Makita DHP453RYJ

Makita DHP453 18V LXT Cordless Hammer Driver-Drill Instruction Manual

Model: DHP453RYJ

1. Introduction

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your Makita DHP453 18V LXT Cordless Hammer Driver-Drill. Please read this manual thoroughly before using the tool to ensure proper handling and to prevent injury or damage.

2. Important Safety Instructions

Always follow basic safety precautions when using electric tools to reduce the risk of fire, electric shock, and personal injury.

- **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 such as pipes, radiators, ranges, and refrigerators. Do not expose power tools to rain or wet conditions.
- **Personal Safety:** Always wear eye protection. Use hearing protection when operating the tool for extended periods. Dress properly; do not wear loose clothing or jewelry. Keep hair, clothing, and gloves away from moving parts.
- **Tool Use and Care:** Do not force the power tool. Use the correct power tool for your application. Disconnect the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.
- **Battery Pack Use and Care:** Recharge only with the charger specified by the manufacturer. Do not use battery packs with power tools other than those specifically designated.

3. Package Contents

Verify that all items are present and in good condition upon opening the package:

- Makita DHP453 Cordless Hammer Driver-Drill
- 2 x 1.5 Ah Lithium-Ion Batteries
- Battery Charger (DC18RC)
- Makpac Carrying Case
- Instruction Manual (this document)

4. Components and Features

Familiarize yourself with the main parts of your Makita DHP453 Hammer Driver-Drill:



Figure 4.1: Front view of the Makita DHP453 Cordless Hammer Driver-Drill, showing the chuck, torque ring, mode selector, and handle with battery attached.



Figure 4.2: Detailed view of the drill's chuck, torque adjustment ring (numbered 1-16), and mode selector (drill and hammer icons).

- **Chuck:** Keyless chuck for quick and easy bit changes.
- **Torque Adjustment Ring:** Allows selection of 16 different torque settings for screwdriving, plus a dedicated drill mode.
- **Mode Selector:** Switch between drilling (drill icon) and hammer drilling (hammer icon) modes.
- **Trigger Switch:** Controls the tool's speed.
- **Reversing Switch:** Changes the direction of rotation (forward/reverse).
- **Battery Pack:** 18V Lithium-Ion battery provides power.
- **Battery Charger:** Used to recharge the battery packs.

5. Setup

5.1 Charging the Battery

Before first use, fully charge the battery pack. The charger (DC18RC) is designed for Makita 18V Lithium-Ion batteries.

1. Connect the charger to a power outlet.
2. Insert the battery pack into the charger. Ensure it clicks into place.
3. The charging indicator light on the charger will show the charging status. A full charge typically takes approximately 30 minutes for a 1.5 Ah battery.
4. Once charging is complete, remove the battery pack from the charger.



Figure 5.1: The Makita DHP453 drill alongside its battery and the DC18RC charger, illustrating the charging setup.



Figure 5.2: A close-up view of the Makita DC18RC battery charger with a battery inserted, showing the indicator lights.

5.2 Installing/Removing the Battery Pack

- **To Install:** Align the tongue on the battery pack with the groove in the tool's housing and slide the battery pack

into place until it locks with a slight click.

- **To Remove:** Press the button on the front of the battery pack and slide the battery out of the tool.

5.3 Installing/Removing Drill Bits or Screwdriver Bits

1. Ensure the tool is switched off and the battery pack is removed.
2. Rotate the chuck counter-clockwise to open the jaws.
3. Insert the drill bit or screwdriver bit fully into the chuck.
4. Rotate the chuck clockwise to tighten the jaws securely around the bit. Ensure the bit is centered and firmly gripped.
5. To remove, rotate the chuck counter-clockwise to loosen the jaws and pull the bit out.

6. Operating Instructions

6.1 Selecting the Operating Mode

The DHP453 offers two main operating modes:

- **Drilling Mode (Drill Icon):** For drilling into wood, metal, and plastic. The hammer mechanism is disengaged.
- **Hammer Drilling Mode (Hammer Icon):** For drilling into masonry, concrete, and brick. The hammer mechanism engages, providing impact action.

