

LaserPecker LP5

User Manual | Benutzerhandbuch Manual de Usuario | Manuel d'utilisation



Contents

Safety Information	 01
Software Download	 03
Package List	 04
Quick Assembly	 05
Meet the LP5	 08
Before using the product	 09
Connecting Software	 10
Using the product	 12
Maintenance	 14
Technical Specifications	15
Statements	 16

Safety Information

1 General Safety

- Only use this machine in accordance with these instructions and all applicable local and national laws and regulations.
- Read and get familiar with all safety precautions and procedures before using the machine. Strictly follow all safety precautions. Ensure that the machine is properly assembled and is working properly.
- DO NOT allow use by minors, by untrained personnel, or by any personnel suffering from any physical or mental limitation that might affect their ability to use the machine safely and properly.
- · Ensure that the workspace is clean and flat.
- Keep the area around the machine dry, well ventilated, and environmentally controlled to 50–95°F (10–35°C) and 10–95% humidity.
- DO NOT leave the machine unattended during operation.

In the event of the following situations, please stop using the machine and cut off the power immediately:

- $\cdot \mathsf{A}$ burning smell is detected coming from the machine.
- Open flames or sparks are observed being generated from the engraving material.
- Any components of the machine appear to be damaged or malfunctioning.
- · Unexpected cessation of machine operation for no clear reason.
- Abnormal sounds, smoke, or unusual lighting are emitted from the machine.

Safety Information

2 Laser Safety

- •The LP5 Basic is a Class 4 laser system. When assembled and locked with a safety enclosure, the laser system is Class 1.
- The active laser and its reflections can rapidly cause fires, burns, and permanent vision damage. Under normal circumstances, the laser is blocked by the protective cover or safety enclosure during operation. Before using the machine, ensure that the protective cover or safety enclosure is installed properly. If it cannot fully cover the object, you need to wear safety goggles that can shield your eyes from the laser beams.
- During operation, the materials being engraved or cut may release toxic and harmful gases or fumes. Depending on the type and composition of the engraving/cutting materials, these emissions can pose health and environmental risks. To ensure safe use, it is recommended to use this machine with an air purifier to effectively absorb and filter any toxic or harmful gases and fumes generated.
- DO NOT use this laser in dewy, dusty, or high-EMI conditions where the active laser might easily be deflected or reflected.

3 Electrical Safety

- •Only use the machine with stable and compatible power sources. This machine requires a 24V/7.5A power adapter. Failure to use the compatible power adapter can result in machine malfunction.
- Do not allow any electronic component to become wet and always fully disconnect the machine from power before undertaking cleaning, adjustment, maintenance, or repair.

Warning Labels

The warning and instruction signs are labeled where physical injuries or damage to the machine may be caused before and/or during operation. If a sign is damaged or lost, replace it immediately. You can use the following template to print the sign you need.



Software Download

Download App

Scan the QR code below to download and install the **LaserPecker Design Space** App.

Please follow the operation guide and read the warnings and precautions in the App carefully.



LaserPecker Design Space

Download PC Software

Please visit https://www.laserpecker.net/pages/software to download the PC software.



Getting Help

Contact Us

If you encounter any issues, please do not hesitate to reach out to our customer support team at support@laserpecker.com



