LaserPecker

LaserPecker LX2

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

v1.0

Contents

Safety Information

1 General Safety

Before operating this product, please read and familiarize yourself with all safety guidelines and usage steps. Users must strictly adhere to all safety precautions and ensure that the product is correctly assembled and in normal working condition.

- Before using the machine, check the equipment for any damage and ensure that no defective or damaged machines are used.
- 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.
- The use and maintenance of this device should follow the instructions in the manual to ensure safe operation.
- This device should not be operated by individuals with physical, sensory, or intellectual disabilities, minors, or untrained personnel.
- Ensure that the equipment is placed on a stable and level surface for operation.
- Keep the area around the device dry, well-ventilated, and maintain the environment within 32-95°F (0-35°C) and 5-85% humidity.
- Operating the device at sub-zero temperatures is strictly prohibited.
- When this product is in operation, ensure that it is supervised.

Please stop using the device immediately and disconnect the power in the following situations:

- A burnt smell is detected coming from the device.
- Open flames or sparks are observed coming from the engraving material.
- Any part of the device is damaged or malfunctioning.
- The device suddenly stops operating without any apparent reason.
- There are unusual sounds, smoke, or abnormal lights coming from the device.

2 Laser Safety

- During normal operation, the laser is enclosed with the lid. The LX2 is equipped with a safety interlock system; if the lid is opened during operation, the laser will stop emitting light, ensuring that there is no harm to the user.
- It is strictly prohibited to operate the device with any parts disassembled. The absence of any components can pose a laser safety risk and damage the equipment. Do not tamper with the safety mechanisms of the cover.
- Operating lasers or reflecting laser beams can quickly lead to fires, burns, and permanent vision damage. Normally, the laser is shielded by the lid. If the target object cannot be fully covered, such as when using with accessories, safety goggles must be worn to protect the eyes from laser exposure.
- Before operating the equipment, users should be thoroughly knowledgeable about the following aspects: the physical characteristics of laser radiation, the hazard classification of lasers and related health effects, and safety measures.

Safety Information

- Never operate the laser unattended. During operation, closely monitor the device to ensure it is functioning normally.
- Do not engrave or cut materials that contain PVC or vinyl. During operation, these materials may release toxic or harmful gases or fumes. Depending on the type and composition of the engraving/cutting materials, these emissions may pose health and environmental risks. To ensure safe use, it is advisable to fully understand the material properties before processing; do not engrave or cut any unknown materials. LaserPecker is not responsible for any damage to the machine or injury to persons caused by engraving materials containing PVC, vinyl, or materials with unknown properties.
- Do not use this device in humid, dusty, or high electromagnetic interference environments. Under these conditions, the laser may easily deflect or reflect.
- Reflective materials can cause laser reflections, so ensure that the work area is free from any reflective surfaces.

3 Equipment Safety

- Please ensure that the power adapter specifications indicated in the LX2's user manual are followed for powering the device. Using an adapter with different power ratings may cause the device to malfunction.
- Do not ignite explosive materials or any substances that may increase the risk of fire near the device (especially flammable materials such as paper, acetone, gasoline, alcohol, or volatile solvents).
- Do not place any objects on top of the device, particularly heavy items, to prevent permanent damage.
- When operating the device, ensure good ventilation to expel exhaust gases outdoors, or use it in conjunction with an air purification filtration system. If symptoms such as respiratory irritation occur, immediately get fresh air and seek medical attention as needed.
- Keep the interior of the device clean to prevent the accumulation of cutting or engraving debris, which could lead to fires. After use, promptly clean any residual materials from the tray.
- In case of an emergency during operation, press the Emergency Stop Button to immediately cut power and stop the device.
- Have a fire extinguisher ready and conduct regular maintenance checks on it. If open flames occur during processing, take the following measures:
  1. First, disconnect the power supply to the device.
  2. Then, use the fire extinguisher to put out the fire.

4 Safety Labels

Warning and instruction labels are placed in areas that may pose hazards during operation or before use. If any labels are damaged or missing, please replace them immediately. You can use the following template to copy and print the required labels.

Labels	Warnings	Positions
	Laser Aperture Label	Below the front of the Laser Module
	Do not leave the machine unattended Keep away from flammable/explosive items Do not place objects on the top cover	On top of the machine
	Do not unplug or plug in the Laser Module cable while the machine is powered on. Class 4 laser product. Avoid exposing your eyes or skin to direct or reflected laser beams.	On the side of the Laser Module
	Class 1 laser product.Do not expose your eyes or skin to direct or reflected laser beams when the interlock between the protective cover's open/close status and the laser emission is disabled or not functioning.	Below the back of the the machine
	In case of an emergency during operation, press the Emergency Stop Button to immediately cut power and stop the machine.	Around the Emergency Stop Button

Software Download

PC Software Download

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

Mobile App Download

Scan the QR code below to download and install the LaserPecker Design Space App.
Note: After downloading and installing the app, please be sure to read the warnings and precautions within the app carefully.

