

LOTOS LTPDC2000D

LOTOS LTPDC2000D 3-in-1 Plasma Cutter TIG Stick Welder Combo Instruction Manual

Model: LTPDC2000D

Brand: LOTOS

1. INTRODUCTION

Thank you for choosing the LOTOS LTPDC2000D 3-in-1 Plasma Cutter, TIG, and Stick Welder Combo. This versatile machine is designed for both DIY enthusiasts and professional users, offering plasma cutting, TIG welding, and Stick (MMA) welding capabilities in a single, compact unit. This manual provides essential information for safe operation, setup, maintenance, and troubleshooting to ensure optimal performance and longevity of your equipment. The 2024 Upgraded Model features enhanced PC boards with additional IGBTs, providing a remarkable 25% increase in cutting power and improved welding performance. It also includes a newly designed torch for more precise cutting results and extended consumable life.

2. SAFETY INFORMATION

WARNING: Welding and plasma cutting can be hazardous. Always follow safety precautions to prevent injury or death.

- **Eye and Face Protection:** Always wear a welding helmet with appropriate shade lenses to protect your eyes and face from arc rays and sparks.
- **Respiratory Protection:** Ensure adequate ventilation or use a respirator to avoid inhaling fumes and gases produced during welding and cutting.
- **Protective Clothing:** Wear flame-resistant clothing, gloves, and sturdy footwear to protect against burns and electrical shock.
- **Fire Prevention:** Keep a fire extinguisher nearby. Remove all flammable materials from the work area. Sparks and hot metal can cause fires.
- **Electrical Safety:** Ensure the machine is properly grounded. Do not operate in wet conditions. Inspect cables and connections for damage before each use.
- **Work Area:** Keep the work area clean and free of clutter. Ensure stable footing.
- **Hot Surfaces:** Allow equipment and workpieces to cool before handling.

3. PACKAGE CONTENTS

Upon unpacking, please verify that all components are present and undamaged:

- LOTOS LTPDC2000D Power Supply Unit
- Plasma Cutting Torch
- TIG Welding Torch
- Stick (MMA) Electrode Rod Holder
- Ground Clamp
- Pre-installed NPT 1/4" Industry Type D Plug
- Air Filter Regulator
- Consumables (various tips, electrodes, cups)
- Instruction Manual (this document)



Image: The LOTOS LTPDC2000D 3-in-1 Plasma Cutter TIG Stick Welder Combo unit.



Image: Close-up of the upgraded plasma torch head and various consumables included with the unit.

Lower Your Cost: Upgraded Torch Head & Consumables More Precise & Durable



Image: The TIG welding torch and a set of TIG consumables, including collets and ceramic cups.

4. SETUP

The LOTOS LTPDC2000D is designed for quick and easy setup, typically within one minute.

1. **Power Connection:** Connect the power supply unit to an appropriate electrical outlet. The unit supports dual voltage (120V/240V) operation.
2. **Air Compressor Connection (for Plasma Cutting):** The pre-installed NPT 1/4" industry type D plug and air filter regulator allow for quick connection to your air compressor. Simply use the standard coupler existing on your air compressor to connect. Ensure your air compressor can provide sufficient clean, dry air pressure for plasma cutting.
3. **Torch and Clamp Connections:**
 - Connect the Plasma Cutting Torch, TIG Welding Torch, or Stick (MMA) Electrode Rod Holder to the corresponding ports on the front panel of the machine.
 - Attach the Ground Clamp to the designated ground terminal. Ensure a good electrical connection to the workpiece.
4. **Gas Connection (for TIG Welding):** If performing TIG welding, connect your Argon gas cylinder and regulator

(not included) to the gas inlet on the machine.

LOTOS LTPDC2000D



FRONT-MOUNTED REGULATOR:

- Convenient pressure adjustment for precise cutting



PRE-INSTALLED AIR FILTER:

- Set up within seconds
- No air leakage



Others



BACK-MOUNTED REGULATOR & GAUGE:

- Not easy to adjust & read



NOT PRE-INSTALLED AIR FILTER:

- Installation takes ~15 minutes
- Air leakage risk



Image: Illustration showing the convenience of the front-mounted regulator and the pre-installed air filter for quick setup and precise pressure adjustment.

5. OPERATING MODES

The LTPDC2000D offers three distinct operating modes: Plasma Cutting, TIG Welding, and Stick (MMA) Welding. Select the desired mode using the switches on the front panel.

5.1 Plasma Cutting

The Non-Touch Pilot Arc Plasma Cutter allows for efficient cutting through various surfaces without direct contact, minimizing slag and extending consumable life.

- **Current Output:** 10-50 AMP
- **Max Ideal Cut Thickness:** 5/8 inch (16mm)
- **Max Severance Thickness:** 3/4 inch (20mm)

- **Materials:** Stainless Steel, Alloy Steel, Mild Steel, Copper, Aluminum, and other conductive materials.
- **Pilot Arc Advantage:** Efficiently cuts through rough, painted, and rusty surfaces, producing minimal slag and ensuring improved cutting quality.

