LaserPecker

LP2 Plus

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

v1.0

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Safety Information

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.
- Always operate and maintain the product according to this manual's instructions to ensure safe operation.
- 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.
- Place the product on a stable and level work surface.
- Keep the area around the machine dry, well ventilated, and enviromentally controlled to 50-95°F (10-35°C) and 10-95% humidity.
- Do NOT leave the machine unattended during operation.
- Immediately stop operation and disconnect power if any of the following occurs:
- 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

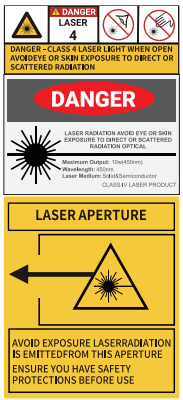
- The LP2 Plus laser engraving machine is initially classified as a Class 4 laser device. When properly equipped with the protective cover, and operated strictly according to the operational guidelines, its laser safety level can be classified as Class1, ensuring safer operation.
- The active laser and its reflections can rapidly cause fires, burns, and permanent vision damage. Under normal circumstances, the laser is blocked by the protective cover during operation. Before using the machine, ensure that the protective cover is installed properly.
- Before operating the device, users should fully understand the physical characteristics of laser radiation, its hazard classifications, related health effects, and the necessary safety precautions.
- When operating the device, avoid direct skin contact with the laser to prevent potential burns or other injuries.
- 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.
- Only use the machine with stable and compatible power sources. This machine requires a 24V/5A power adapter. Failure to use the compatible power adapter can result in machine malfunction.
- Before starting the device for engraving, ensure that all safety precautions are in place. Wear protective goggles to prevent accidental laser injury to the eyes or skin. Remove unrelated items to avoid unnecessary damage from laser exposure. In particular, remove any flammable or explosive materials to prevent the risk of fire.

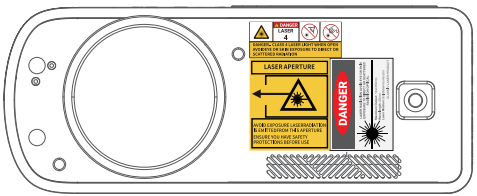
3 Emergency Procedures

- In case of fire during engraving:
  Cut off the power supply immediately.
  Use a fire extinguisher to put out the flames.
- Smoke and Particulate Matter Exposure:
  Engraving or cutting certain materials may generate smoke and particles that can irritate the respiratory system. Use the product with an air purifier or in a well-ventilated area. Wear a protective mask when necessary.
  If someone experiences respiratory irritation or similar symptoms, immediately move them to fresh air and seek medical attention.

4 Safety Labels

The warning and instruction signs are labeled where physical injuries or damage to the machine may be caused before and/or during operationn. 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

Technical Support

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

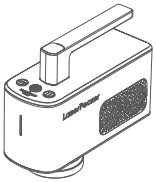
YouTube: @LaserPecker

Facebook Group: LaserPecker LP2 Official Group

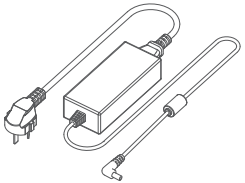
Video Tutorials

Scan the QR code below to learn how to use the LP2-PLUS.

