

OMTech Pronto 130W

OMTech Pronto 130W CO2 Laser Engraver & Cutter User Manual

Model: Pronto 130W | Brand: OMTech

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your OMTech Pronto 130W CO2 Laser Engraver & Cutter. This commercial-grade laser system features a 51"x35" workspace, 1,000mm/s engraving speed, autofocus, 2-way pass-through, and air assist, making it suitable for various materials including wood, acrylic, and more. Please read this manual thoroughly before initial use and retain it for future reference.

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Video 1: OMTech Pronto CO2 Laser Engraver Overview

This video provides a general overview of the OMTech Pronto CO2 Laser Engraver, showcasing its design and capabilities.

2. SAFETY INFORMATION

Your OMTech Pronto laser engraver is designed with safety in mind, featuring multiple protective measures. Always adhere to safety guidelines to prevent injury or damage to the equipment.

- **Laser Class 2:** This device operates as a Class 2 laser product with 0.827 mW output power.
- **Dual Safety Mechanisms:** The front cover and waste box are equipped with safety interlocks to ensure secure operation.
- **Integrated Sensors:** Pressure and temperature sensors provide real-time monitoring, issuing alerts to minimize fire risks.
- **Flame-Retardant PC Board:** The internal components are protected by a flame-retardant PC board, reducing fire hazards.
- **Safe Observation:** A flame-resistant window allows for safe monitoring of the engraving process.

Adjustable Platform with 83% More Flexibility

8.66" Work Height for Larger Projects

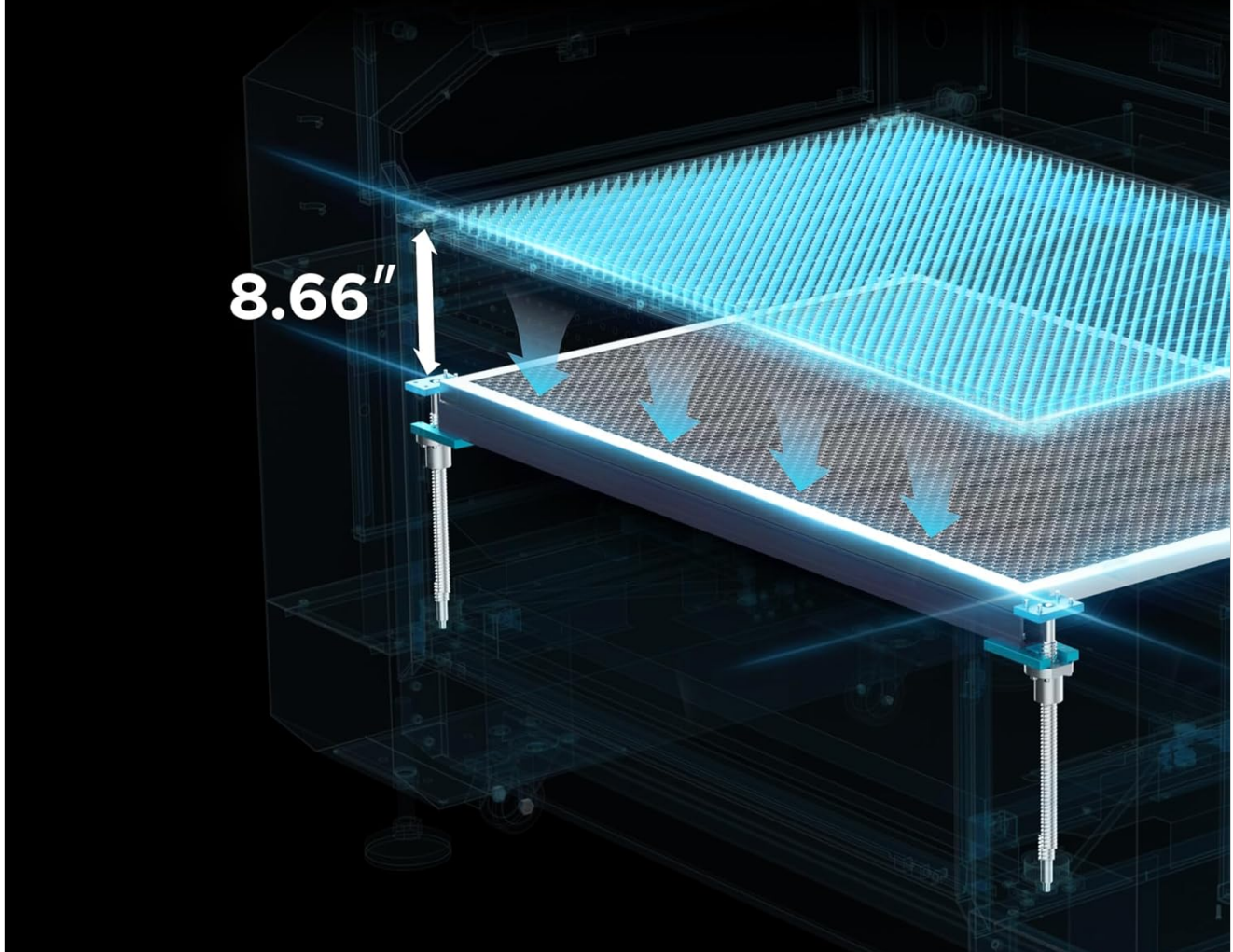
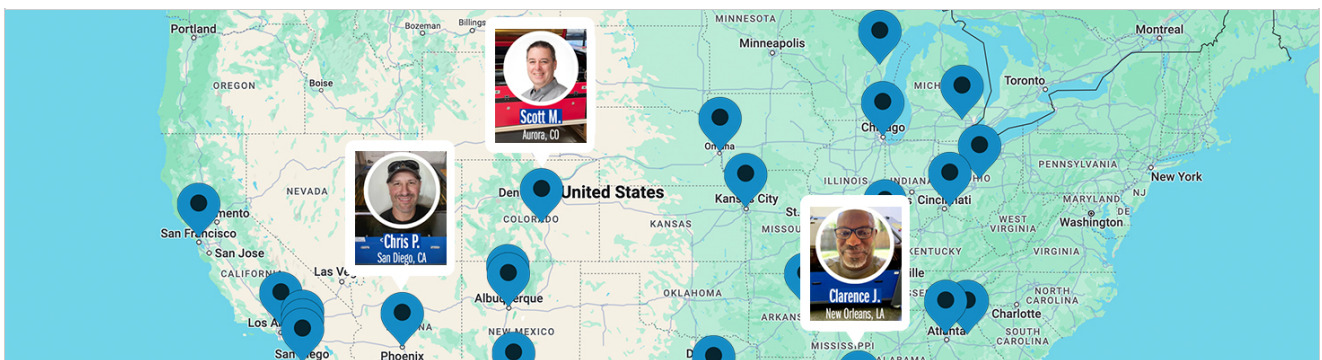


