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SCULPFUN S9 Pro

SCULPFUN S9 Pro 10W Laser Engraver Instruction Manual

Model: S9 Pro | Brand: SCULPFUN

PRODUCT OVERVIEW

The SCULPFUN S9 Pro is a high-precision 10W laser engraver and cutter machine designed for versatile applications. It offers powerful engraving and cutting capabilities on a wide range of materials, including wood, leather, plastic, acrylic, and metal. With its advanced features, the S9 Pro ensures detailed and efficient results for various crafting and prototyping projects.

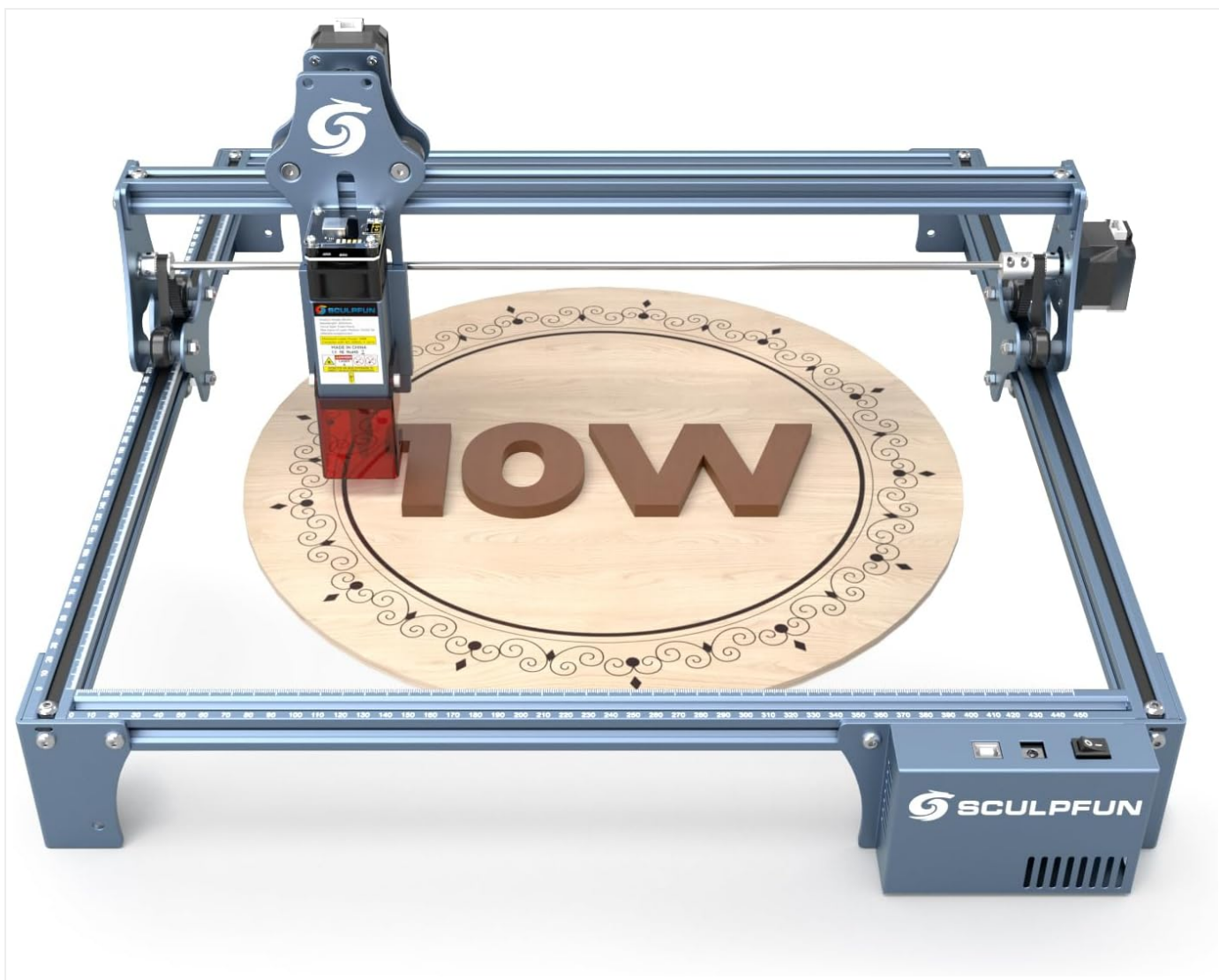


Figure 1: SCULPFUN S9 Pro 10W Laser Engraver, showcasing its robust frame and laser module.