Package List



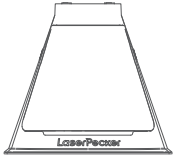
LP2-Plus Laser Unit x 1



AC Power Adapter & Power Cable x 1

Base Plate x 1

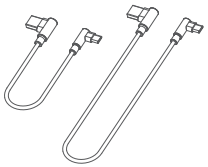
Electric Stand x 1



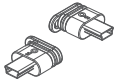
Protective Cover x 1

Safety Glasses x 1

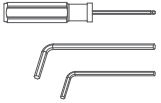
L-Shaped Positioner x 4



USB-A to USB-C Cable (0.6 m) x1
USB-A to USB-C Cable (1.5 m) x1



Security Key x 2



Hex Key H3 x 1
H2.5 x 1
H1.5 x 1

M4*10 Screws x 4

User Manual x 1

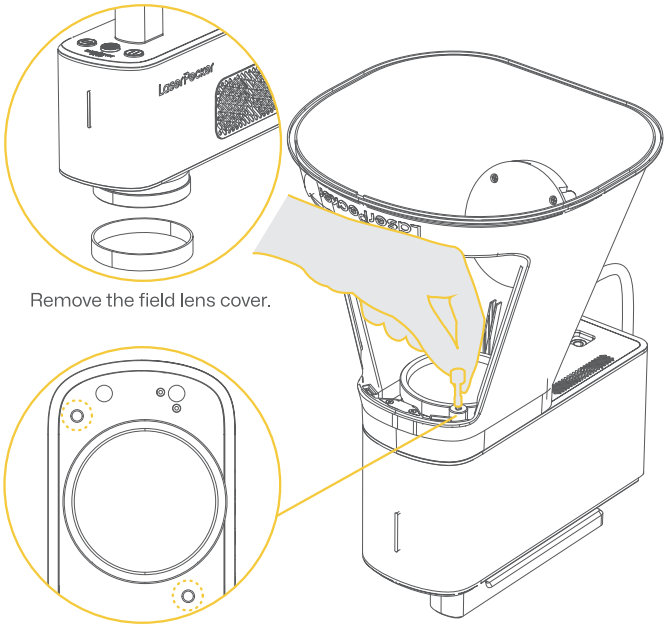
Material Pack x 1

Quick Assembly

Protective Cover Assembly

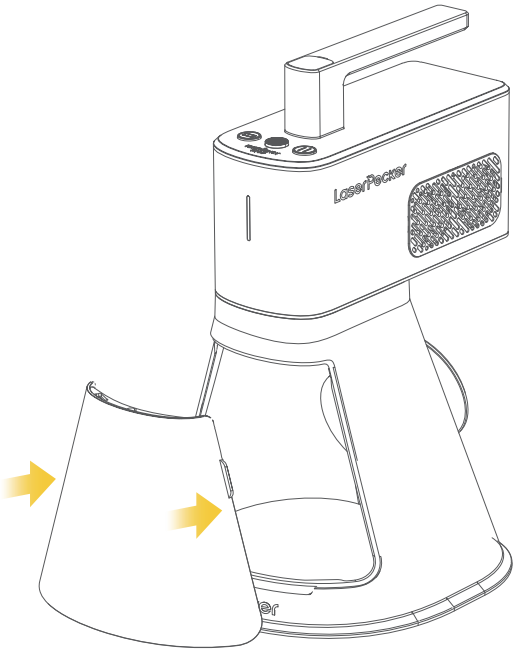
1 Remove the field lens cover first, turn the laser unit upside down and place the protective cover on top of it. Secure the cover to the Laser unit by tightening the 2 screws on top of the cover clockwise.

*Avoid touching the field lens at all times.



Remove the field lens cover.

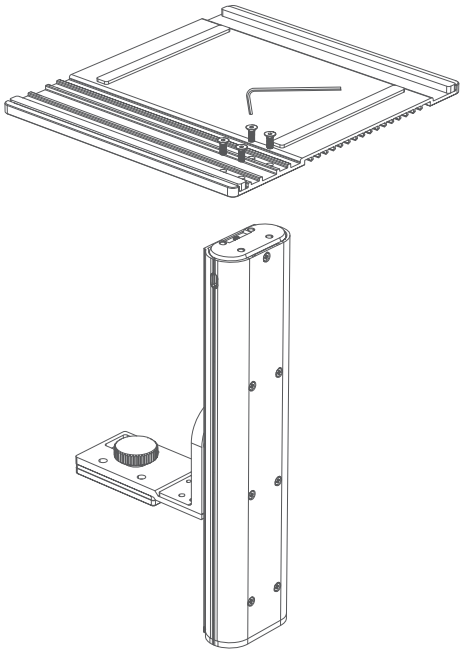
2 Attach the Front light filter.



