LaserPecker LP4 Deluxe Bundle

LaserPecker LP4 Dual-Laser Engraver User Manual
MODEL: LP4 DELUXE BUNDLE

1. Introduction

The LaserPecker LP4 is an advanced dual-laser engraving machine designed for precision and versatility across a wide range of materials. This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your LP4 Deluxe Bundle.

2. Safety Information

Operating laser equipment requires strict adherence to safety guidelines to prevent injury. Always wear the provided safety goggles when the laser is active. Ensure the protective laser shield is properly in place during operation. In case of emergency, immediately press the emergency stop button. Operate the engraver in a well-ventilated area, preferably with an air purifier, as engraving can produce fumes. Keep children and pets away from the device during operation.

3. Package Contents

The LP4 Deluxe Bundle includes the following components:

- LaserPecker LP4 Main Unit
- Rotary Extension
- Slide Extension
- Power Adapter and Cables
- Safety Goggles
- User Manual (this document)

Figure 3.1: LaserPecker LP4 Main Unit with Slide and Rotary Extensions.

4. Setup

Setting up your LaserPecker LP4 is a straightforward process. Follow these general steps:

1. **Assembly:** Carefully unpack all components. Assemble the main unit, ensuring all parts click securely into place. The design is intuitive, allowing for quick setup.

2. **Power Connection:** Connect the power adapter to the LP4 unit and plug it into a suitable power outlet.

3. **Software Installation:** Download and install the official LaserPecker App (for mobile devices) or LaserPecker Design Studio (LDS) software (for desktop computers). The software is essential for controlling the engraver and managing your projects.

4. **Connectivity:** Connect your device (smartphone, tablet, or computer) to the LP4 via Bluetooth or USB. Ensure a stable connection for uninterrupted operation.

5. **Initial Placement:** Place the LP4 on a stable, flat surface. Ensure adequate clearance around the engraving area.

Figure 4.1: The LaserPecker LP4 is designed for unmatched portability and a larger engraving area, making setup flexible.

5. Operating Instructions

The LaserPecker LP4 features a dual-laser system and various accessories to enhance your engraving capabilities.

5.1. Material Compatibility and Dual-Laser System

The LP4 is equipped with two distinct lasers for optimal performance on different materials:

- **10W 450nm Blue Diode Laser:** Ideal for engraving and cutting materials such as wood, cork, acrylic, paper, rubber, leather, glass, and ceramic.
- **2W 1064nm Infrared Laser:** Perfect for engraving metals like gold, silver, copper, platinum, stainless steel, aluminum, and certain plastics.

The device allows for automatic switching between these laser sources based on your material selection and project settings.