NON-TOUCH PILOT ARC PLASMA CUTTER

- Effortlessly cuts through rough, painted, and rusty surfaces for seamless operation.
- Produces minimal slag, resulting in cleaner and smoother cuts.
- Ensures improved cutting quality, delivering precise and accurate results.
- Extends consumable lifespan, reducing costs.

LOTOS Pilot Arc Plasma Cutter

Plasma Cutter WITHOUT Pilot Arc

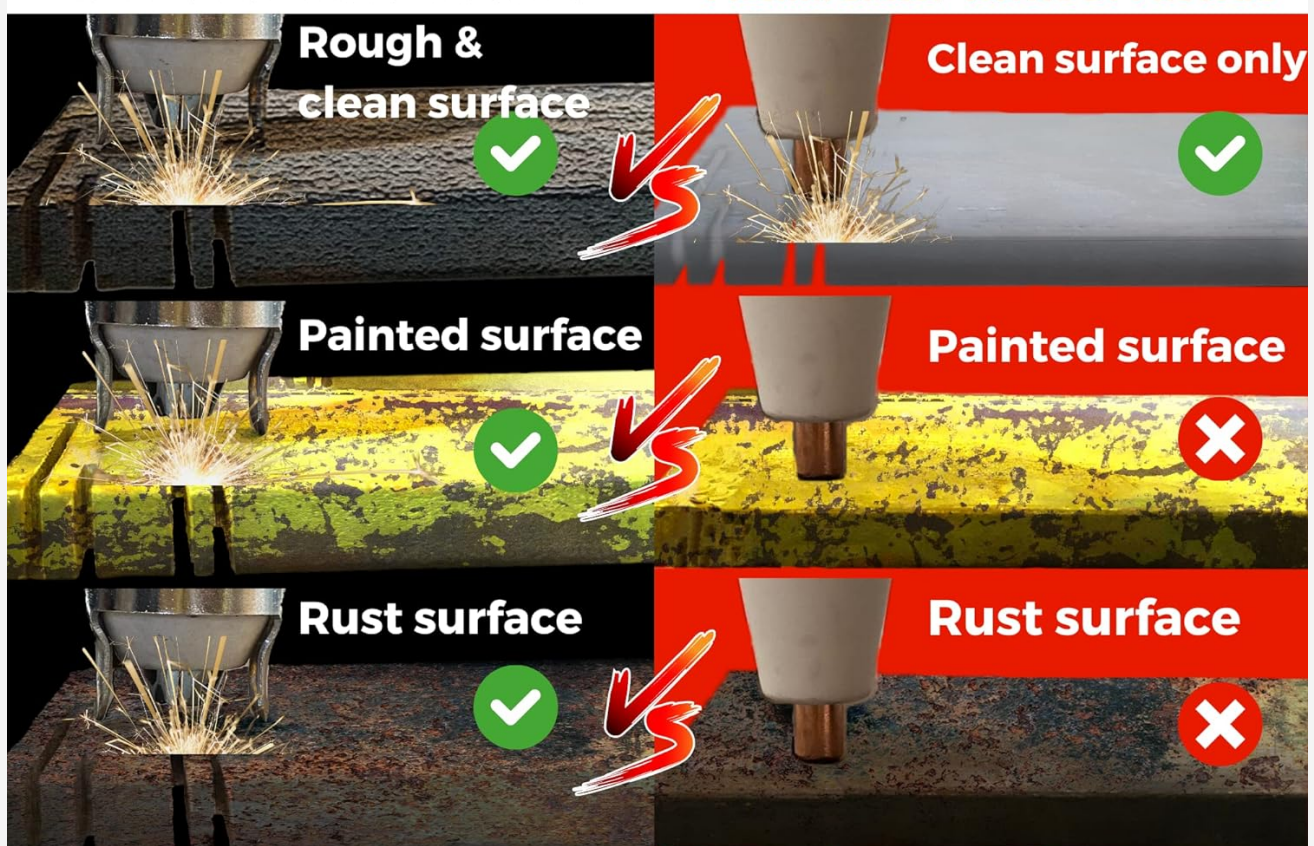


Image: Comparison illustrating how the Non-Touch Pilot Arc Plasma Cutter effectively cuts through clean, painted, and rusty surfaces, unlike traditional plasma cutters.

OUTPUT & PERFORMANCE: 5/8" CLEAN CUT 3/4" SEVERANCE CUT

- **2024 Upgraded** PC Boards Enhanced with Additional IGBTs
 - ★ 25% boost in Cutting Power & Speed
 - ★ 5/8 inch/16mm Clean Cut & 3/4 inch/20mm Max Severance Cut
- **New Designed Torch**
 - ★ More Precise Cutting Results and a Cleaner Cutting Edge



Image: Visual comparison of cutting thickness and quality, highlighting the LTPDC2000D's 5/8 inch clean cut capability compared to other torches.

