



# LaserPecker LP2

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



v1.0

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# Safety Information

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## 1 General Safety

- The use and operation of this product, including the handling and disposal of any emissions generated during engraving processes, must comply with all applicable laws and regulations in your country or region.
- Before operating this product, read and familiarize yourself with all safety instructions and operating procedures. Users must strictly follow all safety precautions and ensure that the product is properly assembled and in normal working condition.
- This product must NOT be operated by minors, untrained individuals, or persons with physical, sensory, or cognitive impairments that could affect safe and proper use.
- Place the product on a stable and level work surface.
- Keep the area around the machine dry, well-ventilated, and within an ambient temperature of 0–65°C (32–149°F) and 5–80% relative humidity.
- Do NOT leave the machine unattended during operation.

Immediately stop operation and disconnect the power if any of the following occurs:

- A burning smell is detected coming from the machine.
- Visible flames or sparks are emitted from the engraving material during operation.
- Any components of the machine appear to be damaged or malfunctioning.
- Unexpected stoppage of the machine occurs without apparent cause.
- Abnormal sounds, smoke, or unusual lighting are emitted from the machine.

# Safety Information

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## 2 Laser Safety

- The LaserPecker LP2 is classified as a Class 4 laser device. When properly equipped with the protective cover and operated strictly according to the operational guidelines, its laser safety level can achieve Class 1, ensuring safe operation.
- The active laser and its reflections can cause fires, burns, or permanent eye damage. Normally, the protective cover blocks the laser during operation. Before use, ensure the cover is properly installed. If the laser is not fully blocked, wear safety goggles to protect your eyes from the laser beam.
- Before operating the device, users should fully understand the physical characteristics of laser radiation, its hazard classifications, potential health effects, and the necessary safety precautions.
- Do NOT allow direct skin contact with the laser during operation to avoid burns or other injuries.
- Materials being engraved or cut may release harmful gases or fumes. Depending on the material, these can pose health and environmental risks. It is recommended to use an air purifier or exhaust system to filter emissions.
- Do NOT operate the device in humid, dusty, or high-EMI environments, as these conditions may cause the laser to deflect or reflect unexpectedly.
- Always use the specified power adapter for the machine. The device requires a 12V/5A power adapter. Using an incompatible power source may result in malfunction or damage.
- Before starting engraving operations, ensure that all safety precautions are in place:
  - (1) Wear protective goggles to prevent accidental laser injury to the eyes or skin;
  - (2) Remove unrelated items to avoid unnecessary damage from laser exposure; Remove flammable or explosive materials to prevent fire hazards.

## 3 Fire Safety

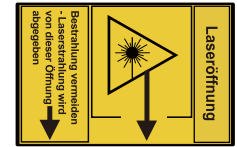
During cutting or engraving, this device uses a high-density laser beam to heat the material surface, causing vaporization without burning. However, most materials are inherently flammable and may ignite, producing open flames that can damage the device (even if the body is flame-retardant) and its surroundings. Vector cutting is particularly prone to generating open flames.

- Ensure the workspace is well-ventilated to allow smoke to dissipate promptly.
- Do NOT place combustible or fire-hazardous items near the device, especially paper or other organic materials. Keep the surrounding area tidy and avoid storing flammable, explosive, or volatile substances (e.g., acetone, alcohol, gasoline).
- Never leave the device unattended during operation. Incorrect settings or mechanical/electrical faults may lead to fire.
- Regularly clean the device. Residues and debris from cutting and engraving increase fire risk. Keep the work area free of debris.
- When cutting or engraving flammable materials at low speed and high power, sparks may appear. Stop operation immediately if sparks are observed.
- Keep a fire extinguisher nearby and ensure it is regularly inspected and maintained.
- If open flames occur during engraving:
  - (1) Immediately disconnect the device from the power supply;
  - (2) Use a fire extinguisher to extinguish the flames.
- If smoke or particles are inhaled and cause respiratory irritation, move the affected person to a well-ventilated area and seek medical attention immediately.

