

PERFECT LASER

Colorful Marking Fiber Laser Marking Machine

(Model: PEDB-400C)



PERFECT LASER *Main Features*

Perfect Marking Results

This machine can meet user requirements of the various elaborate patterns in tiny surface, regarded as a veritable "King Laser Marker".



High-Rate of Electrical-Optical Conversion.

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High Speed, High Efficiency

It significantly improve the marking quantity in the same time, accelerate user's return of the investment.



Integrated Structure

Compact, Small, Desktop, Easy delivery



Advantages of Fiber Laser Marking Machine

Low Cost In Use >>

No wearing part. Free of maintenance.

High Speed >>

Imported laser scanning system makes the marking speed up to 7000mm/s.

High Precision >>

High precision, re-position precision is 0.002mm

Energy Saving >>

The efficiency of optic-electrical converting is up to 70%.

High Reliability >>

MTBF(Mean Time Between Failures) >100,000 hours

Integrated and Compact >>

Small size, only 0.5 M2, can be put on desk and easy to install.

Easy Operating >>

Easy operation, VCD training, trouble free.

10 Years Long Lifetime >>

Fiber laser device adopts Germany IPG technology, 100000 hours lifetime.

No consumables >>

While machine can be used free of maintenance for 8-10 years.

Air Cooling >>

Adopts air cooling, has excellent cooling effect than the other cooling method.



Main Features



Laser Scanning Head



Emergency Stop
Key Switch
Main Switch



Focus Mirror



3D Working Table

Advantages of Fiber Laser Marking Machine

1 Germany Made Fiber Laser Sources

A wide selectivity of operating wavelengths, ultra-low amplitude noise, high stability and ultra-long lifetime.



1. Fiber Laser Marking Machine is of good quality output beam, high reliability.
2. Colorful Fiber Laser Marking Machine can Make Colorful Marking on Stainless Steel.
3. It also can be carved both on metal materials and some non-metallic materials, mainly marked in areas for smoothness, finesse demanding, such as electronic products, metal ware, watches, jewelry , IC, plastic buttons and other graphic surface. The effect on Bitmap marking is particularly outstanding.

Electronic Component	Resistance, capacitance, chips, printed circuit boards, computer keyboard.
Apparatus and Meter	Panel Signs, Precision equipment, etc
Instrument	Panel Signs, Nameplates, Medical Instruments
Hardware Tools	Knives, tools, measuring tools, cutting tools, etc.,
Automobile Parts	Pistons, piston rings, gears, shafts, bearings, clutch, lights, etc.,
Mechanical Parts	Bearing, Gears, Standard Parts, Motors,etc
Daily Necessities	Handcrafts, Zipper, Key Holder, Sanitary Wares, etc
Jewelry	Jewelry, Rings, Gold & Silver Parts
Food Drinking Parking	Plastic Packing, etc

2

Digital Galvanometer Laser Scanning Head with Fast Marking Speed

Fast response ability < 0.7ms, can realize high speed marking and high precision.

3

Focus Mirror

Singapore famous "Wavelength" brand, Fast speed, high transparent rate

4

Control System

EZ-CAD control system with stable performance and high reliability. More than 10,000 sets of equipment are using EZ-CAD control card, shield-utilizing part of complex functions, ensuring higher stability.



5 Laser Power Supply

Adopt Taiwan Famous brand,
Stable performance, long life span



6 Red Light Pointer

Adopt red light pointer to show the laser path since laser beam is in-visible.



7 3D Working Table

Can be lifting and shifting from left to right.
Easy to adjust the laser focus distance.



8 Portable Handle

Easy to held the machine by hand.



9 Emergency Stop

Press it when meets error, the machine will stop working immediately to avoid losses.



10 Key Switch

using key switch to control the power of the machine.

11 Main Switch

It is designed as a easy button, safe and efficient.

Optional Item

1 Rotary Fixture

Can engraving for cylinder work-pieces.



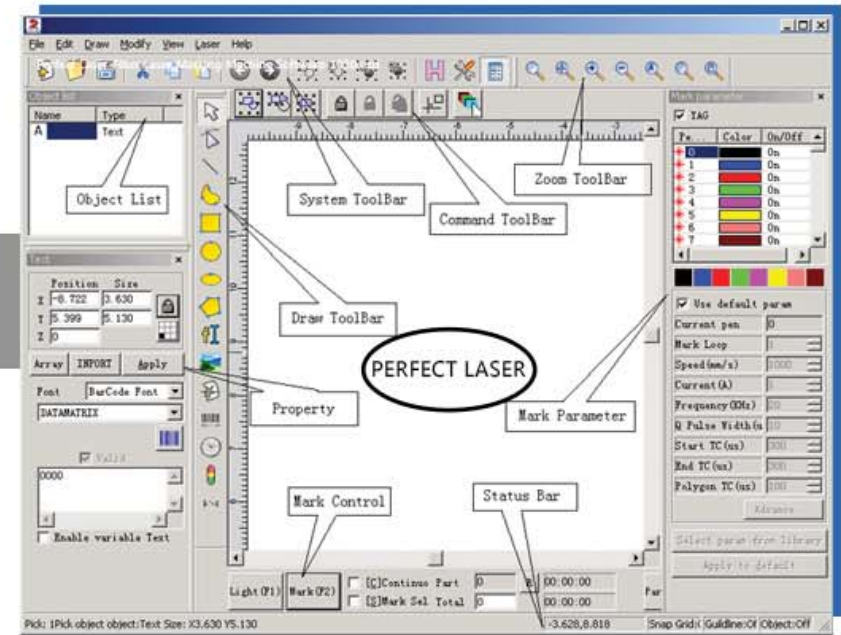
2

Software

(Optional Item)

Adopt latest V2.10 version laser marking software, with more than 10 years development, it containing deep technical characteristic.

