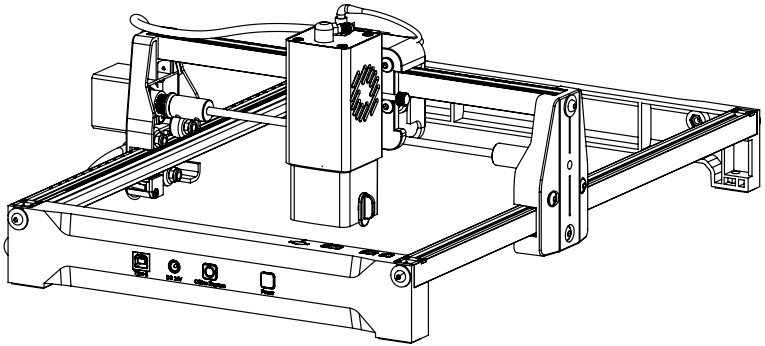
Carverall

K15 Pro
User Manual



Please read this instruction manual carefully before use
Please use the laser engraving machine correctly and safely

WELCOME

Scan the QR code to view the video tutorial.



We strongly suggest first-time users watch it—this helps save time.

Helps & Downloads

https://www.carverall.com

Please visit carverall online “Support Center” to download required documents

Technical support

For technical support, please email us at: **support@carverall.com**

VIP Activation

Email your Amazon Order ID to: services@carverall.com

Subject: "VIP Activation"

- **Benefits:** 1-Year Warranty / Priority Support / Exclusive Discounts
- **Note:** Processed in 7 business days / Warranty starts after activation
- **Email Example:**
  To: services@carverall.com
  Subject: VIP Activation
  Message: Order ID: [Your ID]

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Electronic Manual Download

➢ To access the electronic manual, please visit the website below: **https://carverall.com/pages/user-manual**

SAFETY INSTRUCTIONS

Thank you for purchasing the laser engraving machine. In order to better use and maintain this equipment, please read this manual carefully and follow the steps in the manual.

Important Statement!

All losses caused by improper use or failure to follow the steps in the manual shall be borne by the individual. The final right of interpretation of the manual belongs to our company, which also reserves the right to modify all information, data, technical details, etc. in this manual.

Safety Precautions

★Before operating the equipment, users must carefully read the manual and strictly follow the operating procedures.
★Laser processing may be risky, and users should carefully consider whether the object being processed is suitable for laser operation.
★The processing object and emissions should comply with local laws and regulations.
★The laser radiation may cause the following situations:
① Ignition of surrounding flammable materials;
② During laser processing, other radiation and toxic and harmful gases may be generated due to different processing objects;
③ Direct exposure to laser radiation can cause human harm. Firefighting equipment must be equipped in the use site. It is prohibited to stack flammable and explosive items around the workbench and equipment. At the same time, it must be well ventilated.
★The environment where the equipment is located should be dry, free of pollution, vibration, strong electricity, strong magnetism and other interference and influence. The working environment temperature is 5~30℃, and the working environment humidity is 30-65% rh (no condensation)
★Equipment operating voltage: AC100-240V.
★The engraving machine and other related equipment must be safely grounded before they can be turned on and operated.
★When the equipment is turned on, it is necessary to be on duty throughout the process. All power supplies must be cut off before leaving to prevent abnormal conditions. If any abnormal conditions occur, please turn off the power immediately!
★It is strictly forbidden to place any irrelevant total reflection or diffuse reflection objects in the equipment to prevent the laser from reflecting on the human body or flammable items.
★The equipment should be kept away from electrical equipment that is sensitive to electromagnetic interference, which may cause electromagnetic interference to it.
★There is high voltage or other potential dangers inside the laser equipment, and non-professionals are strictly prohibited from disassembling it.

⚠ Warning:

When you purchase only the bare device, the device level is: Class IV laser device. Please wear laser protective glasses during use! ! !
When you purchase a device with a cover, the device level is: Class I laser device, which can prevent you from being harmed.

Notice!

1. After the laser is turned on, it is strictly forbidden to aim at people, animals and flammable objects to avoid skin burns and fire.
2. The brightness of the laser is harmful to the eyes. Please do not look directly at the laser.
3. Keep your hands away from the machine when it is working to avoid injury
4. Turn off the power of the machine when it is not in use to avoid misoperation by a third party

Maintenance and Care

The laser module is a consumable. It is recommended to turn off the machine power for 10 minutes after 4 hours of engraving and 1 hour of cutting.

FCC WARNING

Warning

To assure continued compliance, any changes or modifications not expressly approved by the party.Responsible for compliance could void the user's authority to operate this equipment.

FCC Statement

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

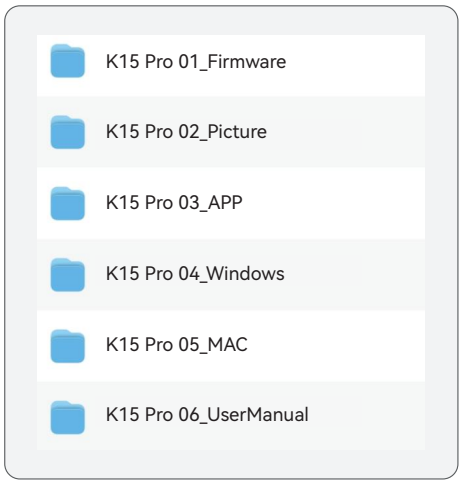
FCC Radiation Exposure Statement:

The equipment complies with FCC Radiation exposure limits set forth for uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Caution use of controls or adjustment of performance of procedures other than those specified herein may result in hazardous radiation exposure

INCLUDED TF CARD CONTENTS

TF Card Included Files



Files in the TF card:

K15 Pro Firmware(C02-250702).bin

Firmware updates for the engraving machine (download to your computer before updating).

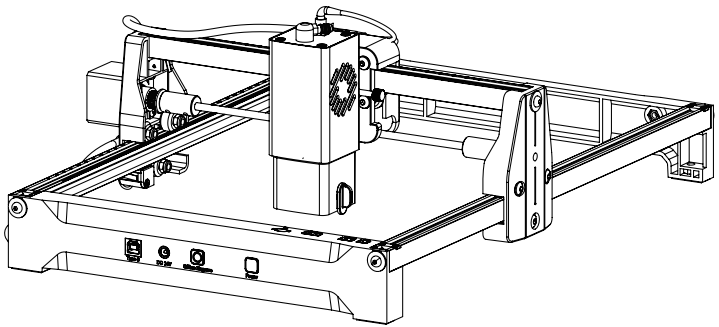
LaserTool_setupV1.1.5_en.exe

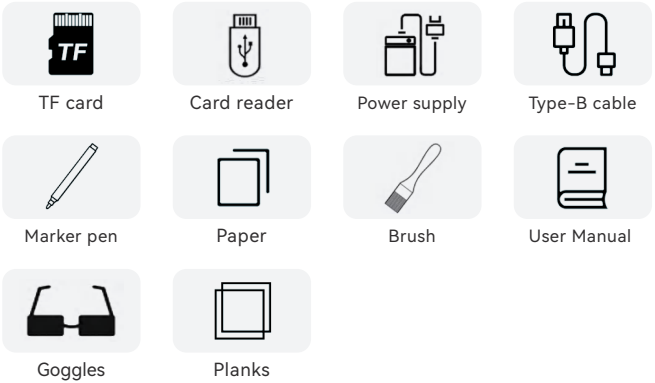
Firmware update software tool.

Carverall K15 Pro Lightburn Firmware.lbdev

Import this file into LightBurn when connecting the machine for the first time to improve software usability.

01 PRODUCT PARAMETERS



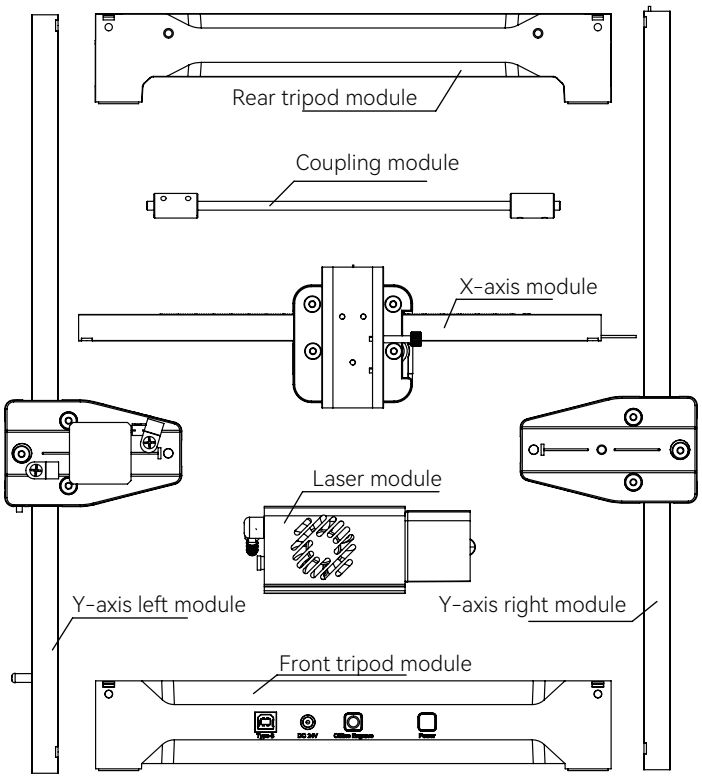


Product Model	K15 Pro
Laser Wavelength	455nm / 1064nm
Laser Life	>10000h(at 27℃ ring temperature)
Engraving Area	X: 200mm × Y: 300mm
Engraving Height	<60mm
Power	<60W
Data Transmission	USB wired transmission, WiFi wireless transmission
Cooling Mode	Air-cooled

