RYOBI AG454

RYOBI AG454 7.5 Amp Corded Angle Grinder User Manual

1. Introduction

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your RYOBI AG454 7.5 Amp Corded Angle Grinder. Please read this manual thoroughly before using the tool to ensure proper handling and to maximize its performance and lifespan. This angle grinder is designed for cutting, grinding, and polishing various materials including metal and masonry.

2. Safety Information

WARNING: Always wear appropriate personal protective equipment, including eye protection, hearing protection, and gloves, when operating this power tool. Ensure the work area is clear and well-lit.

- Always disconnect the tool from the power source before making any adjustments, changing accessories, or performing maintenance.
- Keep hands and body clear of the rotating wheel.
- Secure the workpiece to prevent movement during operation.
- Do not operate the grinder near flammable liquids or gases.
- Ensure the wheel guard is properly installed and adjusted before use.
- Use only accessories rated for the speed of this tool.

3. Package Contents

Upon unpacking, verify that all items listed below are present and undamaged:

- RYOBI AG454 7.5 Amp Corded Angle Grinder
- Side Handle
- Grinding Wheel (4-1/2 inch)
- Wheel Guard
- Spanner Wrench

- Disc Flange
- Flange Nut
- Operator's Manual (this document)

4. Product Features

- **Powerful 7.5 Amp Motor:** Delivers robust performance for demanding grinding and cutting tasks.
- **High No-Load Speed:** Achieves 11,000 Revolutions Per Minute (RPM) for efficient material removal and smooth cuts.
- **4-1/2 Inch Grinding Wheel:** Standard size for versatile applications.
- **Ergonomic Rear Rotating Handle:** Rotates 90° left or right, providing enhanced user comfort and control in various working positions. Features GRIPZONE Technology for improved grip.
- **3-Position Side Handle:** Offers additional stability and leverage, adjustable to suit user preference and application.
- **Spindle Lock:** Facilitates quick and easy changes of grinding wheels and accessories.
- **Die-Cast Aluminum Gear Housing:** Ensures maximum gear durability and extended tool life.
- **Tool-Free Wheel Guard:** Allows for easy and quick adjustment of the guard's position without additional tools.
- **Replaceable Brushes:** Designed for extended tool life and ease of maintenance.

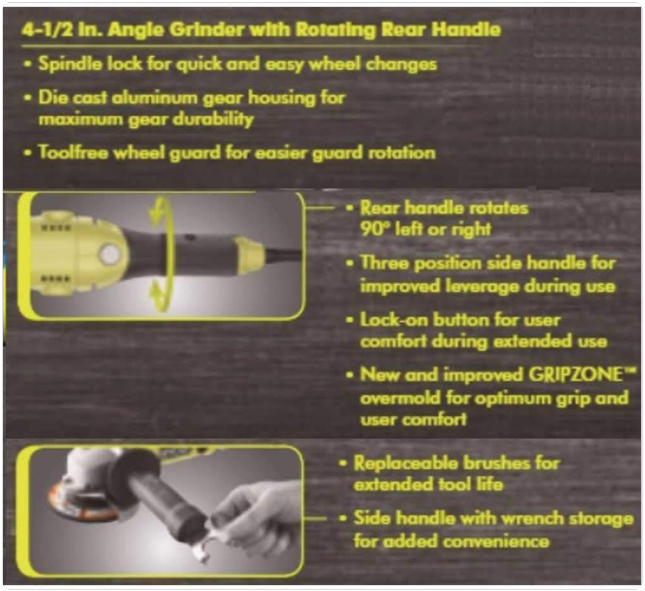


Figure 1: Diagram highlighting the rear rotating handle, 3-position side handle, lock-on button, GRIPZONE overmold, replaceable brushes, and side handle with wrench storage.

5. Setup

5.1 Attaching the Side Handle

The side handle can be installed in three different positions on the gear housing to provide optimal control and comfort for various applications and user preferences. Simply thread the side handle into one of the available mounting holes on the gear housing and tighten securely by hand.

5.2 Installing/Changing Grinding Wheel

1. Ensure the grinder is unplugged from the power source.
2. Press and hold the spindle lock button located on the gear housing.
3. Using the provided spanner wrench, loosen and remove the flange nut.
4. Remove the outer disc flange and the old grinding wheel.
5. Place the new 4-1/2 inch grinding wheel onto the spindle, ensuring it sits flush against the inner disc flange.
6. Reinstall the outer disc flange and the flange nut.
7. Press the spindle lock button and tighten the flange nut securely with the spanner wrench. Do not overtighten.