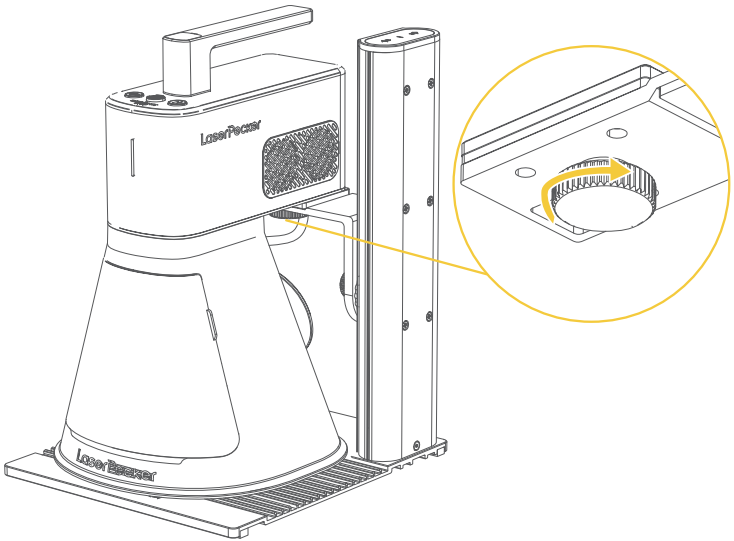
Quick Assembly

Electric Stand Assembly

1 Flip the electric stand together with the base plate. Using the H2.5 hex key, install four M4×10 screws into the bottom of the base plate to securely attach the electric stand.

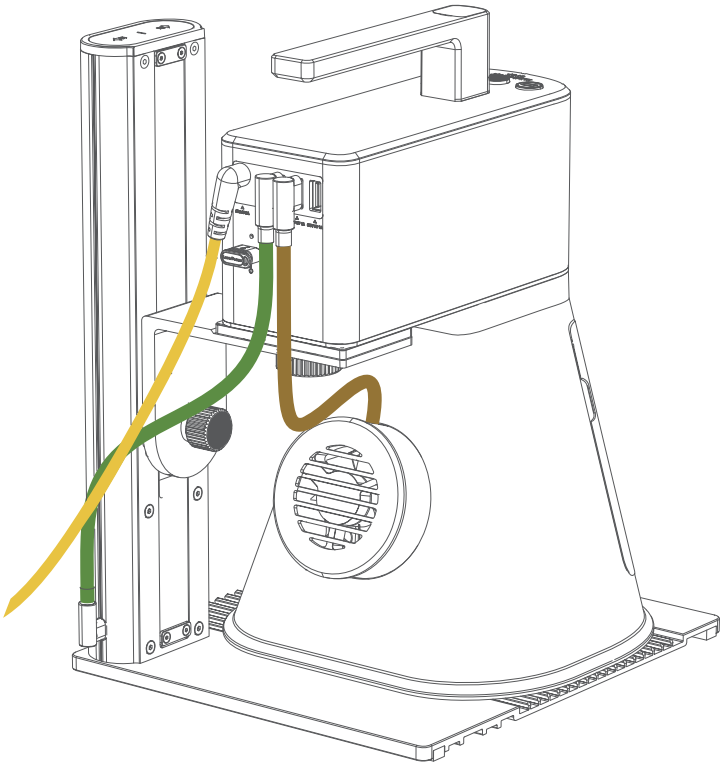


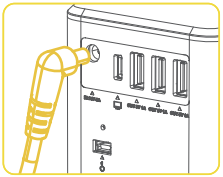
2 Mount the laser unit onto the electric stand, then tighten the knob by turning it counterclockwise to secure it.



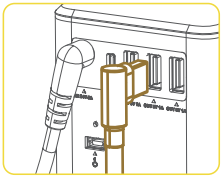
Quick Assembly

Cable Connection

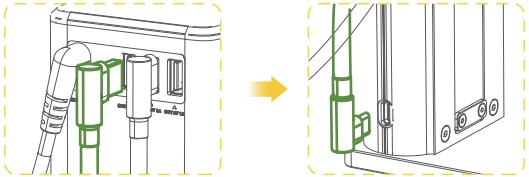




Connect the Power Cable and Power Adpater then insert it into the DC power port on the laser unit.