YouTube: @LaserPecker



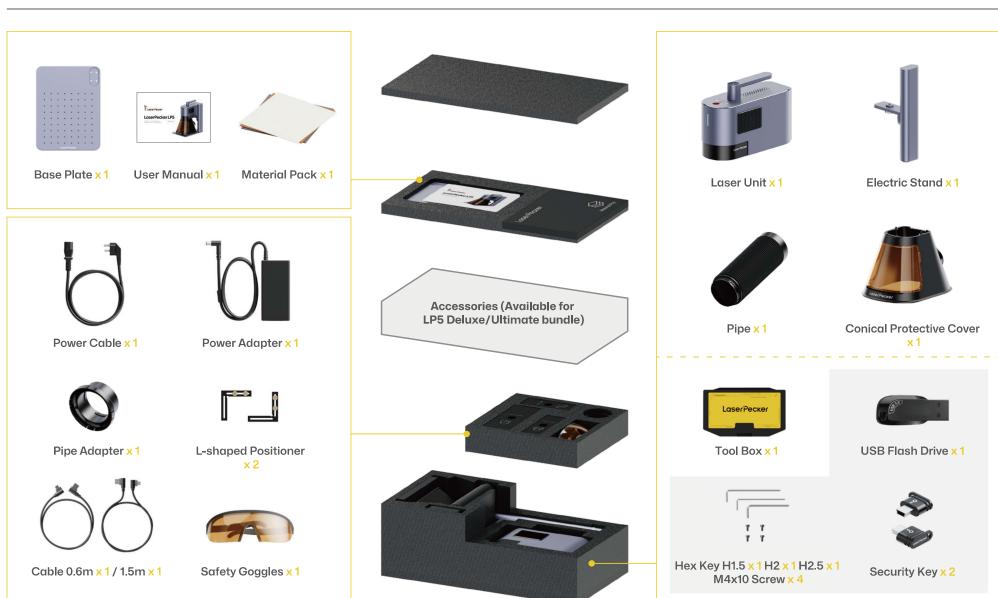
Facebook Group: @LP5 Official Group

Video Tutorials

Scan the QR code below to learn how to use the machine.



Package List



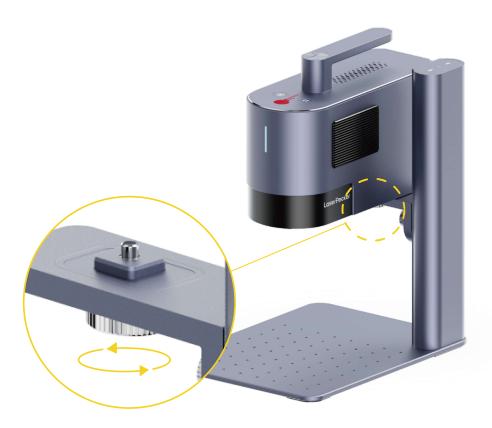
Quick Assembly

Electric Stand Assembly

1 Use the Hex key H2.5 to install the 4 pieces of M4x10 screws at the bottom of the Base Plate to assemble the Electric Stand.

2 Attach the Laser Unit to the Electric Stand by turning the knob counter-clockwise.





Quick Assembly

Conical Protective Cover Installation

1 Place the Conical Protective Cover below the Laser Unit. Secure the cover to the Laser unit by tightening the 2 screws on top of the cover counter-clockwise.

*Always avoid touching the lens.

2 Attach the Front light filter.





Quick Assembly

Cable Connection





Connect the Power Cable and Power Adpater to a stable power supply.



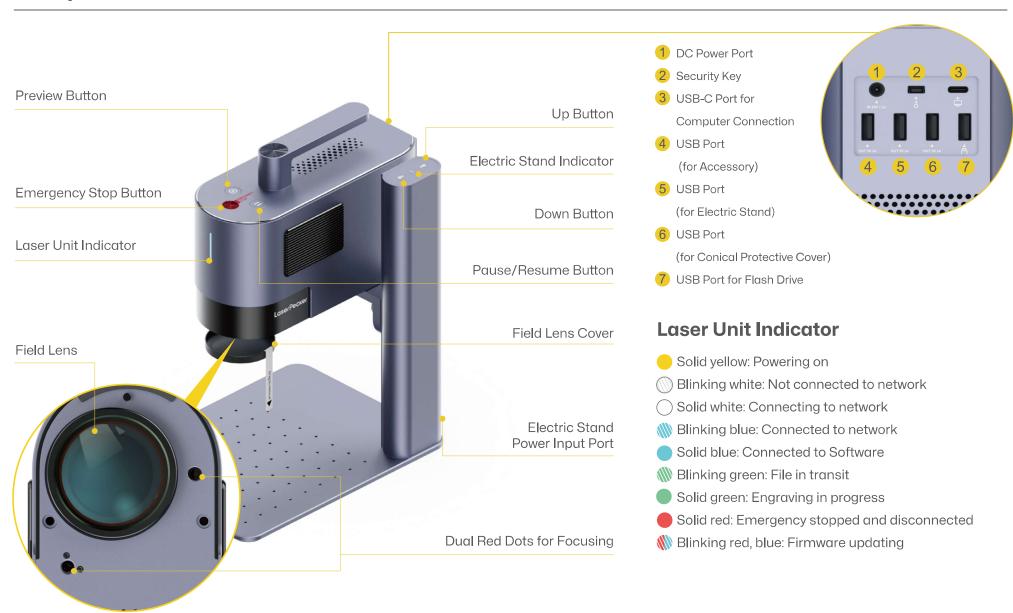
Connect the Conical Protective Cover to the USB port on the Laser Unit.





