

Laser Carving Printer

Operation Instruction

Preface

Dear customers, thank you for using carving printer. For your proper and convenient use and also to ensure the quality and speed of carving ,please read this operation introduction in detail.

Although we have tried our best to offer operation and installation information as detailed as possible,if you have any puzzle about this introduction,please feel free to contact with our after-sale department and local dealers.

Attentions

To ensure the proper use and the normal operation of the machine please read this manual first before using.

Keep machine out of reach of children, in case of any accident.

Ensure reliable grounding

The machine must use three-hole socket with ground wire, otherwise it might be influenced by ESD current and the main board and interface might be burnout.

Right Placement of the Machine

It can't be placed in in humid environment.

It can't be placed in direct sunlight or severe dust environment

It can't be placed in strong electromagnetic interference or vibration environment

Containers with water or other fluid should be kept away from the machine.

Accessories

| NAME | Qty |
|----------------------|-----|
| Carving Tool | 3 |
| Tool Apron | 1 |
| Pen holder | 1 |
| Serial/USB | 1 |
| Power Line | 1 |
| Backup | 1 |
| Software | 1 |
| Water pump, Air pump | 1 |
| Water tube, Air tube | 1 |

Specifications & Technical Parameters

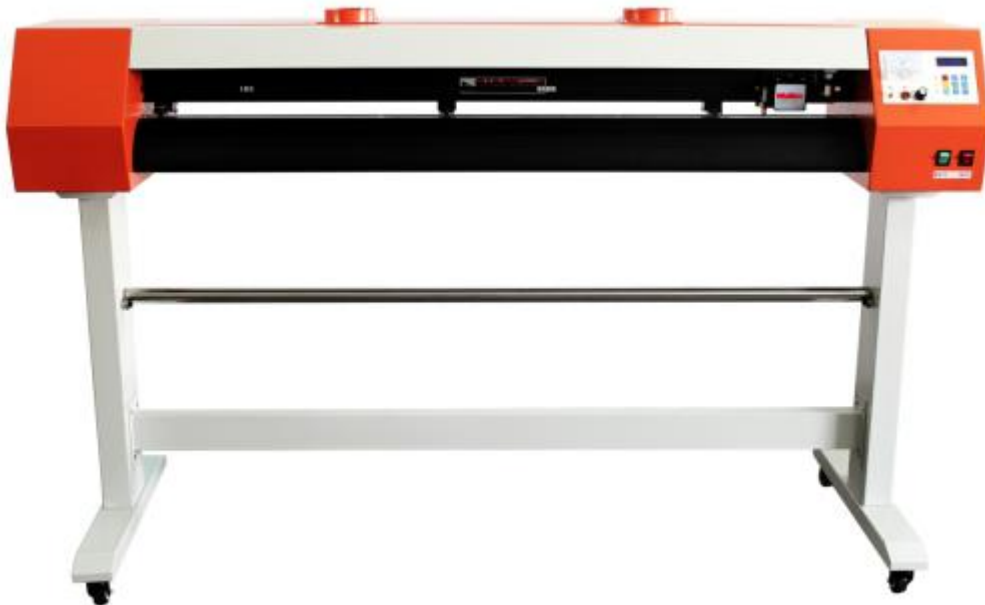
| | | |
|-------------------------|------------------------|--------|
| MODEL | 1390 | 1750 |
| Max size of paper | 1390mm | 1750mm |
| Width of carving | 1250mm | 1550mm |
| repeated accuracy | ±0.05 | |
| Language format | DMPL/HPGL | |
| Interface type | SERIAL/USB | |
| drive mode | stepping motor | |
| Power source | AC220V ±10% 50Hz | |
| Power dissipation | <150W | |
| Environment temperature | 1~30°C | |
| Environment humidity | 10%~80%, no condensate | |

Right Installation Effect Picture of the Whole Machine

First , make sure the ground is flat and there is enough space front and back.

Use the screws in the accessories to assemble the machine stand as the following picture.

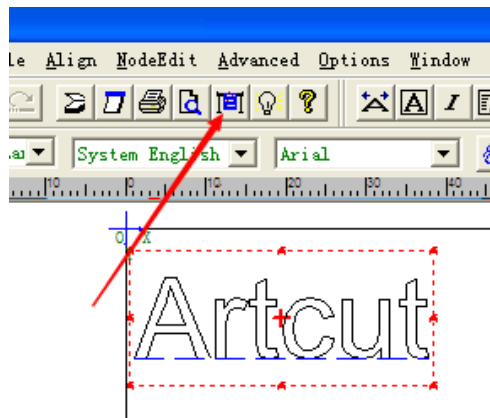
To adjust the steady of the machine,do not tighten the screws at the end of the black long cross beam first.



