ORTUR

Laser Master H10

English

ORTUR

Redefine laser

Ortur is a high-tech manufacturer focusing on developing diode laser engravers, founded by a group of passionate engineers..We love to discover the unknown and try to develop our products to the next level with vitality and creativity.

THANK YOU

Dear friends,

Thanks for purchasing Ortur laser engraver. We really appreciate your recognition and hope you like it.

ORTUR is a company specializing in manufacturing and researching laser engraving machines since 2018. ORTUR is sold all over the world, occupying a leading position in the industry.

Ortur is trying to satisfy people's needs for creation. Ortur commits ourselves to making creation easier for every individual. Creativity is what distinguishes human beings from other creatures. We believe every individual has the intention to create. That's why there are so many powerful and handy tools with easy access and systematic tutorials.

But the fact is, the tools for creation have not evolved ever since people began to use knives and scissors hundreds of years ago. So Ortur is trying to create engraving and cutting tools to replace the much less powerful knives and scissors, by making the most of laser and software technology. These Laser engravers totally facilitate the creation and make it more enjoyable than ever.

ORTUR's mission is to make laser engraving machines safer, and faster and make creation easier. Help you to grow your businesses.

If you have any questions, please feel free to contact us immediately.

You can join our Facebook group, which brings innovators like you together to share your ideas and get inspired by others.

Thank you again for your support.

Official website：www.orturtech.com
Customer support email：support@ortur3d.com

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A Disclaimer and Safety Guidelines

- The laser engraver could generate laser light. It is strictly forbidden to place any living body under the laser emission port (this port is marked with a yellow warning sign).
- Patients with photosensitive epilepsy are prohibited from using or approaching the laser device.
- When using the laser engraving machine, the operator and anyone near the machine must wear laser safety glasses.
  Do not operate the laser without glasses protection (laser goggles).
  Our machines come with a pair of safety goggles, but additional laser safety glasses can be purchased commercially.
  Requirements for goggles: wavelength protection 400-445nm (+-5nm), outer diameter +5, minimum L-level L5.
- When the laser engraver is working, the operator must pay close attention and not place it alone to prevent the engraved material from catching fire.
  Please set up the laser engraver in a fireproof area and ensure good ventilation.
  If possible, we recommend that you purchase a fire extinguisher and keep it close to the machine.
- Using the laser engraver in a room that can be closed by a door, making sure that neither the laser beam nor stray light can penetrate the window.
- When using the laser engraver, put the door sign or the warning light on the door to indicate that the laser engraver is running.
- Make sure there is no flammable material near the laser engraver, we recommend put a fireproof mat under the machine.
- Ensure adequate environment when operating the laser engraving. Engraving certain materials may generate fumes, which should be exhausted by a dedicated filtered exhaust.
- When the machine is running, do not touch the laser beam or touch it with other objects, which may cause serious bodily injury or beam reflection.
  Do not touch the radiator, you may burn your body and hands when the laser engraver just stops working.
- Do not let children or teenagers use the laser engraver alone (especially children under the age of 14), adult supervision is required at all times.
- For commercial use, using and registering with regulatory authorities and professional associations is mandatory.
- The operating temperature range of the machine is -15°C ~ 30°C.
- There would be a high risk of fire, when the laser irradiates the engraved object. If the laser engraver is working, it must be taken care of at all times by the skilled operator, who knows how to use a fire extinguisher, so that any unexpected situations could be dealt with in time.

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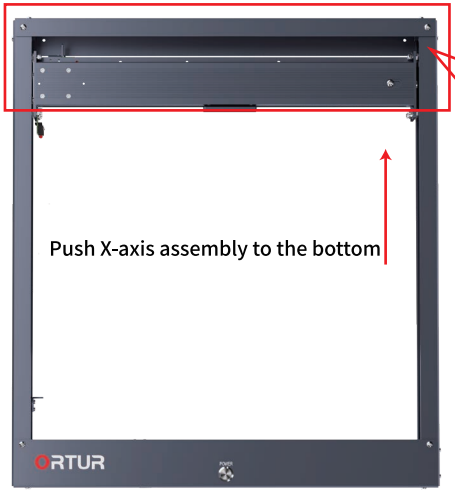
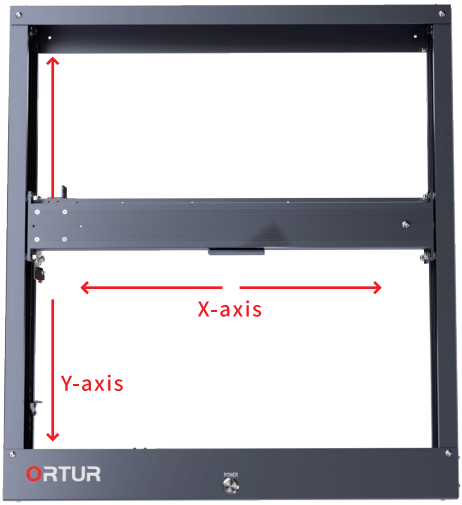
B Machine Inspection