Getting Help

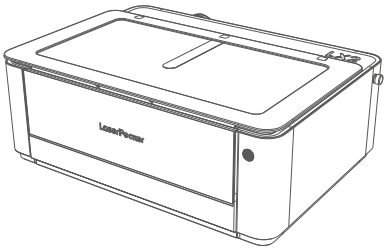
Technical Support

If you encounter any issues, please do not hesitate to redich out to our customer support team at support@laserpecker.com.
YouTube: @LaserPecker
Facebook Group: LaserPecker LX2 Official Group

Video Tutorials

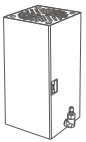
Scan the QR code below to learn how to use the LX2.

Package List

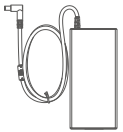


LX2 × 1

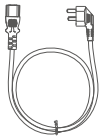
User Manual × 1



Laser Module
(multiple power
options available)

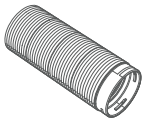


AC Power Adapter x1



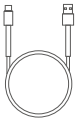
Power Cable x1

Material Pack x 1



Smoke Exhaust Pipe x 1

Slats x 4

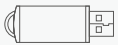


USB-A to USB-C Cable (1.5 m) x 1

Toolbox x 1

Distance Sensor x 1

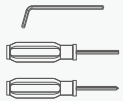
Security Key x 2



Flash Drive (32G) x 1

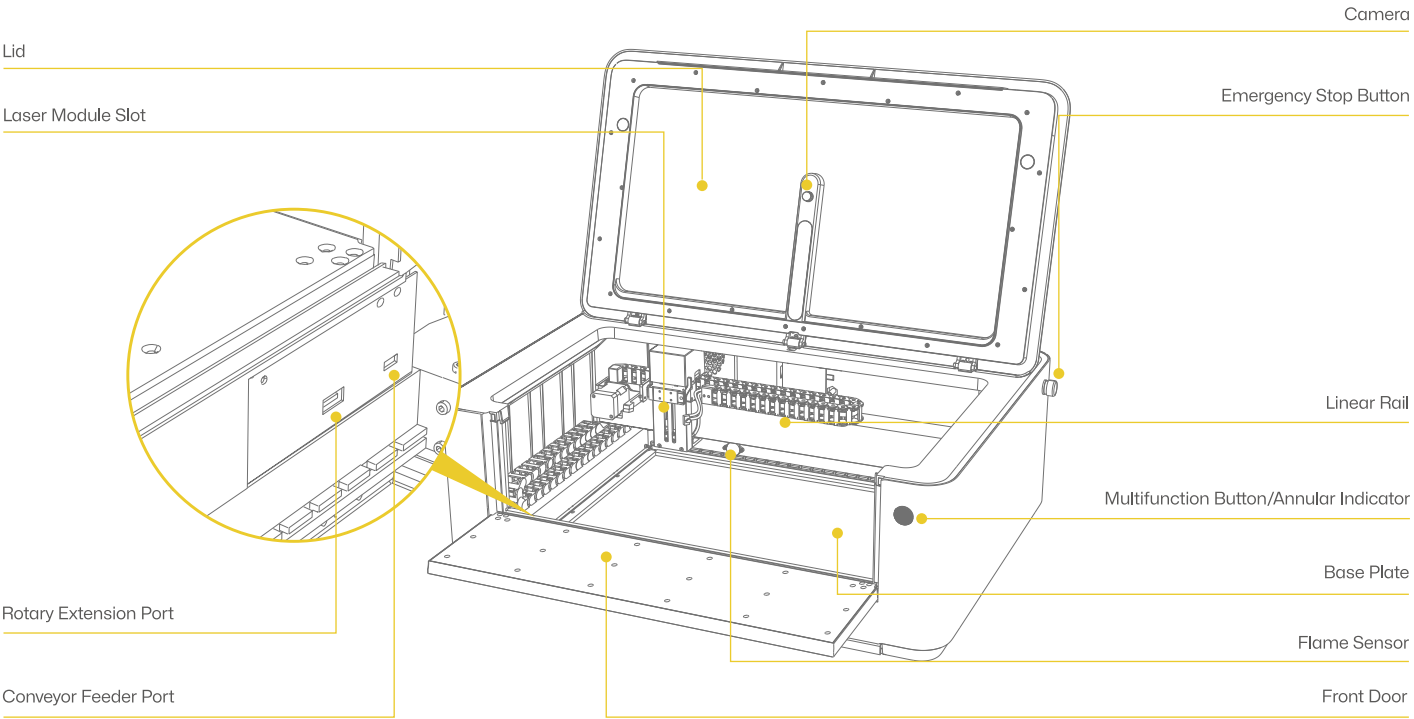