Input Voltage	455nm A/AA : DC24V 2A 455nm AAA: DC24V 2.5A 1064nm B : DC24V 2A
Systems	CutLabX (windowsOS、macOS、Android、iOS) LightBurn(windowsOS、macOS)/ LaserGRBL(windowsOS)
Standard List	TF card + card reader + power supply + Type-B cable + pen brush +Marker +Goggles +User's Manual +Paper +Board
Optional	Air Pump / Camera Module / Height Enhancement Module / Honeycomb Panel / Air Cleaner / Rotary Module / Shield

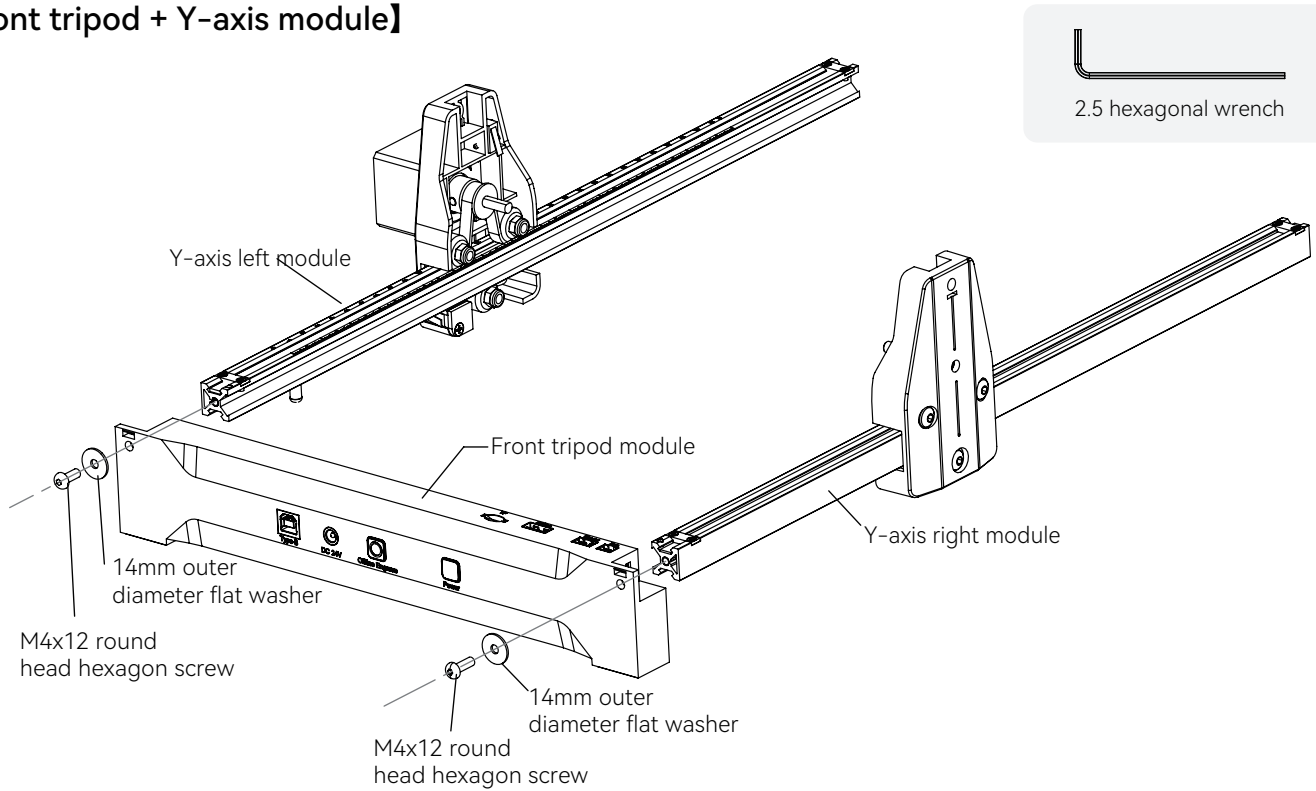
02 PRODUCT ASSEMBLY STEPS

【 Parts List 】



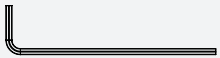
02 PRODUCT ASSEMBLY STEPS

【Front tripod + Y-axis module】

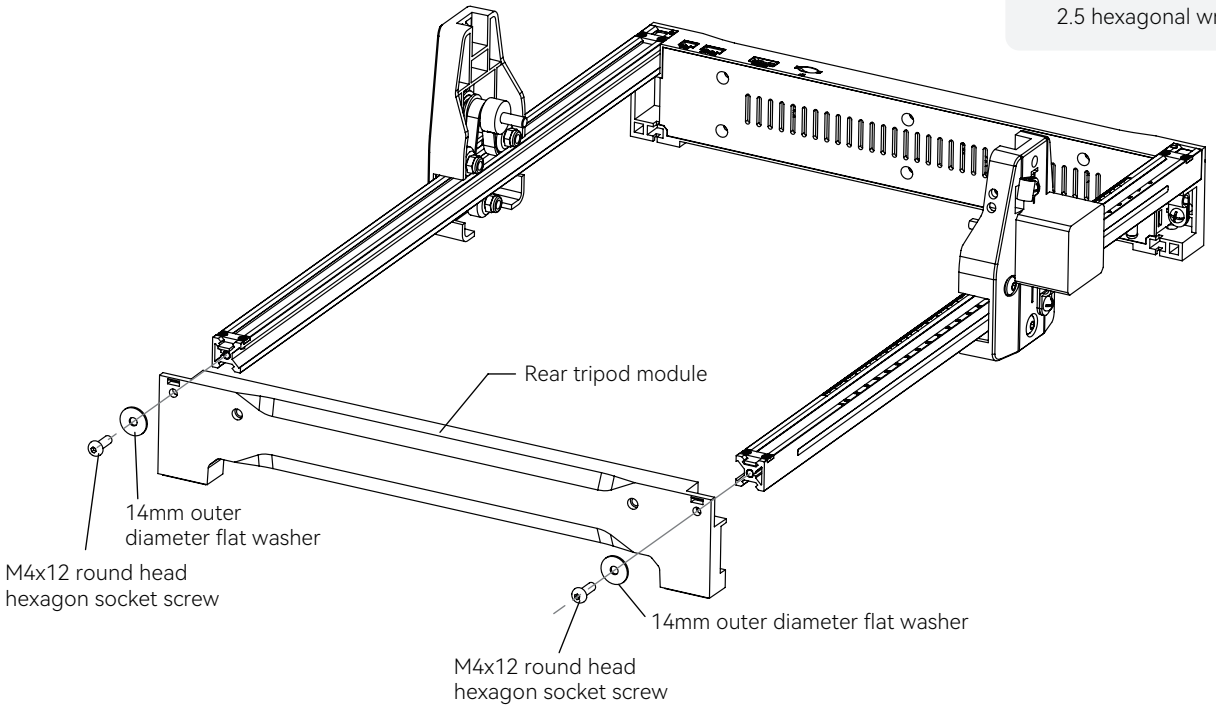


02 PRODUCT ASSEMBLY STEPS

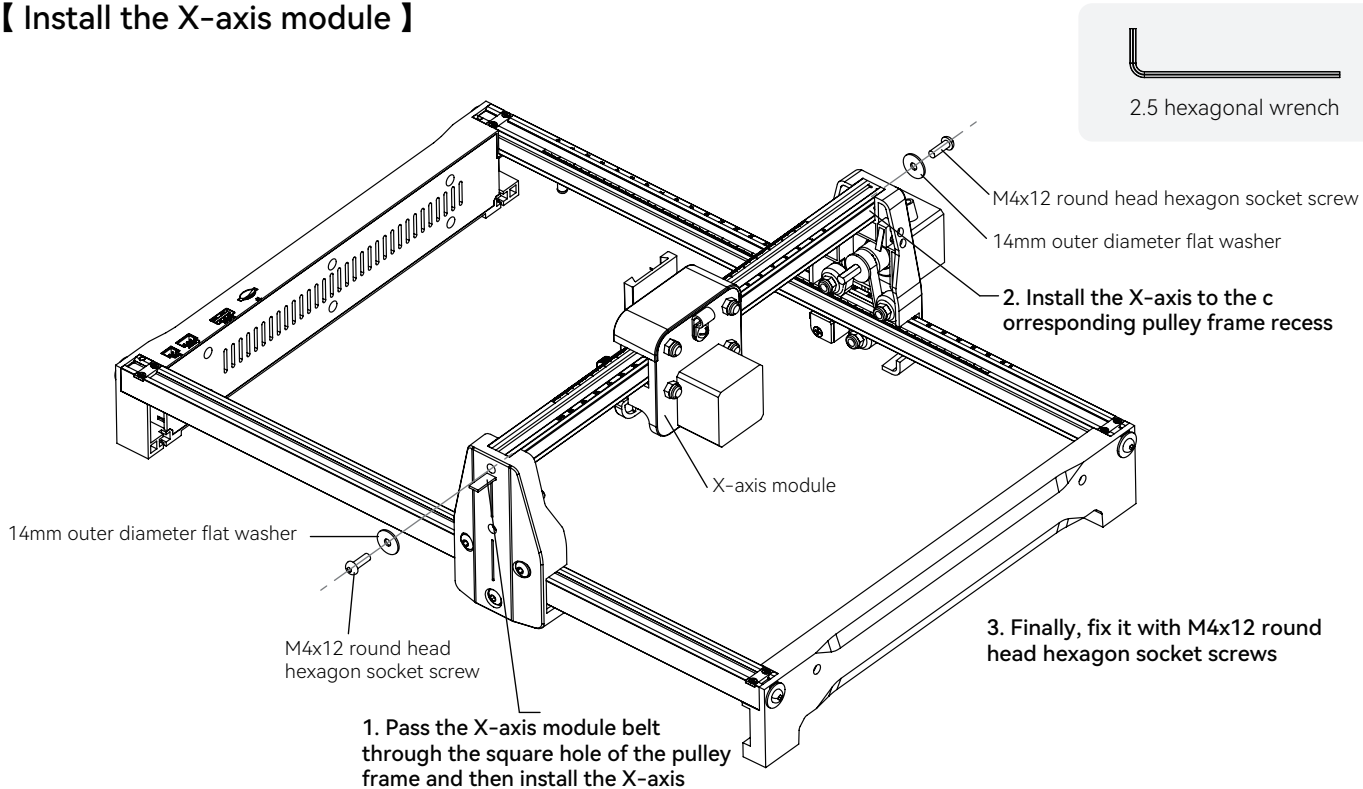
【Install the rear tripod module】