1) Unboxing Inspection



Push the X-axis back, making sure that both sides hit the limit screws and that there is no gap between them

Check whether the X axis is smooth up and down and left and right



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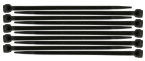
Package Content

H10 Laser Engraver

Sliding Rail Plate

Support foot



Binding Band

Foot pad spacer

M4*6

M4*6

M4*10

2.5 & 3mm Allen key

Spanner

Testing Acrylic

Testing Aluminium Flake

Testing Wood

Laser Goggle

Card Reader+TF Card

Brush

WIFI Aerial

USB Cable

Power Adapter

Power Cable

Pictures are for reference only, please refer to the actual received style!

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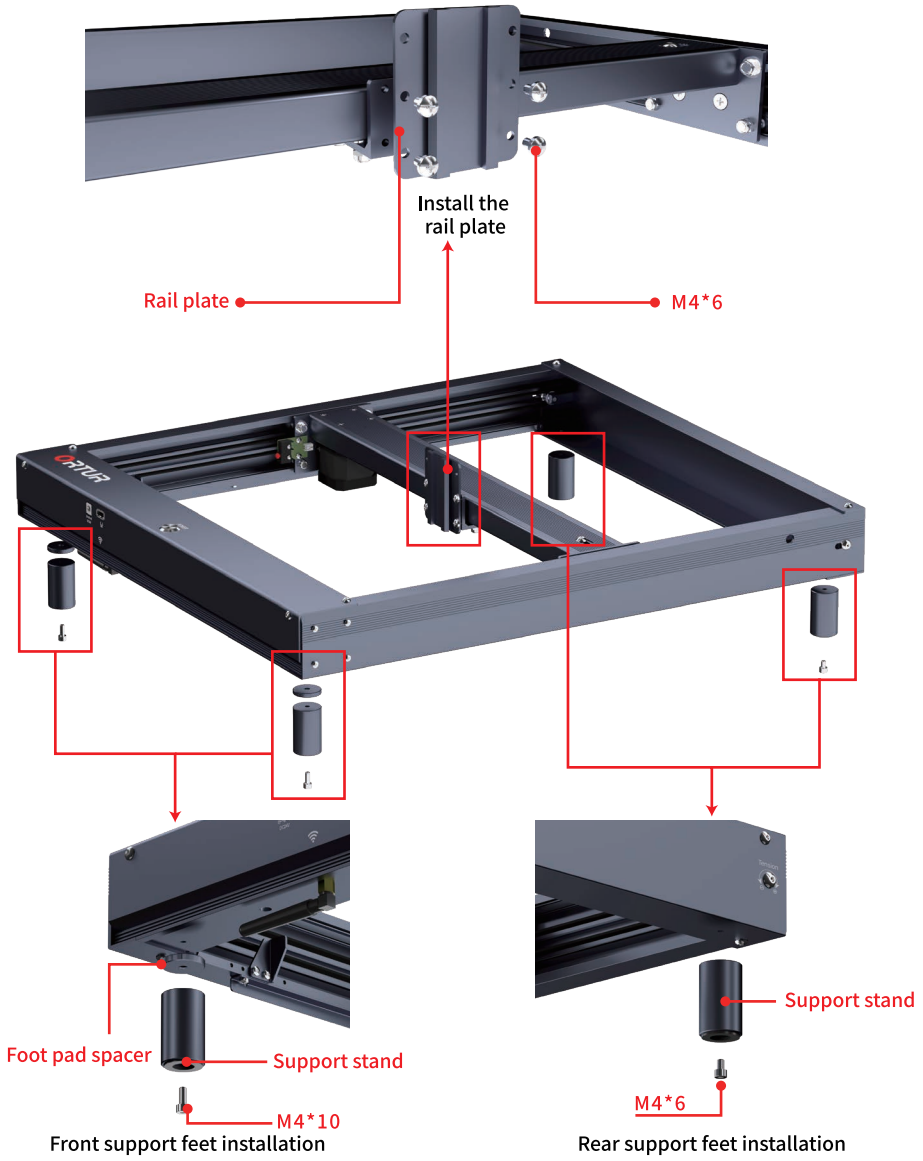
D Machine Installation and Adjustment

