

## Bosch PBD 40

# Bosch PBD 40 Drill Press and MS 100 G Machine Vice Instruction Manual

## 1. INTRODUCTION

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This manual provides essential information for the safe and effective operation, setup, and maintenance of your Bosch PBD 40 Drill Press and accompanying MS 100 G Machine Vice. Please read these instructions carefully before using the tool for the first time. Keep this manual for future reference.

## 2. GENERAL SAFETY INSTRUCTIONS

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Always observe basic safety precautions to reduce the risk of fire, electric shock, and personal injury. Failure to follow these instructions may result in serious injury.

- **Work Area Safety:** Keep the 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:** Power tool plugs must match the outlet. Never modify the plug in any way. Avoid body contact with earthed or grounded surfaces.
- **Personal Safety:** Always wear eye protection. Use hearing protection when operating noisy tools. 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 plug from the power source before making any adjustments, changing accessories, or storing power tools.
- **Secure Workpiece:** Always secure the workpiece firmly using the machine vice or clamps to prevent movement during drilling.

## 3. PRODUCT OVERVIEW

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The Bosch PBD 40 Drill Press is designed for precise drilling in various materials, including steel and wood. It features a powerful 710 W motor and a robust metal base for stability. The included MS 100 G Machine Vice provides secure clamping for your workpieces.

### Key Features:

- PBD 40 drill press for precise drilling and simple operation.

- Easy execution of series drilling, thanks to the digital indicator, which allows easy reading of the exact drilling depth.
- Integrated laser for precise drilling and a mini LED light for good illumination of the work area.
- Robust metal base for stability during stationary work.
- Continuous speed adjustment for optimal performance across different materials.

## Components:



**Figure 1:** Operator using the PBD 40 Drill Press to drill into a wooden workpiece. Note the digital display and handwheel for depth control.



**Figure 2:** Detailed view of the PBD 40 control panel, showing the digital speed display, LED work light, and the drill bit in action on wood.



**Figure 3:** Operator drilling into a metal component using the PBD 40 Drill Press. The workpiece is held securely by the included machine vice.



**Figure 4:** Close-up of the laser technology feature, showing the precise crosshair projection on a metal surface, aiding in accurate drill positioning.

## 4. SETUP

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### 4.1 Unpacking and Assembly

1. Carefully remove all components from the packaging.
2. Place the drill press base on a stable, level workbench.
3. Attach the column to the base, ensuring it is securely fastened according to the diagrams in the separate assembly guide (if provided).
4. Mount the drill head assembly onto the column.
5. Ensure all fasteners are tightened before connecting to power.

### 4.2 Attaching the MS 100 G Machine Vice

1. Position the MS 100 G machine vice on the drill press table.
2. Align the vice with the T-slots or mounting holes on the drill press table.
3. Use appropriate bolts and nuts (not included, check packaging for specifics) to secure the vice firmly to the table. Ensure the vice is stable and does not move during operation.

### 4.3 Installing Drill Bits

1. Ensure the drill press is unplugged from the power source.
2. Open the chuck jaws by rotating the chuck key (if applicable) or by hand for keyless chucks.
3. Insert the drill bit into the chuck, ensuring it is centered and fully seated.
4. Tighten the chuck jaws securely. For keyless chucks, hand-tighten firmly.

## 5. OPERATING INSTRUCTIONS

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### 5.1 Powering On/Off

- Connect the power cord to a suitable 220V (AC) electrical outlet.
- To turn on the drill press, press the green ON button.
- To turn off the drill press, press the red OFF button. In case of emergency, press the red OFF button immediately.

### 5.2 Adjusting Speed

- The PBD 40 features continuous speed adjustment. Use the speed control knob to set the desired rotational speed.
- The digital display will show the current RPM. Adjust the speed according to the material being drilled and the drill bit diameter. Generally, harder materials and larger drill bits require lower speeds.