# Safety Information

## 4 Safety Labels

Warning and instruction labels on the LaserPecker device are affixed at key locations where hazards may occur. If a label becomes damaged or is missing, it must be replaced immediately. You may use the template provided below to print the required labels.



## Software Download

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### Mobile App Download

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

Note: After installation, please make sure to carefully read the warnings and precautions in the app.



### PC Software Download

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



## Getting Help

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### Technical Support

If you encounter any issues, please do not hesitate to reach out to our customer support team at [support@laserpecker.com](mailto:support@laserpecker.com)

 YouTube: @LaserPecker

 Facebook Group: LaserPecker LP2 & LP2 Plus Official Group

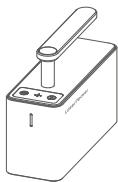
### Video Tutorials

Scan the QR code below to learn how to use LaserPecker LP2.

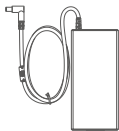


## Package List

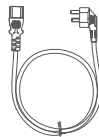
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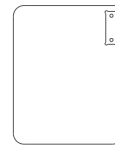
Laser Unit × 1



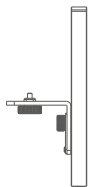
Power Adapter × 1



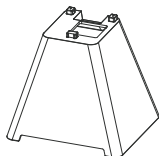
AC Power Cable × 1



Base Plate × 1



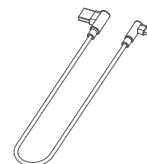
Electric Stand × 1



Conical Protective Cover × 1



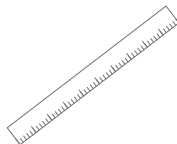
USB-A to USB-C Cable (0.4m) × 1



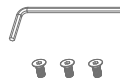
USB-A to USB-C Cable (1.5m) × 1



Protective Goggles × 1



Ruler × 1

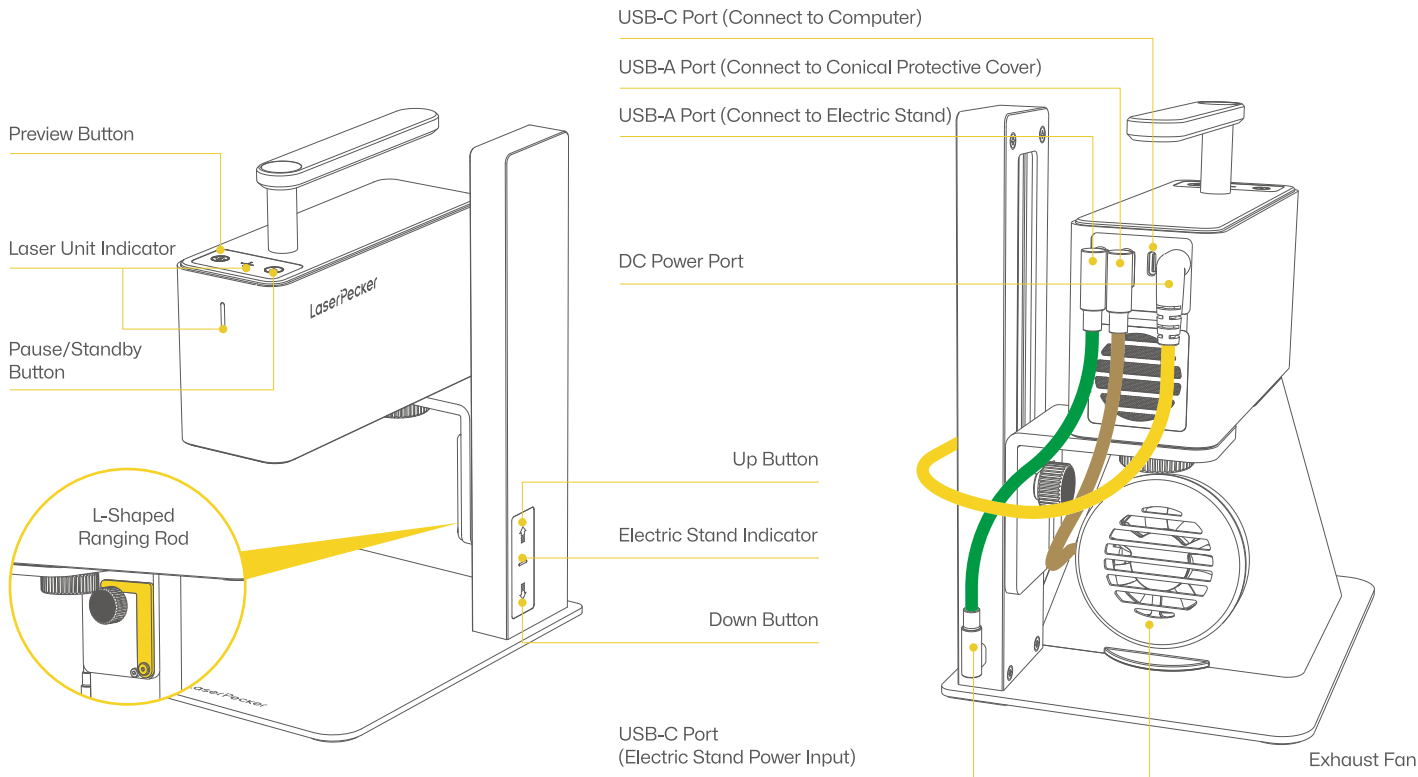


Hex Key H2.5 × 1  
M4\*8 Screws × 3



User Manual × 1

# Component Overview












## Buttons and Indicator Lights Description

### Button Function

Preview Button	Tap to enter Preview mode; tap again to exit Preview mode.
Pause/Standby Button	Short press to pause. Long press for Standby. In Standby, short press to wake.
Electric Stand Up Button	Long press to raise continuously; short press to raise by 1 mm.
Electric Stand Down Button	Long press to lower continuously; short press to lower by 1 mm.

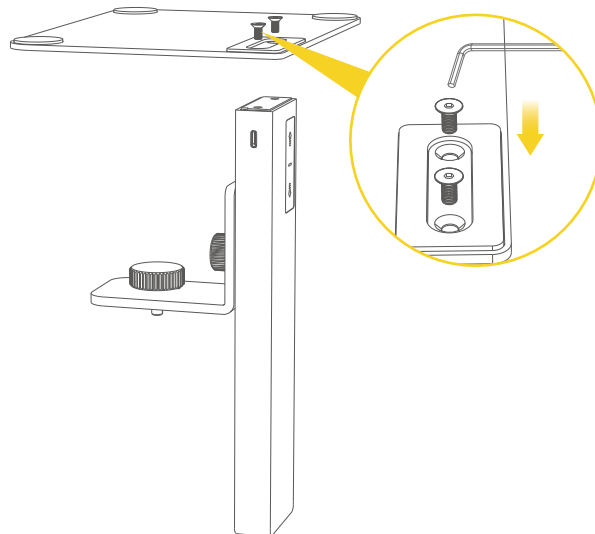
### Laser Unit Indicator

Indicator Status	Meaning
 Blinking Blue	Waiting for connection / Bluetooth not paired / USB not connected
 Solid Blue	Bluetooth connected / USB connected
 Solid Green	Machine starting up / File transferring / Engraving in progress
 Blinking Green	Engraving paused
 Blinking Yellow	Self-check in progress
 Solid Red	Flash self-check failed
 Blinking Red	Gyroscope self-check failed
 Alternating Red & Green	Firmware updating
 Alternating Red & Blue	Restoring factory firmware / Online update