Advanced Dual-Laser System

Fast Engrave On 300+ Materials

10W 450 nm
Blue Diode Laser

Wood · Cork · Acrylic · Paper · Rubber · Leather · Glass · Ceramic · More

2W 1064 nm
Infrared Laser

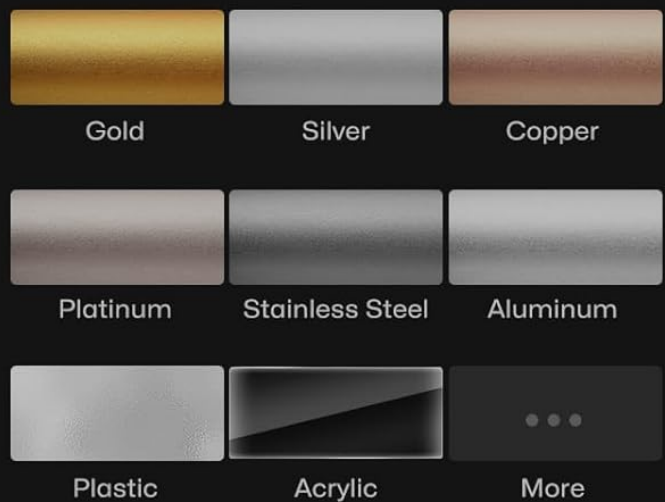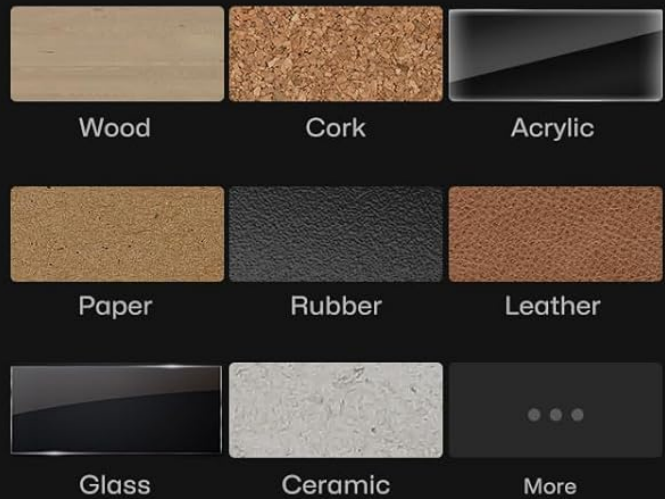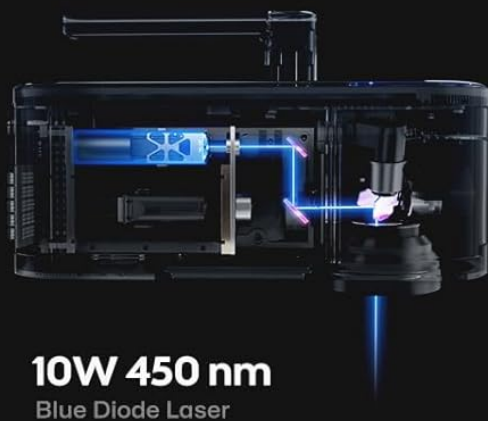Gold · Silver · Copper · Platinum · Stainless Steel · Aluminum · Plastic · Acrylic · More

Figure 5.1: The Advanced Dual-Laser System of the LP4, showing compatible materials for both the 450nm Blue Diode Laser and the 1064nm Infrared Laser.

Figure 5.2: Internal view illustrating the dual laser paths for the 10W Blue Diode Laser and 2W Infrared Laser.

5.2. Engraving Process

1. **Design Creation/Import:** Use the LaserPecker App or LDS software to create your design or import existing image files (e.g., SVG, PNG).
2. **Material Placement:** Place your material securely within the engraving area.
3. **Focusing:** The LP4 features auto-focusing. Ensure the unit is positioned correctly above the material.
4. **Settings Adjustment:** Within the software, select the appropriate laser type, power, depth, and passes based on your material. Experimentation may be required to achieve desired results.
5. **Preview and Start:** Utilize the preview function to ensure correct alignment. Once satisfied, initiate the engraving process.

5.3. Using Accessories

The Deluxe Bundle includes accessories to expand your creative possibilities:

- **Slide Extension:** This accessory expands the engraving workspace to 160x300mm, allowing for larger projects or batch engraving of multiple smaller items like jewelry or plaques.
- **Rotary Extension:** Designed for engraving cylindrical or irregularly shaped objects such as tumblers, rings, and baseballs. It provides precise 360° engraving capabilities.

Figure 5.3: Flexible Expansion Accessories, including the Rotary and Slide Extensions.

Slide Extension Accessory Work Area Upgrade

Extended Work Area for Increased Creativity

Excellent aspect ratio for a broader range of use

Figure 5.4: The Slide Extension provides an expanded work area for increased creativity and broader use.