### 5.3 Using the Laser Guide and LED Light

- Activate the integrated laser guide by pressing the laser button on the control panel. A crosshair will project onto your workpiece, indicating the drilling point.
- Use the LED light button to illuminate the work area for better visibility.
- Always verify the laser alignment with a test drill on scrap material before critical operations.

### 5.4 Setting Drilling Depth

- The digital depth indicator allows for precise depth control.
- Lower the drill bit until it just touches the workpiece surface.
- Reset the digital depth indicator to zero.
- Adjust the depth stop mechanism to the desired drilling depth. The digital display will show the current depth as you drill.

### 5.5 Securing Workpieces with the MS 100 G Machine Vice

- Place the workpiece between the jaws of the MS 100 G machine vice.
- Tighten the vice handle firmly to secure the workpiece. Ensure it cannot shift during drilling.
- For irregular shapes, use additional clamps or padding to ensure stability.

## 5.6 Drilling Techniques

- Always start drilling at a lower speed and gradually increase to the recommended speed for the material.
- Apply steady, even pressure. Do not force the drill.
- Periodically retract the drill bit to clear chips, especially when drilling deep holes in metal.
- Use cutting fluid when drilling metal to reduce heat and extend drill bit life.

## 6. MAINTENANCE

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Regular maintenance ensures the longevity and optimal performance of your Bosch PBD 40 Drill Press.

### 6.1 Cleaning

- Always unplug the tool before cleaning.
- Wipe down the exterior of the drill press with a clean, damp cloth.
- Remove dust and debris from the motor vents using compressed air or a soft brush.
- Clean the drill press table and vice jaws regularly to prevent buildup of chips and grime.

### 6.2 Lubrication

- Apply a light coat of machine oil to the column and moving parts of the drill head periodically to ensure smooth operation.
- Lubricate the threads of the machine vice screw to maintain ease of adjustment.

### 6.3 Storage

- Store the drill press in a dry, secure location, out of reach of children.
- Protect the tool from moisture and extreme temperatures.

## 7. TROUBLESHOOTING

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Refer to this section for common issues and their solutions.

Problem	Possible Cause	Solution
Drill press does not start.	No power supply; ON/OFF switch faulty; motor overload.	Check power connection and circuit breaker. Ensure ON button is pressed. Allow motor to cool if overloaded.
Inaccurate drilling.	Loose drill bit; workpiece not secured; laser misaligned; worn drill bit.	Tighten chuck. Secure workpiece with vice. Calibrate laser. Replace drill bit.
Excessive vibration or noise.	Loose components; unbalanced drill bit; worn bearings.	Check and tighten all fasteners. Ensure drill bit is properly installed. If problem persists, contact service.
Drill bit gets stuck.	Too much feed pressure; incorrect speed; dull drill bit.	Reduce feed pressure. Adjust speed for material. Replace or sharpen drill bit.

## 8. TECHNICAL SPECIFICATIONS

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Below are the key technical specifications for the Bosch PBD 40 Drill Press.

Feature	Specification
Brand	Bosch
Model	PBD 40
Power Source	Corded Electric
Maximum Power	710 Watt
Voltage	220 Volt (AC)
Maximum Rotational Speed	2.5 Revolutions per minute (Note: This value seems unusually low and might be a data entry error. Refer to product documentation for actual RPM range.)
Color	Black, Green, Red
Manufacturer	Bosch

## 9. WARRANTY AND SUPPORT

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### 9.1 Warranty Information

Bosch products are manufactured to the highest quality standards and come with a manufacturer's warranty. The specific terms and duration of your warranty may vary by region and product. Please refer to the warranty card included with your product or visit the official Bosch website for detailed warranty information.

### 9.2 Customer Support

For technical assistance, spare parts, or service inquiries, please contact Bosch customer support. Contact details can typically be found on the Bosch official website or in the documentation provided with your product.

- **Online Support:** Visit the Bosch Home and Garden website for FAQs, product registration, and service center locators.
- **Telephone Support:** Refer to your local Bosch contact information for telephone support hours.