Image 1: Advanced Safety Sensors

Illustration of the laser engraver's advanced safety sensors, including temperature monitoring and pressure protection.



OMTECH DEMO ROOM PROGRAM

We currently have over 60 Demo Room Hosts across the United States and the number is continuously growing!

Image 2: Comprehensive Safety Features

Visual representation of the various safety features, including cover protection, flame-retardant PC board, overheating alert, and low-

pressure alarm.

3. SETUP

Proper setup is crucial for the performance and longevity of your laser engraver. The split chassis design simplifies transportation and assembly.

1. **Placement:** Position the machine on a stable, level surface in a well-ventilated area. Ensure adequate space around the machine for operation and maintenance.
2. **Assembly:** Follow the detailed assembly instructions provided in the separate assembly guide. The split chassis design allows for easier movement and setup.
3. **Water Chiller Connection:** Connect the included water chiller to the laser tube. The chiller ensures consistent laser performance by maintaining optimal temperature.
4. **Air Assist & Exhaust:** Connect the high-flow air pump (3.3 CFM) and powerful exhaust fan. The air assist protects the lens and prevents material ignition, while the exhaust fan removes smoke and fumes.
5. **Power Connection:** Connect the machine to a suitable power source as specified in the electrical requirements section of the full manual.

4. COMPONENTS OVERVIEW

Familiarize yourself with the main components of your OMTech Pronto laser engraver:

- **Laser Tube:** 130W CO2 laser tube for powerful engraving and cutting.
- **Laser Head:** Equipped with autofocus and air assist nozzle.
- **Work Area:** Generous 51"x35" (1300x900mm) workspace.
- **Workbed:** Adjustable platform with 8.66" (220mm) work height for larger projects. Features an upgraded honeycomb workbed with stainless steel corners and anchor pins for enhanced stability.
- **Water Chiller:** External unit for cooling the laser tube.
- **Air Pump:** Provides air assist to the laser head.
- **Exhaust Fan:** Removes smoke and debris from the work area.
- **Control Panel:** Intuitive interface for machine operation.
- **Transmission System:** X and Y axes driven by stepper motors with V-groove guide rails for stability and precision.