## Quick Assembly

### Electric Stand Installation

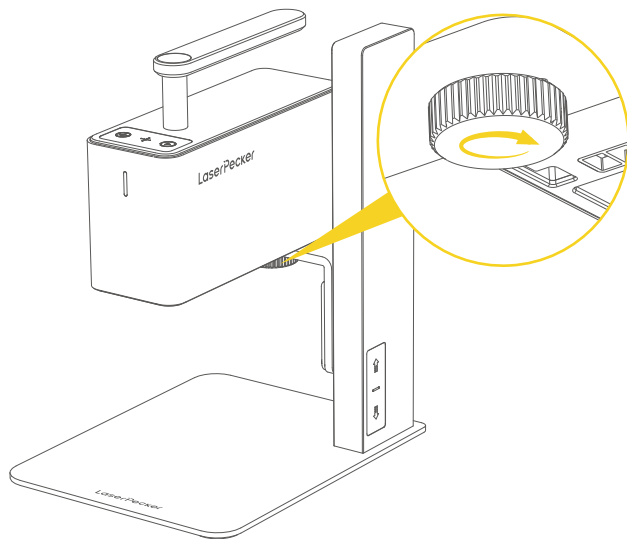
- 1 Flip the Electric Stand and the Base Plate, place the two M4\*8 screws into the holes, then use an H2.5 hex key to tighten them and secure the Electric Stand to the Base Plate.



## Quick Assembly

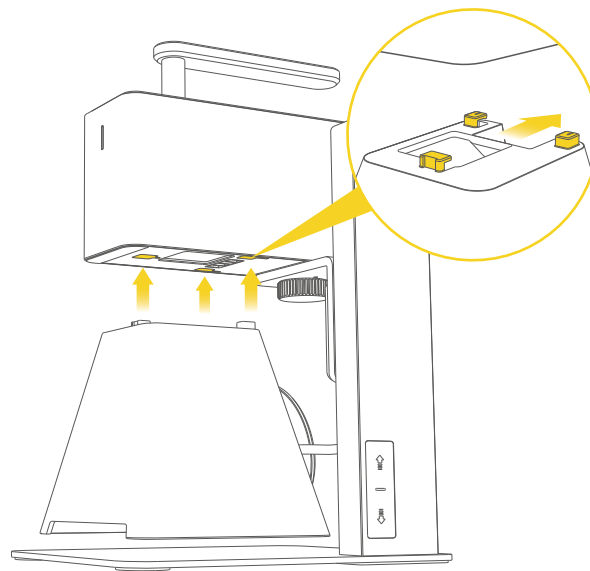
### Laser Unit Installation

- 2 Place the Laser Unit onto the secured Electric Stand. Rotate the fastening knob beneath the Laser Unit counterclockwise, then tighten it to ensure the unit is firmly secured.



### Conical Protective Cover Installation

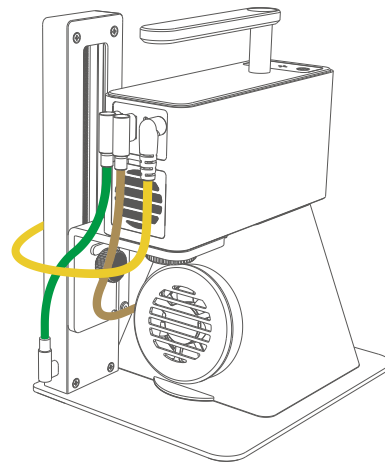
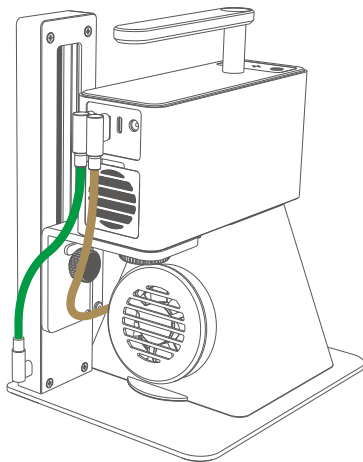
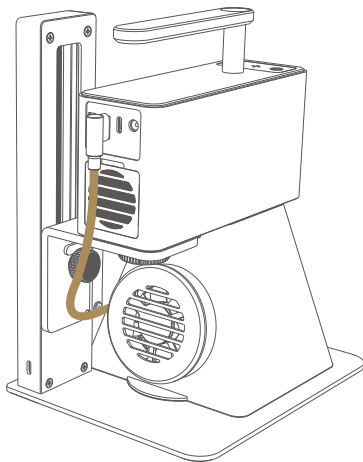
- 3 Position the conical protective cover beneath the Laser Unit. Align its clips with the slots on the unit, then press it into place until it is securely attached to the bottom of the Laser Unit.