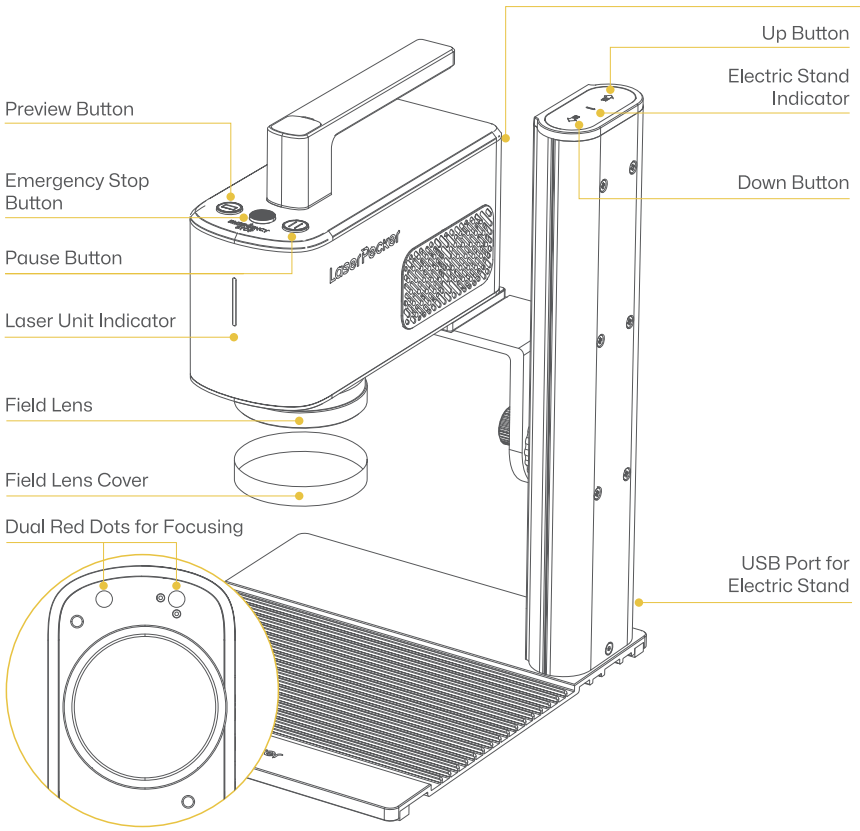


Connect the Protective Cover Cable to the USB port on the Laser Unit.

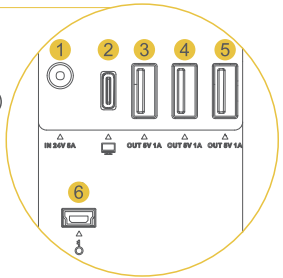


Using the 0.6m USB-A to USB-C cable, connect the USB-A end to the USB port on the laser unit, and the USB-C end to the power input port on the electric stand.

Component Introduction



1. DC Power Port
2. USB-C Port (for Computer Connection)
3. USB-A Port (for Electric Stand)
4. USB-A Port (for Protective Cover)
5. USB-A Port (for Accessory)
6. Security Key Port



Laser Unit Indicator Status

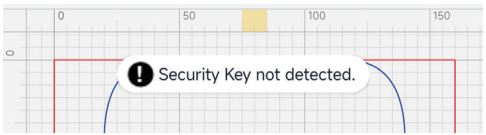
- Solid yellow: Powering on
- Blinking white: Not connected to network
- Solid white: Connecting to network
- Blinking blue: Connected to network
- Solid blue: Connected to Software
- Blinking green: File in transit
- Solid green: Engraving in progress
- Solid red: Emergency stopped and disconnected
- Blinking red, blue: Firmware updating