Pronto

Faster, Safer, Stronger

Auto Focus 1000mm/s

20"x12" Working Area

Touchscreen Interface

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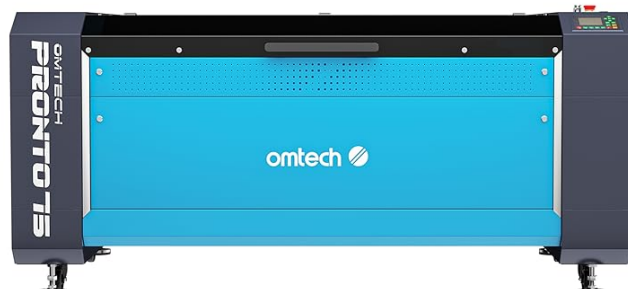


Image 3: Advanced Transmission System

Detailed view of the X and Y axes, highlighting the V-groove guide rails and stepper motors for precise movement.



Image 4: Upgraded Workbed

Illustration of the honeycomb workbed with stainless steel corners and anchor pins, providing enhanced stability for various materials.

5. OPERATING INSTRUCTIONS

Operating your laser engraver involves several key steps to achieve optimal results.

5.1 Software Compatibility

The OMTech Pronto is compatible with industry-standard software for design and control:

- LightBurn
- RDworks
- CorelLaser

Advanced Safety Sensors

Pressure & Temperature Protection

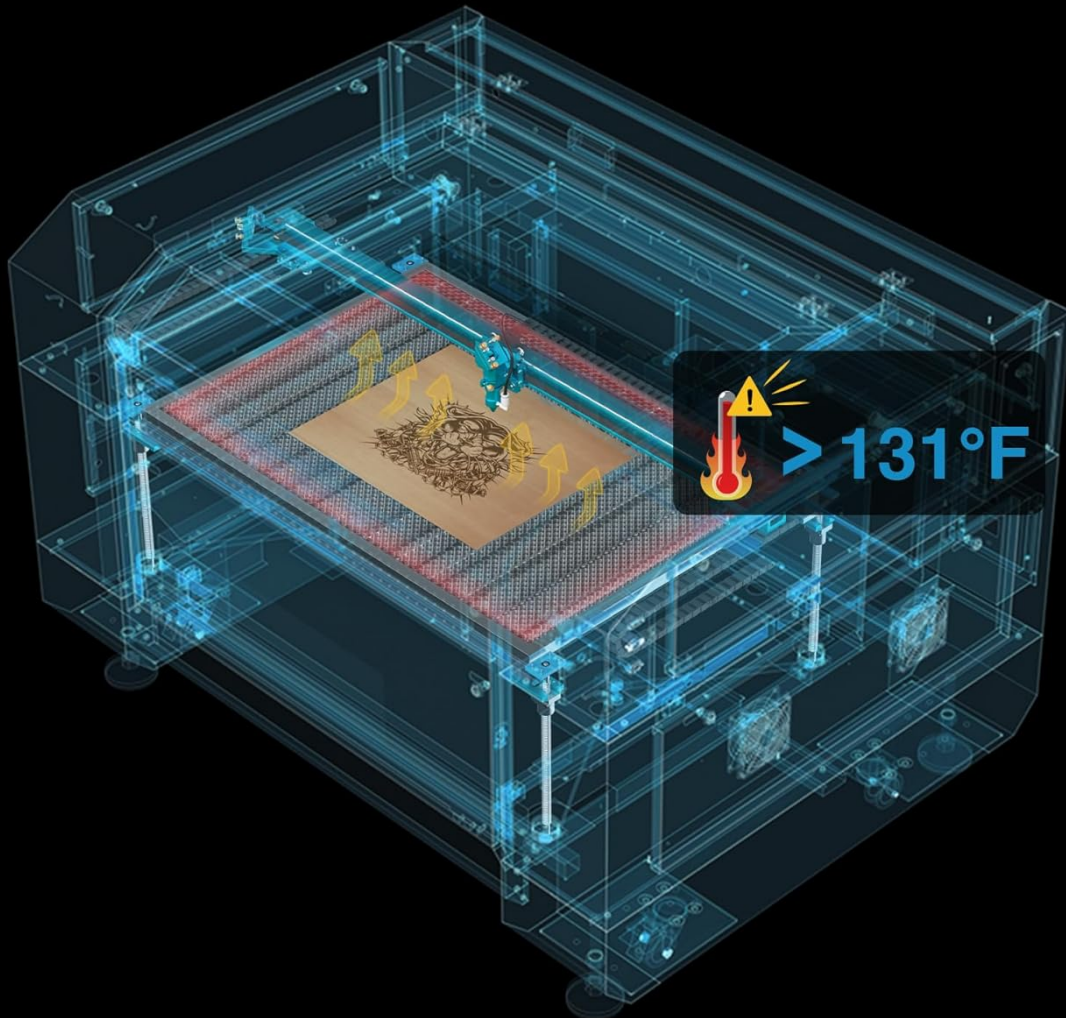


Image 5: Compatible Softwares

Visual display of compatible software interfaces, including LightBurn, RDworks, and CorelLaser.

5.2 Material Preparation

Prepare your material by ensuring it is clean, flat, and correctly positioned on the workbed. For mirrored acrylic, always place the mirrored side facing down to engrave the backing.

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Video 2: Laser Engraving and Cutting on Acrylic Mirror

This video demonstrates the process of engraving and cutting acrylic mirror, including proper material loading and post-processing.

5.3 Focusing

The OMTech Pronto features an intelligent autofocus system for precise focal length adjustment.

- **Autofocus:** Utilize the non-contact diffuse switch for automatic focusing. Ensure no barriers are on the table during this operation.
- **Red Dot Indicator:** A built-in red laser pointer makes precise adjustments easier.

Enhanced Airflow for Better Performance

125L/min Air Pump | 540m³/h High-Volume Fan



Image 6: Intelligent Auto-Focus

Visual representation of the non-contact diffuse switch in action, automatically focusing the laser head on the material.

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Video 3: CO2 Laser Engraver and Cutter with Autofocus

This video highlights the autofocus feature of the CO2 laser engraver, showing how it quickly and accurately sets the focal distance.

5.4 Engraving and Cutting Process