Connect one end of the **0.6m** cable to a USB port on the Laser Unit. Connect the other end to the Power Input port on the Electric Stand.

Component Introduction



Before using the product

Check the Security Key

Ensure the Security key is inserted properly before use.

Please note the machine will not work if the Security Key is not inserted. An error prompt will also pop up in the App.



Install the Pipe

The Protective cover has a built-in exhaust fan, which can be connected to a pipe or an air purifier with the adapter.

*The air purifier is not included in the package. Purchase one separately if needed.



Connect to App

Connect to App through Wi-Fi (First time WiFi setup or changing the network)

Open the LaserPecker Design Space App, click the "+" in the upper right corner, select the machine model 'LP5' and follow the instructions to configure the WiFi network for the machine.

Both the machine and the phone must be under the same 2.4GHz WiFi network.

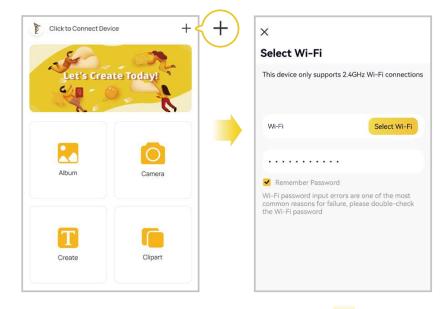
The Laser unit indicator is in solid blue if the connection is successful.

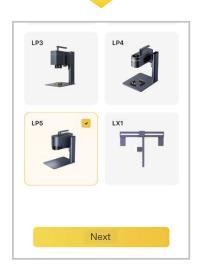
Blinking white: Not connected to network

Solid white: Connecting to network

Blinking blue: Connected to network

Solid blue: Connected to App





Connect to PC Software

Option 1: Connect directly via the 1.5m USB cable



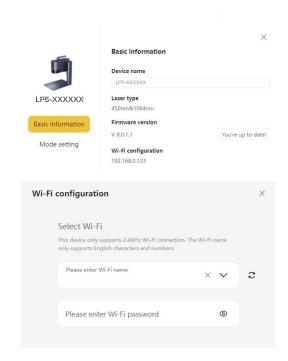


Option 2: Connect to PC Software through WiFi (First-time WiFi setup or changing the network)

1 Before setting up the wireless connection, you must first connect the machine to a computer using a USB cable. This USB connection allows you to configure the WiFi settings on the machine.



2 After connected, entering the machine setting page on the upper right corner in the software. Select 'WiFi setting' and follow the instructions to configure the WiFi network for the machine.

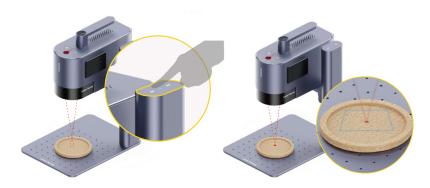


Both the machine and the computer must be under the same 2.4GHz WiFi network.

Using the product

Dual Red Dots Focusing (Manual Focusing)

Place the material on the Base plate. Initiate the preview mode or turn on the red dots focusing mode in the machine settings through App or PC software to observe the two dots. Adjust the height of the Electric Stand until the two red dots coincide, and the focus is successfully set.



Engrave using USB Flash Drive

After inserting the flash drive into the machine, the project files (.lpb) on the drive can be selected using the PC software or mobile App to preview and engrave.