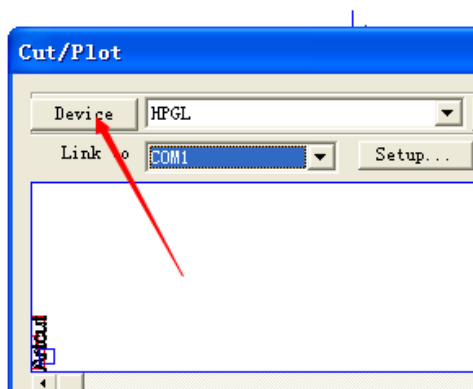
Software Setup

Artcut software setup(refer to Artcut instruction)

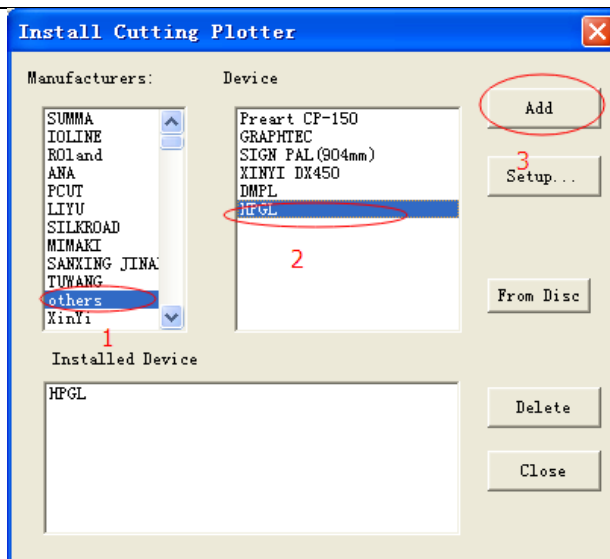
Open the Artcut software ,chosed output content,click “engraving output”,as the follow picture



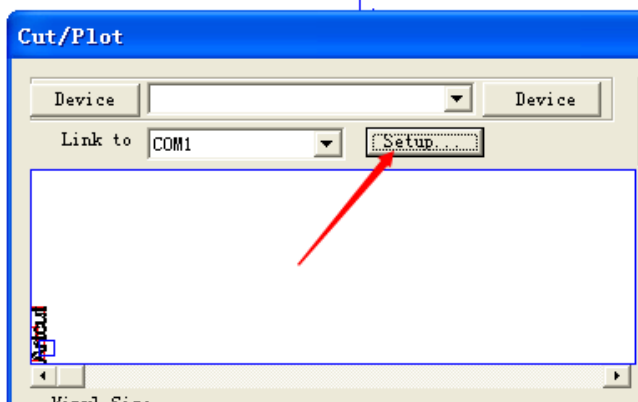
set the “engraving output” dialog box as the following pictures:



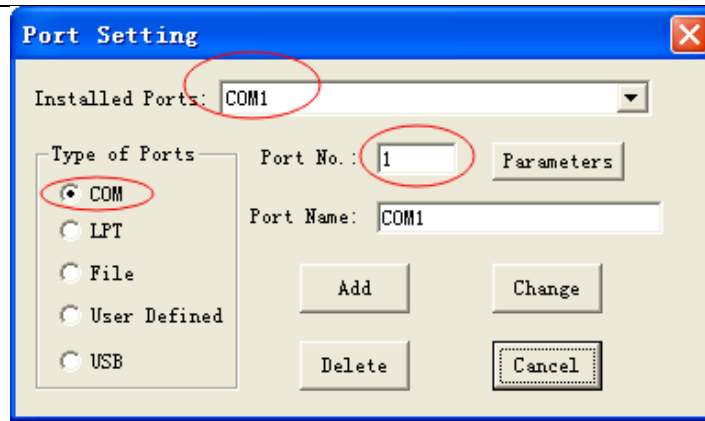
Manufacture chose “others”, product type chose “supporting HPGL carving machine”, click “add” then close the dialog box