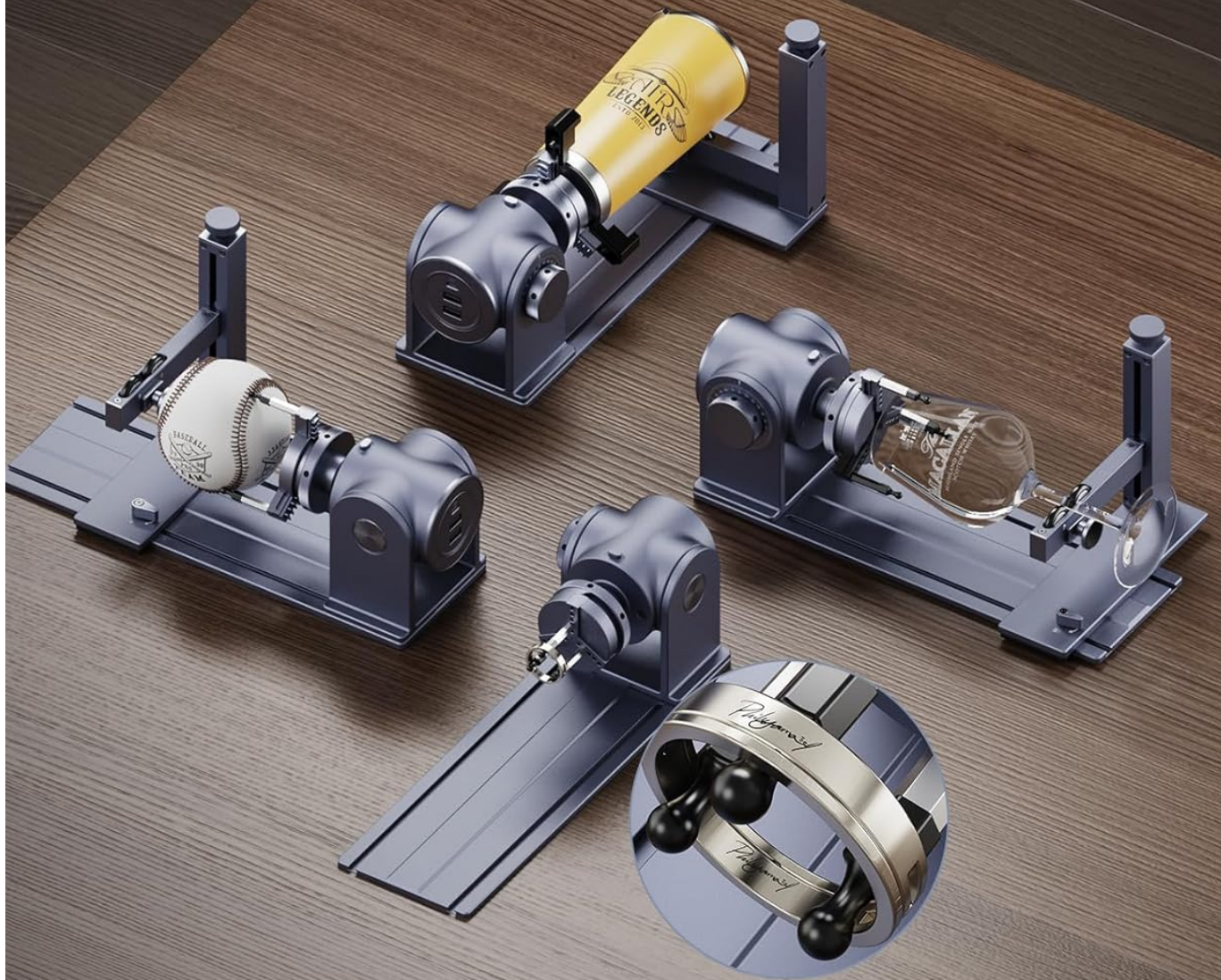Figure 5.5: The Multifunction 4-in-1 Rotary attachment, capable of engraving various cylindrical items like tumblers, rings, and baseballs.

5.4. Example Applications

The LP4 can be used for a wide variety of applications, including:

- Personalizing mugs, tumblers, and goblets.
- Engraving jewelry such as rings and necklaces.
- Customizing items like baseballs, rolling pins, flowerpots, and pet bowls.

- Creating intricate designs on wood, leather, and metal for crafts or industrial marking.

Figure 5.6: Various items demonstrating the engraving capabilities of the LaserPecker LP4.

