



Manuals.plus /

- › ATOMSTACK /
- › ATOMSTACK P9 M50 10W Laser Engraver User Manual

ATOMSTACK P9 M50

ATOMSTACK P9 M50 10W Laser Engraver User Manual

Comprehensive guide for setup, operation, and maintenance.

[Safety Information](#) [Product Components](#) [Setup](#) [Operation](#) [Maintenance](#) [Troubleshooting](#)
[Specifications](#) [Warranty & Support](#)

1. SAFETY INFORMATION

Operating a laser engraver requires strict adherence to safety guidelines to prevent injury. Always read and understand all safety instructions before use.

Eye Protection

The ATOMSTACK P9 M50 features a panoramic filter glass protective cover designed to filter 97% of ultraviolet light. This allows you and those nearby to observe the laser engraving process without needing additional protective eyewear. However, it is always recommended to exercise caution and avoid direct eye exposure to the laser beam.

Panoramic Filter Coated Glass

The innovative use of coated filter glass ensures better visual permeability. The internal movement track can be clearly seen when engraving. It can effectively filter the laser, prevent eye burns, and eliminate the hidden danger of easy burning of acrylic.



Image: The panoramic filter glass effectively blocks laser light, protecting your eyes during operation.

Emergency Controls

The machine is equipped with an independent operation terminal that includes essential safety buttons:

- **Emergency Stop Button:** Immediately halts all machine operations. To restart, turn the button in the indicated direction to unlock it.
- **Shutdown Button:** Terminates the current operation and cuts off all power to the machine.
- **Reset Button:** Stops the current operation, closes the control terminal, and restarts the system.

Realistic portrait carving

Engraving parameters:

Software: Light Burn
Speed: 1000, Energy: 16%
Line spacing: 0.085, engraving mode: Stucki
Engraving frequency: once
Engraving direction: horizontal direction,
Scanning mode: unidirectional scanning
Contrast: five, Brightness: minus one,
Gamma: one point two five
Enhance Radius: three, Enhance Amount: thirty
Engraving range: 180*265(Width by height)
Times: 11h20min2sec



Image: The independent control terminal showing the Emergency Stop, Shutdown, and Reset buttons for safe operation.

General Safety Precautions

- Always operate the laser engraver in a well-ventilated area to dissipate fumes and smoke.
- Keep a fire extinguisher nearby.
- Do not leave the machine unattended during operation.
- Ensure the work area is clear of flammable materials.
- Keep children and pets away from the operating machine.

2. PRODUCT COMPONENTS

The ATOMSTACK P9 M50 Laser Engraver comes with several key components designed for efficient and precise engraving and cutting.

ATOMSTACK P9 M50 50W Laser Engraving Machine

• Upgraded double compression spot • Support offline engraving • Focus-free fixed-focus laser

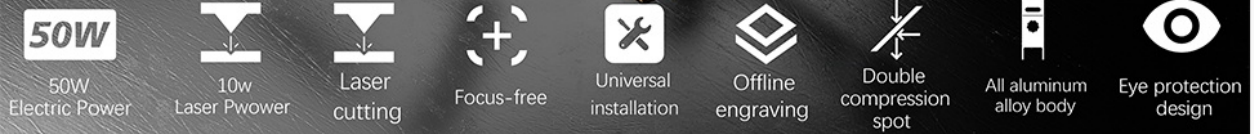


Image: Overview of the ATOMSTACK P9 M50 Laser Engraver, highlighting its main features including the 10W laser power and eye protection.

Main Components

- **Laser Engraver Unit:** The primary frame and moving parts that house the laser module.
- **Laser Module:** The 10W fixed-focus laser with an ultra-fine spot size of 0.06 x 0.06 mm.
- **Independent Control Terminal:** A separate unit for offline operation, featuring a touch screen and control buttons.
- **Support Blocks:** Four adjustable blocks to increase the machine's height for specific engraving tasks or when using a rotary roller.

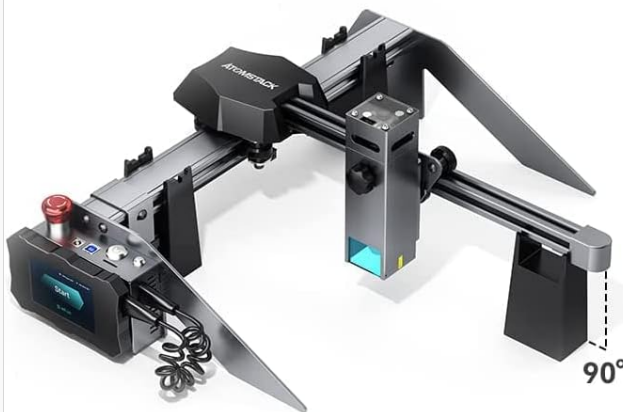
Atomstack P9 M50 Independent Control Terminal

- Offline engraving
- Touch operation
- Ergonomic design



Image: The Atomstack P9 M50 Independent Control Terminal, enabling offline engraving and touch operation.