M3*6 Screws x 4

Protective Lens

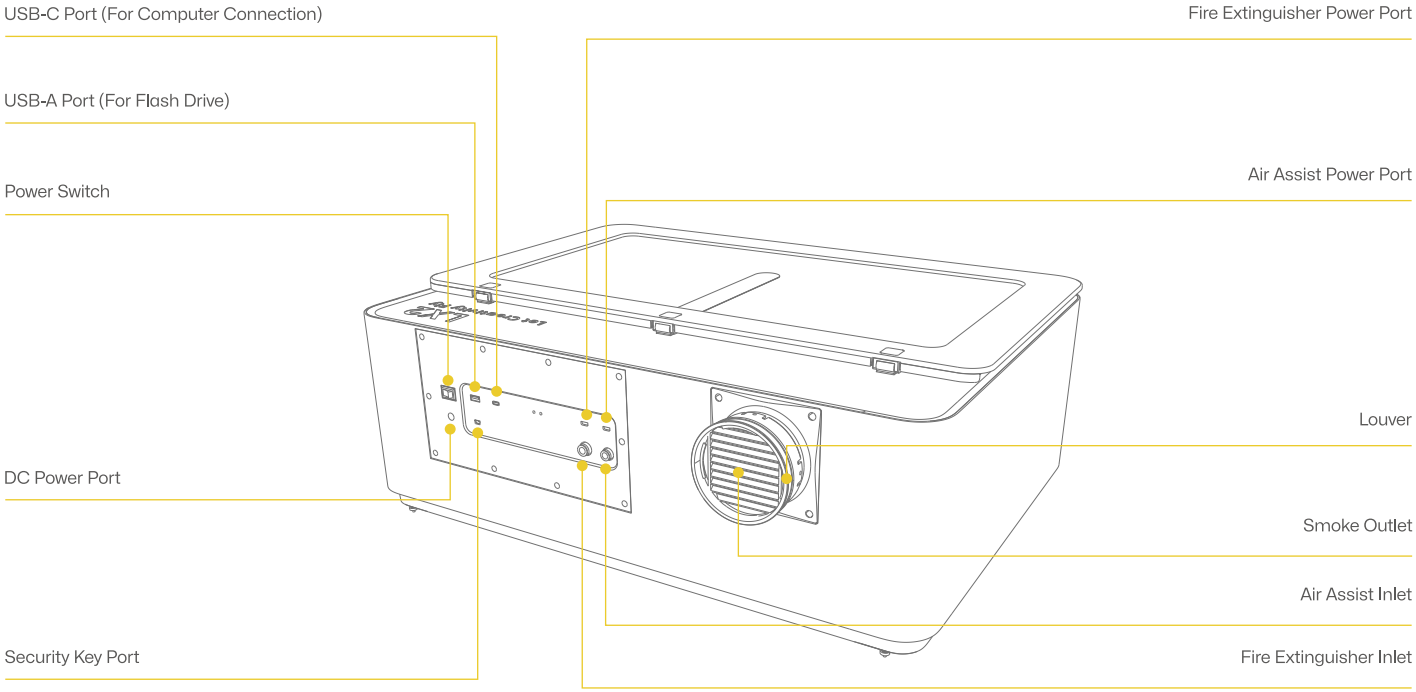


Hex Key H2.0 x 1
H2.5 x 1
#3 Phillips Screwdriver ×1

Component Introduction



Component Introduction

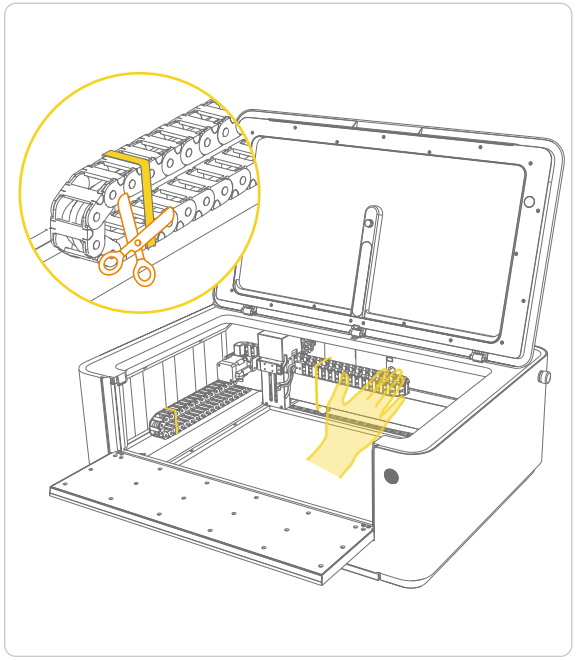


Button Functions and Definitions

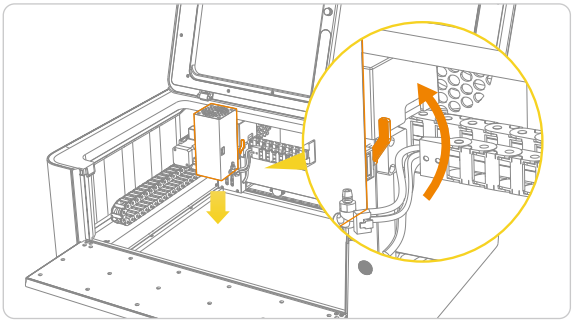
Buzzer	Annular indicator	Machine Status	Button Operation
/	Blinking White	Standby	/
/	Blinking Blue	Network Configured, Not Connected to Software	/
/	Solid Blue	Standby, Connected to Software	/
/	Solid White	Auto-Focusing	Long Press to Exit
/	Blinking White	Measuring Curved Surface	Long Press to Exit
/	Blinking White	Material Positioning	Short Press to Mark; Long Press to Exit
/	Solid Purple	Previewing	Long Press to Exit
/	Solid Green	Ready to Start	Short Press to Start; Long Press to Cancel
Beeps once	Solid Green	Booting	/
Beeps once	Blinking White	Configuring Network	Long Press Button for 5s to Enter Network Configuration Mode
