

Twotrees 630203011

Twotrees Air Assist Set Instruction Manual

Model: 630203011

INTRODUCTION

The Twotrees Air Assist Set is designed to enhance the performance of compatible laser engravers, including models TS2-10W, TS2-20W, TTS-25, TTS-55, and TTS-10. This system provides a controlled airflow to the laser's focal point, which helps to remove smoke and debris during engraving and cutting processes. This results in cleaner cuts, reduced charring, and improved engraving precision. This manual provides essential information for the safe and effective installation, operation, and maintenance of your air assist set.

Quiet And High Flow Laser Dedicated Pump

Perfect Partner for Laser Engraver Module Kit



Image: The Twotrees Air Assist Set connected to a laser engraver, illustrating its compact design and integration.

SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the air assist set. Failure to follow these instructions may result in injury or damage to the equipment.

- Always disconnect power to the laser engraver before installing or performing maintenance on the air assist set.
- Ensure all connections are secure to prevent air leaks or electrical hazards.
- Operate the air assist set in a well-ventilated area to dissipate smoke and fumes effectively.
- Keep the air pump away from water or excessive moisture.
- Do not obstruct the air intake or outlet of the pump.
- This product is designed for use with compatible laser engravers. Do not attempt to use it for other purposes.

PACKAGE CONTENTS

Verify that all components are present before beginning installation:

- Air Pump Unit
- Silicone Air Tube
- Pneumatic Fitting Reducer
- Cylinder Regulating Valve (SL8-M5)
- Power Adapter with Adjustable Airflow Control
- Mounting Hardware (screws, brackets, if applicable)

SPECIFICATIONS

Feature	Detail
Model Number	630203011
Airflow	Adjustable, 10-30 L/min
Compatibility	Twotrees TS2-10W, TS2-20W, TTS-25, TTS-55, TTS-10 Laser Engravers
Input Voltage	12V (via power adapter)
Item Weight	3.41 pounds (approx. 1.55 kg)
Package Dimensions	10.43 x 7.32 x 5 inches (approx. 26.5 x 18.6 x 12.7 cm)

SETUP AND INSTALLATION

Follow these steps to properly install the air assist set with your laser engraver. Refer to the diagrams for visual guidance.

1. **Connect the Silicone Tube to the Air Pump:**Connect the silicone tube (ID 8 OD 10 L70mm) to the air pump's outlet. Ensure a snug fit.
2. **Attach Pneumatic Fitting Reducer:** Connect the pneumatic fitting reducer (PG 10-8) to the other end of the silicone tube.
3. **Connect Longer Silicone Tube:** Connect the longer silicone tube (ID 6 OD 8 L2500mm) to the pneumatic fitting reducer PG 10-8.
4. **Attach Cylinder Regulating Valve to Laser Head:** Connect the cylinder regulating valve (SL8-M5 black nickel-plated) to the air inlet on your laser head.
5. **Connect Silicone Tube to Regulating Valve:** Connect the remaining end of the silicone tube (ID 6 OD 8 L2500mm) to the cylinder regulating valve SL8-M5 black nickel-plated.