# Quick Assembly

## Cable Connection

- 1 Connect the power cable of the Conical Protective Cover to the USB-A port on the Laser Unit.
- 2 Insert the USB-C end of the 0.4 m cable into the power input port of the Electric Stand, and connect the USB-A end to the port on the Laser Unit.
- 3 Connect the power adapter to the AC power cable, and plug it into the DC power input port on the Laser Unit.

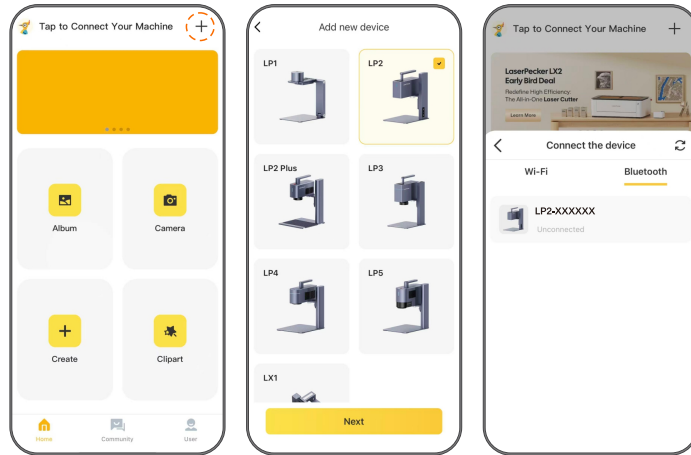


# Connecting Software

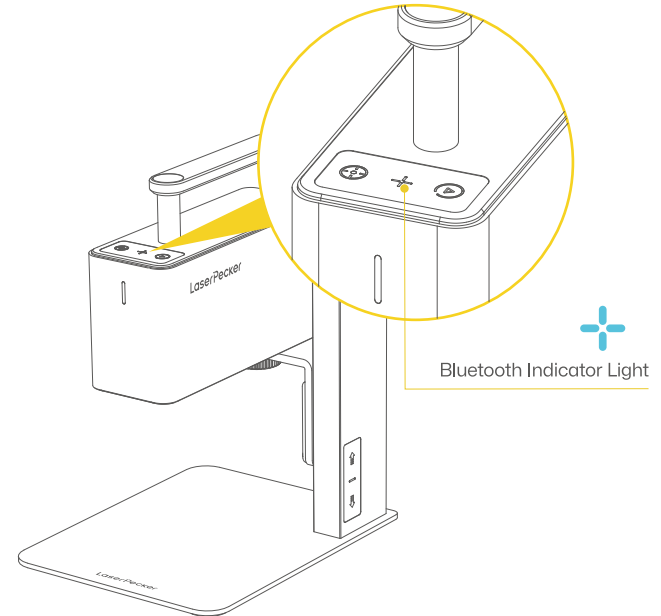
## APP – Bluetooth Connection

1. Make sure the device has been installed and powered on according to the previous steps. Open the LaserPecker Design Space App on your mobile phone.

- 1 Tap the "+" icon in the upper-right corner.
- 2 Select the LP2 model.
- 3 Choose your device from the Bluetooth device list.



2. Once connected, the indicator light will stay solid blue.



## Connecting Software

### PC – USB Connection

Use the included 1.5 m USB cable to connect your device to the computer, then select the corresponding COM port from the USB device list.