Beeps once	Breathing RGB	Processing	Short Press to Pause; Long Press to Cancel
Beeps once	Blinking Red & Blue	Firmware Upgrading	/
Beeps once	Blinking Purple	Processing Paused	Short Press to Resume; Long Press to Stop
Beeps once	Blinking Purple	Device Error (Machine Tilted During Engraving)	/
Beeps three times	Blinking Red	Firmware Startup Failed	Reboot After Power Off for 3 Seconds
Beeps three times	Blinking Yellow	Laser Module Not Properly Connected / Lid Not Fully Closed	/
Continuous beep	Blinking Red	Flame Detected	Short Press to Cancel Alarm

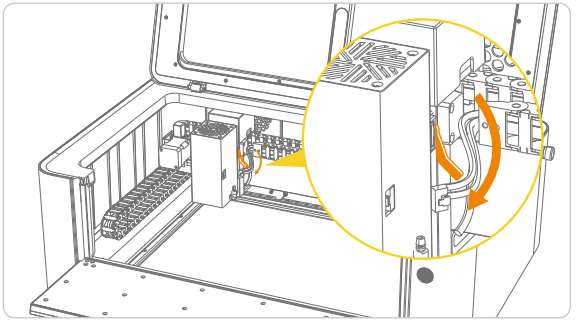
Use the LX2

1 Open the lid and front door. Cut all cable ties on both sides and slightly pull the beam outward to make space for installing the laser module.



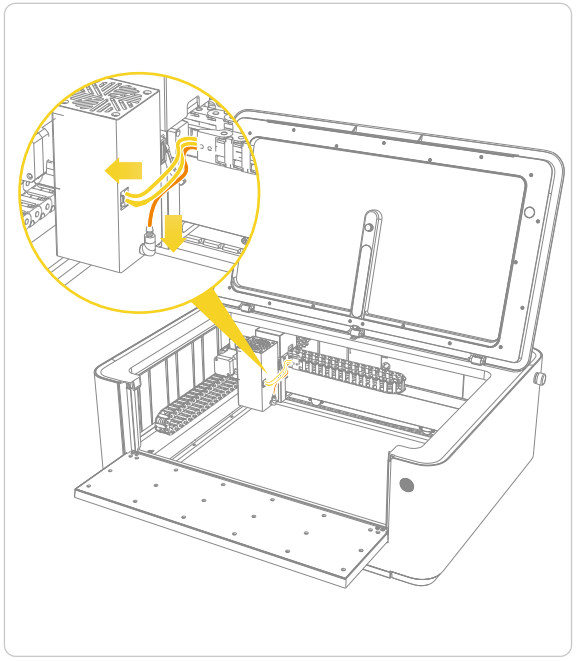
2 Before assembly, ensure the right-side handle is positioned at the top. Place the laser module into the laser module slot. Then press down the right-side handle to lock the module in place.