Rotate the mode selector ring to choose the desired mode.

6.2 Adjusting Torque for Screwdriving

When using the tool for screwdriving, the torque adjustment ring allows you to set the desired clutch setting. This prevents over-tightening of screws and stripping of screw heads or materials.

- Settings 1-16: Lower numbers indicate lower torque, suitable for smaller screws or softer materials. Higher numbers provide more torque for larger screws or harder materials.
- Drill Mode (Drill Icon): When set to the drill icon, the clutch is bypassed, providing maximum torque for drilling operations.

Experiment with different settings on scrap material to find the appropriate torque for your application.

6.3 Trigger Switch and Speed Control

The tool's speed is controlled by the pressure applied to the trigger switch. Pressing the trigger further increases the speed. This allows for precise control, especially when starting a hole or driving a screw.

6.4 Reversing Switch

The reversing switch is located above the trigger. Push it from one side to the other to change the direction of rotation (clockwise for forward, counter-clockwise for reverse). Always ensure the tool has come to a complete stop before changing the direction of rotation.

6.5 General Operation Tips

- Apply steady, even pressure when drilling or driving.
- For drilling, start with a slow speed to prevent the bit from wandering, then increase speed as needed.
- When hammer drilling, allow the tool to do the work; excessive force is not necessary.
- Always secure your workpiece to prevent it from moving during operation.

7. Maintenance

Regular maintenance ensures optimal performance and extends the life of your tool.

- **Cleaning:** Regularly clean the tool's ventilation openings to prevent dust buildup, which can cause overheating. Use a soft, dry cloth. Do not use strong solvents or abrasive cleaners.
- **Chuck Maintenance:** Periodically clean the chuck jaws to ensure proper gripping of bits.
- **Battery Care:** Store batteries in a cool, dry place away from direct sunlight. Do not store fully discharged batteries for extended periods.
- **Inspection:** Before each use, inspect the tool for any damaged parts, loose screws, or worn components. Do not use a damaged tool.
- **Service:** All repairs and maintenance not described in this manual should be performed by a Makita authorized service center.

8. Troubleshooting

If you encounter issues with your DHP453, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Tool does not start.	Battery not charged or not properly installed.	Charge battery fully. Ensure battery is securely clicked into place.
Reduced power or speed.	Battery charge is low.	Recharge the battery pack.
Bit slips in chuck.	Chuck not tightened sufficiently or jaws are dirty.	Retighten chuck firmly. Clean chuck jaws. Ensure bit shank is not damaged.
Overheating during use.	Blocked ventilation slots or continuous heavy load.	Clean ventilation slots. Allow tool to cool down. Reduce load or take breaks.

If the problem persists after attempting these solutions, contact a Makita authorized service center.

9. Specifications

Feature	Specification
Model Number	DHP453RYJ
Voltage	18V
Battery Type	Lithium-Ion
Battery Capacity (Included)	1.5 Ah
Maximum Chuck Size	13 mm
Maximum Torque	42 Nm

Feature	Specification
No-Load Speed (Low)	0-400 RPM
No-Load Speed (High)	0-1,300 RPM
Impacts Per Minute (Low)	0-6,000 IPM
Impacts Per Minute (High)	0-19,500 IPM
Dimensions (L x W x H)	9.61 x 9.13 x 3.11 inches (approx.)
Net Weight (with battery)	4.9 kg (10.78 lbs)



Figure 9.1: Size comparison of the Makita DHP453 drill, indicating its approximate height of 9.3 inches (23 cm).

10. Warranty and Support

Makita power tools are subject to rigorous quality control and are guaranteed against defects in workmanship and materials. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Makita website.

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

Makita Official Website: www.makitatools.com

© 2023 Makita Corporation. All rights reserved.

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