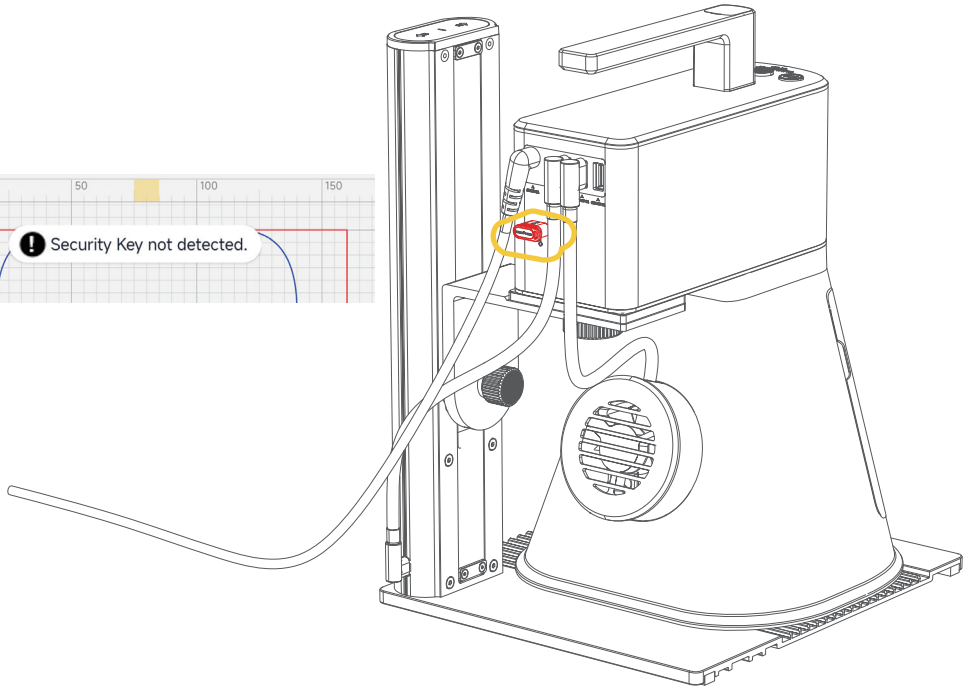
Before Using the Product

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.





Connecting Software

Connect to App through Wi-Fi

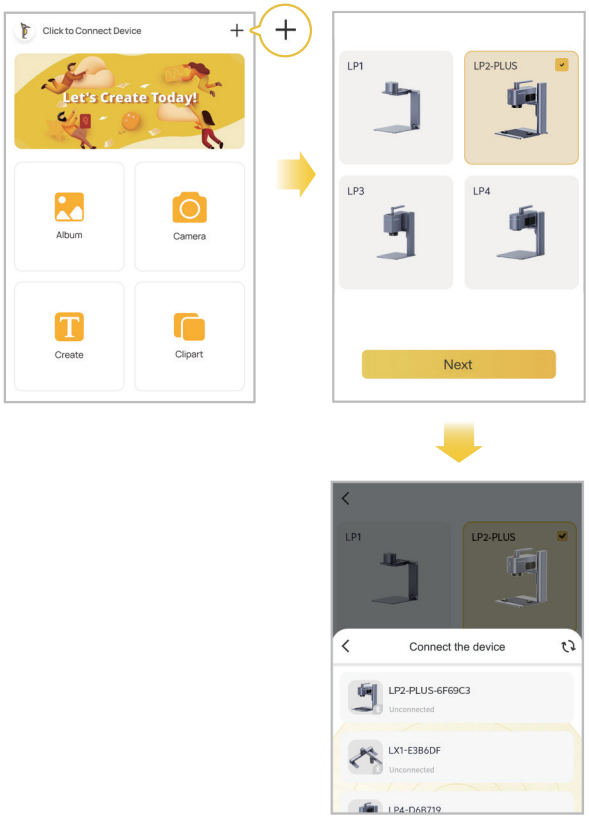
(First time WiFi setup or changing the network)

Open the LaserPecker Design Space App, click the "+" in the upper right corner, select the machine model 'LP2-PLUS' 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.

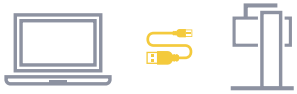
The Laser unit indicator is in solid blue if the connection is successful.

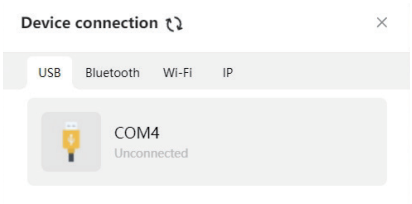
- Blinking white: Not connected to network
- Solid white: Connecting to network
- Blinking blue: Connected to network
- Solid blue: Connected to APP



Connect to PC Software

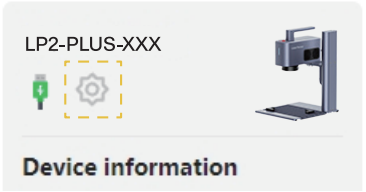
Option 1: Connect directly via the 1.5m USB cable



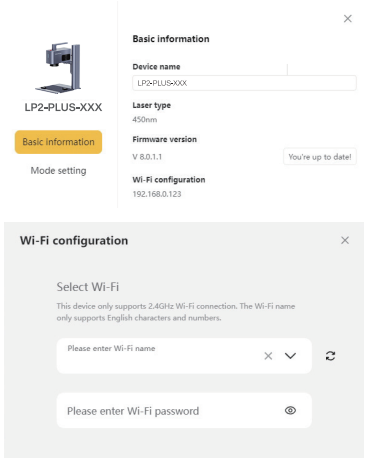


Option 2: Connect to PC Software through WiFi (First-time WiFi setup or changing the network)

1. Before setting up the WiFi connection, you must first connect the machine to a computer using the 1.5m 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 'Wi-Fi configuration' and follow the instructions to configure the WiFi network for the machine.

