Handheld UV Marking Machine

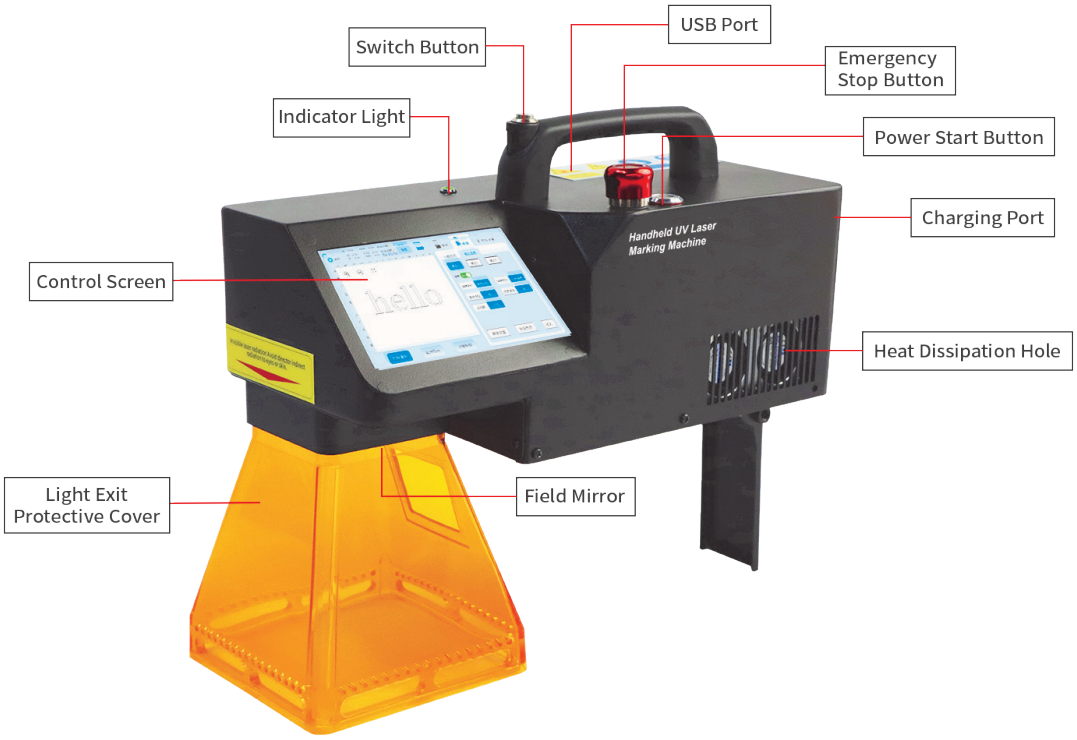
PRODUCT INTRODUCTION

Power：5W

The company has newly launched a portable handheld UV laser marking machine, adopting a 355nm UV laser. It features an extremely small focused spot and a negligible heat-affected zone, suitable for ultra-fine marking on various materials. The whole machine is lightweight and portable, meeting the flexible marking needs in multiple scenarios and working conditions. It is widely applicable for fine marking and surface treatment of materials such as glass, metal, plastic, ceramic, acrylic, leather, and wood.

Model Dimensions

Function Key Diagram



Charging Port

USB Port

Marking Principle

The output laser spot is small, with high beam quality and a small focused spot, resulting in high definition. It is suitable for fine marking and can bring users delicate and beautiful marking effects.

The laser generator produces high - energy laser beams. After being focused by the field mirror, the extremely small light spot acts on the surface of the material to be processed, causing oxidation, melting, or even vaporization of the material surface, thereby producing changes in color or depth to achieve the purpose of laser marking.

Machine Features

1. Compact and Portable

The entire machine weighs only 4KG. With its lightweight and compact marking head design, it is easy to carry. It is applied in the high - end market of ultra - fine processing, fine cutting, and micro - processing.