5.5. Official Product Video

Video 5.1: Official product video titled "LP4: The Most Powerful Portable Laser Engraver" by LaserPecker. This video provides an overview of the LP4's key features and capabilities.

Video 5.2: Official product video demonstrating the engraving of a personalized watch strap. This short clip highlights the LP4's precision on

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your LaserPecker LP4.

- **Lens Cleaning:** Periodically inspect and gently clean the laser lens using a soft, lint-free cloth and appropriate lens cleaning solution. Avoid abrasive materials.
- **Unit Cleaning:** Keep the main unit and accessories free from dust and debris. Use a dry cloth to wipe down surfaces.
- **Ventilation System:** If using an air purifier, ensure its filters are clean and replaced as recommended by the manufacturer to maintain effective fume extraction.
- **Storage:** When not in use, store the LP4 and its accessories in a clean, dry environment, away from direct sunlight and extreme temperatures.

7. Troubleshooting

If you encounter issues with your LaserPecker LP4, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device not connecting	Bluetooth/USB issue, software glitch	Ensure Bluetooth is enabled or USB cable is secure. Restart the app/software and the LP4 unit. Check for software updates.
Poor engraving quality	Incorrect settings, material inconsistency, dirty lens	Adjust laser power, speed, and passes in the software. Test on scrap material. Clean the laser lens. Ensure material is flat and properly focused.
Laser not firing	Safety shield not in place, emergency stop engaged, software error	Verify the protective shield is correctly positioned. Release the emergency stop button if pressed. Restart the unit and software.
Unit making loud noise	Normal fan operation, obstruction	A certain level of fan noise is normal during operation. Check for any obstructions around the fan vents.

For further assistance, consider joining official LaserPecker user communities or contacting customer support directly.

8. Specifications

Key specifications for the LaserPecker LP4 Deluxe Bundle:

- **Model Number:** LP4-Deluxe
- **Product Dimensions:** 20 x 10.5 x 16.5 inches
- **Item Weight:** 22 pounds
- **Manufacturer:** LaserPecker
- **Country of Origin:** China
- **Laser Type:** Dual-Laser (10W 450nm Blue Diode, 2W 1064nm Infrared)
- **Engraving Speed:** Up to 240,000mm/min (4000mm/s)
- **Precision:** 1270dpi (8K Hyper Engraving)
- **Movement Accuracy:** 0.0019mm

- **Max Work Area:** 160x300mm (with Slide Extension)
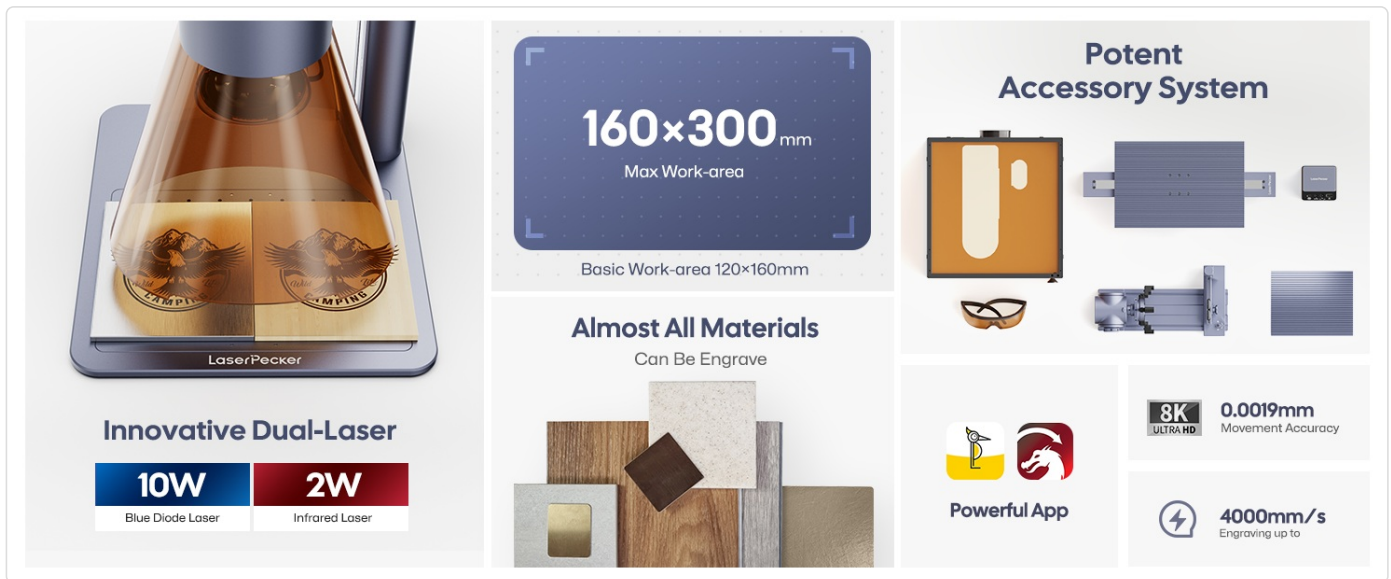- **Rotary Engraving:** Ø0-145mm items with 3° accuracy