2.5 hexagonal wrench

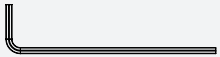


【 Install the X-axis module 】



02 PRODUCT ASSEMBLY STEPS

【Install the coupling module】



2.0 hexagonal wrench

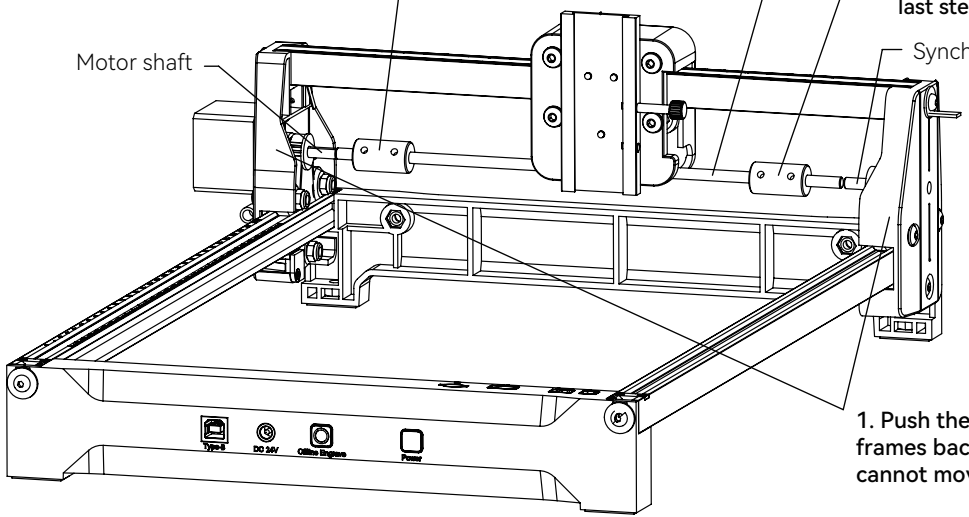
3. Loosen the four top screws of the coupling and move the coupling back to the motor shaft, then tighten the top screws

2. Put the coupling module into position

4. Loosen the four top screws of the coupling and push it outward to install it on the synchronous wheel shaft. It is last step to tighten the screws

Motor shaft

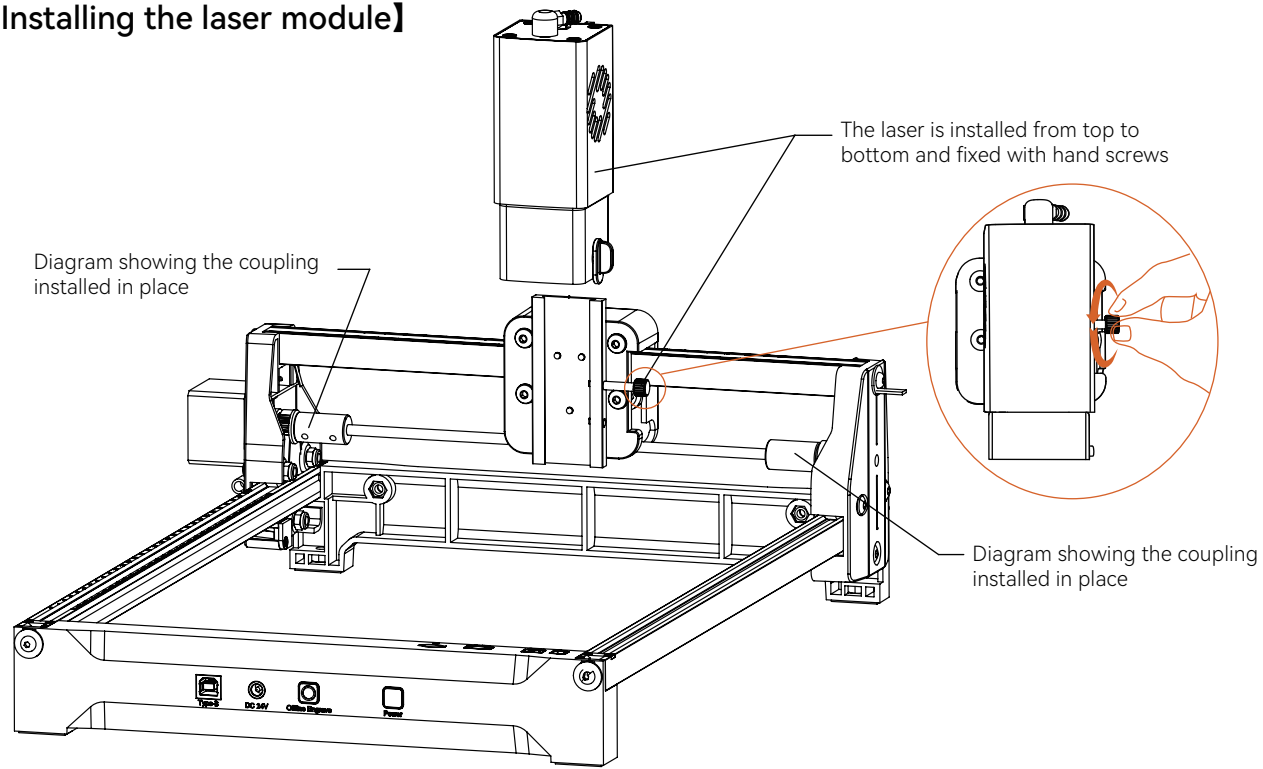
Synchronous wheel shaft



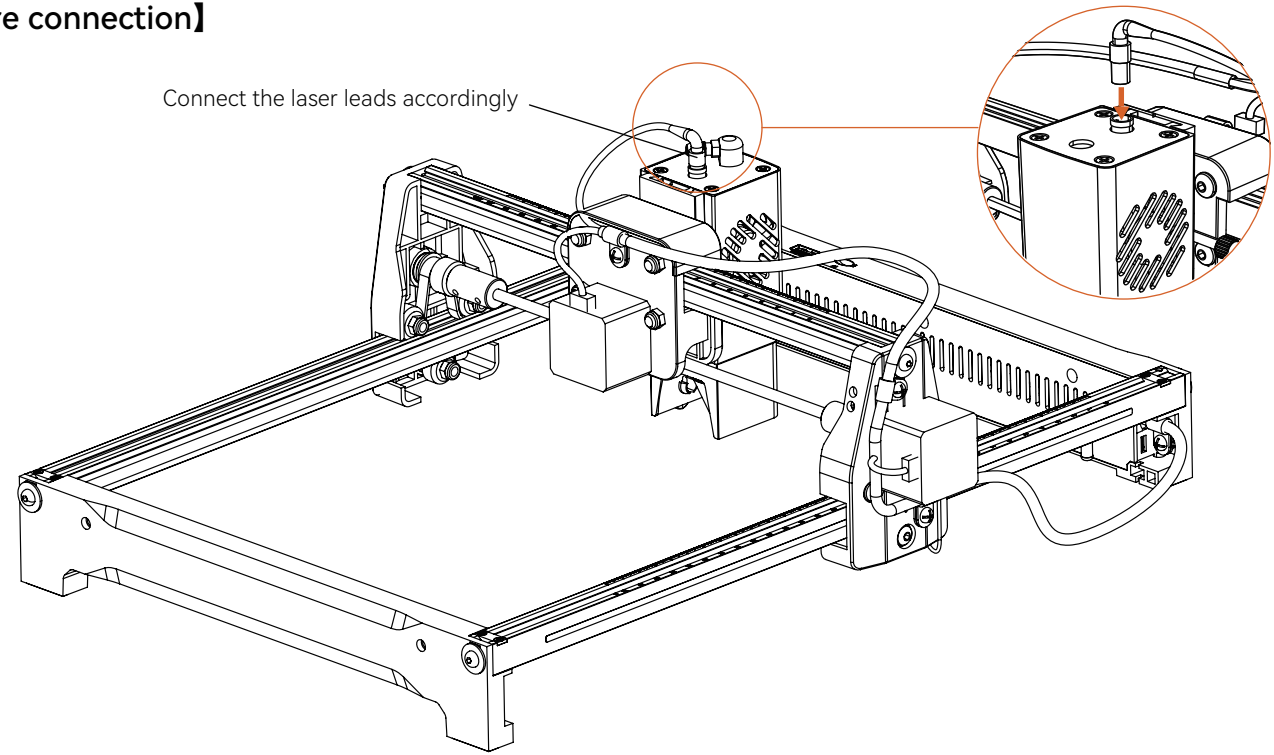
1. Push the left and right pulley frames back synchronously until they cannot move

