RYOBI #PSBDD01K

RYOBI ONE+ HP 18V Brushless Cordless Compact 1/2 in. Drill/Driver Kit User Manual

Brand: RYOBI | Model: #PSBDD01K

Introduction

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your RYOBI ONE+ HP 18V Brushless Cordless Compact 1/2 in. Drill/Driver Kit. This heavy-duty yet lightweight tool is designed for versatility and power, delivering up to 400 in./lbs. of torque. Please read this manual thoroughly before use and keep it for future reference.

Safety Information

Always follow basic safety precautions to reduce the risk of fire, electric shock, and personal injury. Keep your work area clean and well-lit. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Always wear eye protection and appropriate personal protective equipment.

Battery Safety

Use only the charger specified by the manufacturer to recharge. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack. Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire. Do not short-circuit a battery pack. Do not expose battery packs or tools to fire or excessive temperature. Follow all charging instructions and do not charge the battery pack or tool outside of the temperature range specified in the instructions.

Package Contents

Your RYOBI ONE+ HP 18V Brushless Cordless Compact 1/2 in. Drill/Driver Kit includes the following items:

- (1) PSBDD01 - 18V ONE+ HP COMPACT BRUSHLESS 1/2" DRILL/DRIVER
- (2) PBP002 - 18V ONE+ 1.5AH LITHIUM BATTERY
- (1) PCG002 - 18V ONE+ CHARGER
- (1) Tool Bag



Image: The complete RYOBI ONE+ HP 18V Brushless Cordless Compact 1/2 in. Drill/Driver Kit, showing the drill, two 1.5Ah lithium batteries, the battery charger, and the included tool bag.

Product Overview

The RYOBI ONE+ HP 18V Brushless Cordless Compact 1/2 in. Drill/Driver is engineered for performance and ergonomics. Its compact size (6.4 inches in length) and lightweight design make it ideal for tight spaces and overhead work. The brushless motor ensures longer runtime, more power, and extended motor life.

Key Features:

- **Brushless Motor:** Provides up to 400 in-lbs. of torque for demanding applications.
- **2-Speed Gearbox:** Offers versatility with 0-450 RPM for high torque applications and 0-1,700 RPM for high-speed drilling.
- **24-Position Clutch:** Allows precise torque control to prevent overdriving screws or damaging materials.
- **1/2 in. Single Sleeve Ratcheting Chuck:** Designed for quick and secure bit changes.
- **On-board LED Worklight:** Illuminates the workspace for improved visibility.

Setup

1. Charging the Battery

1. Connect the charger (PCG002) to a standard 120V AC outlet.
2. Slide the 18V ONE+ 1.5Ah Lithium Battery (PBP002) onto the charger until it clicks into place.
3. The charger's indicator light will show the charging status. Refer to the charger's specific manual for detailed light indications.
4. Once fully charged, remove the battery from the charger.

2. Installing the Battery

1. Align the battery with the base of the drill/driver handle.
2. Slide the battery into the handle until it locks securely into place. Ensure it is fully seated to prevent accidental dislodgement during operation.

3. Installing a Drill Bit or Driver Bit

1. Rotate the chuck counter-clockwise to open the jaws.
2. Insert the desired drill bit or driver bit into the chuck, ensuring it is centered.
3. Rotate the chuck clockwise to tighten the jaws firmly around the bit. The ratcheting mechanism will provide a secure grip.
4. Pull on the bit to ensure it is securely fastened before operation.

Operating Instructions

1. Speed Selection

The drill/driver features a 2-speed gearbox. Use the speed selector switch located on top of the tool:

- **Position 1 (Low Speed):** 0-450 RPM. Ideal for high-torque applications like driving screws or drilling large holes.
- **Position 2 (High Speed):** 0-1,700 RPM. Suitable for fast drilling of smaller holes.

Always select the appropriate speed before starting the tool.

2. Torque Adjustment (Clutch)

The 24-position clutch allows you to adjust the amount of torque applied. Rotate the clutch collar to the desired setting:

- Lower numbers (1-5): For driving small screws or working with soft materials.
- Medium numbers (6-15): For driving medium screws into various materials.
- Higher numbers (16-23): For driving large screws or working with harder materials.
- Drill symbol: For drilling applications, providing maximum torque without clutch slippage.

Experiment with different settings on scrap material to find the optimal torque for your task.

3. Starting and Stopping

To start the tool, depress the trigger switch. The variable speed trigger allows you to control the speed by varying the pressure. To stop the tool, release the trigger switch. The integrated LED worklight will illuminate when the trigger is pressed.

4. Forward/Reverse Rotation

The forward/reverse selector switch is located above the trigger. Push the switch to the left for forward rotation (clockwise) and to the right for reverse rotation (counter-clockwise). Ensure the switch is in the center position to lock the trigger and prevent accidental starting.

Maintenance

Cleaning

Keep the tool's air vents clear and free of debris to prevent overheating. Use a clean, dry cloth to wipe down the tool. Do not use harsh chemicals or abrasive cleaners. Periodically clean the chuck jaws to ensure proper gripping of bits.

Storage

When not in use, store the drill/driver, batteries, and charger in a cool, dry place, away from direct sunlight and moisture. Store batteries fully charged to prolong their lifespan. Use the included tool bag for convenient storage and transport.

Troubleshooting

Problem	Possible Cause	Solution
Tool does not start.	Battery not installed correctly.	Ensure battery is fully seated and locked.
	Battery is discharged.	Charge the battery.
	Forward/reverse switch is in center (locked) position.	Move switch to forward or reverse position.
Loss of power during operation.	Battery is low.	Recharge or replace battery.
	Overload protection activated.	Reduce pressure or use a lower speed/higher torque setting. Allow tool to cool.
Bit slips in chuck.	Chuck not tightened sufficiently.	Retighten chuck firmly. Ensure bit shank is clean.

Specifications

Feature	Specification
Model Number	PSBDD01
Voltage	18V
Motor Type	Brushless
Chuck Size	1/2 in. (13 mm)
No-Load Speed (Low)	0-450 RPM
No-Load Speed (High)	0-1,700 RPM
Max Torque	Up to 400 in-lbs.

Feature	Specification
Clutch Settings	24-Position
Tool Weight (without battery)	Approx. 3.52 lbs (1.6 kg)
Dimensions (L x W x H)	6.42 x 6.42 x 6.42 inches
Battery Type	Lithium-Ion
Charger Model	PCG002

Warranty and Support

The RYOBI ONE+ HP 18V Brushless Cordless Compact 1/2 in. Drill/Driver Kit is backed by the RYOBI 3-Year Manufacturer's Warranty. For warranty claims, technical assistance, or replacement parts, please contact RYOBI customer support directly. Keep your proof of purchase for warranty validation.
For further assistance, visit the official RYOBI website or contact their customer service line. Refer to the product packaging or the RYOBI website for the most current contact information.

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