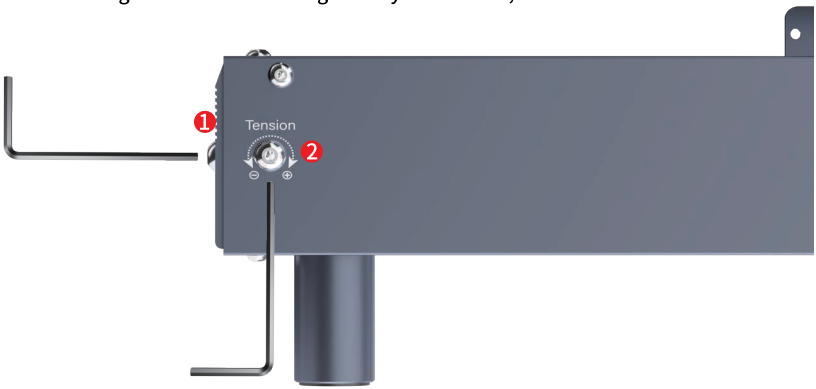
1) Machine Installation

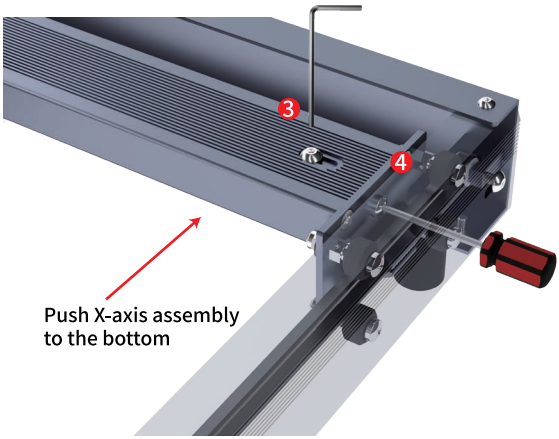


Have been adjusted to the best condition before delivery

❶ Loosen the screw, but don't remove it!

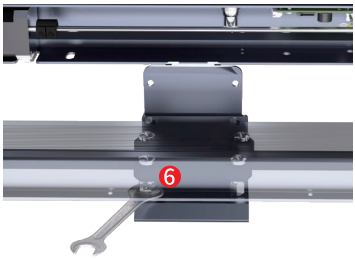
❷ Tighten this screw to tighten the Y-axis timing belt If you loosen it, it will loosen.





Roller Tightness Adjustment

Y-axis roller tightness adjustment



X-axis roller tightness adjustment

❸ Loosen the screw, but don't remove it!

❹ Tighten this screw through the Y-section through hole, and the Y-axis timing belt will be tightened If you loosen it, it will loosen.

❺ ❻

By adjusting the eccentric nut, the clearance between the wheel and the slide rail will become larger or smaller. The adjustment method on the left side is the same as that on the right side.

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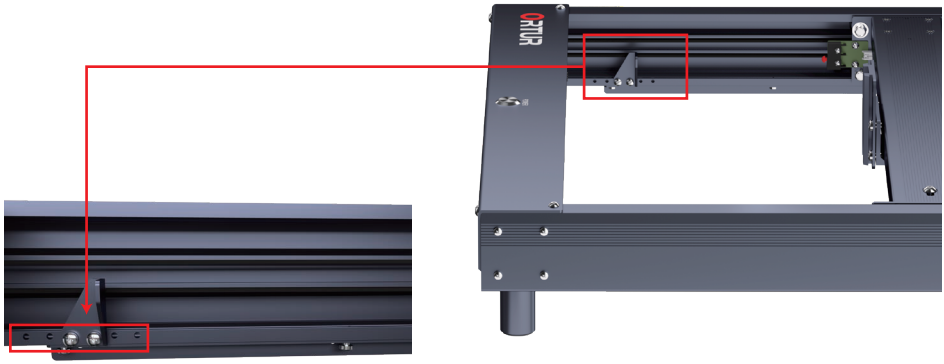
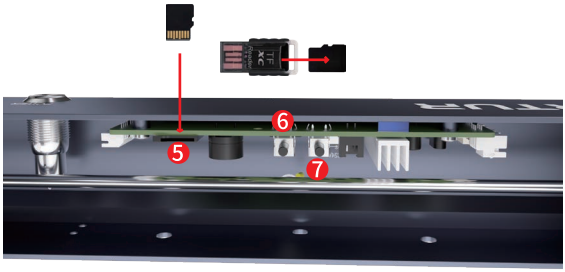
3) Adjust limit sheet metal



Adjust the position of the limit sheet metal hole according to different laser sizes

4) Port and button

1. Power interface
2. USB interface
3. Wifi antenna
4. Master Power Button



5. TF Slot
6. Recovery Button
7. Reset Button

Before the machine boot, insert the TF card in the card reader into the corresponding card slot of the machine with the golden finger upward. (Don't use violence to insert the card. Card is a must!)