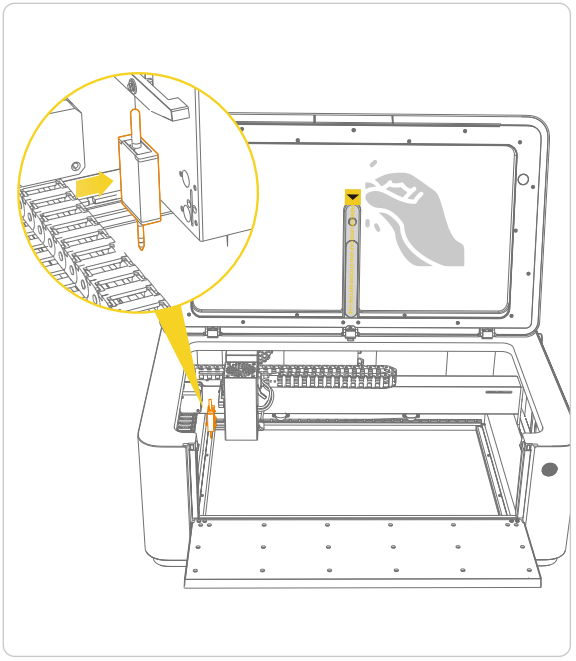


Use the LX2

3 Connect the power cable and air tube to the laser module.

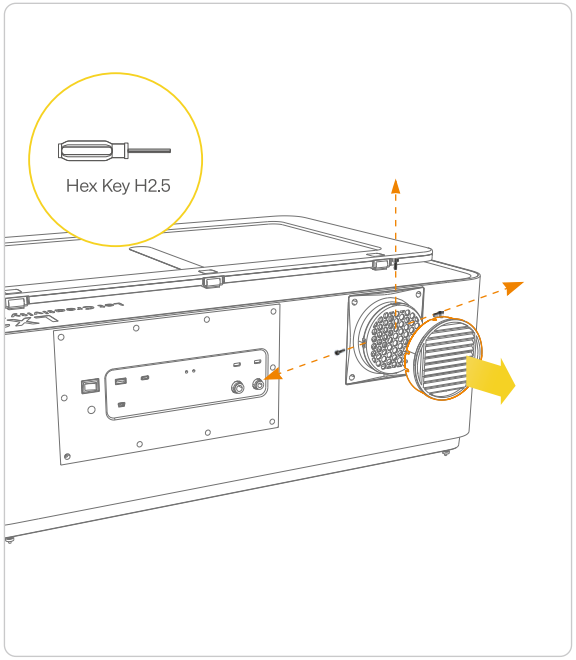


4 Attach the distance sensor (in Toolbox) onto the laser module. Be sure to remove the protective film from the camera.

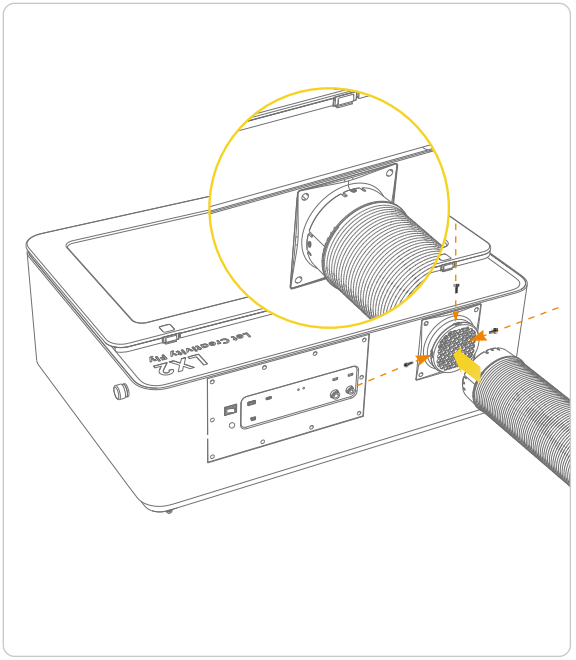


Use the LX2

5 Use the hex key H2.5 to unscrew the 3 screws of the louver on the back of the machine.Then remove the louver by sliding it left or right.

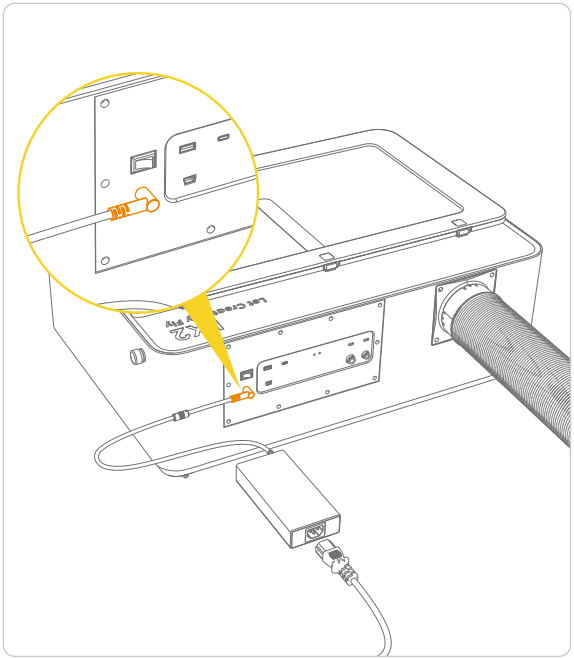


6 Attach the smoke exhaust pipe to the smoke outlet, and secure back the 3 screws.

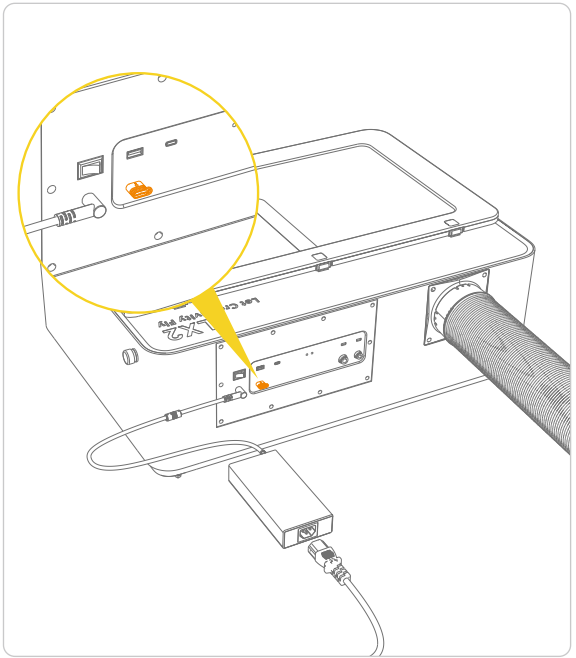


Use the LX2

7 Connect the power cable to the AC power adapter then insert to the DC power port.



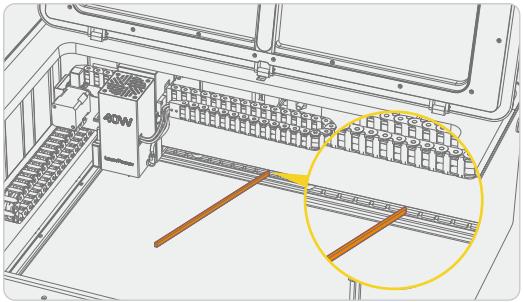
8 Insert the security key.