Free 4 support blocks



Function 1:

Use 3 auxiliary installations to ensure that the X-axis and Y-axis maintain the same horizontal plane to achieve the ideal engraving effect



Function 2:

4 simultaneous use can increase the height of the machine, and use it with the roller

Image: The four included support blocks, used to elevate the machine for various engraving and cutting applications.

3. SETUP

Follow these steps to assemble and prepare your ATOMSTACK P9 M50 Laser Engraver for its first use.

Assembly

The P9 M50 features a fully modular design for quick and easy assembly. Most users can complete the assembly process within 10-20 minutes. Ensure all components are securely fastened according to the detailed instructions provided in the separate assembly guide.

The four support blocks can be used to increase the machine's height, which is beneficial for engraving larger objects or when integrating a rotary roller for cylindrical items. Using three auxiliary installations ensures the X-

axis and Y-axis maintain a horizontal plane for ideal engraving results.

Software Installation

The ATOMSTACK P9 M50 is compatible with various mature engraving software, including LaserGRBL (free) and LightBurn (paid, with a trial period). These software options support multiple operating systems:

- **Windows:** Compatible with Win XP, Win 7, Win 8, Win 10.
- **Mac:** Supported by LightBurn.

Supported file formats include NC, BMP, JPG, PNG, and DXF.



Image: The laser engraver connected to a computer running LaserGRBL or LightBurn software, demonstrating software compatibility.

4. OPERATION

The ATOMSTACK P9 M50 offers flexible operation modes for your engraving and cutting projects.

Offline Operation

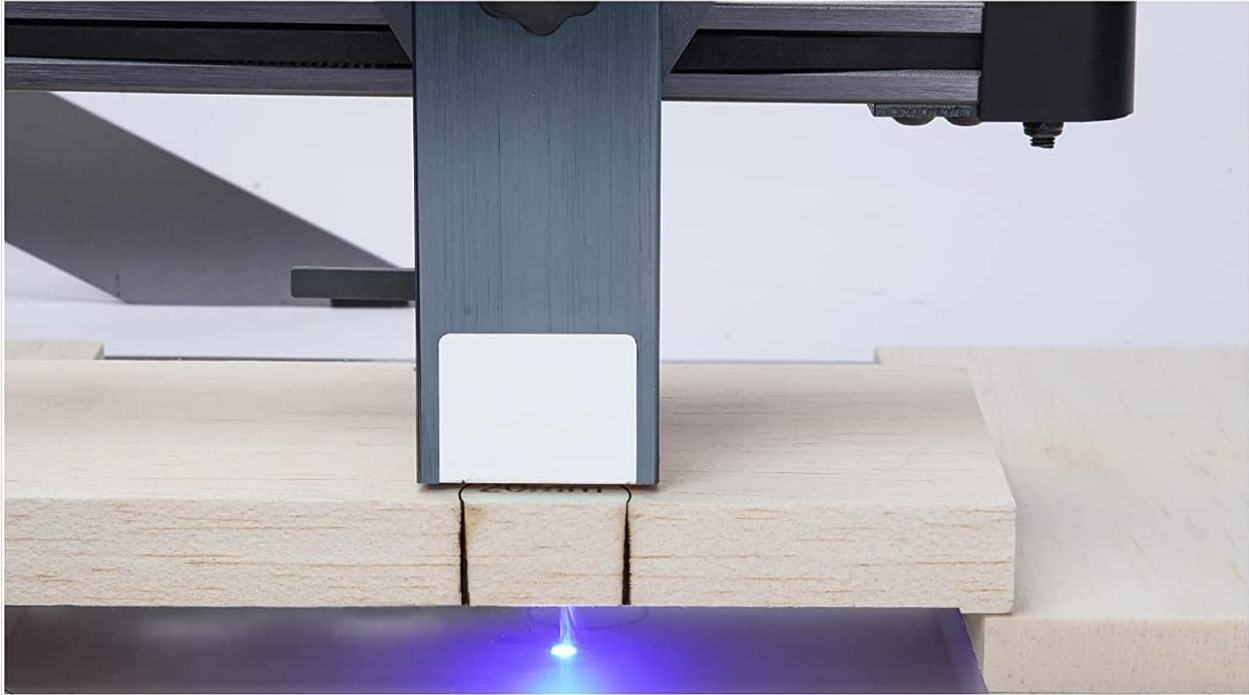
The independent control terminal allows you to operate the engraver without connecting it to a computer. This provides convenience and portability for your projects.

