for smaller screws or softer materials. A higher number provides more torque for larger screws or harder materials.
- **Drilling Mode:** For drilling operations, rotate the torque ring to the drill symbol (often depicted as a drill bit icon). This setting provides maximum torque and prevents the clutch from slipping, ensuring continuous rotation for drilling.

3.3 Power Connection

Connect the drill's power cord to a suitable 120 Volt AC power outlet. Ensure the power outlet is properly grounded.

4. Operating the Drill

Before starting, ensure all safety precautions are followed and the workpiece is secured.

Figure 2: Proper handling of the drill during operation, demonstrating drilling into a wooden surface.

4.1 Starting and Stopping

- To start the drill, press the trigger switch.
- To stop the drill, release the trigger switch.

4.2 Variable Speed Control

The drill features an infinitely electronically adjustable speed control. The speed is controlled by the pressure applied to the trigger switch:

- Light pressure results in lower speed.
- Increased pressure results in higher speed, up to 850 RPM.
- Use lower speeds for starting holes, driving screws, or working with delicate materials. Use higher speeds for drilling into harder materials.

4.3 Direction of Rotation

A switch, typically located above the trigger, controls the direction of rotation:

- Push the switch to the left for clockwise rotation (forward, for drilling and tightening screws).
- Push the switch to the right for anti-clockwise rotation (reverse, for removing screws or freeing jammed bits).
- Always ensure the drill has come to a complete stop before changing the direction of rotation.

4.4 Drilling and Screwing Techniques

- **Drilling:** Apply steady, even pressure. Do not force the drill. Allow the drill bit to do the work. For deep holes, periodically withdraw the bit to clear chips.
- **Screwing:** Select an appropriate torque setting. Start with a lower speed to prevent stripping the screw head or damaging the workpiece. Increase speed as needed.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your electric drill.

5.1 Cleaning

- Always unplug the drill before cleaning.
- Keep the ventilation openings clean to prevent motor overheating. Use a soft brush or compressed air to clear dust and debris.
- Wipe the tool housing with a damp cloth. Do not use harsh chemicals or abrasive cleaners.
- Clean the chuck jaws regularly to ensure proper gripping of bits.

5.2 Storage

- Store the drill in a dry, secure location, out of reach of children.
- Protect the power cord from damage during storage. Avoid wrapping it too tightly around the tool.

6. Troubleshooting

If you encounter issues with your drill, refer to the following common problems and solutions:

- **Drill does not start:**
  - Check if the power cord is securely plugged into a working outlet.
  - Ensure the power outlet is functional by testing it with another appliance.
  - Verify that the direction switch is not in the center (locked) position.
- **Loss of power during operation:**
  - Check for loose connections in the power cord or extension cord.
  - Ensure the drill is not overloaded. Reduce pressure or use a sharper bit.
- **Bit slips in chuck:**
  - Ensure the chuck is tightened firmly by hand.
  - Clean the chuck jaws and the shank of the bit to remove any debris or oil.
  - Ensure the bit shank is not damaged or excessively worn.
- **Excessive vibration or noise:**
  - Check if the drill bit is properly seated and tightened in the chuck.
  - Inspect the drill bit for damage or bending. Replace if necessary.
  - Ensure the workpiece is securely clamped.

If problems persist, contact customer support for further assistance.

7. Specifications

Feature	Specification
Brand	Brüder Mannesmann
Model Number	M12502
Power Source	Corded Electric

Feature	Specification
Voltage	120 Volts
Wattage	300 Watts
Maximum Rotational Speed	850 RPM
Maximum Torque	30.6 Newton Meters
Chuck Type	10 mm Keyless Chuck
Torque Settings	23 + 1 Drilling Stage
Item Weight	1.47 Kilograms (3.23 pounds)
Material	Metal body and chuck, Rubberized/Plastic handle
Product Dimensions	0.04"L x 0.04"W x 0.04"H (Approximate)
Included Components	Drill Sharpener (as per some listings)
GTIN	04003315845775

8. Warranty and Support

Brüder Mannesmann products are manufactured to high-quality standards. For information regarding warranty coverage, terms, and conditions, please refer to the documentation included with your purchase or visit the official Brüder Mannesmann website.

For technical support, spare parts, or service inquiries, please contact Brüder Mannesmann customer service. Keep your model number (M12502) and purchase date available when contacting support.