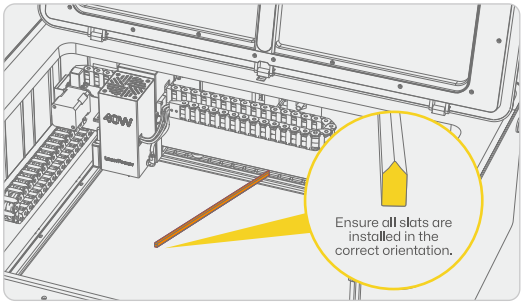


9 Install the slats (Skip this step if you are not performing cutting operations.)

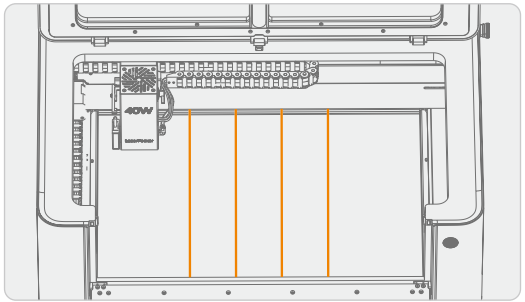
When cutting materials like wood boards, use the slats to improve airflow, resulting in better cutting performance.

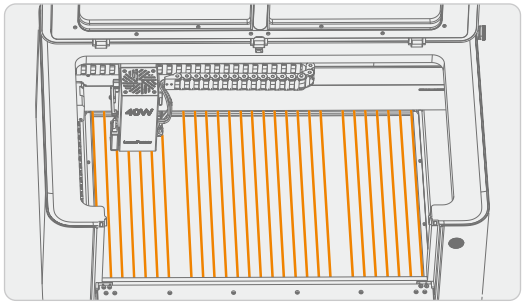
1. Take the slats out of the packaging. Insert them into the slots on the front and rear frames inside the machine.





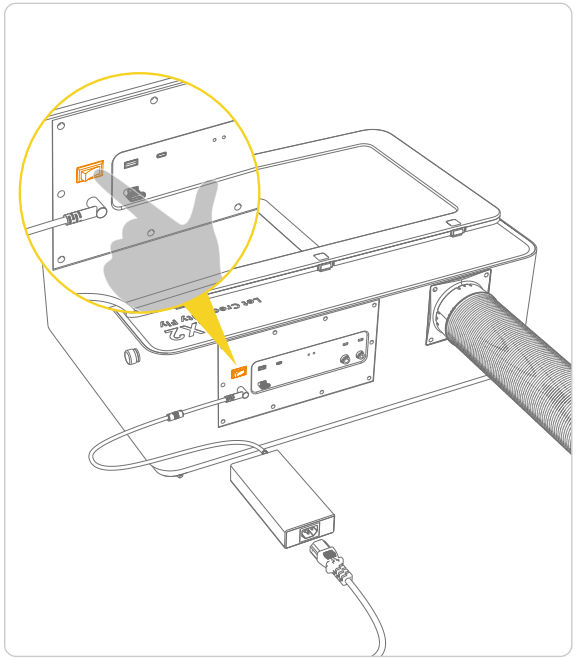
2. The spacing between the slats can be adjusted based on your needs. The standard LX2 package includes 4 slats. (If more slats are needed, additional ones can be purchased separately.)