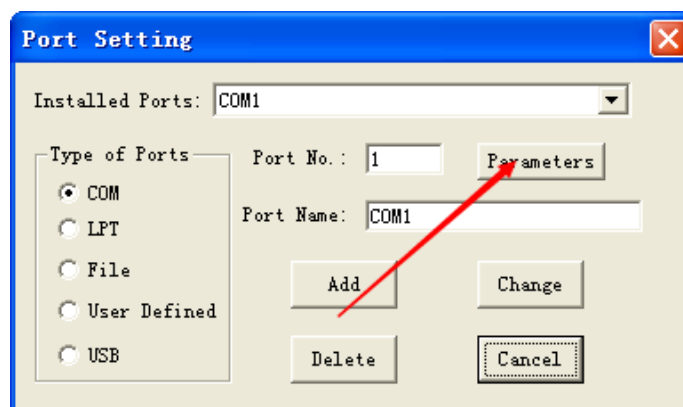
click "set port"



Port no. "COM1"



Click “Detail setting”



Serial port setup is as follows:



Click “confirm” to finish setup

Panel Operation

When connected power the laser carving head will reset to the right side automatically, and this is its mechanical origin. The LCD panel will display speed and pressure values. The different direction arrows are pressure up, pressure down, speed up, and speed down. Under different combination mode they can swift to other functions.



Change-over switch: when switch is on the laser' s side it is in laser state(hollow out version),when it is on the carving' s side ,it is in carving state(adhesive sticker version)

- Test: when the switch is on laser' s side press and hold the testing button(there is light out under laser state), you can see the value of current pointer indicated ,and the pointer will return to zero when it finishes.
- Light intensity: holding on the testing button you can screw the light knob to change its intensity (the current). It becomes stronger when the knob is turned right,and weaker when turned left.
- Reset: press the reset button while the off-line or on-working state of the machine will make it stop working and lose its memory. This button is used when there are wrong operations or user' s intended stop of data output.
- Offline: After startup if the offline light is out it means the machine is on-line, and the machine can receive data from computer. Press this button and the offline light is always on means the machine is off-line. Press the button when the machine is working it pauses ,press again, it restarts.
- Pressure up : under the on-line condition the pressure increases one grade by each press ,under the off-line condition ,press and hold this button the laser carving head moves to the left
- Pressure down: under the on-line condition the pressure decreases one grade by each press ,under the off-line condition ,press and hold this button the laser carving head moves to the right.
- Speed up:under the on-line condition the speed increases one grade by each press,under the off-line condition ,press and hold this button the roll rachis moves forward
- Speed down:under the on-line condition the speed decreases one grade by each press,under the off-line condition ,press and hold this button the roll rachis moves backward
- Selftest: under the on-line condition ,press this button to check weather the speed and pressure is suitable
- Origin: use the the direction buttons to design the new origin by the user