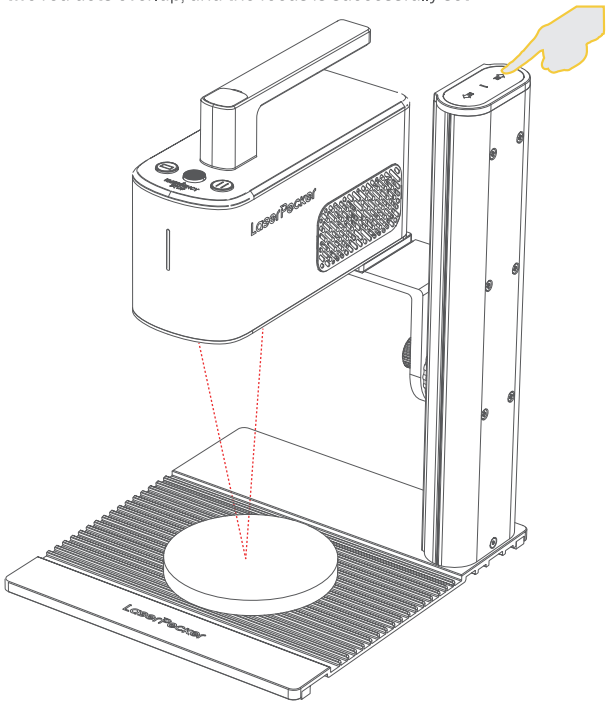


Both the machine and the computer must be under the same 2.4GHz WiFi network.

Using the Product

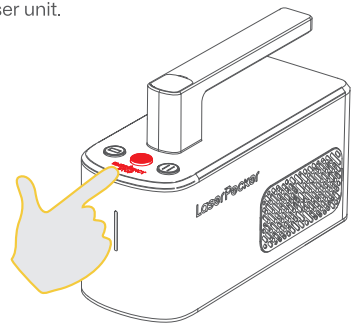
Dual Red Dots Focusing (Manual Focusing)

Place the material on the Base plate. Initiate the preview mode or switch 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 overlap, and the focus is successfully set.



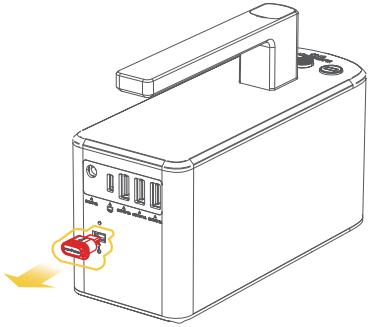
Emergency Stop

In the event of an error or malfunction during processing, press the emergency stop button to immediately halt the machine and disconnect power to the laser unit.



Operation Access Control

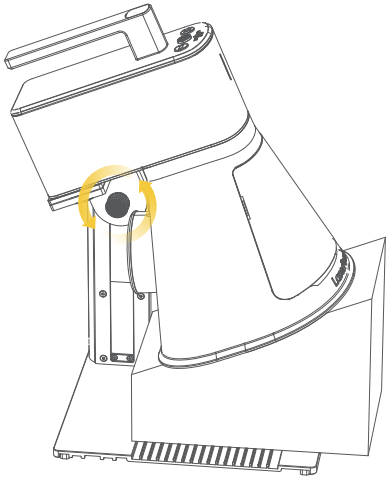
To prevent unauthorized use, remove the security key to lock engraving and all related functions.
Insert the security Key to unlock and restore normal operation.



Multiple Application Scenarios

Angled Engraving

Loosen the adjustment knob on the electric stand by turning it clockwise. Adjust the angle of the laser unit as needed. Then, turn the knob counterclockwise to lock the unit in place. This allows for angled engraving operations.

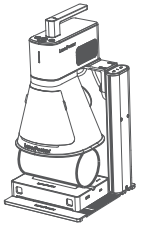


Using Accessories

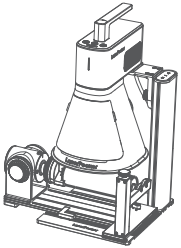
If you require additional accessories (such as the Versatile Electric Roller, Rotary Extension, or Slide Extension), please purchase them separately and refer to the accessory manuals for installation and usage instructions.