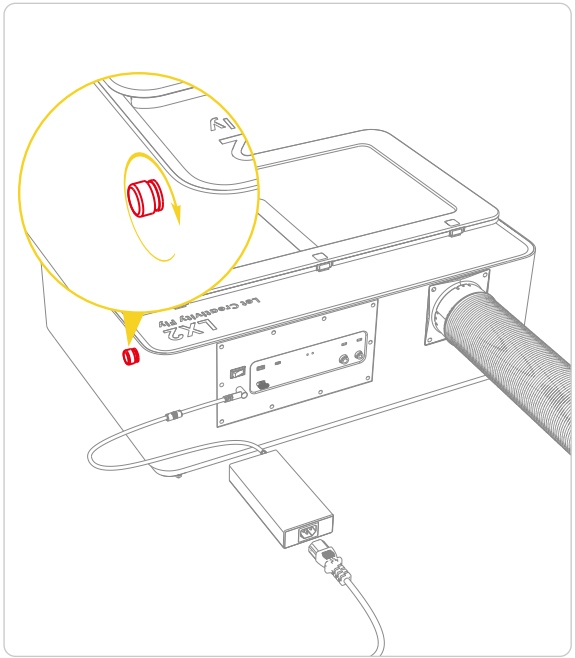


Use the LX2

10 Turn on the LX2 power switch.

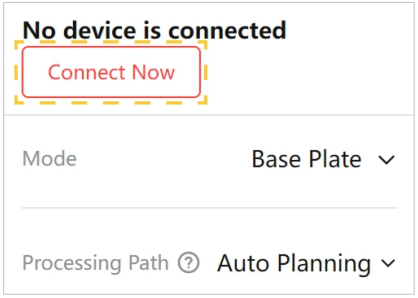


11 Before use, make sure to release the emergency stop button by turning it clockwise.



Connect to PC Software

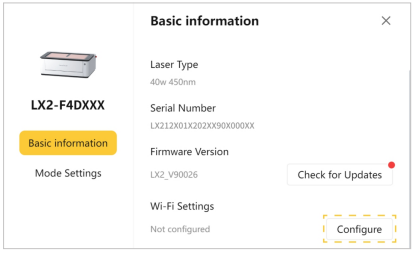
Option 1: Connect via the USB-A to USB-C Cable (1.5 m).



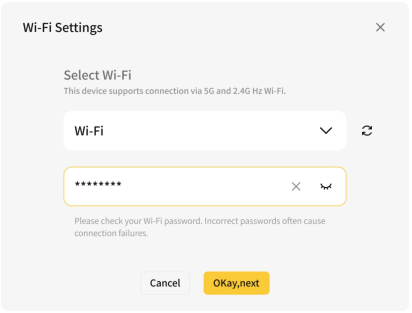
Option 2: Connect to PC Software through WiFi(First-time WiFi setup or changing the network)

1 Before setting up the WiFi connection,you must first connect the machine to the computer using the USB-A to USB-C Cable (1.5 m). 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 computer must be connected to the same 2.4GHz or 5GHz Wi-Fi network for proper operation.



Connect to Mobile App

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

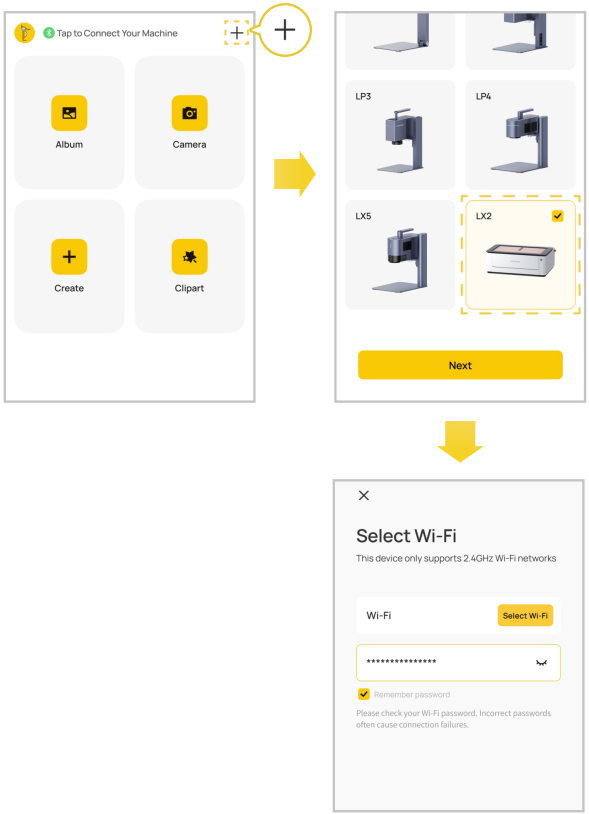
Open the LaserPecker Design Space App, click the "+" in the upper right corner, select the machine model "LX2" and follow the instructions to configure the WiFi network for the machine.

Note: Both the machine and the phone must be under the same 2.4GHz or 5GHz WiFi network.

The annular indicator is in solid blue if the connection is successful.

- Blinking White: Machine waiting for network configuration.
- Solid White: Machine is in network configuration mode.
- Blinking Blue: Network configuration successful
- Solid Blue: Software connection successful

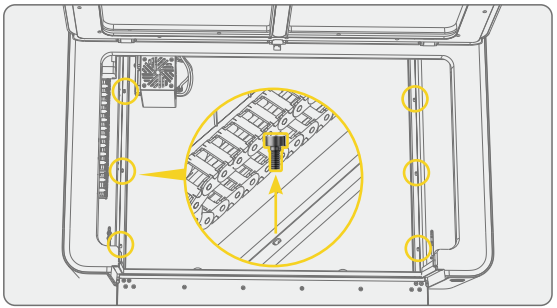
If you need to reconfigure the network, press and hold the multifunction button for 5 seconds to re-enter configuration mode (Blinking White).