Emergency Stop

If errors or machine faults occur during material processing, press the emergency stop button to disconnect and stop the processing.



Operation Access Control

To prevent others from using the machine, remove the security key to lock the processing and related functions.

Insert the key to unlock the processing and related functions.

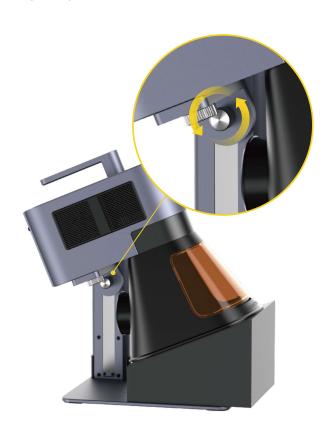


Multiple Application Scenarios

Bevel Engraving

Loosen the Electric Stand side knob clockwise to adjust the angle of the Laser Unit.

Tighten the knob counterclockwise to fix the Laser Unit at the desired angle for bevel engraving.



Using Accessories

If accessories are needed, purchase them separately and refer to the accessory instructions for installation.

*Follow the accessory instructions for proper positioning and cable connections to the machine.





Batch Processing

During batch processing, the L-shaped Positioner can fix materials in the same position every time. Secure the positioners to the Base Plate by tightening the screws.



Maintenance

Field Lens Maintenance

If laser power attenuation occurs, for example, engraved patterns are shallow or uneven, the Field Lens may get dirty. Clean it with the lint-free cloth moistened with alcohol.



Dust Filter Cleaning

Remove the cover on the left side of the Laser Unit to clean the dust filter if there is dust buildup.

*The filter on the right side of the Laser unit is an air intake filter and cannot be removed.



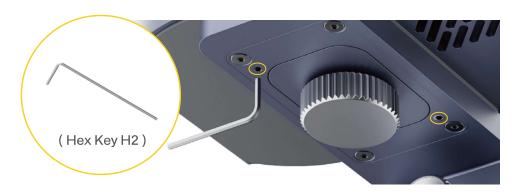
Conical Protective Cover Exhaust Fan Cleaning

If smoke runs out of the protective cover, the exhaust fan and smoke outlet may be blocked due to dust. Unscrew the fan from the cover using a screwdriver and clean them to ensure proper smoke exhausting.



Laser Unit Leveling

It is recommended to level the Laser Unit before use. If it is not level, the Laser Unit can be adjusted to a level state by using the H2 hex key to adjust the two leveling screws on the cantilever arm.