New air pumps according to schematic diagrams

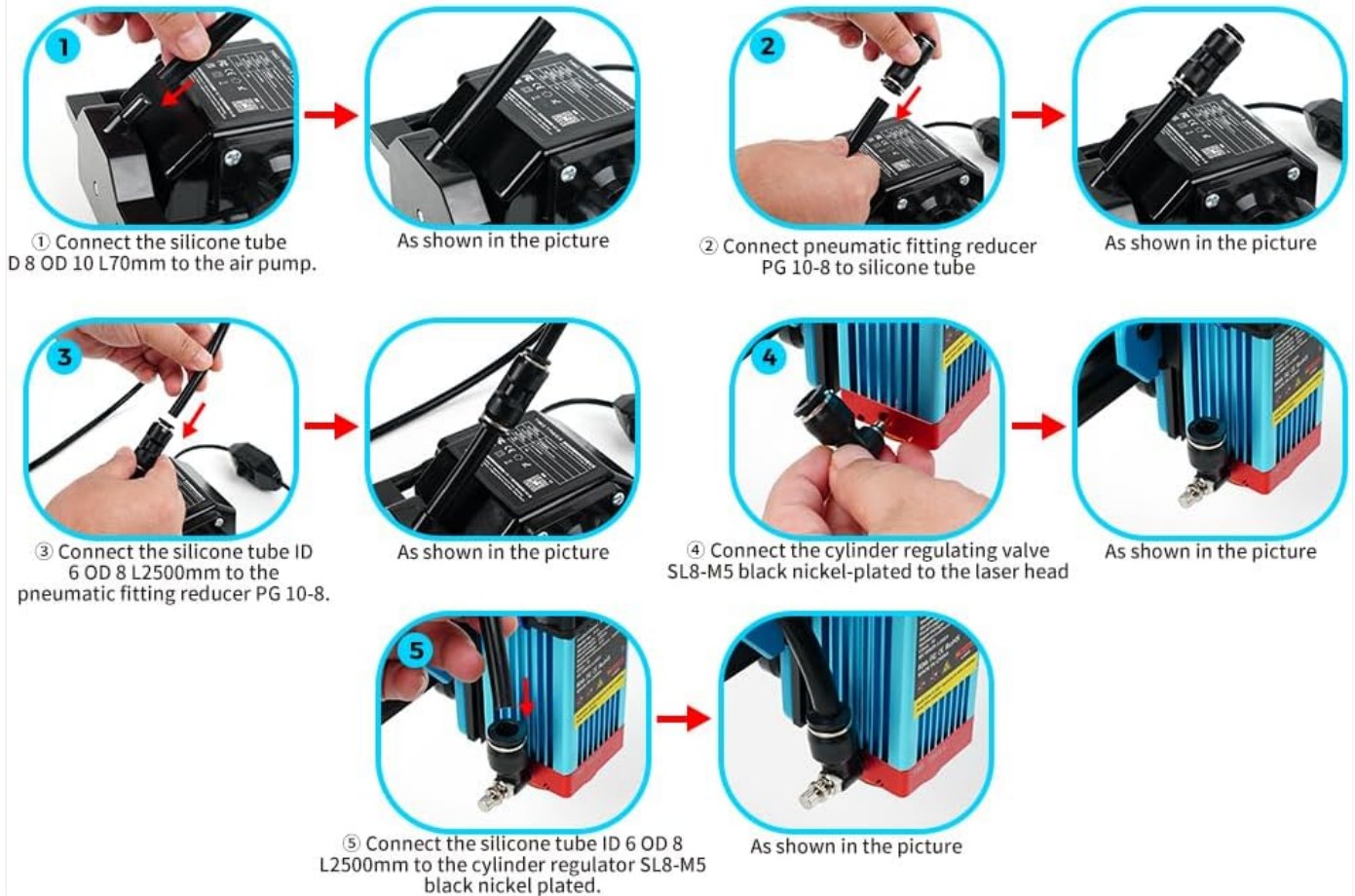


Image: Detailed schematic diagrams showing the five steps for connecting the air pump components to the laser head.

Once all connections are secure, connect the air pump's power adapter to a suitable power outlet. The power adapter typically includes an adjustable airflow control dial.

10-30L/min Adjustable Airflow

Speed up the heat dissipation quickly
Blow away the dense smoke generated and residue left



Image: Close-up of the air pump's power adapter with an integrated dial for adjusting airflow from 10 to 30 L/min.

OPERATION

Operating the Twotrees Air Assist Set is straightforward once installed. The primary function is to provide a continuous stream of air to the laser's cutting or engraving point.

- **Power On:** Ensure the air pump is connected to power and the laser engraver is ready for operation.
- **Adjust Airflow:** Use the dial on the power adapter to adjust the airflow rate. A higher airflow (up to 30 L/min) is generally beneficial for cutting thicker materials or when significant smoke is generated. Lower airflow (down to 10 L/min) may be suitable for delicate engraving tasks. Experiment with different settings to find the optimal airflow for your specific material and task.
- **Observe Results:** The air assist will help clear smoke and debris, leading to cleaner edges and reduced charring on your material.

Fast and Clean Cutting & Precise Engraving



Before use

- Rough edges
- Yellowed edges



After use

- Smooth edges
- Clean edges

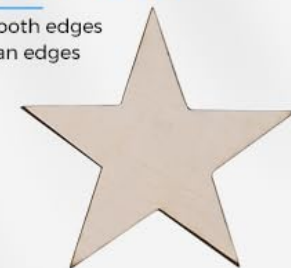


Image: A visual comparison demonstrating how the air assist improves cutting quality, resulting in smooth and clean edges compared to rough and yellowed edges without it.



Image: An illustration showing the difference in smoke and debris accumulation during laser operation, highlighting the effectiveness of the air assist in maintaining a clear work area.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your air assist set.

- **Clean Air Filter:** Periodically check and clean the air intake filter (if present) on the pump to prevent dust accumulation, which can reduce airflow and strain the motor.
- **Inspect Tubing:** Examine the silicone air tubes for any kinks, cracks, or blockages. Replace damaged tubing promptly.
- **Keep Pump Clean:** Wipe down the exterior of the air pump with a dry or slightly damp cloth to remove dust and debris. Do not use harsh chemicals.
- **Storage:** When not in use for extended periods, store the air assist set in a clean, dry environment.

TROUBLESHOOTING

If you encounter issues with your air assist set, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No airflow or weak airflow	Power not connected Air tube kinked or blocked Air filter clogged Pump malfunction	Check power connection and outlet. Inspect air tubes for obstructions; straighten kinks. Clean or replace the air filter. If pump is defective, contact support.
Excessive noise from pump	Pump not on a stable surface Internal component issue	Place pump on a flat, stable surface. If noise persists, contact support.
Air assist not improving cut quality	Incorrect airflow setting Air nozzle misaligned	Increase airflow using the adjustment dial. Ensure the air nozzle is directed precisely at the laser's focal point.

WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation provided with your original purchase or contact Twotrees customer service directly. Keep your purchase receipt and model number (630203011) handy when contacting support.

You can often find support contact details on the manufacturer's official website or through the retailer where the product was purchased.