02 PRODUCT ASSEMBLY STEPS

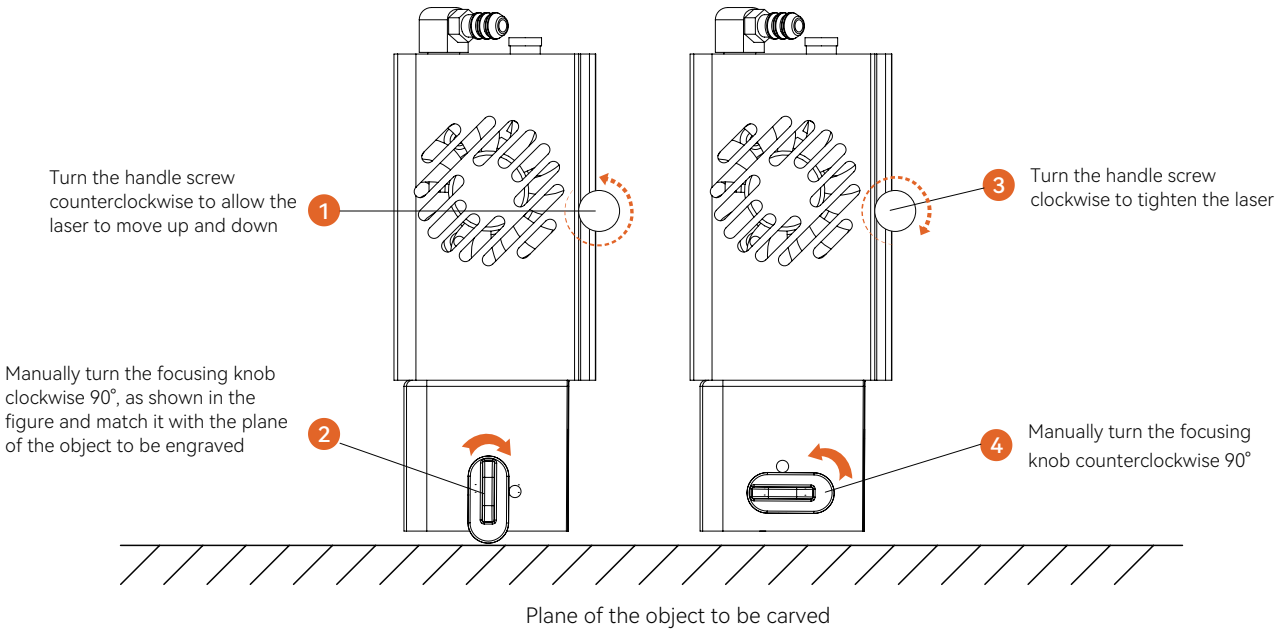
【Installing the laser module】



【Wire connection】

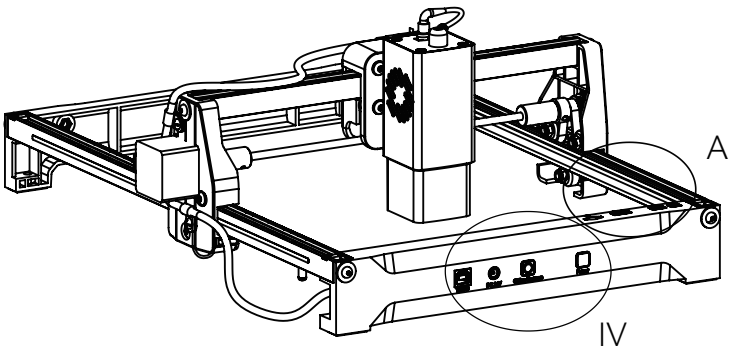


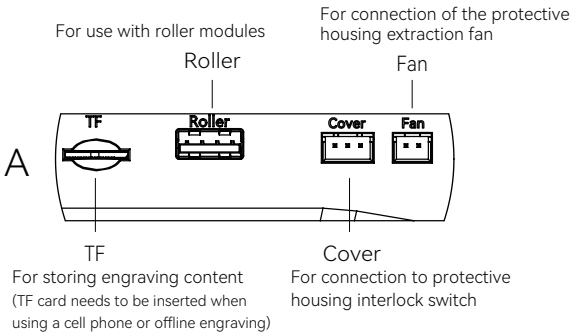
【 Focusing method for 455nm laser 】

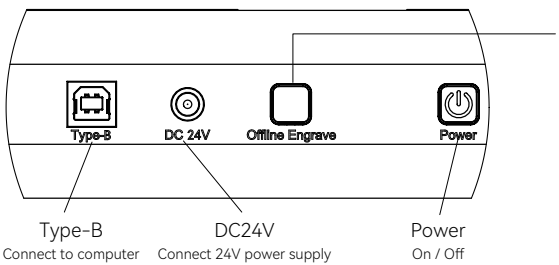


03 FUNCTIONS & ACCESSORIES INTRODUCTION

【 Functional Description 】







Offline Engraving

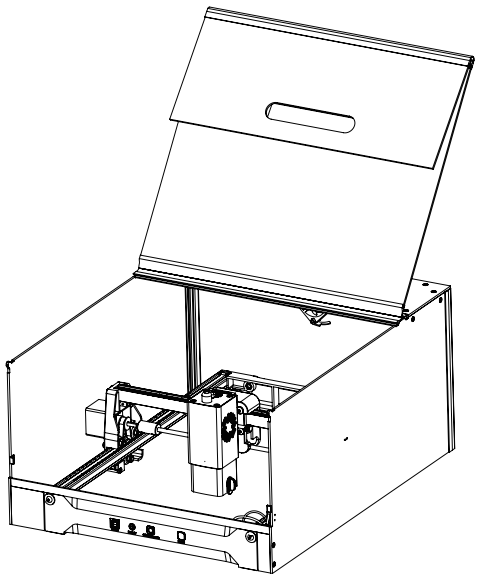
1. Generate the engraving or cutting file (gcode) through LightBurn software and save it to the root directory of TF card, save the name as: 001.nc
2. Insert the TF card into the machine before powering on, then use the matching power adapter and power cord to connect to the controller panel, and finally turn on the power switch on the right side of the control panel.
3. Press the "Offline Engraving" button:
   a. Press the button and the machine will automatically reset and preview.
   b. Press and hold the button for more than 3S to enter the engraving.
   c. Short press again to pause
   d. Short press again to continue
   e.Press and hold again for more than 3S to cancel the engraving.

03 FUNCTIONS & ACCESSORIES INTRODUCTION

【 Function Description 】

When the light shield is opened, the laser module will immediately stop laser output.

Uncovered protection



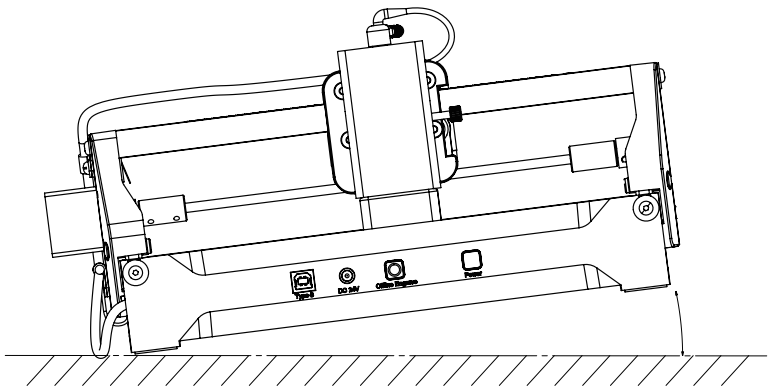
(Shield not included – sold separately)

【 Function Description 】

The host is tilted with the horizontal plane, and keeps 1S, the machine stops running immediately, and the laser module stops the laser output.

After entering the protection state, the machine must be restored to restore the normal function.

Tilt to stop



04 COMMON MATERIALS AND RECOMMENDED PARAMETERS

K15 Pro-AA Engraving Material Parameters

Material	Power	Speed	Interval(mm)
Kraft Paper	100%	5000mm/min	0.10
Plywood	100%	5000mm/min	0.10
Solid Wood	100%	5000mm/min	0.10
Bamboo	100%	5000mm/min	0.10
Cork	90%	7000mm/min	0.10
Acrylic (Blackened)	70%	7000mm/min	0.10
Glass (Blackened)	70%	7000mm/min	0.10
Leather Blackened White	70%	7000mm/min	0.10
Silicone	100%	7000mm/min	0.10
Pebble	70%	7000mm/min	0.10
Ceramic (Blackened)	100%	1500mm/min	0.10
Aluminum (Blackened)	80%	7000mm/min	0.10
Stainless Steel	100%	500mm/min	0.10
White Felt (Blackened)	100%	7000mm/min	0.10
Leaf	70%	7000mm/min	0.10

K15 Pro-AA Cutting Material Parameters

Material	Power	Speed	Cutting Times
Plywood 3mm	100%	250mm/min	1 time
Plywood 5mm	100%	120mm/min	1 time
Plywood 8mm	100%	200mm/min	6 time
Plywood 10mm	100%	100mm/min	1 time
Solid Wood 5mm	100%	100mm/min	3 time
Solid Wood 12mm	100%	100mm/min	4 time
Black Acrylic 10mm	100%	100mm/min	12 time
Black Acrylic 15mm	100%	100mm/min	15 time
Felt (Blackened) 3.5mm	100%	100mm/min	20 time
Leather 1mm	100%	1000mm/min	1 time
Medium MDF 4.3mm	100%	200mm/min	6 time

04 COMMON MATERIALS AND RECOMMENDED PARAMETERS

K15 Pro-AAA Engraving Material Parameters

Material	Power	Speed	Interval(mm)
Kraft Paper	80%	7000mm/min	0.10
Plywood	100%	7000mm/min	0.10
Solid Wood	100%	6000mm/min	0.10
Bamboo	100%	7000mm/min	0.10
Cork	60%	7000mm/min	0.10
Acrylic (Blackened)	70%	7000mm/min	0.10
Glass (Blackened)	70%	7000mm/min	0.10
Leather Blackened White	70%	7000mm/min	0.10
Silicone	90%	7000mm/min	0.10
Pebble	70%	7000mm/min	0.10
Ceramic (Blackened)	100%	4000mm/min	0.10
Aluminum (Blackened)	70%	7000mm/min	0.10
Stainless Steel	100%	1000mm/min	0.10
White Felt (Blackened)	60%	7000mm/min	0.10