#### Device connection ↕

USB Bluetooth Wi-Fi IP



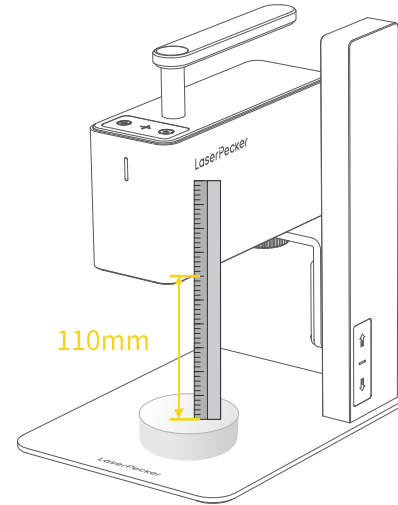
COM4

Unconnected

## Focusing Methods

### Ruler Focusing

The recommended engraving focal distance for the LP2 is 110 mm. Place the engraving material on the work surface, adjust the height of the Electric Stand, and use the ruler to set the distance between the bottom of the Laser Unit and the material surface to 110 mm.

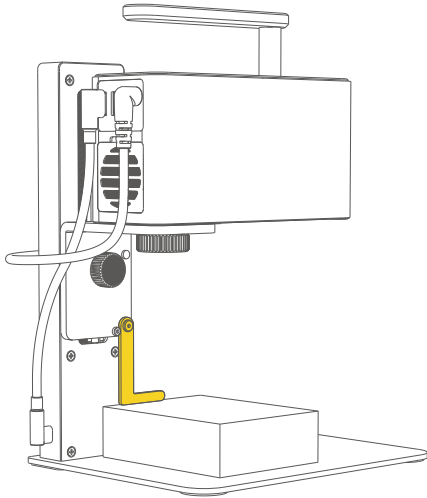


## Focusing Methods

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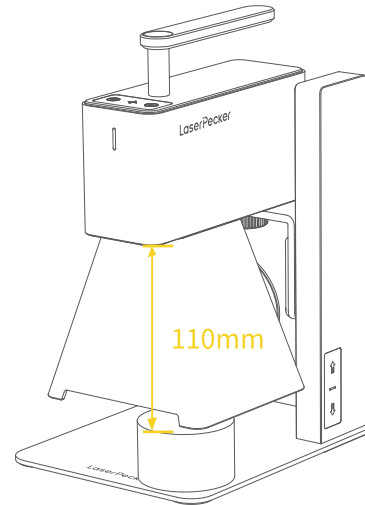
### L-shaped Ranging Rod Focusing

After placing the engraving material, lower the L-shaped Ranging Rod and adjust the height of the Electric Stand until the rod's bottom touches the material surface. Return the rod to its original position before starting the engraving.



### Conical Protective Cover Focusing

Properly install the conical protective cover on the Laser Unit. Place the engraving material and adjust the Electric Stand height until the bottom of the cover rests on the material surface.

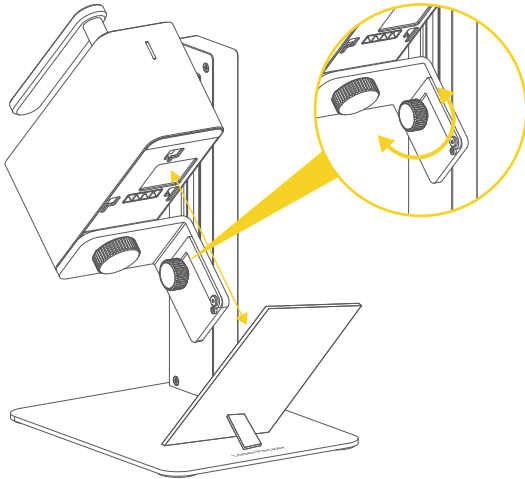


# Using the Product

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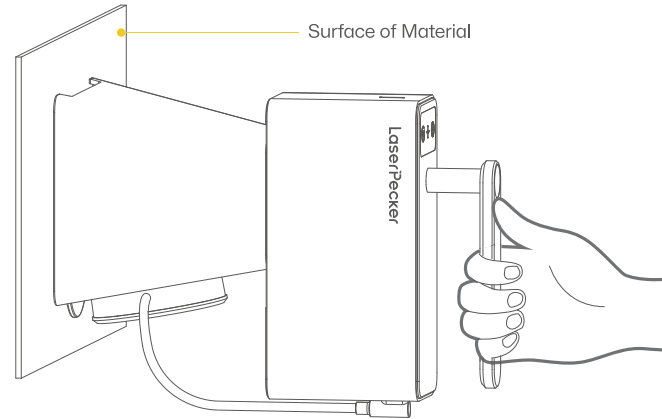
## Angled Engraving