- 1 Powerful editing function, Friendly interface, Easy to Use. Can supports DXF, PLT, -Code and many other graphs.
- 2 Perfect Laser Marking Software runs on a PC with 500 MHz CPU and 128 MB RAM at least. In general, we recommend the fastest PC available. Perfect Laser Marking Software can run in Windows XP and Windows 7.
- 3 The installation of Perfect Laser Marking Software is very easy. Users simply need to copy Perfect Laser Marking Software folder which is in the Install CD to hard disk, and then double click the Perfect Laser Marking Software.exe under the Perfect Laser Marking Software's directory to run the software.
- 4 Perfect Laser Marking Software requires a software security device sometimes known as a 'dongle'. This device plugs into the USB port on the PC. If there is no dongle or the dongle do not installed correctly, a caution will appears and the software will work at demo state. In demo state, we can evaluate the software but we can not save files and can not control laser device.



Technical Data

Model	PEDB-400C
Laser Source	L Fiber Laser
Output Power	10w / 20w / 30w / 50w
Wavelength	1060nm
Beam Quality	<2
Repeat Frequency	10khz-100khz
Pulse Energy	2mJ
Beam Divergence	-0.3 to +0.3mrad
Laser Class	IV
Resolution	18 μ
Repeatability	50 μ
Marking Scope	110mmx 110mm / 175mmx 175mm (optional)
Linear Speed	800 character/ s
Marking Linear Speed	\leq 12,000mm/s
Marking Depth	Max. 1.0- 1.5mm (hard steel)
Min. Line Width	0.012mm
Min. Character Size	0.15mm
Repeat Accuracy	\pm 0.003mm
Input Power	0.5kw
Electrical Source	220v/50hz or 60hz

Comparison With Ordinary Fiber Marking Machine

Marking Items	PEDB-400 Fiber Laser Marker	Ordinary Fiber Laser Marker
Transparent Button	Available Mostly, Have Excellent Effect	Rough and Poor Contrast
Keyboard	Smooth and High Contrast	Rough and Poor Contrast
Plastic Mobile Cell	Smooth and High Contrast	Rough and Poor Contrast
Mobile Charger	Smooth and High Contrast	Rough and Poor Contrast
Anodised Aluminum	Smooth and Non-Handle	No Such Function
Deep Mark on Aluminum	Fine Shade	Rough Shade
Thick Aluminum	No Deformation	Deformation of Substrate, Bulging
Vacuum Plating Marking	Supreme Efficiency, No Damage to Parts	Damage to Substrate
Bitmap Marking	Available for Marking Precise Bitmap	No Such Function

	PEDB-400 Fiber Laser Marker	Ordinary Fiber Laser Marker
Frequency Range (kHz)	1-1000	20-60
Impulse Width (ns)	4-200	200
Light Off Time (μs)	1μs	200
Light Leak	无	yes
Time of Light off (μs)	2	200
Power Stability for Long Time	<3%	<4%
Diameter Of Laser Beam (mm)	6-9	6-9
Fault Rate	< 2%	> 5%



Machine on Testing-Continuous 48 Hours Testing before Shipment.

Packing and Shipping

Professional Export Stable Wood Craft Case.
1*0.5*0.75m 65kgs



PEDB-400 Fiber Laser Marker

VS

Ordinary Fiber Laser Marker

High contrast on color,
neat edge, smooth surface

**Marking On Plastic
Comparison**

Dull color, serrated edge,
rough surface

No deformation on marking

**Marking On Thin Metal Sheet
Comparison**

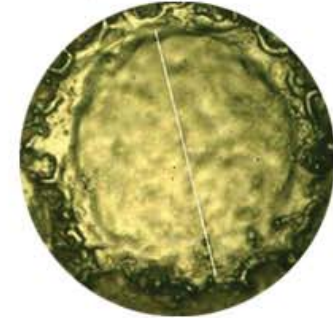
Serious deformation on
marking

Almost no heat affected,
fine results



**Heat Effects On Metal
Marking Comparison**

Large area of Heat affected,
the melt splashed on the edges



**Marking Speed
Comparison**

Short time of turning laser off
with high marking efficiency

Light Off Time

Longer time for turning laser
off to lower marking efficiency
(more than 300μs every line)



0 (μs)



300 (μs)



1500 (μs)





Terms and Conditions

- * 12 Months Guarantee
- * 5-7 Days Lead Time
- * VCD Training , Easy Installation
- * 12 Hours Response
- * TT/Western Union / Paypal / Ali Trade Assurance Payment
- * Sea Shipping

FAQ

Q: What's the package?

A: We have 3 layers package. For the outside, we adopt wood craft case. In the middle, the machine is covered by foam, to protect the machine from shaking. For the inside layer, the machine is covered by thickening plastic bag for waterproof.

Q: Will the package damaged during transportation?

A: Our package is considerate all the damage factors and make it to be safe, and our shipping agent have full experienced in safe transportation. We have exported to 180 countries worldwide. So please don't worry, you will receive the parcel in good condition.

Q: How to install and run the machine?

A: Our technician have installed the machine before shipping. For some small parts installation, we will send detail training video, user's manual along with the machine. 95% customers can learn by themselves.

Q: How can I do if the machine goes wrong?

A: If confronted with such problems, please contact us asap and do not try fix the machine by yourself or someone else. We will response within 24 hours as quick as we can to solve it for you. alxe?