K15 Pro-AAA Cutting Material Parameters

Material	Power	Speed	Cutting Times
Plywood 3mm	100%	500mm/min	1 time
Plywood 5mm	100%	250mm/min	1 time
Plywood 8mm	100%	120mm/min	1 time
Plywood 10mm	100%	200mm/min	5 time
Solid Wood 5mm	100%	200mm/min	1 time
Solid Wood 12mm	100%	70mm/min	1 time
Black Acrylic 10mm	100%	100mm/min	5 time
Black Acrylic 15mm	100%	100mm/min	9 time
Felt (Blackened) 3.5mm	100%	100mm/min	9 time
Leather 1mm	100%	2000mm/min	1 time
Medium MDF 4.3mm	100%	200mm/min	3 time

04 COMMON MATERIALS AND RECOMMENDED PARAMETERS

K15 Pro-B Engraving Material Parameters

(Not recommended for cutting)

Material	Power	Speed	Interval(mm)
Kraft Paper	100%	300mm/min	0.10
Acrylic (Blackened)	40%	7000mm/min	0.10
Glass (Blackened)	30%	7000mm/min	0.10
Leather (Blackened)	100%	5000mm/min	0.10
Silicone	100%	2000mm/min	0.10
Pebble	100%	3000mm/min	0.10
Ceramic	100%	3000mm/min	0.10
Aluminum Plate	50%	7000mm/min	0.10
Stainless Steel	70%	7000mm/min	0.10
White Felt(Blackened)	100%	1000mm/min	0.10
Black Acrylic	100%	6000mm/min	0.10
Copper Plate	80%	7000mm/min	0.10
Cork	100%	300mm/min	0.10

05 SUPPORTED SOFTWARE OVERVIEW

Software	Definition	Compatible Computer Systems	Moblle Support	Payment / Free	Open Source	Driver Required
 LightBurn	A comprehensive, paid software used for laser engraving, designed for precision and ease of use.	Windows macOS Linux	NO	Paid (withtrial)	NO	YES
 CutLabX	A software suite for laser cutting and engraving, focusing on ease of use and compatibility with a range of devices.	Windows macOS iOS Android	YES	Free	NO	YES

06 DRIVER INSTALLATION

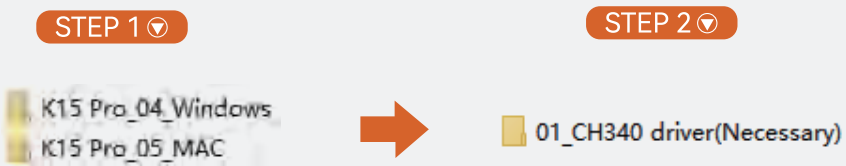
Download Path of Driver

Path 1

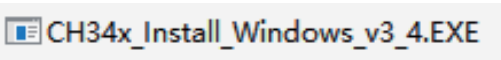
https://carverall.com/pages/software

Path 2

TF Card:



For Windows:



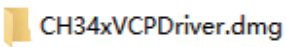
A. Double-click the downloaded CH34x_Install_Windows_v3_4.EXE file.
B. Click the "install" button and wait for the installation to complete.
C. Once the installation is successful, a prompt window will appear. click "OK" to finish theinstallation.

Manual Installation (for cases where automatic installation fails)

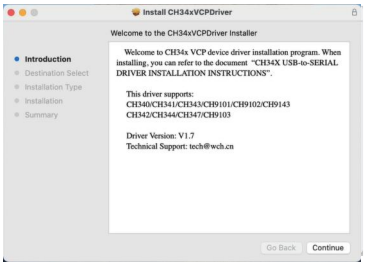
A. Open "Device Manager" (right-click on "This PC" -> "Manage" -> "Device Manager")
B. Locatethe "Unknown Device" or"USB-SERIAL CH340" with a yellow exclamation mark.
C. Right-click on the device and select "Update Driver."
D. Choose "Browse my computer for drivers," then specifythe folderpath where the driverfiles are located.
E. Click "Next" to complete the installation.

For Mac:

1. Double click the file in TF card or the file you download:



2. Click Next



Tips:

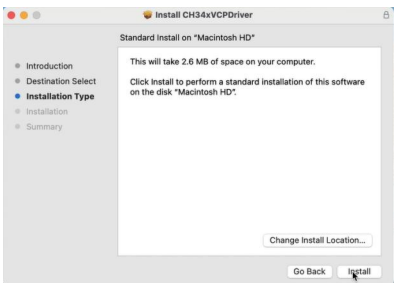
If the installation fails, check the system security settings:

1.Open "System Preferences" → "Security & Privacy" → "General"

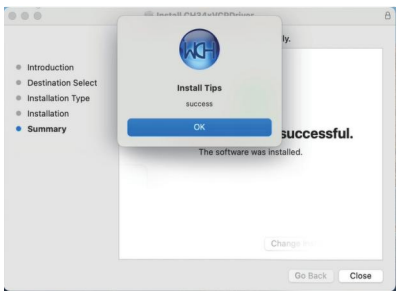
2.Under "Allow apps downloaded from," select "App Store and identified developers.

3.Retry the installation.

3. You can change the position or install directly, click Install.



4. Just wait until you seethe bellow



LightBurn

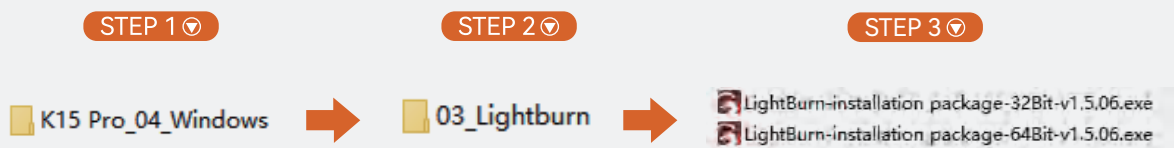
Path 1

Website: https://release.lightburnsoftware.com/LightBurn/Release/



Path 2

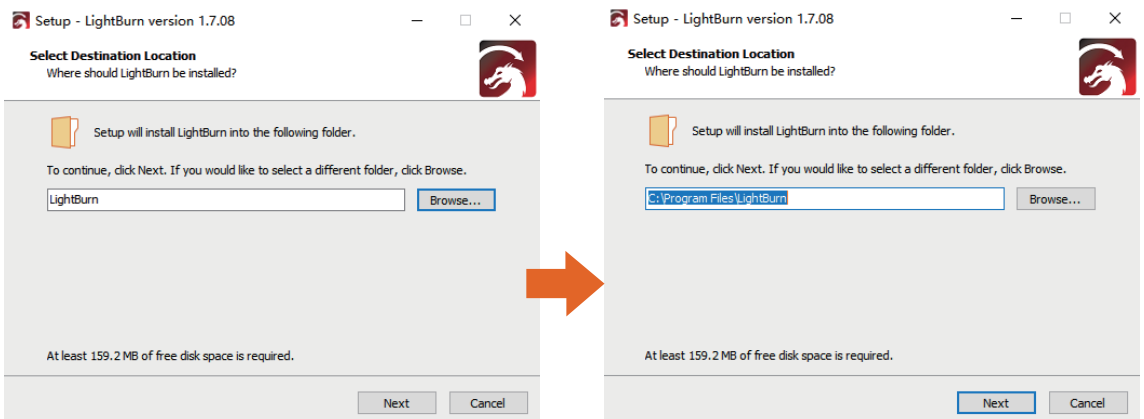
TF Card:



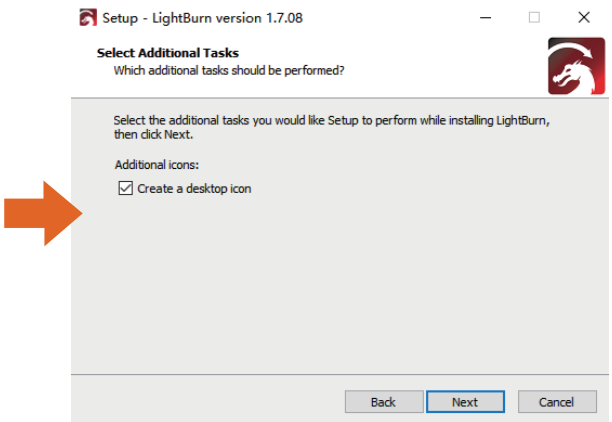
LightBurn

Installation wizard

A. Select Language: Afterthe installer launches, choose your preferred language
B. Accept LicenseAgreement: Read and accept the LightBurn license agreement.
C. Choose Installation Location: The default installation path is
C:\Program Files lightBurn. Youcan also click "Browse" toselect a differentlocation.
D. Create Desktop shortcut: check the "Create Desktop shortcut" option to quicklylaunchlightBurn.
E. Start Installation: Click the "install" button and wait for the installation to complete.



LightBurn



Complete installation : Once the installation is finished, clickthe "Finish" button to exit the installation wizard.

A. If you checked "Launch LightBur," the software will start automatically.

B. If you have purchased a LightBurn license, open the software,click"Help" → "Enter LicenseKey", and enter your license key.

C. If you are a trial user, you can start using the trial version directly(valid for 30 days).

07 SOFTWARE DOWNLOAD & INSTALLATION

For Windows

CutLabX

Path 1

Website: https://www.cutlabx.com/

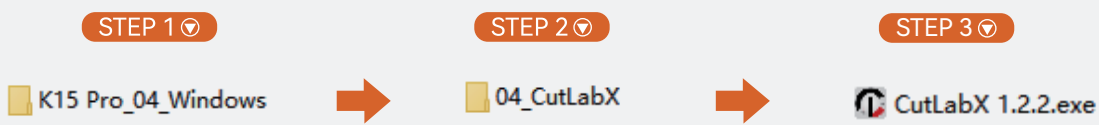
Or you can download by Apple Store or Google Store as well.

