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WEN 4276

WEN 4276 2.1-Amp 6-Inch Bench Grinder with Flexible Work Light

Instruction Manual

Introduction

The WEN 4276 2.1-Amp 6-Inch Bench Grinder is a versatile tool designed for various workshop tasks, including deburring ragged edges, cleaning objects, and sharpening blades. Its compact yet powerful design ensures reliability for demanding applications. This manual provides essential information for the safe and effective use of your bench grinder.



Figure 1: WEN 4276 6-Inch Bench Grinder with flexible work light. This image shows the overall design of the bench grinder, highlighting its two grinding wheels and the adjustable work light positioned above the motor housing.

Safety Information

Always prioritize safety when operating power tools. Read and understand all instructions before use. Failure to follow these guidelines may result in serious injury or property damage.

- Wear appropriate personal protective equipment (PPE), including safety glasses or a face shield, hearing protection, and gloves.

- Ensure the work area is clean, well-lit, and free of obstructions.
- Secure the bench grinder to a stable workbench before operation to prevent movement.
- Keep hands and fingers clear of the grinding wheels during operation.
- Do not wear loose clothing, jewelry, or long hair that could become entangled in moving parts.
- Always use the included eye guards and tool rests. Adjust them as close as possible to the grinding wheel without touching.
- Disconnect the power supply before performing any maintenance, adjustments, or wheel changes.
- Do not operate the grinder if any parts are damaged or missing.

Setup

Proper setup is crucial for safe and effective operation.

1. **Unpacking:** Carefully remove all components from the packaging. Inspect for any shipping damage.
2. **Mounting:** Securely mount the bench grinder to a sturdy workbench using bolts through the base holes. This prevents the grinder from moving during operation.
3. **Install Eye Guards:** Attach the clear eye guards to their designated mounting points. Adjust them to provide maximum protection without obstructing your view of the workpiece.
4. **Install Tool Rests:** Attach the tool rests in front of each grinding wheel. Adjust them so they are approximately 1/16 inch (1.5 mm) from the grinding wheel surface. Ensure they are level with the center of the wheel.
5. **Work Light Installation:** The flexible work light is pre-installed. Ensure a 120V, 40W bulb (not included) is properly screwed into the socket.

Operating Instructions

The WEN 4276 Bench Grinder is equipped with a 60-grit wheel for general purpose grinding and material removal, and a 36-grit wheel for faster material removal. The 2.1-Amp motor provides a steady speed of 3450 RPM.

1. **Preparation:** Ensure all safety guards and tool rests are properly installed and adjusted. Put on all required PPE.
2. **Power On:** Plug the grinder into a suitable 120V power outlet. Flip the power switch to the 'ON' position. Allow the wheels to reach full speed before beginning work.
3. **Grinding:** Hold the workpiece firmly against the tool rest and slowly bring it into contact with the rotating grinding wheel. Apply light, even pressure. Move the workpiece consistently across the wheel's face to ensure even wear of the wheel and a consistent grind on your item.
4. **Sharpening Blades:** For sharpening tools like chisels or knives, maintain a consistent angle against the grinding wheel. Use the finer 60-grit wheel for finishing and precise sharpening.
5. **Deburring/Rust Removal:** The coarser 36-grit wheel is effective for quick material removal, deburring unwanted edges, and removing rust.
6. **Using the Work Light:** Adjust the flexible work light to illuminate your grinding area for improved visibility and precision.
7. **Power Off:** When finished, turn the power switch to the 'OFF' position and allow the wheels to come to a complete stop before leaving the machine.



Figure 2: Sharpening a chisel on the WEN 4276 bench grinder. This image demonstrates a user carefully sharpening a chisel blade against one of the grinding wheels, utilizing the tool rest for stability and angle control.



Figure 3: Sparks generated during grinding on the WEN 4276 bench grinder. This image captures the sparks produced as metal is ground against the wheel, illustrating the material removal process. Proper eye protection is essential when sparks are present.

Official Product Video

▶ **Watch video online**
WEN 4276 2.1-Amp 6-Inch Bench Grinder with Flexible Work Light

Video: WEN 4276 2.1-Amp 6-Inch Bench Grinder with Flexible Work Light. This video provides a visual demonstration of the WEN 4276 bench grinder in action, showcasing its features and various applications such as sharpening dull blades, scissors, and screwdrivers. It highlights the quiet 2.1-amp motor, the included 60-grit and 36-grit wheels, and the adjustable eye guards and flexible work light for enhanced precision and safety.

Maintenance

Regular maintenance ensures the longevity and optimal performance of your bench grinder.

- **Cleaning:** After each use, disconnect the power and use a brush or vacuum to remove grinding dust and debris from the machine. Keep ventilation openings clear.
- **Wheel Inspection:** Periodically inspect the grinding wheels for wear, cracks, or damage. Replace worn or damaged wheels immediately.
- **Wheel Replacement:** To replace a wheel, disconnect power, remove the wheel guard, unscrew the retaining nut, and carefully remove the old wheel. Install the new wheel, ensuring it is properly seated, and reassemble. The design makes wheel guard removal simple for easy wheel changes.
- **Tool Rest Adjustment:** Regularly check and adjust the tool rests to maintain the proper 1/16 inch (1.5 mm) gap from the grinding wheel.
- **Work Light Bulb:** Replace the work light bulb as needed (120V, 40W).

Troubleshooting

If you encounter issues with your WEN 4276 Bench Grinder, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Grinder does not start	No power to outlet; Power switch is OFF; Faulty power cord/plug	Check power supply; Turn switch ON; Inspect and replace if damaged
Excessive vibration	Grinder not securely mounted; Unbalanced grinding wheel; Loose wheel nut	Securely mount grinder; Dress or replace wheel; Tighten wheel nut
Grinding wheel not cutting effectively	Glazed or dull wheel; Incorrect wheel for material	Dress the wheel with a wheel dresser; Use appropriate grit wheel
Motor overheats	Continuous heavy use; Blocked ventilation openings	Allow motor to cool; Clear ventilation openings

Specifications

Brand: WEN

Model: 4276

Power Source: Corded Electric

Motor: 2.1-Amp

Voltage: 120 Volts

Wattage (Light): 40 watts (Bulb not included)

Maximum Rotational Speed: 3450 RPM (No Load)

Grinding Wheels: Two 6-inch x 3/4-inch wheels (60-grit and 36-grit)

Arbor Size: 1/2 inch

Product Dimensions: 14"L x 6"W x 15"H

Item Weight: 16 Pounds

Color: Red, Black, Grey

Material: Iron

Special Features: Flexible Work Light

UPC: 044459042761

Warranty and Support

The WEN 4276 2.1-Amp 6-Inch Bench Grinder is covered by a**two-year warranty**. For technical assistance, parts, or warranty claims, please contact WEN Products customer service. A friendly and knowledgeable customer service hotline and a national service network are available to assist you.
For more information, visit the official WEN website or refer to the contact details provided with your product packaging.

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