Figure 8.1: Overview of LaserPecker LP4's potent accessory system, maximum work area, material compatibility, powerful app, movement accuracy, and engraving speed.

Figure 8.2: Visual representation of the LP4's engraving speed (4000mm/s) and movement accuracy (0.0019mm).
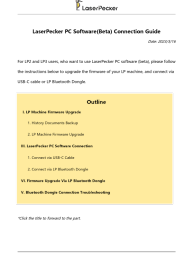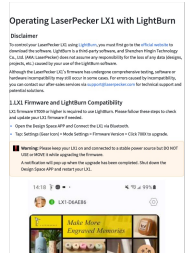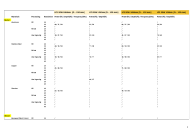
9. Warranty and Support

The LaserPecker LP4 Deluxe Bundle is manufactured by LaserPecker. For detailed warranty information, please refer to the warranty card included with your product or visit the official LaserPecker website. Technical support and customer service can be accessed through the manufacturer's official channels, including their website and dedicated social media groups.

Optional protection plans are available for extended coverage:

- 3-Year Protection Plan
- 4-Year Protection Plan
- Complete Protect (monthly renewal option)

These plans offer additional peace of mind beyond the standard manufacturer's warranty.

Related Documents - LP4 Deluxe Bundle

	[LaserPecker 4 User Manual: Setup, Operation, and Safety Guide](#) Comprehensive user manual for the LaserPecker 4 laser engraver, covering software download, assembly, operation, safety precautions, specifications, and warranty information.
	[LaserPecker LP5 User Manual: Safety, Operation, and Maintenance Guide](#) Comprehensive user manual for the LaserPecker LP5 laser engraver and cutter. This guide covers essential safety precautions, software setup for app and PC, detailed operation instructions, maintenance procedures, and technical specifications for optimal use.
	[LaserPecker PC Software Connection Guide](#) A comprehensive guide for LaserPecker LP2 and LP3 users on how to connect the PC software (beta). It covers firmware upgrades for both the LP machine and the Bluetooth dongle, as well as connection methods via USB-C cable and Bluetooth.
	[LaserPecker 4 User Manual - Your Guide to Precision Laser Engraving](#) Explore the LaserPecker 4 User Manual for comprehensive instructions on setup, operation, and maintenance of this advanced laser engraving device. Learn about its features, safety guidelines, and specifications.
	[Operating LaserPecker LX1 with LightBurn Software Guide](#) A comprehensive guide on how to operate the LaserPecker LX1 laser engraver using LightBurn software, covering firmware updates, software installation, device connection, and parameter settings.
	[LaserPecker LP5 Material Settings Guide	Engraving & Cutting Parameters](#) Comprehensive material settings for LaserPecker LP5 laser engraver, providing detailed power, depth, and frequency parameters for various materials including metals, wood, paper, plastic, and leather across different processing types and resolutions.