E How to Use the Buttons

Objective	Execution conditions	Light change	Machine action
Lead	Press and hold the POWER button in the off state > 500ms	White colour changes from dark to light	Normal switch on, machine zero
Close	Press and hold the POWER button in the power-on state	White colour changes from light to dark	Normal shutdown, LED off
Enter Upgrade Mode	Press and hold the POWER button while briefly-pressing the RESET button in the power off state	Red, green, blue, blinking alternately	Red, green and blue LEDs flash and Ortur Laser USB flash drive appears on computer
Reset the motherboard	10.Short press RESET button	Light goes out	Shutdown, LED off

F Main Power Button Indicator Instructions

Main Status	Substate	Lighting effects	Remark
Booting		White colour fading from dark to light, time 1500ms	Long press >500ms
Switching off		White colour fading from light to dark, time 3000ms	Long press >500ms
Power On Initialisation		White, Flashing 250ms	
Upgrade Mode		Red, Green, Blue, Alternating Flashing 333ms	
Upgrade in progress		Red, Green, Blue, Alternating 100ms	
Upgrade Successful		Green Always On	Continuous 500ms auto restart
Upgrade Failed		Red Always On	Continuous 1000ms automatic restart
SmartConfig mode		7 Colour Fade	Short press the power button 5 times under power-on state 50ms<click less than 200ms
Jog Status		Blue Flashing 250ms	
Homing		Blue Flashing 250ms	
Sleep		White breathing light, period 2s	
Emergency Stop		Red and yellow alternately flashing 250ms	
Power Lock Status		Red 25% brightness	Power lock off, no light, display 25% red when power key is pressed
IDLE Status		Green is always on	Display sub-state after 5000ms
IDLE Sub-State	WIFI connection in progress	WIFI STA is connected, orange blinks 4 times 250ms	Display only in IDLE state
	WIFI successful	WIFI STA is connected, orange long light 1000ms	
	USB cable connection	USB is connected, light blue long light 500ms	
	AP connected status	WIFI AP is connected, purple long light 1000ms	
RUN state		Green blinks 250ms	
HOLD status		Cyan always on	
Alarm status		Yellow always on	
System Error		Red always on, stackable sub errors	Display sub-status after 3000ms
System error sub-status	Motor drive error	Blue - 2 times	Display only in error state
	Abnormal voltage error	Purple - 3 times	
SD card initialisation error		Yellow-white alternates flashing intermittently	

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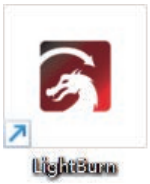
Freeware



Paid Software

https://LaserGRBL.com/

https://LightBurnSoftware.com/

If you cannot use the application, please download the PC software.
The TF card stores the suggested instruction of PC software, please refer to them to learn and use.

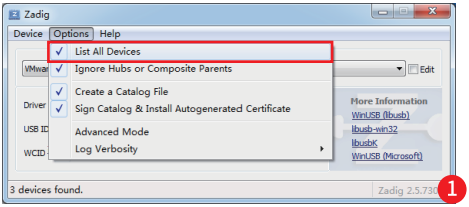
Questions and Answers

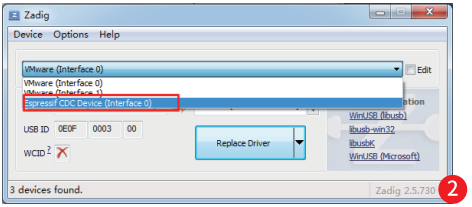
1) Unable to Run PC Software

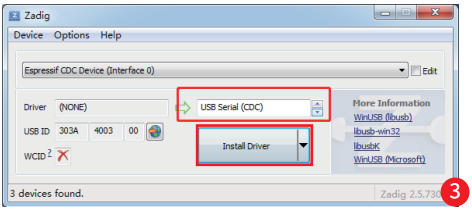
If your computer system is win7 or win8, please install the driver before using PC software!

https://zadig.akeo.ie/

Please select the driver version 2.5 to download.







Please install the driver with administrator privileges, and attach the contents of the "red box".

2) Stop Engraving or USB Disconnection (windows)

Connect to Laser Master H10 and power it on ,wait let it home.
On your windows, right click start menu.
A pop up menu will appear, click Device Manager.
In the Device Manager, please locate Disks and Ports.
In Disks, please identify Espressif Mass Storage .(Might also apear as Espressif Mass Storage)
Right click -> click Disable Device -> Confirm.

3) Unable to Connect to Mac

The boot order in MacOS is correlated.
Power on the machine and let it go home.
Plug in the USB and start Lightburn.
Laser panel -> There is a drop-down menu in front of the device button.
Is cu.usbmodemxxxxxx listed? If so, click it.
You should be able to see a welcome message in the console.

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