5.2 TIG Welding

The TIG welding function provides precise and high-quality welds, especially on thinner gauge materials.

- **Current Output:** 15-200 AMP DC TIG
- **Materials:** Stainless Steel, Steel.
- **Features:** HF (High Frequency) arc start for clean starts, hand torch control.
- **Note:** Foot Pedal and Argon Regulator are NOT included and must be purchased separately for precise welding heat control.

5.3 Stick (MMA) Welding

The Stick/MMA welding mode is suitable for various electrode types and provides a stable arc for robust welds.

- **Current Output:** 15-200 AMP DC Stick/MMA
- **Features:** Easy ARC Start, stable welding arc, deep weld pool, beautiful welding shape.

- **Adjustable Hot Striking Arc Current:** Greatly improves the arc-starting function.
- **Electrode Compatibility:** Suitable for welding with different kinds of acid or basic electrodes.



Image: Visual representation of the machine's three functions: plasma cutting (CUT), TIG welding (TIG), and Stick welding (STICK), along with their respective amperage ranges and material capacities.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your LOTOS LTPDC2000D.

- **Cleaning:** Keep the machine clean and free of dust and debris. Use compressed air to blow out internal components periodically, especially cooling vents.
- **Connections:** Regularly check all electrical and gas connections for tightness and signs of wear or damage.
- **Consumables:** Inspect plasma torch consumables (tips, electrodes, shield cups) and TIG torch consumables (tungsten, collets, ceramic cups) regularly. Replace them when worn to maintain cutting/welding quality and extend torch life.
- **Air Filter:** Periodically check and clean or replace the air filter element to ensure a clean air supply for plasma cutting, which is crucial for performance and consumable life.

- **Storage:** Store the machine in a dry, clean environment when not in use.

7. TROUBLESHOOTING

If you encounter issues with your LTPDC2000D, refer to the following common troubleshooting steps:

- **No Power:** Check the power cord connection, wall outlet, and circuit breaker. Ensure the ON/OFF switch on the machine is in the 'ON' position.
- **No Arc/Poor Arc:**
 - Verify the ground clamp is securely attached to the workpiece and has good contact.
 - Check torch connections.
 - For Plasma: Ensure adequate air pressure and inspect plasma consumables for wear.
 - For TIG: Ensure Argon gas supply is open and flowing, and tungsten is properly sharpened and installed.
 - For Stick: Ensure the correct electrode is used for the material and amperage setting.
- **Overheat Indicator On:** The machine has thermal overload protection. If the indicator light is on, the machine has overheated. Turn off the machine and allow it to cool down for several minutes before resuming operation. Ensure proper ventilation.
- **Inconsistent Performance:** Check for loose connections, worn consumables, or insufficient power supply.

For more complex issues or if troubleshooting steps do not resolve the problem, please contact LOTOS Technical Support.

8. SPECIFICATIONS

Feature	Specification
Model Number	LTPDC2000D
Product Dimensions	17 x 8 x 12.5 inches
Weight	35.75 Pounds
Plasma Cutter Current Output	10-50 AMP
Plasma Cutter Max Ideal Cut Thickness	5/8 inch (16mm)
Plasma Cutter Max Severance Thickness	3/4 inch (20mm)
TIG Welder Current Output	15-200 AMP DC
Stick/MMA Welder Current Output	15-200 AMP DC
Technology	IGBT/MOSFET based High Frequency Inverter Technology, PWM
Country of Origin	China

LOTOS COMBO ADVANTAGES


Foot Pedal
Compatible*


Advanced
Cooling


IGBT
Technology


Lower
Your Cost


Intelligent
Safety


Low
Noise


Auto Dual
Voltage 120/240V


Instant
Pilot Arc



***Note: Foot Pedal NOT Included**

Image: Infographic highlighting key advantages of the LOTOS combo machine, including IGBT Technology, Advanced Cooling, Intelligent Safety, Low Noise, Auto Dual Voltage, and Instant Pilot Arc.

9. WARRANTY AND SUPPORT

LOTOS Technology is committed to providing excellent customer service and support for your product.

- **30-Day Money-Back Guarantee:** If you are not satisfied with your purchase, you may return it within 30 days for a full refund.
- **1-Year New Replacement Warranty:** The product is covered by a 1-year warranty for new replacements in case of manufacturing defects.
- **3-Year Limited Warranty:** A total 3-year limited warranty covers hardware issues.
- **Lifetime Technical Support:** LOTOS offers US-based lifetime technical support via phone or email to assist with any operational or technical questions.

To avail the warranty, please submit the warranty registration form on the official LOTOS website.



20+

Years

20+ years in the US Market



5,000,000+

Customers

5,000,000+ welders' Choice
Worldwide



US-Based

US-Based Customer Service

We Stand Behind Our Products

Your experience with **LOTOS** doesn't end with the purchase. It's the beginning of a long-lasting relationship built on **TRUST & SUPPORT**.

Image: A customer service representative smiling, symbolizing the USA-based customer support offered by LOTOS.