The machine offers revolutionary engraving speeds of up to 1,000 mm/s and powerful cutting capabilities.

- **Speed:** Achieve engraving speeds up to 1,000 mm/s.
- **Cutting Depth:** Capable of cutting acrylic up to 1.18 inches (30 mm) thick and wood up to 0.59 inches (15 mm) thick.
- **Two-Way Pass-Through:** The machine features a 2-way pass-through design, allowing you to work on materials larger than the workbed.



Image 7: Two-Way Pass-Through

Demonstration of the 2-way pass-through feature, enabling the processing of materials longer than the machine's work area.

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Video 4: How to Laser Engrave a Photo with a CO2 Laser Engraver

This video provides a detailed guide on how to achieve high-quality photo engravings using a CO2 laser engraver.

5.5 Material Compatibility

The OM Tech Pronto is versatile, supporting a wide range of materials for both engraving and cutting:



Image 8: Materials Suitable for Engraving and Cutting

A visual guide listing various materials compatible with the laser engraver for both engraving and cutting applications.

| Engravable Materials | Cuttable Materials |
|----------------------|--------------------|
| Acrylic | Acrylic |
| Wood | Wood |
| Leather | Leather |
| Rubber | Rubber |
| Paper | Paper |
| Plastic | Plastic |
| Fabric | Fabric |
| MDF | MDF |
| Cardboard | Cardboard |
| Foam | Foam |
| Fiber Glass | |
| Marble | |

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your laser engraver.

- **Cleaning:** Regularly clean the workbed, laser lens, and mirrors to prevent debris buildup, which can affect laser performance and accuracy. The powerful exhaust fan and air pump help keep the workspace clean during operation.
- **Water Chiller:** Monitor the water level and temperature of the chiller. Replace the water according to the chiller's instructions to ensure efficient cooling of the laser tube.
- **Lubrication:** Periodically lubricate the guide rails and moving parts of the X and Y axes to maintain smooth and precise movement.

TRUSTED BY SOME OF THE BEST

OMTech Laser is proud to work with some of the largest companies



Image 9: Cleaner Engraving

Illustration showing the high-speed fan and air pump efficiently removing smoke and dust to maintain a clean workspace.