✧ Notes

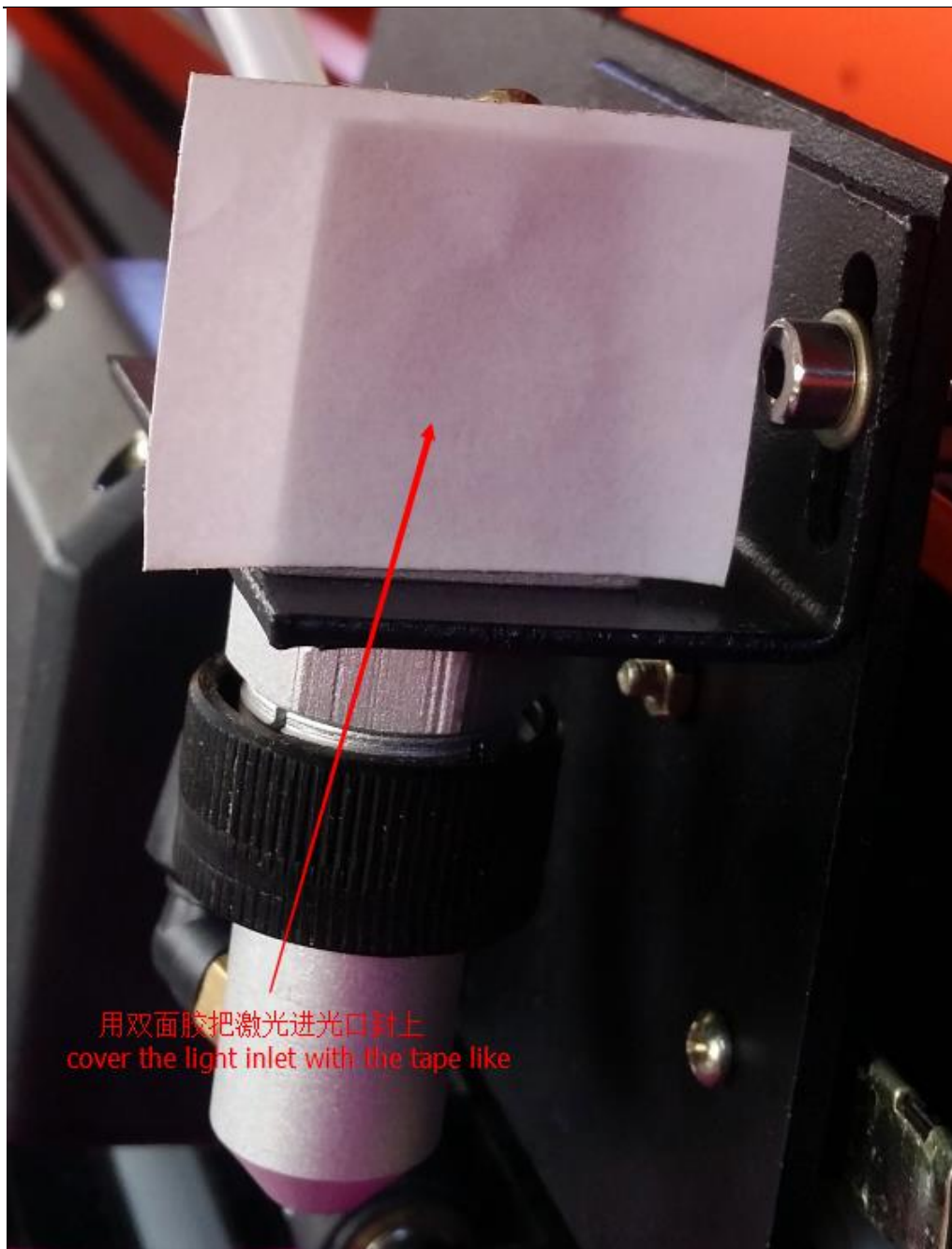
- When the machine is on working ,there should be people guarding over it
Before using laser, water should be supplied and it should be well ventilated while working.
- If the temperature is under 0°C(easy to frozen),after shut-down,must empty the water in the laser tube or use the water pump to make the water keep circulating to prevent the tube from frozen.
- When laser is used to carve big words,it is common to use half-carving model(decrease the light intensity),and small words in total-carving model with the intensity increased.
- Using water circulation to cool the laser tube, the cooling effect affects a lot of the carving results and useful life of the laser tube.
- There is air outlet at the top of the machine, users can add exhaust devices according to the actual conditions.
- Keep the machine clean , clean the working table carefully with a damp cloth after working finished.
- In case of foreign matters fell into the guide rail, please turn off the machine and clean it with hairbrush.

Detail notes please refer to the label on the machine

In the process of transport and installation there is no escape of “light path” error and leading to that

the laser head can carve completely at the reset direction ,however,to the opposite direction, the laser become weaker and weaker and even no laser. Before adjust we need the following tools:a cross screwdriver, a 2.5 hexagonal wrenches,and some 3-5mm double faced adhesive tapes.

First ,make the laser carving head reset,change the current to 4-5mA, cover the light inlet with the tape like the picture shows:



Press the testing button and there will be a black burnt point on the tape, then move the head to the most left and press the testing button again and you will find another black burnt point on the tape. Since these two points are not in the same place, at this moment, using the first point as the base mark, you just need to adjust the two screws on the reflection frame which is on the inner panel at the right part of the machine to make the two points perfectly match together. please refer to the following picture:



M4 cross screw for fore-and -aft direction

M3 hexagonal screw for up-and-down direction

To ensure the light path is accurate, change the tape and repeat the above operations two to three times.

Note: when adjusting light path, only regulate the reflection frame of panel' s side, being unfamiliar with the light path , the regulation of another reflection panel is not allowed.

No response to Engraving Output

- Check weather the machine is in off-line state or not?
- Has it been connected with computer?
- Check interface set: do you chose the right COM1 or COM2 to connect the computer serial; on the carving output menu you should chose the the same serial as the one connected the computer and machine.
- Weather you have done correctly in setting “manufacture ” and “device type”
- Is the set of “serial setup” correct?
- Has the software been installed correctly? Try to remount.
- Is the output of computer broken?

Carving Properly but no Laser

- The laser switch is on or off?
- . Is water inlet and water outlet properly connected?
- Is the power of pump correctly connected?
- Is the water protection switch in the left case on?(Is the water in the T-joint part flowing smoothly?)
- If the pressure on LCD is larger than 100gf or not?