RYOBI P553

RYOBI 18V ONE+ 7-1/4" Miter Saw P553 Instruction Manual

Model: P553

1. Introduction and Safety Information

This manual provides essential instructions for the safe operation, assembly, maintenance, and troubleshooting of your RYOBI 18V ONE+ 7-1/4" Miter Saw, Model P553. Please read and understand all instructions before using the tool. Keep this manual for future reference.

General Safety Warnings

- Always wear eye protection, hearing protection, and a dust mask when operating the miter saw.
- Ensure the workpiece is securely clamped before making any cuts.
- Keep hands and body clear of the blade path.
- Do not operate the saw in damp or wet conditions.
- Ensure the work area is well-lit and free of obstructions.
- Use only RYOBI ONE+ 18V batteries with this tool.
- Disconnect the battery pack before making any adjustments, changing accessories, or storing the tool.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

2. Product Overview and Components

The RYOBI 18V ONE+ 7-1/4" Miter Saw (P553) is a compact and lightweight cordless tool designed for various cutting tasks, primarily involving wood. It is part of the RYOBI ONE+ 18V system, allowing for interchangeable battery use.



Figure 2.1: Overall view of the RYOBI 18V ONE+ 7-1/4" Miter Saw P553. This image shows the saw in its assembled state, highlighting its compact design and key components such as the blade guard, handle, and miter table.

Included Components (Bare Tool)

- 7-1/4 inch Blade (24T Carbide-Tipped)
- Blade Wrench
- Dust Bag
- Work Clamp

Note: This product is sold as a bare tool. The 18V ONE+ battery and charger are sold separately.

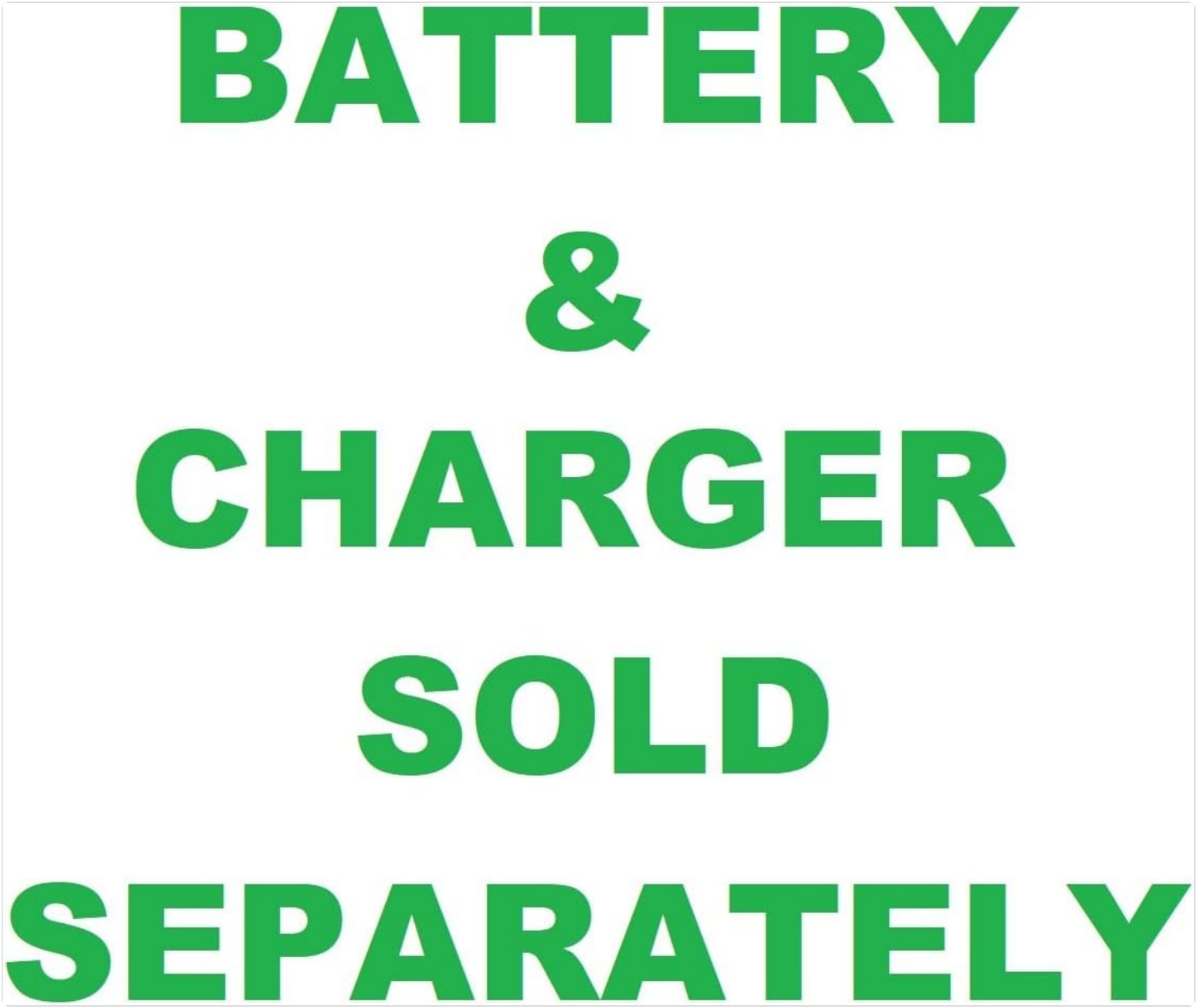


Figure 2.2: Illustrative image indicating that the battery and charger for the RYOBI 18V ONE+ system are not included with the saw and must be purchased separately.