Loosen the Electric Stand knob by rotating it counterclockwise, then adjust the Laser Unit to the desired angle. After adjusting, rotate the knob clockwise to tighten it and secure the unit for angled engraving.



## Handheld Engraving

Properly install the conical protective cover on the Laser Unit and connect the power. Hold the unit by its handle, align it with the surface of the engraving material, and start engraving (Electric Stand not required).

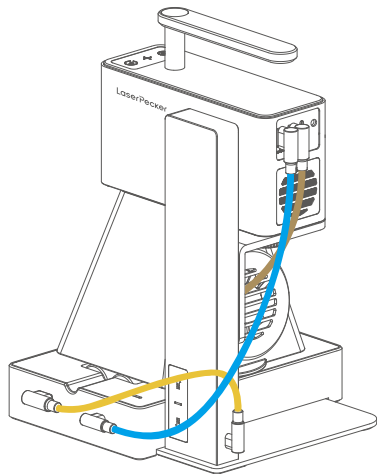


## Using Accessories

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### Using Versatile Electric Roller

For detailed instructions on using the LP2 with the Versatile Electric Roller, refer to the Versatile Electric Roller User Manual.

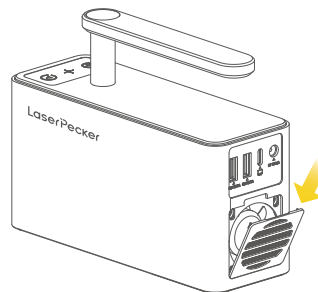


## Maintenance

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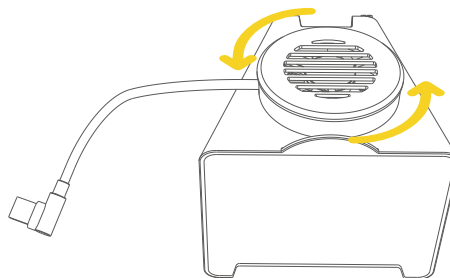
### Dust Filter Cleaning

If dust buildup is detected, remove the dust filter on the back of the Laser Unit for cleaning.



### Conical Protective Cover Exhaust Fan Cleaning

If you notice abnormal smoke extraction inside the protective cover, it may be caused by dust buildup on the exhaust fan or outlet, which can reduce ventilation efficiency. If dust is detected, rotate the fan counterclockwise to remove it and clean it to restore proper smoke extraction.



## Technical Specifications

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Dimensions	Laser Unit: 162.5×60×122 mm Electric Stand: 194×153.5×236 mm
Weight	1,748 g
Laser Source	450 nm (NICHIA)
Power	5000 mW
Appearance	Aluminum Alloy
Document Transfer	Bluetooth 5.0
Supported File Formats	BMP, JPG, PNG, SVG, G-code
Connection Method (Frequency Band)	Bluetooth, USB (2,375–2,525 MHz)
Supported OS	iOS 13.0+, Android 7.0+, Windows 10+, macOS 10.15+
Input Power	DC (12 V, 5 A), AC (100–240 V, 50–60 Hz)
Ambient Temperature	0 °C–65 °C (32 °F–149 °F)
Ambient Humidity	5%–80% (non-condensing)
Certifications	CE, RoHS, FCC, FDA, CDRH, IEC 60825-1, NCC, KC, UKCA, TECLEC

# Statements

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## Disclaimer

Thank you for choosing LaserPecker! 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.

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**LaserPecker**