Engraving and Cutting Process

The enhanced dual compression spot technology reduces the laser focus area to an ultra-fine 0.06 x 0.06 mm. With a 10W laser output, the machine can efficiently cut through materials such as 20mm thick wood and 15mm thick acrylic. It can also directly engrave on mirror stainless steel, ceramics, and glass. The engraving

and cutting speed is up to 40% higher than common laser engravers.

Measured Cutting 20mm Thick Wood



Smooth Edge



Measure 20mm Thickness



Applications

Image: The ATOMSTACK P9 M50 demonstrating its capability to cut 20mm thick wood with precision, resulting in smooth edges.

Achieving Fine Details

The ultra-fine laser spot enables high-resolution image engraving, capturing intricate details in your designs.



Image: A detailed tiger portrait engraved on wood, illustrating the precision achieved with the ultra-fine laser spot.

Engraving Examples



Image: A collection of diverse projects, including engravings on wood, leather, and metal, demonstrating the versatility of the ATOMSTACK P9 M50.

Video Demonstration (Not Available)

No official product videos with 'Seller' creator type and m3u8 format were found in the provided data. Therefore, no video demonstration can be embedded at this time.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your ATOMSTACK P9 M50 Laser Engraver.

Cleaning the Laser Lens

- Periodically inspect the laser lens for dust, debris, or residue.
- Use a soft, lint-free cloth and a small amount of lens cleaning solution (specifically designed for optical lenses) to gently wipe the lens.
- Avoid using abrasive materials or excessive force, as this can scratch or damage the lens.

Cleaning the Machine Body

- Wipe down the machine's frame and surfaces with a damp cloth to remove dust and engraving residue.
- Ensure the machine is powered off and unplugged before cleaning.

Lubrication

- Occasionally apply a small amount of lubricant to the guide rails and moving parts to ensure smooth operation. Refer to the full product manual for specific lubrication points and recommended lubricants.

6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your ATOMSTACK P9 M50 Laser Engraver.

Common Issues and Solutions

- **Machine not powering on:** Check all power connections. Ensure the power adapter is securely plugged into both the machine and a working electrical outlet.
- **Laser not firing:** Verify that the laser module is correctly installed and connected. Check software settings to ensure the laser power is not set to zero.
- **Engraving/Cutting quality is poor:**
 - Ensure the material is properly focused. The P9 M50 has a fixed focus, so ensure the material is at the correct distance from the laser head.
 - Adjust laser power and speed settings in your software for the specific material being used.
 - Clean the laser lens if it appears dirty.
- **Machine not connecting to software:**
 - Ensure the USB cable is securely connected.
 - Install the correct drivers for your operating system.
 - Restart both the machine and your computer.

If you encounter any persistent issues that cannot be resolved using these tips, please contact our professional after-sales engineering team for assistance.

7. SPECIFICATIONS

Feature	Detail
Brand	ATOMSTACK
Model	P9 M50
Laser Output Power	10W
Electric Power	50W
Laser Spot Size	0.06 x 0.06 mm (Ultra-fine compressed spot)
Focus Type	Fixed Focus
Eye Protection	Panoramic filter glass cover (filters 97% UV light)
Cutting Capacity (Wood)	Up to 20mm thick
Cutting Capacity (Acrylic)	Up to 15mm thick
Engravable Materials	Wood, acrylic, mirror stainless steel, ceramic, glass, etc.
Software Compatibility	LaserGRBL, LightBurn
Operating Systems	Windows (XP/7/8/10), Mac (with LightBurn)
File Formats	NC, BMP, JPG, PNG, DXF
Operation Modes	Online (via computer), Offline (via independent terminal)
Assembly	Modular design, quick assembly (10-20 minutes)
Package Dimensions	50.8 x 26.67 x 15.24 cm
Weight	5.22 kg

8. WARRANTY & SUPPORT

Warranty Information

Please refer to the official ATOMSTACK website or your purchase documentation for detailed warranty terms and conditions. Warranty coverage typically includes manufacturing defects and component failures under normal use.

Customer Support

For any technical issues, operational questions, or warranty claims, our professional after-sales engineering team is available to provide support. You can reach them through the contact information provided on the ATOMSTACK official website or your retailer's support channels.

When contacting support, please have your product model (P9 M50) and a detailed description of the issue ready to facilitate a quicker resolution.

