DEWALT DWE402

DEWALT DWE402 4.5-inch 11-Amp Angle Grinder User Manual

This manual provides detailed instructions for the safe and effective operation, setup, and maintenance of the DEWALT DWE402 4.5-inch, 11-Amp Angle Grinder with Paddle Switch.

1. Important Safety Instructions

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

General Power Tool Safety Warnings

- **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:** Power tool plugs must match the outlet. Never modify the plug. Do not use any adapter plugs with grounded power tools. Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.
- **Personal Safety:** Always wear eye protection. Use personal protective equipment such as dust masks, non-skid safety shoes, hard hats, or hearing protection for appropriate conditions. Stay alert, watch what you are doing, and use common sense when operating a power tool.
- **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.

Specific Grinder Safety Warnings

- Always use the guard provided with the tool. Ensure the guard is securely attached and positioned for maximum safety.
- Use only grinding wheels and accessories that are rated for the speed of this tool and are in good condition.
- Hold the tool firmly with both hands during operation. Maintain a secure grip to control the tool's torque.
- Keep hands clear of the rotating accessory.
- Be aware of kickback, which is a sudden reaction to a pinched or snagged rotating wheel. Always position your body to avoid the path of kickback.

- Do not use the tool for applications for which it was not designed.

2. Product Overview and Components

The DEWALT DWE402 4.5-inch (115mm) Small Angle Grinder is designed for demanding grinding and cutting applications. It features an 11-Amp motor, a paddle switch for enhanced control, and systems for improved durability and user convenience.

Key Features:

- **Powerful Motor:** 11 Amp AC/DC 11,000 RPM motor provides optimal power for various tasks.
- **Dust Ejection System:** Prevents damaging dust and debris from entering the tool, enhancing durability.
- **Oversized Brushes:** Designed for extended brush life.
- **One-Touch Guard:** Allows for quick and easy 360-degree rotation of the guard.
- **Quick-Change Wheel Release:** Enables tool-free wheel removal without the need for a wrench.
- **Paddle Switch:** Provides user control and includes a safety lockout feature.



Figure 1: DEWALT DWE402 Angle Grinder with side handle and guard.



Figure 2: Side view of the DEWALT DWE402 Angle Grinder, highlighting the paddle switch for operation.



Figure 3: Side view of the DEWALT DWE402 Angle Grinder, showing the product specifications label.

3. Setup and Assembly

Attaching the Side Handle

The side handle can be installed on either side of the gear case for left or right-handed operation. Screw the side handle firmly into the desired threaded hole on the gear case until secure.



Figure 4: The DEWALT DWE402 Angle Grinder with the side handle correctly attached.

Adjusting the Guard

The One-Touch Guard allows for quick adjustment without tools. To adjust the guard, ensure the tool is unplugged. Press the guard release lever and rotate the guard to the desired position. Release the lever to lock the guard in place. Always position the guard to protect against sparks and debris.

Installing and Changing Grinding Wheels

1. **Disconnect Power:** Always unplug the grinder from the power source before changing accessories.
2. **Remove Old Wheel (if applicable):** Press the spindle lock button and use the Quick-Change Wheel Release mechanism to loosen and remove the retaining nut and flange.
3. **Install New Wheel:** Place the inner flange onto the spindle, followed by the grinding or cutting wheel. Ensure the wheel is correctly seated.
4. **Secure Wheel:** Thread the outer retaining nut onto the spindle. Press the spindle lock button and tighten the nut firmly by hand using the Quick-Change Wheel Release. No wrench is typically required for this system.
5. **Check Compatibility:** Ensure the wheel's maximum operating speed is equal to or greater than the grinder's RPM.

4. Operating Instructions

Powering On/Off (Paddle Switch)

The DWE402 features a paddle switch for activation. To turn the tool ON, depress the paddle switch. To turn the tool OFF, release the paddle switch. This design provides immediate shut-off when the switch is released, enhancing user safety.

Grinding and Cutting Techniques

- **Grinding:** Hold the grinder at a 15-30 degree angle to the workpiece. Apply moderate pressure and move the tool smoothly across the surface.
- **Cutting:** For cutting, hold the grinder at a 90-degree angle to the workpiece. Use a steady, even pressure. Do not twist or apply excessive side pressure to the cutting wheel.
- **Material Compatibility:** Ensure the correct type of wheel is used for the material being worked on (e.g., metal grinding, concrete cutting).