Figure 2: Illustrates the use of the spanner wrench for installing or changing the grinding wheel. The wrench engages with the flange nut to secure or release the wheel.

5.3 Adjusting the Wheel Guard

The wheel guard is tool-free for easy adjustment. Loosen the clamp on the wheel guard, rotate the guard to the desired position to deflect sparks and debris away from you, and then securely tighten the clamp. Always ensure the guard is positioned to provide maximum protection.

5.4 Power Connection

Connect the grinder's power cord to a standard 120V AC electrical outlet. Ensure the outlet is properly grounded and capable of supplying the required amperage (7.5 Amps).

6. Operating Instructions

6.1 Starting and Stopping the Grinder

To start the grinder, depress the trigger switch. For continuous operation, press the lock-on button while the trigger is depressed. To stop the grinder, release the trigger switch. If the lock-on button is engaged, depress the trigger switch fully and then release it to disengage the lock-on feature.

6.2 Grinding and Cutting Techniques

Hold the grinder firmly with both hands, ensuring a secure grip on the main handle and the side handle. Position the tool so the grinding wheel makes contact with the workpiece at an angle of approximately 15-30 degrees for grinding, or 90 degrees for cutting. Apply steady, even pressure and allow the tool's speed to do the work. Avoid excessive force, which can lead to kickback or damage to the wheel.

6.3 Adjusting the Rear Rotating Handle

The ergonomic rear handle can be rotated 90 degrees to the left or right. This feature allows you to optimize the handle position for comfort and control based on the specific application and your working angle. To rotate, simply twist the handle to the desired position until it locks into place.



Figure 3: The RYOBI AG454 angle grinder, showcasing its overall design with the main handle, side handle, and grinding wheel. This view highlights the tool's compact yet powerful form factor.



Figure 4: A closer view of the RYOBI AG454 angle grinder with the side handle attached, demonstrating how it provides an additional gripping point for improved control during operation.

7. Maintenance

Regular maintenance ensures the longevity and safe operation of your angle grinder.

- **Cleaning:** Keep the tool's ventilation openings clean and free of dust and debris. Use a dry cloth to wipe down the exterior. Do not use solvents.
- **Cord Inspection:** Periodically inspect the power cord for any signs of damage, cuts, or fraying. Replace damaged cords immediately.
- **Brush Replacement:** The motor brushes are replaceable for extended tool life. Refer to a qualified service technician for brush inspection and replacement if the tool experiences reduced power or intermittent operation.
- **Accessory Inspection:** Before each use, inspect the grinding wheel and other accessories for cracks, chips, or excessive wear. Replace damaged accessories immediately.

8. Troubleshooting

This section addresses common issues you might encounter with your RYOBI AG454 Angle Grinder. For problems not listed here, or if solutions do not resolve the issue, contact customer support.

Problem	Possible Cause	Solution
Tool does not start	No power supply; Damaged power cord; Faulty switch	Check power outlet and circuit breaker; Inspect power cord for damage; Contact service for switch replacement.
Reduced power or intermittent operation	Worn motor brushes; Overload	Have motor brushes inspected/replaced; Reduce load on the tool.
Excessive vibration	Damaged or improperly installed grinding wheel; Loose components	Inspect and replace grinding wheel if damaged; Ensure wheel and flanges are correctly installed and tightened; Check for loose screws.
Sparks or smoke from motor vents	Normal brush wear (sparks); Overload or internal fault (smoke)	Light sparking is normal. If smoke occurs, stop immediately and contact service.

9. Specifications

Specification	Value
Model Number	AG454
Brand	RYOBI
Motor	7.5 Amp
Voltage	120V AC
Maximum Rotational Speed	11,000 RPM (no-load)
Grinding Wheel Diameter	4-1/2 inches
Material	Aluminum (gear housing)
Product Dimensions (L x W x H)	2.5" x 5.5" x 12.3"
Item Weight	6.21 pounds
Power Source	Electric-powered
UPC	033287171385

10. Warranty and Support

The RYOBI AG454 7.5 Amp Corded Angle Grinder is backed by a**RYOBI 3-Year Manufacturer's Warranty**. This warranty covers defects in material and workmanship under normal use. For detailed warranty terms, conditions, and to register your product, please refer to the warranty card included with your purchase or visit the official RYOBI

website.
For technical assistance, parts, or service inquiries, please contact RYOBI customer support. Keep your purchase receipt as proof of purchase for warranty claims.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question