KEY FEATURES

- **Powerful 10W Laser Module:** Enables precise engraving and cutting on various materials. Capable of cutting up to 20mm wood and 15mm acrylic.
- **Large Working Area:** A generous 400mm x 410mm (15.75" x 16.14") area for diverse project sizes.
- **High Precision:** Features a 0.06mm ultra-fine laser focus and 0.01mm precision for detailed work.
- **Broad Compatibility:** Compatible with popular engraving software like LaserGRBL and LightBurn, supporting Windows and MAC systems. Supports various file formats including JPG, PNG, DXF, SVG, AI, G-code, NC, and BMP.
- **Enhanced Safety:** Equipped with a laser filter cover that blocks 98% of ultraviolet light, double safety power switch, and pre-drilled holes for secure wiring. Includes a steel pad to protect surfaces and mitigate fire hazards.

SETUP GUIDE

The SCULPFUN S9 Pro is designed for straightforward assembly. Follow these steps for initial setup:

1. **Unpacking:** Carefully remove all components from the packaging. Verify that all parts listed in the packing list are present.
2. **Frame Assembly:** Assemble the main frame of the engraver. The parts are typically labeled for easy identification. Refer to the included quick-start guide for visual instructions.
3. **Laser Module Installation:** Securely attach the laser module to the gantry. Ensure it is firmly in place.
4. **Wiring:** Connect all necessary cables, including power and data cables, according to the provided diagrams. Ensure

connections are secure.

5. **Software Installation:** Install the recommended engraving software (e.g., LaserGRBL or LightBurn) on your computer. Drivers may be required for proper communication.
6. **Initial Calibration:** Perform initial calibration steps as outlined in the software or quick-start guide to ensure proper laser alignment and focus.

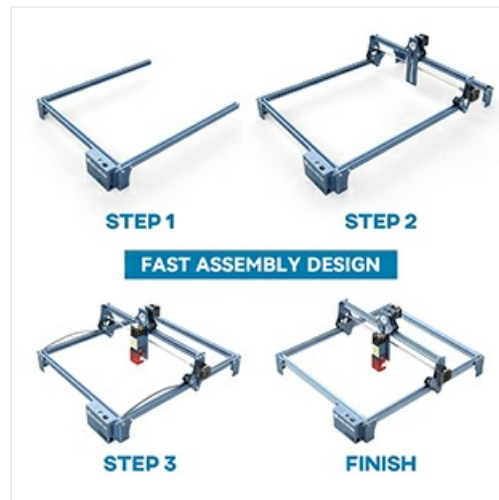


Figure 2: Visual representation of the fast assembly process for the SCULPFUN S9 Pro.



Figure 3: Diagram illustrating the 400x410mm large carving area of the engraver.

OPERATING INSTRUCTIONS

Operating the SCULPFUN S9 Pro involves preparing your design, setting up the material, and initiating the engraving or cutting process through the software.

Software Compatibility and Usage

The S9 Pro is compatible with a variety of mature engraving software, ensuring flexibility for users:

- **Supported Software:** LaserGRBL, LightBurn, Benbox, GbrlController, LiteFire.
- **Operating Systems:** Supports Windows (XP, 7, 8, 10) and MAC systems (with LightBurn).
- **File Formats:** Compatible with JPG, PNG, DXF, SVG, AI, G-code, NC, BMP, and more.



Figure 4: Illustration of the broad software compatibility, including LaserGRBL and LightBurn.

Material Preparation and Laser Focus

Proper material placement and laser focusing are crucial for optimal results.

- **Material Placement:** Place your material flat on the working area. Use the included steel pad to protect your work surface from laser damage and fire hazards.
- **Laser Focusing:** The S9 Pro features a 0.06mm ultra-fine laser focus. Adjust the laser module height to achieve the sharpest possible focus on your material. This ensures precise engraving and cutting.



Figure 5: Demonstrating the adjustment of the laser module for optimal focus on the material.