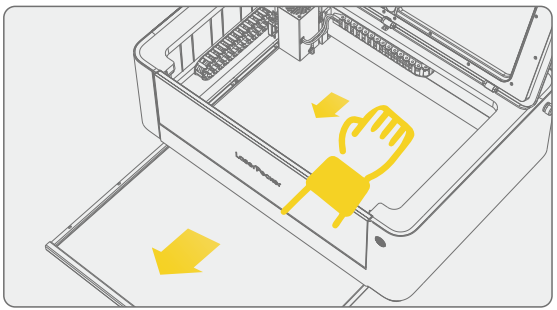


Maintenance

Base plate cleaning

Use the hex key H2.5 to remove all 6 screws securing the base plate.Then pull out the base plate and dispose of any debris.Rinse off any stains with clean water and wipe it down thoroughly. Allow the plate to air dry completely, then reinstall it in its original position by fixing back six M3*6 screws.



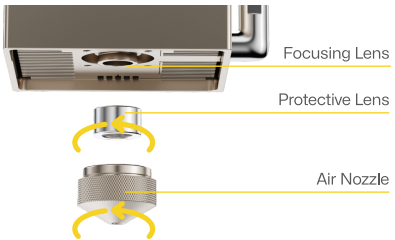


Laser module cleaning

Laser processing can generate smoke and dust, which may contaminate the protective lens and block the air nozzle. If not cleaned in time, this can result in reduced laser output, poor engraving and cutting performance, or even damage to the laser module.The software will remind you to clean periodically, please follow the prompts to clean the laser module as recommended.

Infrared Laser Module

Diode Laser Module



Laser Module Cleaning Preparation

Prepare in advance: Cleaning products (e.g., alcohol, anhydrous isopropanol, etc.). Cleaning tools (e.g., lint-free cloth, specialized cleaning swabs, etc.)

Cleaning Guide:

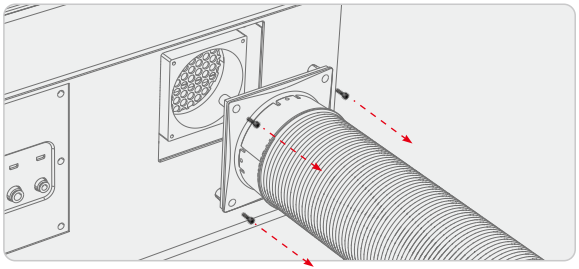
1. Power off the machine and remove the laser module.
2. Unscrew and remove the air nozzle and the protective lens by turning it counter-clockwise.
3. Use a lint-free cloth dipped in a small amount of alcohol to gently clean the protective lens and air nozzle in order.

Under normal circumstances, the focusing lens does not require cleaning. However, if it becomes contaminated during the removal or cleaning of the protective lens, it should also be carefully cleaned.

Maintenance

Exhaust fan cleaning

Over time, smoke and dust may accumulate around the exhaust fan, reducing its ventilation efficiency. Clean the fan if you notice a slower exhaust rate.

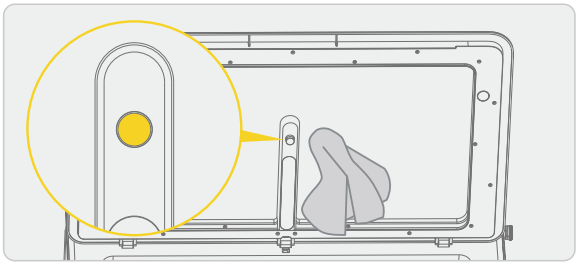


Exhaust Fan Cleaning Instructions:

1. Power off the machine. Use the hex key H2.5 to remove the three M3 screws securing the exhaust duct, as well as the four M3 screws on the exhaust vent cover.
2. Disconnect the exhaust fan power cable, then remove the screws securing the fan and take out the fan unit.
3. Use tissues, cotton swabs, or similar tools dipped in clean water or alcohol to wipe off ash and dust from the fan blades and internal surfaces.
4. The inner surface of the exhaust fan can also be cleaned.
5. Reinstall the fan and reconnect the power cable.
6. Reattach the exhaust vent cover and exhaust duct as originally assembled.

Camera cleaning

After extended use, smoke and dust may settle on the camera lens, causing a blurry image. If the camera preview in the software appears unclear, open the top lid and inspect the camera lens surface. If there is visible dirt or smudging, gently clean the lens using a lens cloth or a lint-free cloth.



For More Information

For more details on maintenance and care, please scan the QR code below.

Technical Specifications

Product Model	LX2
Size	780 x 609 x 281 mm (30.7 x 24.0 x 11.1 inches)
Net Weight	22.5 kg (49.6 lbs, without laser module)
Working Area	500 x 305 mm (19.7 × 12.0 inches)
Supported File Formats	PC Software: G-code /JPG /JPEG/PNG/SVG /BMP/DXF/TIF
	Mobile App: G-code/JPG/JPEG/PNG/SVG/BMP
Supported OS	Support iOS 13.0+, Android 7.0+, macOS 10.15+, Windows 10+
Supported Software	Compatible with LaserPecker Design Space, LightBurn
Input Power	DC(24V, 10A)
Connection Method	Wi-Fi, USB, IP
Operating Temperature Range	0–35°C (32–95°F)
Operating Humidity Range	5%~85% RH (Non-condensing)
Safety Certifications	CE, ROHS, FCC, FDA, PSE, UKCA, TELEC

Statements

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.

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