Technical Specifications

Size		
Laser Source & Power 20W 450nm Blue Diode Laser 20W 1064nm Fiber Laser Working Area 120 x 160 mm (Ellipse) 100 x 100 mm (Square) Shell Aluminum Alloy Preview Mode Rectangle Preview / Outline Preview / Center Point Preview Supported File Formats PC Software: G-code / JPG / PNG / BMP / SVG / DXF etc. Mobile App: G-code / JPG / PNG / SVG Connectivity USB, Wi-Fi Supported OS Support iOS 9.0+, Android 7.0+, MacOS 10+, Windows 10+, Compatible with LightBurn Input Power DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Size	Laser Unit: 255 x 98 x 183 mm Electric Stand: 198 x 286 x 323 mm Conical Protective Cover: 167 x 231 x 160 mm
Working Area 120 x 160 mm (Ellipse) 100 x 100 mm (Square) Shell Aluminum Alloy Preview Mode Rectangle Preview / Outline Preview / Center Point Preview Supported File Formats PC Software: G-code / JPG / PNG / BMP / SVG / DXF etc. Mobile App: G-code / JPG / PNG / SVG Connectivity USB, Wi-Fi Supported OS Support iOS 9.0+, Android 7.0+, MacOS 10+, Windows 10+, Compatible with LightBurn Input Power DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Net Weight	Laser Unit: 3.36 kg Electric Stand: 2.28 kg Conical Protective Cover: 0.38 kg Total Weight: 6.02 kg
Shell Aluminum Alloy Preview Mode Rectangle Preview / Outline Preview / Center Point Preview Supported File Formats PC Software: G-code / JPG / PNG / BMP / SVG / DXF etc. Mobile App: G-code / JPG / PNG / SVG Connectivity USB, Wi-Fi Supported OS Support iOS 9.0+, Android 7.0+, MacOS 10+, Windows 10+, Compatible with LightBurn Input Power DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Laser Source & Power	20W 450nm Blue Diode Laser 20W 1064nm Fiber Laser
Preview Mode Rectangle Preview / Outline Preview / Center Point Preview Supported File Formats PC Software: G-code / JPG / PNG / BMP / SVG / DXF etc. Mobile App: G-code / JPG / PNG / SVG Connectivity USB, Wi-Fi Supported OS Support iOS 9.0+, Android 7.0+, MacOS 10+, Windows 10+, Compatible with LightBurn Input Power DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Working Area	120 x 160 mm (Ellipse) 100 x 100 mm (Square)
Supported File Formats PC Software: G-code /JPG /PNG /BMP /SVG /DXF etc. Mobile App: G-code /JPG /PNG /SVG Connectivity USB, Wi-Fi Supported OS Support iOS 9.0+, Android 7.0+, MacOS 10+, Windows 10+, Compatible with LightBurn Input Power DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Shell	Aluminum Alloy
Connectivity USB, Wi-Fi Supported OS Support iOS 9.0+, Android 7.0+, MacOS 10+, Windows 10+, Compatible with LightBurn Input Power DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Preview Mode	Rectangle Preview / Outline Preview / Center Point Preview
Supported OS Support iOS 9.0+, Android 7.0+, MacOS 10+, Windows 10+, Compatible with LightBurn Input Power DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Supported File Formats	PC Software: G-code /JPG /PNG /BMP /SVG /DXF etc. Mobile App: G-code /JPG /PNG /SVG
Input Power DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Connectivity	USB, Wi-Fi
Environmental Temperature Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing) Cooling System Semiconductor Cooling + Air Cooling	Supported OS	Support iOS 9.0+, Android 7.0+, MacOS 10+, Windows 10+, Compatible with LightBurn
Cooling System Semiconductor Cooling + Air Cooling	Input Power	DC(24V, 7.5A) AC(100-240V, 50-60Hz) 180W
	Environmental Temperature	Temperature Range: 10°C - 35°C Humidity Range: 10% - 95%RH (Non-condensing)
Safety Certification CE /ROHS /FCC /FDA /NCC /KC /UKCA /TELEC /SRRC	Cooling System	Semiconductor Cooling + Air Cooling
	Safety Certification	CE /ROHS /FCC /FDA /NCC /KC /UKCA /TELEC /SRRC

Statements

Disclaimer

Thank you for choosing LaserPecker LP5! This manual relates to your safety, legal responsibilities and rights. Please read and get familiar with all safety precautions and procedures before using the product. If you do not use the product according to the instructions and requirements of the manual, or mis-operate the product due to misunderstanding, etc., LaserPecker (Hingin Technology Co., Ltd.) shall bear no responsibility for any loss resulting therefrom.

Given the conditions and methods of use of this product are beyond the control of LaserPecker, LaserPecker shall not be liable for any of the following consequences, which shall be borne by the user:

- Personal injury, property loss, and product damage caused by improper operation, failure to follow the manual or other uncertainties.
- The work that user created using the LaserPecker product infringes intellectual property rights of the third party or violates relevant laws and regulations.
- Personal injury, property loss, and product damage that may arise during the installation, transportation, storage, use, maintenance, and disposal of this product.
- All official LaserPecker materials have undergone safety testing and are compatible with this product. LaserPecker shall not be liable for material safety or engraving quality if the user uses non-LaserPecker official materials.

Copyright

This document is copyrighted by LaserPecker with all rights reserved. Unless otherwise authorized by LaserPecker, you are not eligible to use or allow others to use the document or any part of the document by reproducing, transferring or selling the document. Users should only refer to this document and the content thereof as instructions to operate LaserPecker LP5. The document should not be used for other purposes.

LaserPecker