Path 2

Carverall's official website: https://carverall.com/pages/software

Path 3

TF Card:



LightBurn

LightBurn installation package .V1.5.06.dmg

1. Drag the LightBurn icon to the "Applications" folder to complete the installation



2. Open the "Applications" folder, locate LightBurn, and double-click to run it.

CutLabX

You can search and install it in Apple Store.

Scan the QR code below or search in the app store or Goole Play to download the CutlabX app to your phone.

Social Media support for guiding Install the software & driver :
https://www.youtube.com/@CarverallLaserTechnology

For iPhone

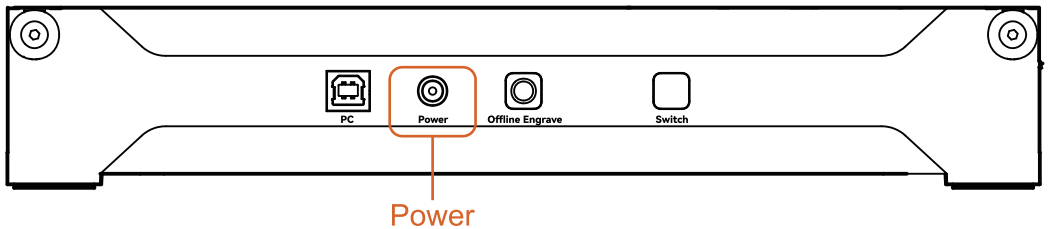
For Google

Important note

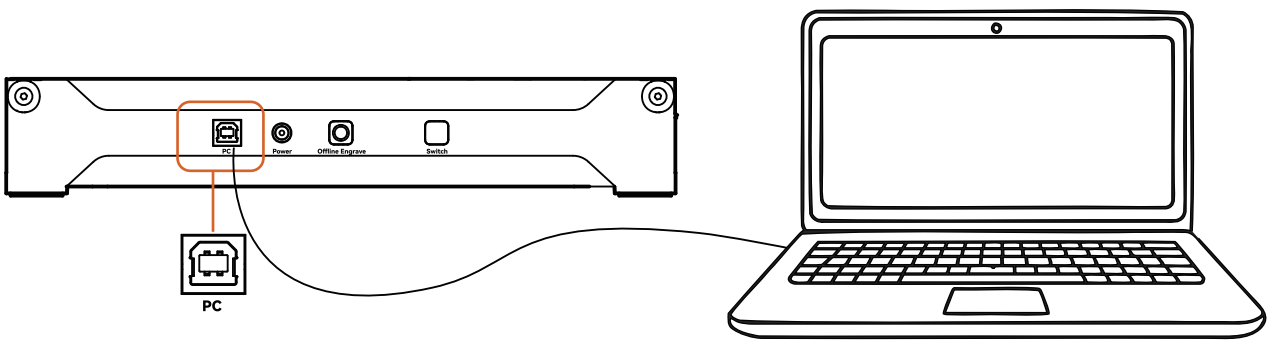
For mobile APP, it is recommended to use Cutlabx software to connect to the machine.

09 PC CONNECTION

Connect the device powersupply as shown in the figure



Hardware Connect Laptop to LaserEngraver



For LightBurn

LightBurn

1. Launch LightBurn (using LightBurn as an example here)

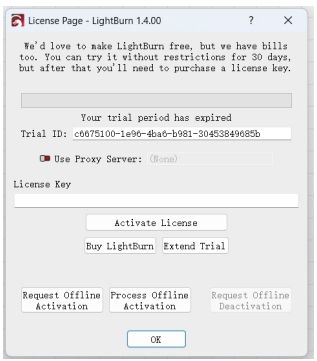
On Windows:

Double-click the lightBurn short cut on the desktop, or find LightBurn in the "start" menu and click to run it.

On macOS:

Open the "Applications" folder, locate lightBurn and double-click to run it.

2. If you are first time to use, please choose "start your free trial" here, get free for 1 month. Then click "OK"



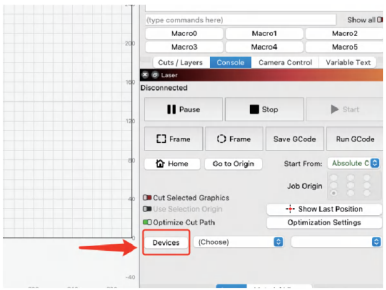
3. Ensure the laser engraver is connected to the computer via USB.

For LightBurn

LightBurn

4.Add Device

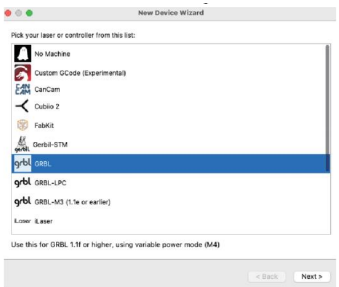
A. Click "Devices" at the bottom right of the software to add a laser:



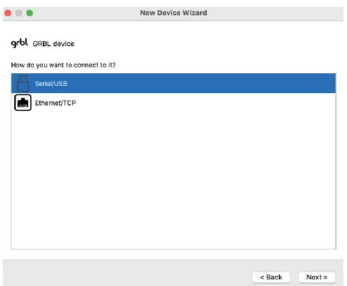
B. Then click "Create Manually":



C. Then pick your laseror controller from this list: Here click the "GRBL"



D. Then choose the way of connection select GRBL as usual

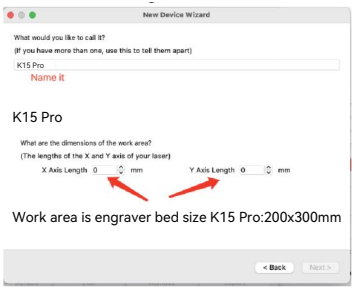


For LightBurn

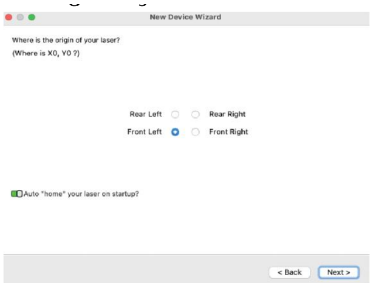
LightBurn

4.Add Device

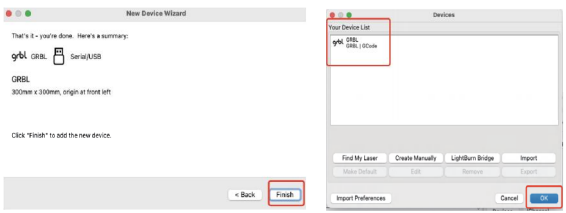
E. Name your laser and add the dimensions of the work are. K15 Pro series working area is 200x300mm



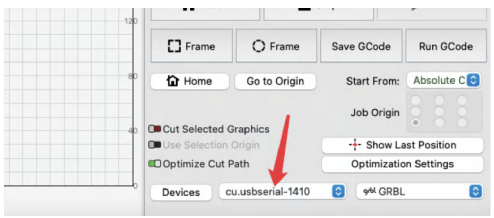
F. Choose the Front Left



G. Finish adding devices and your will find the laser you created and click "OK



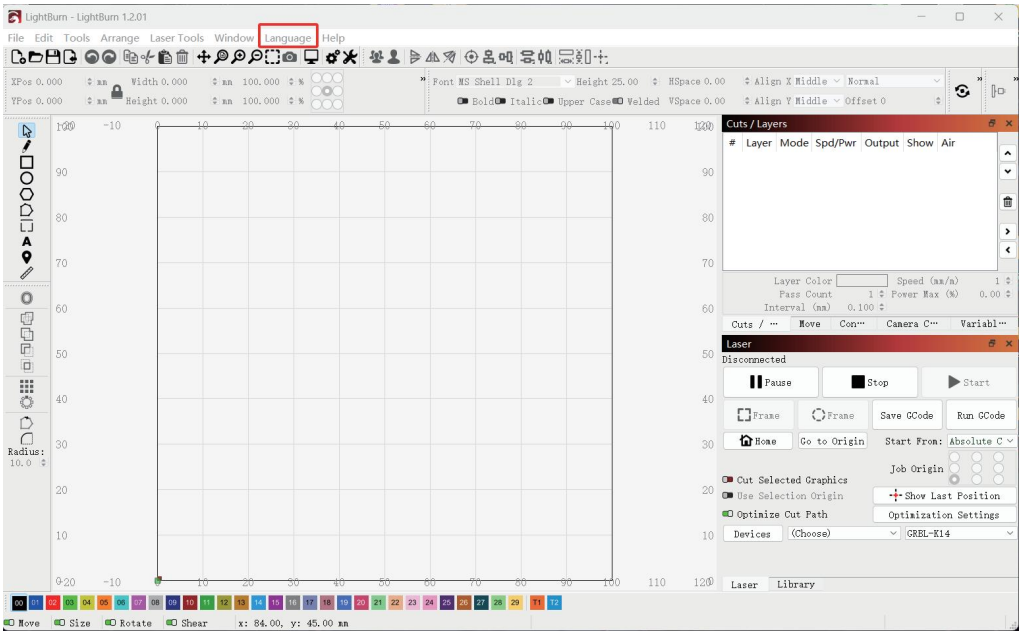
H. In the "Port"dropdown menu, select the COM port corresponding to your device
(e.g., COM3 or /dev/cu .wchusbserial).