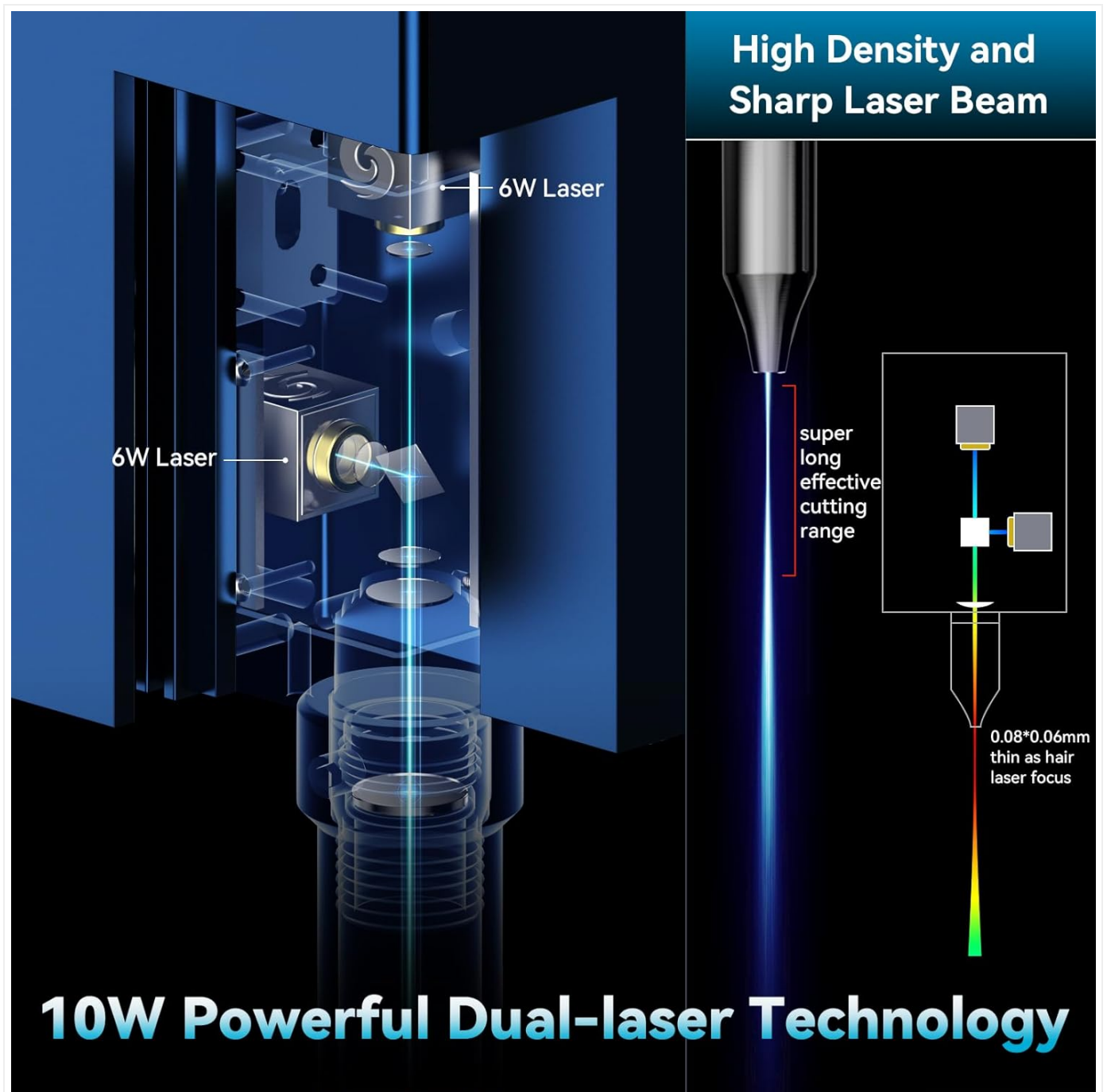


Figure 6: Illustration of the high-density and sharp laser beam, highlighting its effective cutting range and ultra-fine focus.

The S9 Pro is capable of processing a wide array of materials:

Material Type	Capabilities	Notes
Wood	Engraving & Cutting (up to 20mm)	Plywood, light wood, walnut, teak. Adjust settings for different wood densities.
Acrylic	Engraving & Cutting (up to 15mm)	Clear and colored acrylic.
Leather	Engraving & Cutting	Ideal for personalized leather goods.
Metal	Engraving	Requires specific settings for different metal types.
Plastic	Engraving & Cutting	Test on a small area first to avoid melting or fumes.
Fabric/Cloth	Engraving	Suitable for denim and other textiles.



Figure 7: Examples of cutting depth on various materials like plywood, MDF, light wood, acrylic, walnut, and teak.



Figure 8: Visual examples of wood carving, leather carving, acrylic carving, steel carving, wood cutting, leather cutting, acrylic cutting, and cloth carving.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your SCULPFUN S9 Pro.

- **Cleaning:** Regularly clean the laser lens and the working area to remove dust, debris, and residue from engraving/cutting. Use a soft, lint-free cloth and appropriate cleaning solutions if necessary.
- **Air Assist System:** If using an air assist system, ensure the nozzle is clear and free from blockages to maintain efficient airflow.
- **Cooling:** To prevent overheating and prolong laser module life, allow the laser to cool for approximately 15 minutes after every 4 hours of continuous operation.
- **Laser Module Lifespan:** The laser module has a finite lifespan, typically around one year with regular use. Performance may decline over time, particularly for cutting thicker materials. Replacement modules can be sourced from the manufacturer or authorized dealers.
- **Lubrication:** Periodically check and lubricate the moving parts, such as the guide rails and lead screws, to ensure smooth

operation.

TROUBLESHOOTING

This section addresses common issues you might encounter with your SCULPFUN S9 Pro.