2. High - quality Light Source

Adopting a 355nm ultraviolet laser, it has an extremely small light spot and a small heat - affected zone. The marking accuracy is high, the electro - optical conversion efficiency is high, and the beam quality is excellent. It is suitable for the fine processing of metals and various non - metallic materials.

3. Plug - and - Play

It features plug - and - play functionality, enabling continuous operation to meet the demands of long - term continuous work. It also supports charging while marking, thus fulfilling the requirements for continuous operation.

4. Intelligent System

Equipped with an 8 - core high - performance processor, it runs on a self - developed Linux system, with fast response, powerful functions and simple operation. It supports marking of various contents such as text, patterns, QR codes, bar codes, serial numbers, and vector graphics.

5. High - precision Beam

Adopting an advanced all - solid - state ultraviolet laser, it has excellent beam quality and an extremely small focused spot, making it suitable for high - precision marking.

6. Multilingual Support

It supports system customization in multiple languages, including Chinese, English, Russian, German, French, Japanese, Korean, Spanish, Portuguese, and Arabic.

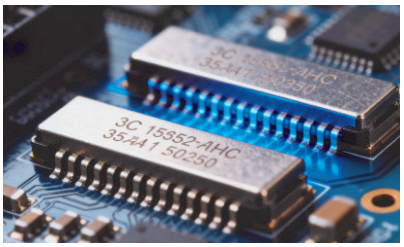
Technical Parameters	
Laser	355nm Ultraviolet Laser
Power	5W
Electric Power	⩽ 200W
Laser Wavelength	355nm
Marking Range	80×80mm
Engraving Depth	Around 0.01 - 0.4mm, depending on the material
Repeatability	±0.002
Power Supply	23-25V
Operating Temperature	0°C -30°C
Cooling System	Air - cooled
Operating System	Linux System
Control Interface	Standard USB
File Format	BMP, JPG, PNG, DXF, SVG, PLT and other graphic formats, TXT, EXCEL text, etc.
Marking Type	Text, QR codes, vector graphics, digital dates, bitmaps, geometric graphics can be combined and edited. Hand - drawing, spiral lines, Lissajous curve drawing are supported.
System Language	Chinese, English, Japanese, Russian, Italian, Spanish, Portuguese, Simplified Chinese, Korean, French, Arabic, German, Polish, Czech, Thai, etc.
Overall Dimensions	317mm*131mm*236mm
Total Weight	4Kg

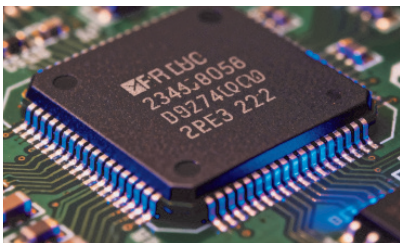
Application scenario

●3C Electronics and Precision Components

Mobile Phone Series Products:

Electronic components: chips, IC dies, semiconductor wafers, PCB board QR code / serial number marking.





3C Accessories: Metal Buckles, USB Interfaces, Battery Housings, etc.

●Glass and Crafts

Glass Craft Marking

Transparent Acrylic Marking

Ceramic Marking

●Metal Products

Nameplates: Stainless steel, aluminum alloy nameplate personalized marking
Jewelry: Personalized customization of metal bracelets, rings, key buckles, etc.
Tools: Outdoor buckles, multifunctional tool marking
Auto parts: Functional control panels, buttons, interior parts marking

Packaging and Consumer Goods

Color Cosmetics: Exquisite LOGOs and Patterns on Lipstick Cases, Foundation Boxes, Perfume Bottles, etc.

Gift Packaging: Custom Marking for Wooden Boxes, Paper Boxes, Cigar Boxes, and High - end Packaging Boxes

Food Packaging: QR Code / Production Information Marking on Packaging Boxes of Caviar, Tea, and Alcoholic Beverages

Industrial Manufacturing and Production Lines

Cable Marking: Serial Number and Specification Marking for Cables and Pipes