For LightBurn

5.Change Language

LightBurn

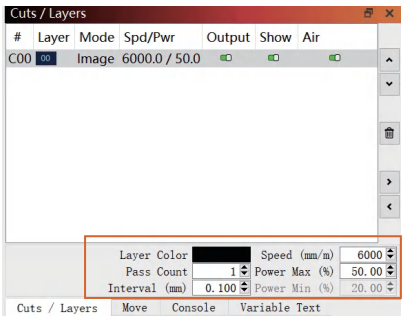


For LightBurn

LightBurn

6. Engraving setting Introduction

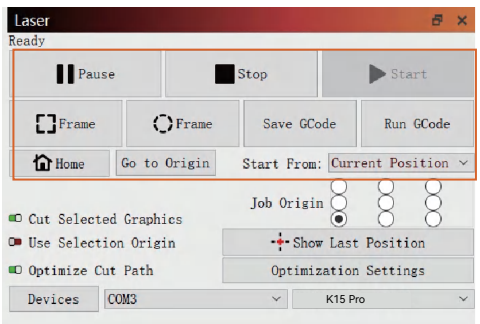
Speed	the speed at which the laser moves. We recommend using mm/m, if your machine shows mm/s, you can change it in <Edit>-<Settings>
Pass Count	the number of laser passes.
Power Max/Min	the laser power, it is recommended not to exceed 90%.
Interval	the interval of laser lines, the smaller the interval, the deeper the engraving effect.When cutting material, change the mode in <Edit><Convert to cut(debug)



Set parameters

7. Button Description

Pause	Pause laser processing
Stop	Stop laser processing
Start	Initiate laser output
Square Frame	Scan a frame with a square path
Circular Frame	Scan a frame with a circular path
Save GCode	Save the current task as a GCode project file
Run GCode	Run GCode file
Home	Reset to the origin set by <Device Settings>
Go to origin	Go to the origin set by <Start from>



Bedientaste

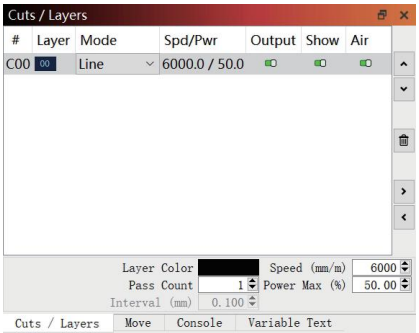
For LightBurn

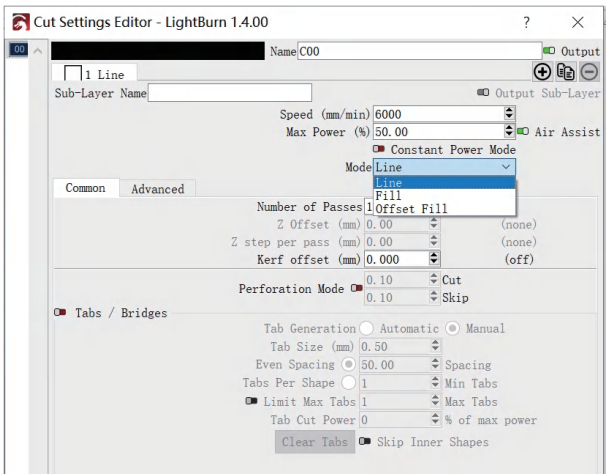
LightBurn

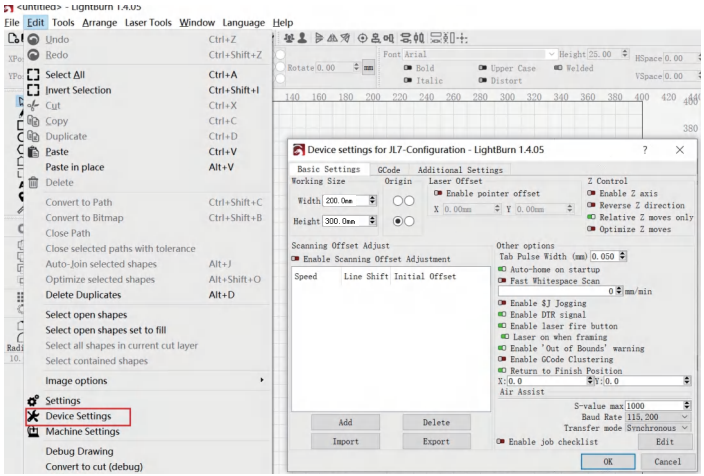
8. Devices Settings

Double-click "Speed/Power" to adjust more parameters of the task, including mode and kerf offset, etc.

In <Edit> -<Device Settings> , you can set more details of the machine. please refer to the settings of our pictures.



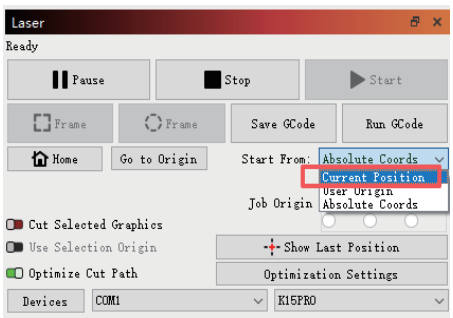


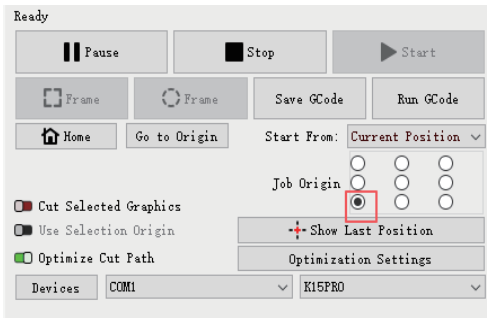


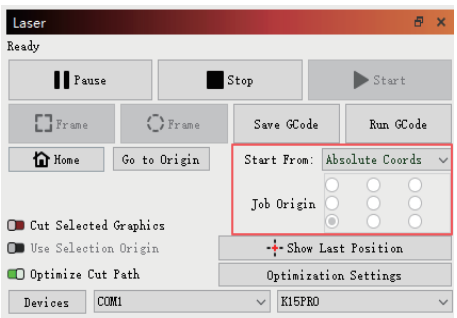
For LightBurn

LightBurn

9. Setting the initial position of the laser head







09 PC CONNECTION

For LightBurn



LightBurn

Tips:

1. How to Confirm the Port

   Windows: check under the "Ports" section in "Device Manager."

   macOS: Enter ls /dev/cu.* in the Terminal to view the portname.

2. Common Issues and Solutions

Device Port Not showing:

   Replug the USB cable and restart the device and computer

   Check ifthe CH340 driver is installed (a common issue for Windows users)

3. Connection Failed (Error):

   Ensure the baud rate matches the device.

   Close other software that may be occupying the serial port (e.g., Arduino IDE)

4. Device Not Responding:

   Check if the power supply is normal and if the motor cables are loose.

   Ensure the working area size does not exceed the physical limits.

09 PC CONNECTION

For CutLabX Only CutLabX support

CutLabX

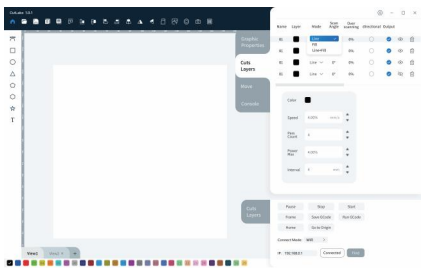
1. Steps to connect the computer to the machine via USB

*Note: Install the driver according to your computer system (see driver installation instructions).

01 Turn on the machine and turn it on

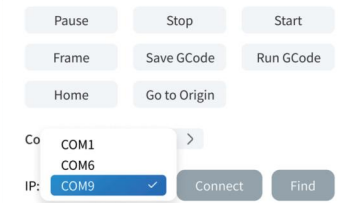
02 Connect the Carverall K15 Pro machine with a USB cable

03 Open CutLabX software and enter the creation page



04 Automatically identify the machine and connect

(If it does not connect automatically, you may need to try another COM)



(Tip: When the machine is connected to a MAC, you must select the name that begins with: W.ch.....)

10 MOBILE CONNECTION

For CutLabX Only CutLabX support

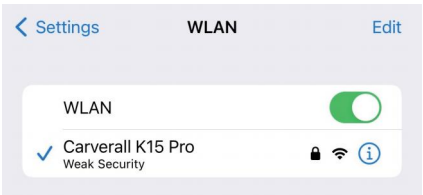
CutLabX

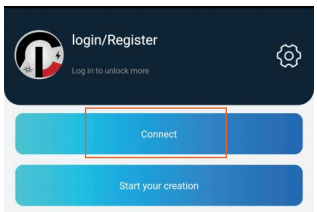
1. Connect Phone to Laser Machine

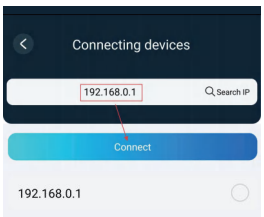
A. Turn on the power of the machine make sure the indicator light is constantly on, otherwise there is no wifi signal.

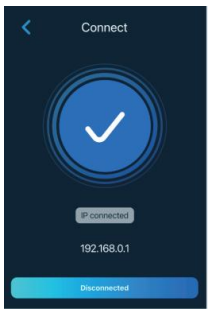
B. Turn on the WLAN on the mobile phone, find the WIFI Signal named “Carverall K15 Pro” and the password is 12345678 .

C. After the WIFI connection is successful, open CutLabX, click the link mark in the upper right corner, then enter 192.168.0.1 in the IP address, and click Connect to complete the connection.









