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Dremel 8220-1/28

Dremel 8220-1/28 12V Max Cordless Rotary Tool User Manual

Model: 8220-1/28

1. INTRODUCTION

The Dremel 8220 12V Max Cordless Rotary Tool is designed to provide high performance and versatility for a wide range of projects. This tool is compatible with all current Dremel rotary tool accessories, offering flexibility for various applications such as cutting, grinding, sanding, cleaning, and polishing. Its ergonomic design ensures comfort and control during use.

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your Dremel 8220 rotary tool.



Figure 1: Dremel 8220-1/28 Cordless Rotary Tool kit, including the tool, carrying case, charger, and various accessories.

2. SAFETY INFORMATION

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

General Safety Rules:

- **Work Area Safety:** Keep your 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:** Avoid body contact with earthed or grounded surfaces. Do not expose power tools to rain or wet conditions.
- **Personal Safety:** Always wear eye protection. Use safety glasses, goggles, or a face shield. Wear hearing protection when operating for extended periods. Dress properly; avoid loose clothing or jewelry. Keep hair, clothing, and gloves away from moving parts.
- **Tool Use and Care:** Do not force the tool. Use the correct tool for your application. Disconnect the battery

pack from the tool before making any adjustments, changing accessories, or storing power tools. Store idle tools out of the reach of children.

- **Battery Tool Use and Care:** Recharge only with the charger specified by the manufacturer. Use power tools only with specifically designated battery packs.

3. GETTING STARTED (SETUP)

3.1 Unpacking

Carefully remove all contents from the packaging. Verify that all items listed in the 'Kit Contents' section are present and undamaged. Retain packaging materials for future storage or transport.

3.2 Charging the Battery

The Dremel 8220 is powered by a 12V Max Lithium-Ion battery. Before first use, fully charge the battery.

1. Connect the charger to a standard electrical outlet.
2. Insert the battery pack into the charger. The charging indicator light will illuminate.
3. Allow approximately one hour for a full charge. The indicator light will change or turn off when charging is complete.



Figure 2: The Dremel 12V Max battery charger and power adapter. Ensure the battery is properly seated for charging.

3.3 Attaching and Changing Accessories

The Dremel 8220 features an EZ Twist nose cap for quick accessory changes without a separate wrench.

1. Ensure the tool is turned OFF and the battery is removed before changing accessories.
2. Press and hold the shaft lock button.
3. Unscrew the EZ Twist nose cap counter-clockwise to loosen the collet nut.
4. Insert the desired accessory shank fully into the collet.
5. Tighten the EZ Twist nose cap clockwise until the accessory is securely held. Do not overtighten.



Figure 3: The Dremel EZ Twist nose cap, which integrates a wrench for easy accessory changes.



Figure 4: The Dremel 710-08 multi-purpose rotary accessory kit, containing 160 pieces for various applications.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

To turn the tool ON, slide the separate ON/OFF switch to the 'ON' position. To turn the tool OFF, slide the switch to the 'OFF' position.

4.2 Variable Speed Control

The Dremel 8220 features variable speed control, allowing adjustment from 5,000 to 35,000 RPM for optimal precision across different materials and tasks. The speed setting is retained even after turning the tool off and on again.





Figure 5: Close-up view of the Dremel 8220 tool, highlighting the variable speed dial and ergonomic grip.

- Rotate the speed dial to increase or decrease the rotational speed.
- Start with a lower speed for delicate tasks or softer materials and gradually increase as needed.
- Higher speeds are generally suitable for harder materials and more aggressive material removal.

4.3 General Usage Tips

- Allow the tool to reach full speed before contacting the workpiece.
- Apply light pressure. Let the tool and accessory do the work. Excessive pressure can cause the tool to bog down, overheat, or damage the workpiece.
- Keep the tool moving to prevent gouging or burning the material.

5. MAINTENANCE

5.1 Cleaning the Tool

Regularly clean the ventilation openings of the tool to prevent dust and debris buildup, which can affect performance and motor life. Use a soft brush or compressed air.

5.2 Battery Care

- Store the battery in a cool, dry place away from direct sunlight and extreme temperatures.
- Do not store the battery in a discharged state for extended periods. Recharge it periodically if not in use.
- Avoid dropping or subjecting the battery to heavy impacts.

5.3 Accessory Storage

Store accessories in their designated case (e.g., Dremel 710-08 kit case) to keep them organized and protected from damage.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Tool does not turn on.	Battery is discharged.	Recharge the battery fully.

Problem	Possible Cause	Solution
Tool does not turn on.	ON/OFF switch is in the 'OFF' position.	Slide the switch to the 'ON' position.
Charger is not working.	Charger or power adapter is faulty.	Check the power outlet. If the issue persists, contact Dremel customer support for a replacement charger.
Tool loses power or slows down during use.	Battery is low or accessory is binding.	Recharge the battery. Reduce pressure on the tool or ensure the accessory is not jammed.
Accessory is loose or wobbles.	Collet nut not tightened sufficiently or incorrect collet size.	Ensure the EZ Twist nose cap is tightened securely. Verify the accessory shank matches the collet size.

7. SPECIFICATIONS

Feature	Specification
Model Number	8220-1/28
Voltage	12 Volts (Max)
Power Source	Cordless Electric (Lithium-Ion Battery)
Speed Range	5,000 - 35,000 RPM (Variable Speed)
Item Weight	1 Pound (approx. 453.59 grams)
Product Dimensions (L x W x H)	39.1 x 29.2 x 11.9 cm
Special Features	Rechargeable, Cordless, Variable Speed, EZ Twist Nose Cap
Included Accessories	28 accessories/1 attachment, Dremel 710-08 Multi-Purpose Rotary Accessory Kit (160 pieces)

8. WARRANTY AND SUPPORT

8.1 Limited Warranty

The Dremel 8220-1/28 Cordless Rotary Tool comes with a **2-Year Limited Warranty**. Please refer to the warranty card included in your product packaging for full terms and conditions.

8.2 Customer Support

For technical assistance, service, or warranty claims, please contact Dremel Experts:

- **Phone:** 1-800-437-3635 (USA)
- **Website:** www.dremel.com

You can also scan the QR code on the product packaging or visit <http://m.dremel.com/10079> for product registration, additional manuals, and more information.