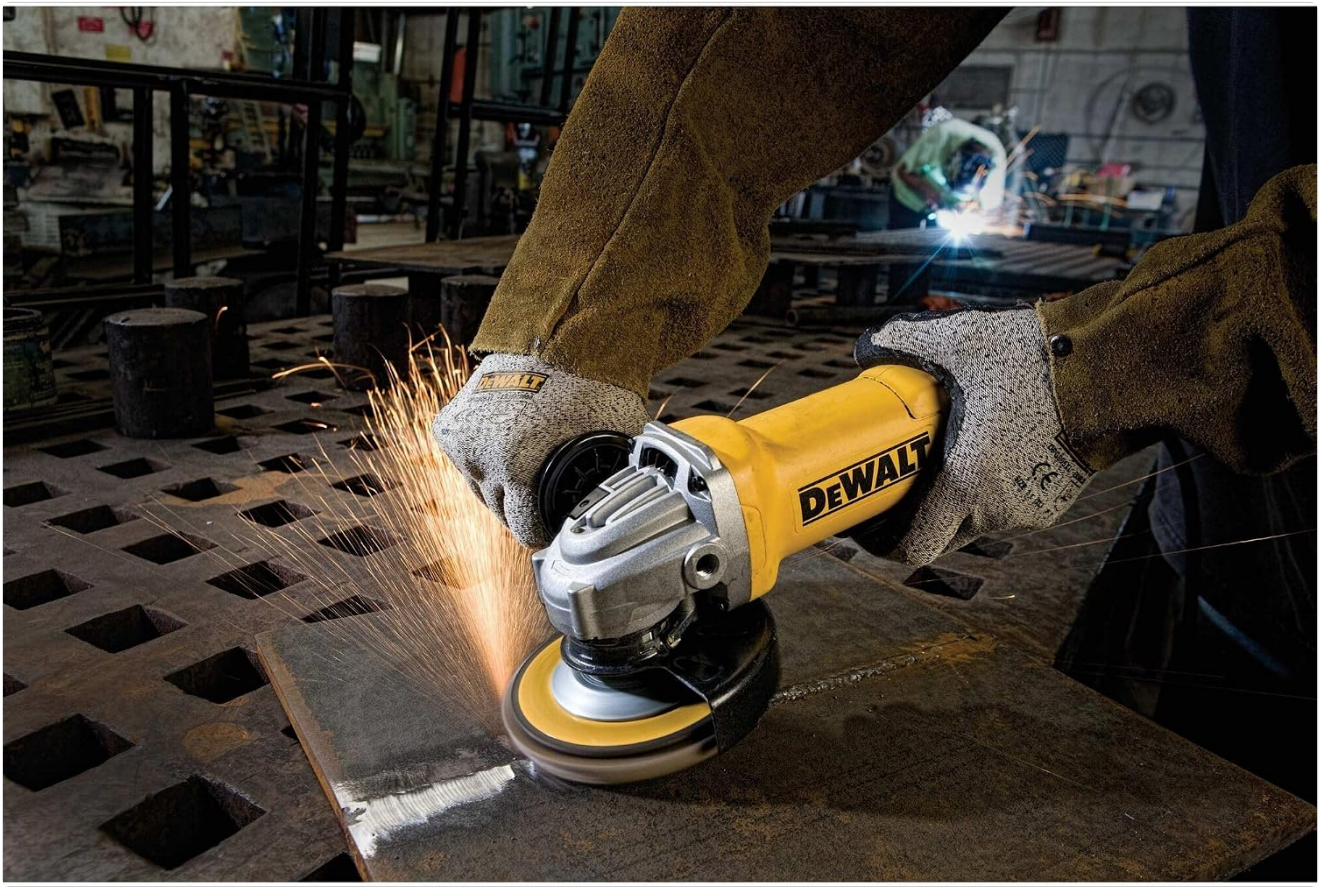


Figure 5: An operator performing metal grinding with the DEWALT DWE402 Angle Grinder, demonstrating proper technique and safety gear.



Figure 6: The DEWALT DWE402 Angle Grinder being used to cut concrete pavers, showcasing its versatility.

Dust Ejection System

The integrated Dust Ejection System helps to prolong tool life by expelling harmful dust and debris particles that enter the tool's air intake. Keep the air vents clear of obstructions to ensure optimal performance of this system.

5. Maintenance

Regular maintenance ensures the longevity and safe operation of your DEWALT DWE402 Angle Grinder.

Cleaning

- **Exterior:** Use only mild soap and a damp cloth to clean the tool. Do not allow any liquid to get inside the tool.
- **Air Vents:** Periodically blow compressed air through the main housing vents to clear dust and debris.

Brush Replacement

The DWE402 is equipped with auto-off brushes. When the brushes wear down, the tool will automatically shut off to prevent motor damage. Replace both brushes at the same time with genuine DEWALT replacement brushes. Refer to the service diagram for brush access and replacement procedures.

Cord and Housing Inspection

Regularly inspect the power cord for any damage, cuts, or fraying. If damaged, have it repaired by a qualified service technician. Check the tool housing for cracks or damage that could compromise safety or performance.

6. Troubleshooting

This section addresses common issues you might encounter with your angle grinder.

- **Tool Does Not Start:**
  - Check if the power cord is securely plugged into a functional outlet.
  - Ensure the paddle switch is fully depressed.
  - If the tool has auto-off brushes, they may need replacement if worn.
  - Check for tripped circuit breakers or blown fuses.
- **Excessive Vibration:**
  - Inspect the grinding wheel for damage or imbalance. Replace if necessary.
  - Ensure the wheel is properly installed and the retaining nut is tightened.
  - Check for loose components on the tool.
- **Reduced Performance/Overheating:**
  - Ensure air vents are clear of dust and debris.
  - Avoid applying excessive pressure during operation.
  - Allow the tool to cool down if it feels excessively hot.

For issues not covered here or if problems persist, contact a DEWALT authorized service center for assistance.

7. Technical Specifications

Specification	Detail
Brand	DEWALT
Model Number	DWE402
Power Source	Corded Electric
Voltage	120 Volts
Amperage	11 Amps
Wattage	1320 Watts
Maximum Rotational Speed	11,000 RPM
Disc Diameter	4.5 inches (115mm)
Item Weight	6.2 Pounds
Product Dimensions	15.63"L x 5.94"W x 4.81"H
Material	Metal, Plastic
Special Features	Compact, Dust Ejection System, Quick-Change Wheel Release, One-Touch Guard

8. Warranty and Support

Warranty Information

This DEWALT DWE402 Angle Grinder comes with a**3-year limited manufacturer's warranty**. This warranty covers defects in material or workmanship. For specific terms and conditions, please refer to the warranty card

included with your product or visit the official DEWALT website.

Customer Support

For technical assistance, service, or to locate an authorized service center, please visit the official DEWALT website or contact their customer service department. Keep your purchase receipt as proof of purchase for warranty claims.

You can find more information and support at theDEWALT Store on Amazon.

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