Problem	Possible Cause	Solution
Laser not firing or weak output	Loose connection, laser module issue, incorrect software settings, dirty lens.	Check all cable connections. Verify laser power settings in software. Clean the laser lens. If issues persist, the laser module may need replacement.
Poor engraving/cutting quality (e.g., blurry, incomplete cuts)	Incorrect focus, wrong speed/power settings, material issues, dirty lens.	Re-focus the laser. Adjust speed and power settings based on material type and thickness. Ensure material is flat and clean. Clean the laser lens.
Software not connecting to engraver	Incorrect COM port, driver issues, software version incompatibility.	Verify the correct COM port is selected in the software. Reinstall drivers. Ensure software is up-to-date or compatible with your firmware. Restart both computer and engraver.
Machine not moving or erratic movement	Loose belts, motor issues, power supply problem, software command error.	Check and tighten timing belts. Ensure power supply is stable. Restart software and machine. Consult manufacturer support if motors are unresponsive.

For more detailed troubleshooting, refer to the official SCULPFUN support resources or online communities for LaserGRBL and LightBurn.

SPECIFICATIONS

- **Model:** S9 Pro
- **Laser Output Power:** 10,000mW (10W)
- **Laser Class:** 4
- **Engraving Precision:** 0.01mm
- **Laser Focus:** 0.06mm ultra-fine
- **Working Area:** 400mm x 410mm (15.75" x 16.14")
- **Product Dimensions:** 22.4 x 20.4 x 3 inches
- **Item Weight:** 9.68 pounds
- **Manufacturer:** SCULPFUN
- **Country of Origin:** China





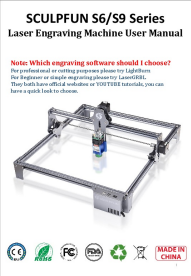

WARRANTY AND SUPPORT

For detailed warranty information, product support, or to purchase replacement parts (such as laser modules), please refer to the official SCULPFUN website or contact their customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.

SCULPFUN Official Store: [Visit SCULPFUN Store on Amazon](#)



Related Documents - S9 Pro

 <p>SCULPFUN S6/S9 Series Laser Engraving Machine User Manual</p> <p>Note: Which engraving software should I choose? For professional or cutting programs please try LightBurn. For engraving or simple engraving programs LaserGRBL. These two have official websites or YOUTUBE tutorials, you can have a quick look for choice.</p>	<p>SCULPFUN S6/S9 Series Laser Engraving Machine User Manual</p> <p>A comprehensive user manual for the SCULPFUN S6 and S9 series laser engraving machines, covering software installation (LaserGRBL and LightBurn), connection, preparation, engraving settings, material recommendations, troubleshooting, and maintenance.</p>
 <p>SCULPFUN S30 Laser Engraver Assembly Instructions</p>	<p>SCULPFUN S30 Laser Engraver Assembly Instructions and Guide</p> <p>Comprehensive assembly instructions for the SCULPFUN S30 Laser Engraver. Learn how to build your laser engraver step-by-step, including belt tensioning and focusing tips. Includes software and support information.</p>
 <p>SCULPFUN iCube Laser Engraving Machine User Manual</p>	<p>Sculpfun iCube Laser Engraving Machine User Manual</p> <p>User manual for the Sculpfun iCube series of desktop laser engraving machines, covering product structure, focusing, software installation and connection, app interface, PC software, filter replacement, and FAQs.</p>
 <p>SCULPFUN S10 Laser Engraver Assembly Instructions</p>	<p>SCULPFUN S10 Laser Engraver Assembly Instructions</p> <p>A comprehensive guide detailing the assembly process for the SCULPFUN S10 Laser Engraver, including parts identification, step-by-step instructions, and essential usage tips for optimal performance.</p>
 <p>SCULPFUN S6/S9 Series Laser Engraving Machine User Manual</p> <p>Note: Which engraving software should I choose? For professional or cutting programs please try LightBurn. For engraving or simple engraving programs LaserGRBL. These two have official websites or YOUTUBE tutorials, you can have a quick look for choice.</p>	<p>SCULPFUN S6/S9 Series Laser Engraving Machine User Manual</p> <p>User manual for the SCULPFUN S6/S9 Series Laser Engraving Machine, covering software installation (LaserGRBL, LightBurn), connection, engraving preparation, operation, material suggestions, troubleshooting, and maintenance.</p>
 <p>SCULPFUN UV LASER ENGRAVER SCULPFUN V5 USER MANUAL</p>	<p>SCULPFUN V5 UV Laser Engraver User Manual</p> <p>Comprehensive user manual for the SCULPFUN V5 UV Laser Engraver, detailing safety, setup, operation, software (SGD Laser, LightBurn), maintenance, and troubleshooting for precision engraving.</p>