3. Setup

3.1 Unpacking

1. Carefully remove all contents from the packaging.
2. Inspect the tool for any damage that may have occurred during shipping. Do not operate if damaged.
3. Ensure all listed components are present.

3.2 Blade Installation

1. Ensure the battery pack is removed from the saw.
2. Press the spindle lock button to secure the blade.
3. Using the provided blade wrench, loosen the blade bolt by turning it clockwise (it is a reverse thread).
4. Remove the outer blade washer and the old blade (if applicable).
5. Place the new 7-1/4 inch blade onto the spindle, ensuring the teeth are pointing downwards towards the front of the saw.
6. Reinstall the outer blade washer and blade bolt. Tighten the blade bolt firmly by turning it counter-clockwise. Do not overtighten.

3.3 Dust Bag Attachment

Attach the dust bag to the dust port located at the rear of the blade guard assembly. Ensure it is securely fastened to collect sawdust during operation.

3.4 Work Clamp Installation

Insert the work clamp into the designated slot on the miter saw base. Adjust its position to securely hold the workpiece against the fence and table, preventing movement during cuts.

3.5 Battery Installation



Figure 3.1: Top-down view of the RYOBI 18V ONE+ 7-1/4" Miter Saw, showing the battery compartment where the 18V ONE+ battery pack is inserted.

Align the RYOBI ONE+ 18V battery pack with the battery port on the saw handle. Slide the battery pack into place until it clicks securely. To remove, press the release latches on the battery pack and slide it out.

4. Operating Instructions

4.1 Powering On/Off

- To start the saw, depress the trigger switch.
- To stop the saw, release the trigger switch. The blade will coast to a stop.

4.2 Adjusting Miter Angle

1. Loosen the miter lock knob.
2. Rotate the miter table to the desired angle (up to 45 degrees left or right).
3. Tighten the miter lock knob to secure the table in position.

4.3 Making a Cut

- Place the workpiece firmly against the fence and secure it with the work clamp.
- Ensure the blade is clear of the workpiece before starting the saw.
- Depress the trigger and allow the blade to reach full speed.
- Slowly lower the saw head through the workpiece with a steady, controlled motion.
- Once the cut is complete, release the trigger and allow the blade to stop before raising the saw head.
- Remove the workpiece only after the blade has completely stopped.

4.4 Cutting Capacity

This saw is designed for cutting wood and wood-based materials. Refer to the specifications for maximum cutting dimensions at various miter angles. For wider materials, a double-cut technique may be employed, ensuring precise alignment for each pass.

5. Maintenance

Regular maintenance ensures optimal performance and extends the life of your miter saw. Always disconnect the battery pack before performing any maintenance.

5.1 Cleaning

- After each use, clean the saw with a soft cloth to remove dust and debris.
- Use compressed air to clear dust from vents and moving parts.
- Empty the dust bag regularly.

5.2 Blade Care and Replacement

- Inspect the blade regularly for sharpness and damage. A dull or damaged blade can cause kickback and poor cuts.
- Replace the blade as described in Section 3.2 when it becomes dull or damaged. Use only 7-1/4 inch blades designed for miter saws and appropriate for the material being cut.

5.3 Battery Pack Maintenance

- Store battery packs in a cool, dry place away from direct sunlight and extreme temperatures.
- Charge battery packs using only RYOBI ONE+ compatible chargers.
- Do not store battery packs in a discharged state for extended periods.

6. Troubleshooting

This section addresses common issues you might encounter with your miter saw. For problems not listed here, contact RYOBI customer service.

Problem	Possible Cause	Solution
Saw does not start	Battery not inserted correctly Battery discharged Faulty battery or charger	Ensure battery is fully seated Charge battery fully Test with another battery/charger; contact service if issue persists

Problem	Possible Cause	Solution
Poor cut quality / Blade binding	Dull or damaged blade Incorrect blade for material Workpiece not clamped securely Forcing the cut	Replace blade Use appropriate blade Secure workpiece firmly Allow blade to reach full speed and cut slowly
Excessive dust	Dust bag full or improperly attached Dust port clogged	Empty and reattach dust bag Clear dust port

7. Specifications

- **Brand:** RYOBI
- **Model:** P553
- **Voltage:** 18 Volts
- **Blade Diameter:** 7-1/4 inches
- **Blade Material:** Carbide
- **Number of Teeth:** 24
- **Cutting Angle:** Up to 45 Degrees
- **Power Source:** Battery Powered (RYOBI ONE+ 18V system)
- **Item Weight:** Approximately 19 Pounds
- **Product Dimensions:** 21 x 13.5 x 12.4 inches
- **Included Components:** Bare Tool (7-1/4 in. Blade, Blade Wrench, Dust Bag, Work Clamp)
- **UPC:** 033287177998

8. Warranty and Support

Warranty Information

This RYOBI tool is backed by a **3-Year Manufacturer's Warranty**. This warranty covers defects in material and workmanship. Please retain your proof of purchase for warranty claims. For full warranty details and conditions, refer to the documentation included with your product or visit the official RYOBI website.

Customer Support

For technical assistance, replacement parts, or warranty service, please visit the official RYOBI website or contact their customer service department. Contact information can typically be found on the product packaging or the RYOBI official website.

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.

Name

Anonymous

Email

you@example.com

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