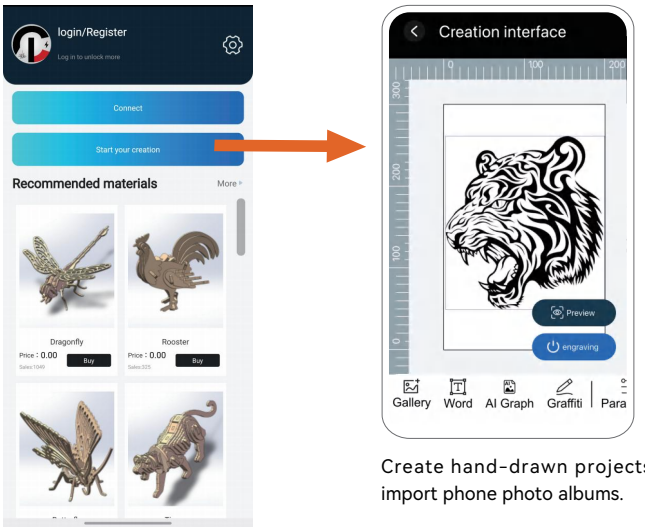
10 MOBILE CONNECTION

For CutLabX

2. Introduction of the interface



CutLabX



Create hand-drawn projects, import phone photo albums.

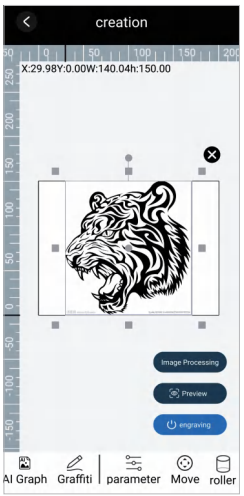
10 MOBILE CONNECTION

For CutLabX

CutLabX

3. Engraving setting

Click "'Start your Creation" on the home page, and click "Image Processing" after importing pictures or drawing text. Then select the engraving style (Monochrome, Jitter, Contour, Grayscale). You can adjust parameters according to the effect of the preview window.





Note:

Please make sure that the memory card has been inserted into the controller, the mobile phone and controller have been connected to the same WiFi, and the CutLabX APP has entered the correct IP address.

Tips:

Videos for downloading, installing, and connecting all the above software can be found on oursocial media:

https://www.youtube.com/@CarverallLaserTechnology

10 MOBILE CONNECTION

CutLabX

Tip: Steps to connect the phone to the machine: Home network

01

Turn on the device and open the computer s oftware

02

Connect the machine to the computer with a USB cable (use the USB port to connect to the computer and the Type-C port to connect to the machine)

03

Open the CutLabX computer software and enter the creation interface

04

The computer software automatically connects after recognizing the machine
(If it does not connect automatically, try a different COM)

05

Click the "WiFi Settings" button. Click to enter the WIFI name, home network password, and restart the machine



(Note: The WiFi name must be existing, and the password cannot contain complex symbols, only numbers + letters)

06

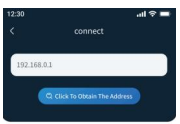
Turn on the WIFI on your phone, find the home network WiFi name, and enter your password

07

After the WIFI connection is successful, open the CutLabX APP and click the link mark in the upper right corner

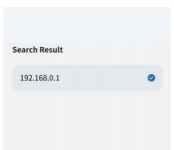
08

"Click to get the address"



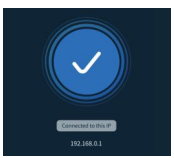
09

Click your IP address to get it, and click "Connect"



10

The connected IP is displayed, indicating that the connection is successful



(Tip: To use the WiFi mode, the machine and the phone must be in the same WiFi network)

11 FAQ

FAQ	Possible Causes	Solution
The engraving machine cannot connect to LaserGRBL	Driver is missing, connection failed	In LaserGRBL,click<Tools><install CH340 Driver> to install the driver, Then restart the computer to connect.
	Multiple laser programs run simultaneously	Quit other laser software.
	Incorrect port number	Please choose the correct port number.
	Incorrect baud rate	Please select the correct baud rate in the software-115200.
	Data cable is not connected	Please check whether the data cable is connected correctly.
	Computer USB port problem	Please try another USB port.
The engraving is not straight	Both ends of the belt screws are not locked	Please tighten the positioning screws at both ends of the belt.
	The pulley is not locked and the laser head is shaking	Please adjust the eccentric spacer under the bracket, and lock the eccentric spacer so that the bracket does not shake.
When drawing a straight l ine, it turns into a curved line	Parts of the machine are too loose.	1. Check whether the pulleys of X-axis and Y-axis are loose, and can be fine-tuned by the eccentric nut near the pulley. Not to be too tight between the pulley and the track. 2.Check the belt for looseness, tighten the belt. 3. Check if the laser head shakes, you need to tighten the screws to keep it vertical.

11 FAQ

FAQ	Possible Causes	Solution
How to improve the quality of engraving?	Engraving power is too low or engraving speed is too fast.	Please refer to the material reference table (page 17-19) to set engraving and cutting parameters.
	The imported image is not clear or the image pro-cessingis not ideal.	Please confirm whether the imported image is clear or the image processing is ideal.
	The engraving machine is not leveled and tilted.	Please check whether the engraving machine is leveled.
	There is dust or debris on the laser lens.	Please check whether there is dust or debris on the laser lens.
Why the image is not clear?		Please engrave with the parameters (page 17-19) as a reference.
		Please adjust the parameters gradually according to different materials to achieve the best results.
How to increase the movement speed of the preview frame?		For LaserGRBL, please right-click the Framing at the bottom, left-click the Edit button, find the number starting with F in the pop-up parameter interface, such as F1000, then change F1000 to F6000, and then click Save. For LightBurn,Please click <import>, then find and import the LightBurn machine configuration file in the TF card. File Name is K15 Pro LightBurn Configuration.lbdev

11 FAQ

FAQ	Solution
Can engrave on curved object?	Yes, you can engrave on a regular cylinder, but it needs to be used with a laser rotary roller. it is not recommended to engrave on irregular surfaces, as it is difficult to achieve good effects.
Why the image I engravedis mirrored or backwards? Why does the laser moveIn the opposite direction?	If you use Lightburn software, you can troubleshoot by: 1. The 'Device Origin' setting, found in the menus under Edit => Device Settings, select the bottom left corner for the origin. If your original position is incorrect, please adjust it here. 2. In the lower right corner of the software interface, change the "user origin" to "absolute coords' so that the origin is in the lower left corner. If you use LaserGRBL software, you need to change the parameters in the configuration. Please contact Carverall customer service to obtain the latest GRBL parameter configurationso that the origin is in the lower left corner.
Why is my laser exceed range for engraving? Why does my laser rattle when moving to the border?	The laser is not homing before engraving or the picture size exceeds 300x200mm. Please click the home button on the program interface, and then the laser will be move to the lower left corner. If the size of the image is too large, please modify the size of the image when setting the parameters.
Why is my engraved images ghosting? Why does it appear double lines?	When you choose "Vectorize" it may appear ghosted or double lines. We recommend that you choose "Line to Line" or "Centerline" for engraving or cutting
Why can't my LightBurn software find /connect to the laser?	Make sure you or controller connect you If you can't if your macOS service, and are physically connected to the laser, and have chosen the correct type of laser in LightBurn, and the right connection method. Some systems don't automatically need to choose the correct port the first time. find the laser, you can add lasers by "Create Manually" device cannot connect to the laser engraving machine, please contact customer we will assist you to flash the firmware.

11 FAQ

FAQ	Solution
Why is my software running properly but the laser stops?	The cable on the laser is disconnected or the laser is not homing before engraving, causing the laser exceed the working area and be forced to stop.Please reconnect the cable and home the laser.
Why is the moving distance of the laser different from the software?	The move distance of the laser depends on the parameters. Please check that your parameters match the movement of the laser. The setting size of the picture should be equal to or smaller than the size of the engraving material.
Why is my lasermoving so slowly?	The speed setting in the program is too slow. Please adjust the moving speed and working speed of the laser in the software to achieve your desired speed.
Which version of lightburn software should should I buy?	Our lasers are diode lasers, you should buy the G-CODE version.
Why do I change the speed but the movement speed stays the same?	You may have only adjusted the movement speed, but not the working speed. Please adjust the working speed of engraving/cutting on the "Cuts/Layers" page.
How to solve Over-burned edges?	Laser head need to decelerate each time a direction change is needed. This results in a higher persistence of the laser spot on the edge areas.Using M4 dynamic power mode to compensate this issue. Enabled Configuration parameter $32, make $32=1
How to change the engraving size?	If you use LaserGRBL, you need to confirm the size of the engraved item first, then change the size of the engraving manually when adding the image. If you use Lightburn, you can drag the image directly to match the size of the object you are engraving.

11 FAQ

FAQ	Solution
How far should the laser be from the engraved object?	Please keep a distance of 5mm between the laser module and the object to be engraved. You can adjust the distance using the knob on the side of the laser module.
Why is my Lightburn "busy" and the machine doesn't move?	Most likely you have not actually connected to the machine yet. Make sure you are actually connected to the controller and chosen a communication port in the laser window at the bottom right of the software.
Why the corners of the image I engraved are burnt or too dark?	If the Min Power setting is too high, the power value may not be reduced enough when the laser slows for corners, and can leave burn marks at corner points or the start I stop points of the design.Please reduce the Min Power setting.
Why is the back of the plank I cut badly charred?	Make sure you have raised the planks. If it is placed directly on the flat steel plate, the gap between the wood board and the flat steel plate is very small. When the laser passes through the wood board, the flat steel plate cannot absorb all the laser energy, and the remaining laser reflection will burn the wood board. Please use honeycomb laser bed or raise the board to keep the cutting position and the board hollow.
Why is the laser power getting weaker?	Some dust accumulate in the laser, which will affect the laser output. Please use cleaning cotton or blowing tools to clean the inside of the laser. In addition, using the laser continuously for a long time and at full power can lead to premature damage.We suggest the maxirum power at 90%.

C02-250829

Multilingual User Manual
Scan to Access

Website: carverall.com

Email: services@carverall.com

Facebook: facebook.com/carverall

YouTube: youtube.com/@CarverallLaserTechnology