

LOTOS TIG200ACDC

LOTOS TIG200ACDC 200A AC/DC Aluminum Tig Welder Instruction Manual

Model: TIG200ACDC

1. INTRODUCTION

The LOTOS TIG200ACDC is a versatile 200A AC/DC TIG and DC Stick/MMA welder designed for a range of welding applications. It features a square-wave inverter for precise aluminum welding and dual voltage input for operational flexibility. This manual provides essential information for the safe and effective use of your welding machine.

- **Precise Aluminum Welding:** Features a 200A AC Square-wave inverter for accurate aluminum welding. Includes HF start hand torch control and precise foot pedal welding heat control. Suitable for welding stainless steel, mild steel, aluminum, and other conductive materials.
- **TIG Welding Capability:** Offers 10-200AMP AC/DC TIG electric current output. Enables quality TIG welding on aluminum, stainless steel, or mild steel, and precise welding of thinner-gauge materials. Power efficiency is 80%.
- **Stick/MMA Welding Capability:** Provides 15-200AMP DC Stick/MMA electric current output. Features easy arc start, stable welding arc, deep weld pool, and adjustable hot striking arc current to improve arc-starting function. Suitable for welding with various acid or basic electrodes.
- **Dual Voltage Input:** Automatic Dual Voltage / Dual Frequency (110/120 V and 220/240 V, 50/60Hz) for versatile power options.
- **Advanced Cooling System:** Ensures stable and durable high performance.

2. SAFETY PRECAUTIONS

Always prioritize safety when operating welding equipment. Failure to follow safety guidelines can result in serious injury or death. This product may expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

- Wear appropriate personal protective equipment (PPE), including welding helmet, gloves, and protective clothing.
- Ensure adequate ventilation in the work area to avoid inhaling fumes.

- Keep a fire extinguisher nearby.
- Do not operate the welder in damp or wet conditions.
- Always disconnect power before performing maintenance or changing accessories.
- Read and understand the entire instruction manual before operation.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- LOTOS TIG200ACDC Power Supply Unit
- TIG Torch
- MMA/Stick Clamp (Electrode Holder)
- Foot Pedal
- Argon Regulator
- 220V/110V Converter Pigtail
- Ground Clamp
- Consumable Set
- Instruction Manual

4. PRODUCT OVERVIEW

Familiarize yourself with the main components and controls of the LOTOS TIG200ACDC welder.

Welder Unit



Figure 1: Angled view of the LOTOS TIG200AC/DC welder unit.

Control Panel



Figure 2: Front control panel with various settings for amperage, pre-flow, post-flow, and clearance effect. The control panel includes knobs for adjusting amperage, pre-flow, post-flow, and clearance effect, along with switches for AC/DC, TIG/MMA, and power.

Included Accessories



Figure 3: TIG torch and consumable set.

