

WOODRIVER 151125W

WoodRiver Low Angle Block Plane Instruction Manual

Model: 151125W

INTRODUCTION

This manual provides detailed instructions for the safe and effective use of your WoodRiver Low Angle Block Plane. Designed for precision woodworking, this tool features a low 12-degree bed angle, a high carbon tool steel blade with a 25-degree angle, a knuckle-style lever cap, and an adjustable mouth. Proper understanding of its components and operation will ensure optimal performance and longevity.

SAFETY INFORMATION

Always prioritize safety when using hand tools. Failure to follow these guidelines may result in injury or damage to the tool or workpiece.

- **Wear Eye Protection:** Always wear safety glasses or goggles to protect your eyes from flying debris.
- **Keep Blades Sharp:** A sharp blade is safer and more effective than a dull one. Dull blades require more force, increasing the risk of slippage.
- **Secure Workpiece:** Ensure your workpiece is firmly clamped or held to prevent movement during planing.
- **Proper Grip:** Maintain a firm and controlled grip on the plane at all times.
- **Work in a Well-Lit Area:** Adequate lighting improves visibility and reduces the chance of accidents.
- **Store Safely:** Store the plane with the blade retracted or protected when not in use to prevent accidental cuts.

COMPONENTS

Familiarize yourself with the main parts of your WoodRiver Low Angle Block Plane:

- **Body:** The main ductile iron casting that houses all components.
- **Blade (Iron):** The cutting edge, made from high carbon tool steel.
- **Lever Cap:** Secures the blade in place, featuring a knuckle-style design for comfortable grip.

- **Blade Adjustment Knob:** Controls the depth of cut by moving the blade vertically.
- **Mouth Adjustment Lever:** Allows adjustment of the opening in front of the blade, controlling chip breaking and preventing tear-out.
- **Lateral Adjustment Lever:** Fine-tunes the blade's alignment to ensure an even cut.



Figure 1: Main view of the WoodRiver Low Angle Block Plane. This image displays the overall construction, including the ductile iron body, the chrome-plated knuckle-style lever cap, and the blade adjustment mechanism.

SETUP AND INITIAL ADJUSTMENT

Before first use, or after blade removal, follow these steps for proper setup:

1. **Unpacking and Inspection:** Carefully remove the plane from its packaging. Inspect all components for any signs of damage.
2. **Blade Installation:** If the blade is not installed, place it onto the bed with the bevel facing down. Position the lever cap over the blade and secure it firmly using the lever cap screw. Ensure the lever cap is tight enough to prevent blade movement but not overtightened.
3. **Blade Sharpening:** For optimal performance, the blade should be sharpened and honed to a fine edge. While the blade comes pre-sharpened, a fresh honing will significantly improve cutting quality. Refer to woodworking resources for proper sharpening techniques.
4. **Blade Depth Adjustment:** Turn the blade adjustment knob clockwise to advance the blade for a deeper cut, or counter-clockwise to retract it for a shallower cut. Aim for a very fine shaving initially.
5. **Lateral Adjustment:** Use the lateral adjustment lever to ensure the blade's cutting edge is parallel to the sole of the plane. This prevents uneven cuts.
6. **Mouth Opening Adjustment:** The adjustable mouth allows you to control the size of the opening in front of the blade. For fine work and to minimize tear-out, set a very narrow mouth opening. For heavier cuts, a wider mouth may be used. Loosen the mouth adjustment lever, slide the front shoe to the desired position, and then re-tighten the lever.



Figure 2: Side view of the block plane, highlighting the blade adjustment knob at the rear and the mouth adjustment lever on the side. These controls allow for precise tuning of the plane's cutting action.



Figure 3: Another perspective of the block plane, showing the ergonomic design of the knuckle-style lever cap and the robust construction of the plane body. The blade is visible through the mouth opening.

OPERATING INSTRUCTIONS

The low angle block plane is versatile for various woodworking tasks:

Planing End Grain

Due to its low cutting angle, this plane excels at planing end grain. Take very light passes to avoid tear-out. It is often beneficial to chamfer the far edge of the workpiece or plane from both ends towards the middle to prevent splintering.

Chamfering Edges

Hold the plane at an angle to the edge of the workpiece and make successive passes to create a chamfer. The adjustable mouth allows for fine control over the cut.

Trimming and Fitting

The block plane is ideal for small trimming tasks, such as fitting joinery, adjusting tenons, or flush-trimming proud edges. Its compact size allows for one-handed operation and access to tight spaces.



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Figure 4: A woodworker demonstrating the use of the WoodRiver Low Angle Block Plane on a wooden block. The image shows the proper hand placement and the fine shavings produced during operation.

MAINTENANCE

Regular maintenance ensures your plane remains in excellent working condition:

- **Cleaning:** After each use, brush away wood shavings and dust. Periodically disassemble the plane and clean all parts with a soft cloth.
- **Blade Sharpening and Honing:** The most critical maintenance task is keeping the blade sharp. Sharpen the blade regularly using appropriate sharpening stones or systems. Hone the edge to a mirror finish for the best results.
- **Rust Prevention:** The ductile iron body and steel blade are susceptible to rust. After cleaning, apply a thin coat of camellia oil, paste wax, or a rust preventative to all metal surfaces, especially if storing for extended periods.

- **Lubrication:** Apply a small amount of light machine oil to the blade adjustment threads and the mouth adjustment mechanism to ensure smooth operation.

TROUBLESHOOTING

Address common issues to maintain optimal performance:

Issue	Possible Cause	Solution
Blade not cutting or producing poor shavings	Dull blade; blade not extended enough; mouth opening too wide.	Sharpen and hone the blade; adjust blade depth; narrow the mouth opening.
Blade chatters or vibrates	Lever cap not tight enough; blade not seated properly; excessive blade extension.	Tighten lever cap; re-seat blade; reduce blade extension.
Tear-out on workpiece	Mouth opening too wide; planing against the grain; dull blade.	Narrow the mouth opening; plane with the grain; sharpen blade.
Blade slips or moves during use	Lever cap not sufficiently tightened.	Ensure the lever cap is securely fastened.

SPECIFICATIONS

- **Brand:** WOODRIVER
- **Model Number:** 151125W
- **Product Dimensions:** 7.85"L x 3.75"W x 2.75"H
- **Item Weight:** 2.04 Pounds
- **Style:** Low Angle Block Plane
- **Power Source:** Manual
- **Base Material:** Ductile Iron
- **Cutting Depth:** Up to 2 Inches (adjustable)
- **Bed Angle:** 12 degrees
- **Blade Angle:** 25 degrees
- **Blade Material:** High Carbon Tool Steel
- **UPC:** 844788010611

WARRANTY AND SUPPORT

For warranty information, technical support, or replacement parts, please contact Woodcraft Supply, the manufacturer of WoodRiver products. Refer to your purchase documentation or the Woodcraft website for current contact details.