7. TROUBLESHOOTING

This section addresses common issues you might encounter. For more complex problems, refer to the full troubleshooting guide or contact customer support.

- **Poor Engraving/Cutting Quality:** Check laser focus, material settings (speed/power), and cleanliness of lenses/mirrors. Ensure the material is flat on the workbed.
- **Machine Not Responding:** Verify power connections, emergency stop button status, and software connection.
- **Overheating Alert:** Check water chiller operation, water level, and ensure proper ventilation around the machine. The integrated temperature sensors will alert you if the machine overheats.
- **Low-Pressure Alarm:** Built-in pressure sensors trigger an alarm if air pressure drops. Check air assist connections and pump operation.



Image 10: Overheating Alert

Visual showing the Pronto monitoring temperature and automatically stopping, resetting, and alerting if it overheats.

K40

Simple, Affordable, Ready to Engrave

- 300mm/s
- Build-in Air Assist
- 12"x 8" Working Area
- Build-in Air Assist

[Learn More >](#)



Image 11: Low-Pressure Alarm

Close-up of the built-in pressure sensor triggering an alarm if pressure drops, preventing potential risks.

8. SPECIFICATIONS

| Feature | Specification |
|---------------------------------|--|
| Laser Power | 130W CO2 |
| Laser Class | Class 2, 0.827 mW output |
| Workspace | 51" x 35" (1300mm x 900mm) |
| Max Engraving Speed | 1,000 mm/s (39.4 in/s) |
| Max Cutting Thickness (Acrylic) | 1.18" (30 mm) |
| Max Cutting Thickness (Wood) | 0.59" (15 mm) |
| Work Height | 8.66" (220mm) adjustable |
| Air Pump Flow | 3.3 CFM |
| Dimensions (L x W x H) | 74.8" x 55.9" x 40.2" |
| Weight | 793 lbs |
| Features | Autofocus, 2-Way Pass, Air Assist, Water Chiller, Dual Safety Mechanisms, Integrated Sensors, Split Chassis Design |

9. WARRANTY AND SUPPORT

OMTech is committed to providing excellent customer service and support for your laser engraver.

- **Comprehensive Service:** Enjoy 2 years of comprehensive service from the date of purchase.
- **24/7 Global Support:** Our dedicated support team is available 24/7 to provide expert assistance and technical guidance.
- **Local Demos:** Local demonstrations are available by appointment.

8.7" Max. Work Height

Adjustable Workbed Lets You Work on
Larger & Thicker Workpieces with Ease

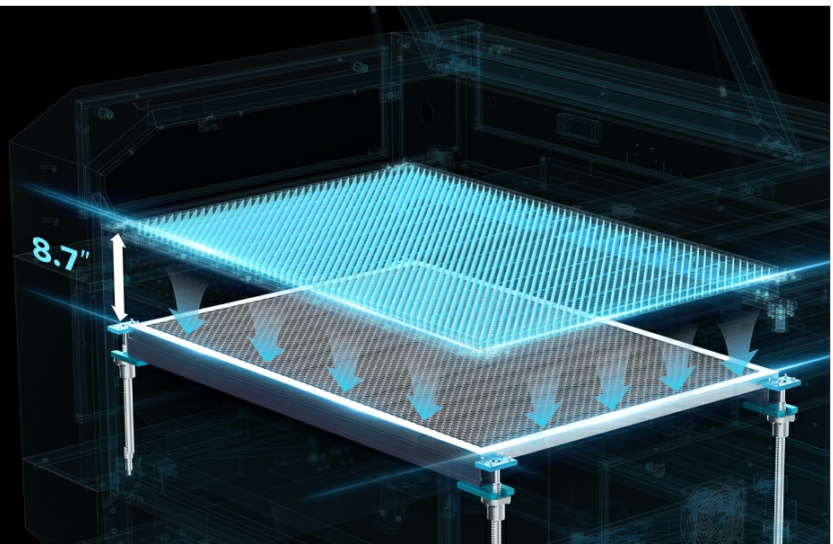


Image 12: Reliable Local Support

Visual emphasizing the availability of U.S.-based technical support, 24/7 online customer service, and two-year support.

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Video 5: Laser Guys from OMTech

This video features testimonials and insights from OMTech users, highlighting their experience with the products and support.