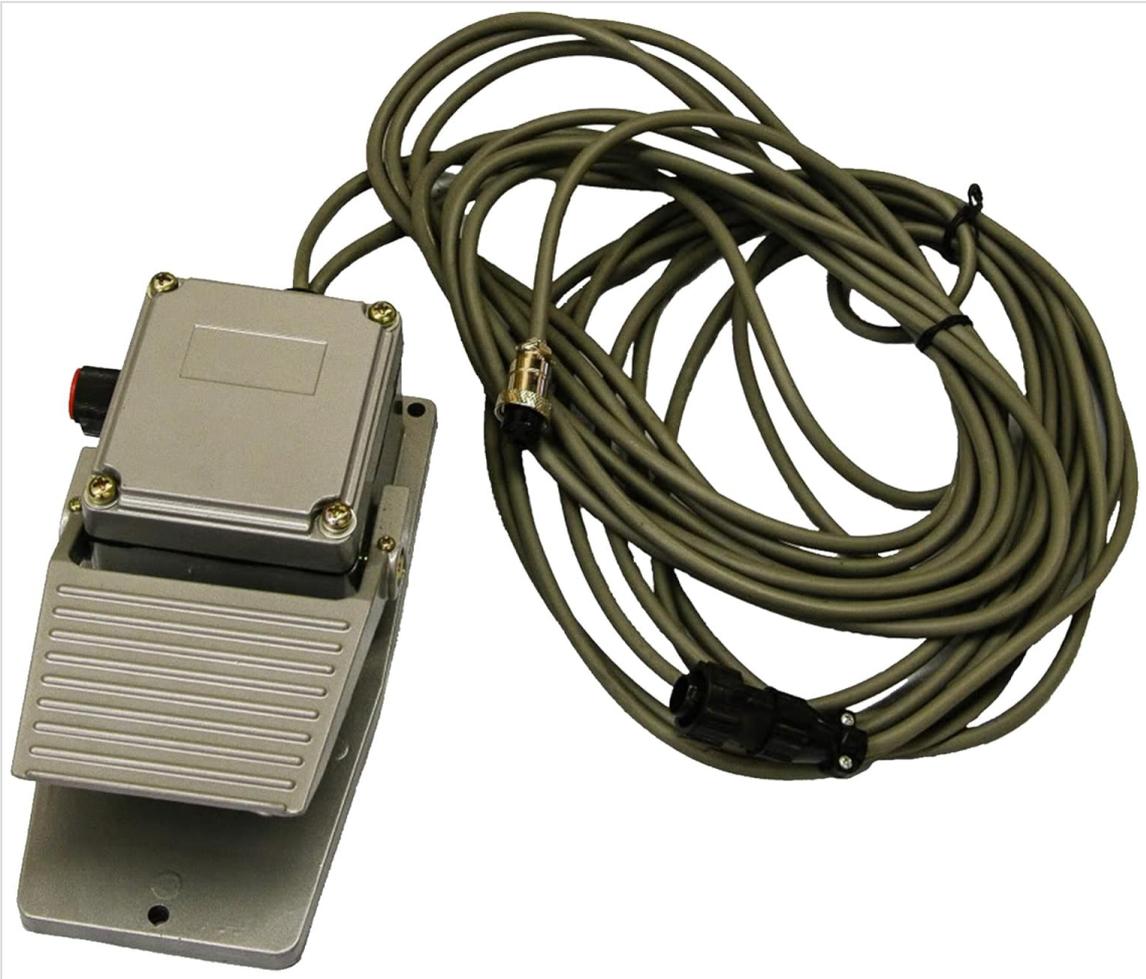


Figure 4: Foot pedal for remote amperage control.



Figure 5: MMA/Stick electrode holder.



Figure 6: Argon gas regulator.



Figure 7: 220V/110V converter pigtail.



Figure 8: Ground clamp.

5. SETUP

Proper setup is crucial for safe and effective welding. Follow these steps for initial machine configuration.

5.1 Power Connection

The LOTOS TIG200ACDC supports dual voltage input (110/120V or 220/240V). Use the appropriate power cord and converter pigtail for your power source.

- Ensure the welder's power switch is in the OFF position.
- Connect the main power cable to the welder.
- If using 110/120V, attach the 220V/110V converter pigtail to the main power cable, then plug into a suitable outlet.
- If using 220/240V, plug the main power cable directly into a suitable outlet.
- Verify the power source meets the welder's requirements.

5.2 Gas Connection (TIG Welding)

For TIG welding, an inert gas (Argon) is required.

- Attach the argon regulator to your argon gas cylinder.
- Connect the gas hose from the regulator to the gas inlet on the rear of the welder.
- Ensure all connections are tight to prevent gas leaks.

5.3 Torch and Clamp Connection

- Connect the TIG torch or MMA/Stick clamp to the appropriate terminals on the front panel.
- Connect the ground clamp to the workpiece. Ensure a clean, secure connection for optimal performance.
- If using the foot pedal, connect it to the designated port on the front panel.