*Note: Use only the official power supply specified in the accessory user manual.

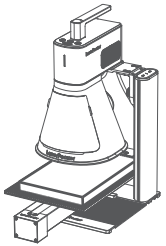
Versatile Electric Roller



Rotary Extension

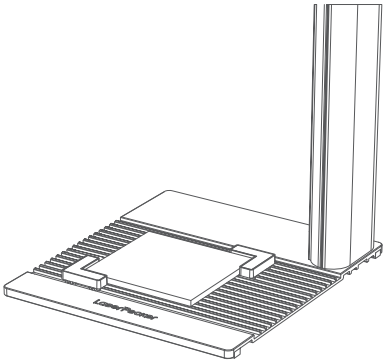


Slide Extension



Batch Engraving

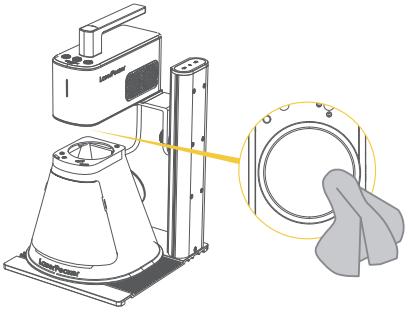
Adjust the L-Shaped Positioner according to the size of the material and the preview frame. Secure the positioner after alignment to ensure that items can be consistently positioned for fast and efficient batch engraving.



Maintenance

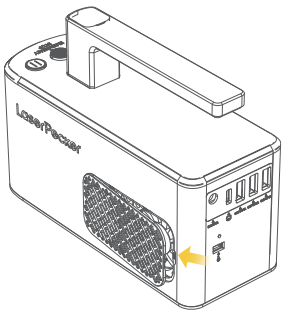
Field Lens Maintenance

During the engraving process, the Field Lens may get dirty. Clean it with the lint-free cloth moistened with alcohol for best performance.



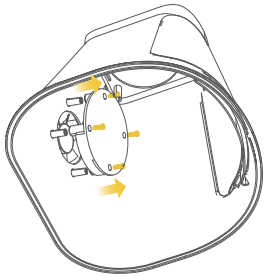
Dust Filter Cleaning

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



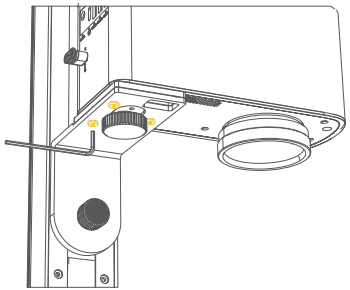
Protective Cover Exhaust Fan Cleaning

If smoke escapes from the protective cover, the exhaust fan outlet may be blocked by dust buildup, which can affect proper ventilation. Use a screwdriver to remove the fan from the cover, then clean both the fan and the interior to restore normal smoke exhaust performance.



Laser Unit Leveling

It is recommended to level the laser unit before use. If the laser unit is not level, use the H2.5 hex key to adjust the two leveling screws located beneath the bracket of the electric stand.



Technical Specifications

Size	208*233*432 mm
Net Weight	Total Weight: 3.39 kg (7.47 lbs) Laser Unit: 1.35 kg (2.98 lbs)
Laser Source & Power	10W 450nm Blue Diode Laser
Working Area	100*100 mm (Square) 160*300 mm (Slide Extension - Standard Mode) 100*300 mm (Slide Extension - Multi File Engraving Mode)
Exterior Material	ABS+PC, Aluminum Alloy
Preview Mode	Rectangle Preview / Outline Preview /Center Point Preview
Supported File Formats	PC Software: G-code /JPG /PNG /BMP/DXF/SVG Mobile App: G-code/JPG/PNG/SVG
Connection Method	USB, Wi-Fi
Supported OS	Support iOS 13.0+, Android 7.0+, MacOs 10.15+, Windows 10+, Compatible with LightBurn
Input Power	DC(24V, 5A) AC(100-240V, 50-60Hz) 120W
Environmental Temperature	Temperature Range: 10°C~35°C (50°F~95°F) Humidity Range: 10%~95% RH (Non-condensing)
Cooling System	Semiconductor Cooling + Air Cooling
Safety Certification	CE/RoHS/FCC/FDA/NCC/KC/UKCA/TELEC/GB4943.1

Statements

Disclaimer

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