Setup Overview Video



Video 1: An overview of the LOTOS TIG200ACDC welder, demonstrating its components and basic setup for operation.

6. OPERATING INSTRUCTIONS

This section details the operation of the LOTOS TIG200ACDC for both TIG and Stick/MMA welding modes.

6.1 TIG Welding

- Select the TIG mode on the control panel.
- Choose between AC (for aluminum) or DC (for stainless steel, mild steel) based on the material.
- Adjust the amperage using the main amperage knob or the foot pedal.
- Set Pre-Flow and Post-Flow times to ensure proper gas shielding before and after welding.
- Adjust Clearance Effect for AC TIG welding to control arc cleaning action on aluminum.
- Initiate the arc using the HF start on the torch.

6.2 Stick/MMA Welding

- Select the MMA mode on the control panel.
- Ensure the machine is set to DC output.
- Connect the MMA/Stick clamp and ground clamp.
- Adjust the amperage according to the electrode type and material thickness.
- The adjustable Hot Striking Arc Current feature assists in easier arc initiation.

6.3 Control Panel Settings

The control panel allows for fine-tuning of welding parameters:

- **Amperage (A):** Controls the welding current (10-200A).
- **Pre-Flow:** Sets the duration of gas flow before arc ignition (0.1s - 1s).
- **Clearance Effect:** Adjusts the balance between cleaning and penetration during AC TIG welding (-5 to +5).
- **Downslope:** Controls the time it takes for the current to decrease after releasing the trigger (1s - 10s).
- **Post-Flow:** Sets the duration of gas flow after the arc extinguishes (2s - 8s).

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your welder.

- **Cleaning:** Periodically clean the exterior of the machine and ensure cooling vents are free from dust and debris. Use compressed air to clear internal components if necessary, ensuring the machine is unplugged.
- **Cable Inspection:** Regularly inspect all cables, connections, and the TIG torch/MMA clamp for wear, damage, or loose connections. Replace damaged components immediately.
- **Consumables:** Replace TIG torch consumables (tungsten electrodes, collets, ceramic cups) as they wear out to maintain weld quality.
- **Gas Regulator:** Check the argon regulator for proper function and leaks.

8. TROUBLESHOOTING

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

- **No Power:** Check power connections, circuit breaker, and ensure the power switch on the welder is ON. Verify correct voltage input.
- **No Arc:** Ensure the ground clamp is securely attached to the workpiece. Check torch connections and consumables. For TIG, verify gas flow.
- **Poor Weld Quality:** Adjust amperage, gas flow, and travel speed. Inspect consumables for wear. Ensure the workpiece is clean.
- **Amperage Knob Not Responding (with foot pedal):** If the foot pedal is connected, it may override the panel amperage knob. Disconnect the foot pedal if you intend to use the panel knob for amperage control.
- **Overheating:** Allow the machine to cool down. Ensure cooling vents are clear and the duty cycle is not exceeded.

For persistent issues, contact customer support.

9. SPECIFICATIONS

Feature	Specification
Model	TIG200ACDC
Manufacturer	Lotos Technology

Feature	Specification
Item Weight	58 pounds
Product Dimensions	28 x 13 x 17 inches
Voltage Input	110/120 V, 220/240 V
Frequency	50/60Hz
TIG Current Output	10-200 AMP (AC/DC)
Stick/MMA Current Output	15-200 AMP (DC)
Power Efficiency	80%
Installation Method	TIG-Welding
Material	200A ACDC

10. WARRANTY AND SUPPORT

LOTOS Technology is committed to customer satisfaction and product reliability.

- **Money-Back Guarantee:** A 30-day money-back guarantee is offered.
- **New Replacement Warranty:** A 3-year new replacement warranty is provided.
- **Limited Warranty:** A total 5-year limited warranty is available upon warranty registration on the official LOTOS website.
- **Customer Service:** USA-based customer service is available via phone and email to assist with any inquiries or support needs.

Please register your product on the LOTOS website to activate your warranty.