

TOOLIOM TL-135S

TOOLIOM 135A 110V Mini Stick Welder Instruction Manual

Model: TL-135S | Brand: TOOLIOM

1. INTRODUCTION

The TOOLIOM 135A 110V Mini Stick Welder is a portable 2-in-1 MMA (Manual Metal Arc) / Lift TIG (Tungsten Inert Gas) welding machine. It is designed for various welding tasks, offering versatility and ease of use. This welder incorporates an IGBT inverter power system, making it suitable for welding mild steel, cast iron, stainless steel, and for hard surfacing applications. Its compact and lightweight design, weighing approximately 8.73 pounds, includes an adjustable shoulder strap for convenient portability between job sites or for home use. The unit operates on standard 110V household voltage and features built-in functions such as anti-stick, arc force, and hot start to facilitate easier arc ignition and stable welding, particularly beneficial for beginners. A digital display provides clear current readings and trouble indications.

2. SAFETY INFORMATION

VOLTAGE WARNING: This welder is designed for 110V input only. Connecting it to a 220V power source will cause immediate damage to the unit and poses a significant fire risk. Always verify your outlet voltage before connecting the welder.

Welding operations involve inherent risks including high heat, electrical current, ultraviolet radiation, and hazardous fumes. Adhere to all safety guidelines to prevent injury or damage. Always wear appropriate personal protective equipment (PPE), which includes a welding helmet with a suitable shade, flame-resistant gloves, and protective clothing. Ensure your work area is well-ventilated to disperse welding fumes. Keep a fire extinguisher nearby and be aware of your surroundings. Read and understand all safety precautions in this manual and on the product labels before operating this equipment.

3. PACKAGE CONTENTS

Upon unpacking, verify that all components are present:

- Power Adapter Cord
- Work Clamp
- Electrode Holder
- Shoulder Strap

4. PRODUCT OVERVIEW

4.1. Panel Introduction

Familiarize yourself with the main components of the welder:



Image: Front panel of the TOOLIOM 135A Mini Stick Welder. Key components are numbered for identification.

1. **Current Adjustment Knob:** Used to set the welding current (amperage).
2. **Alarm LED:** Illuminates to indicate an error or overheating condition.
3. **LCD Display:** Shows the current welding amperage and error codes.
4. **Positive Terminal (+):** Connection point for the electrode holder or work clamp, depending on polarity.
5. **Negative Terminal (-):** Connection point for the electrode holder or work clamp, depending on polarity.

4.2. Key Features

- **Advanced IGBT Technology:** Ensures stable arc and efficient power conversion for excellent welding results.

Connect the power adapter cord to the welder and then to a standard 110V household outlet. Ensure the outlet is properly

For MMA welding, connect the electrode holder and work clamp to the appropriate terminals based on the desired polarity.



EP (Direct Current Electrode Positive): Connect the work clamp to the Negative Connector (-) on the welder.



STICK

6011 / 6013 / 7018

Connect the Work Clamp to the Negative Connector (-) on the Welder.

DCEP

Image: DCEN (Direct Current Electrode Negative) connection. Work clamp to positive (+), electrode holder to negative (-).

DCEN (Direct Current Electrode Negative): Connect the work clamp to the Positive Connector (+) on the welder. Connect the electrode holder to the Negative Connector (-) on the welder. This polarity is often used for electrodes like 6010, 6011, and 6013.

5.3. Lift TIG Welding Setup

The TOOLIOM 135A supports Lift TIG welding. A Lift TIG torch (model TL-WP-17V-10-25) is not included and must be purchased separately.



STICK

Connect the Work Clamp to the Positive Connector {+} on the Welder.

DCEN

Image: Lift TIG connection setup. Work clamp connects to the positive (+) terminal, and the Lift TIG torch connects to the negative (-) terminal.

Connection: Connect the work clamp to the positive (+) terminal. Connect the Lift TIG torch to the negative (-) terminal.

6. OPERATING INSTRUCTIONS

6.1. General Operation Steps

1. Ensure all safety precautions are followed and appropriate PPE is worn.
2. Connect the welder to a 110V power source.
3. Connect the welding cables (electrode holder and work clamp) according to the desired welding process (MMA or Lift TIG) and polarity.
4. Select the appropriate electrode (for MMA) or tungsten (for Lift TIG) and insert it into the holder.

5. Turn on the welder. The LCD display will show the current setting.
6. Adjust the welding current using the Current Adjustment Knob to match your material thickness and electrode type. Refer to the Welding Parameters table.
7. Securely attach the work clamp to the workpiece, ensuring good electrical contact.
8. Begin welding, maintaining a stable arc and proper technique.
9. After welding, turn off the welder and allow it to cool before storing.

6.2. Built-in Welding Features

The TOOLIOM 135A welder includes intelligent features to enhance welding performance:

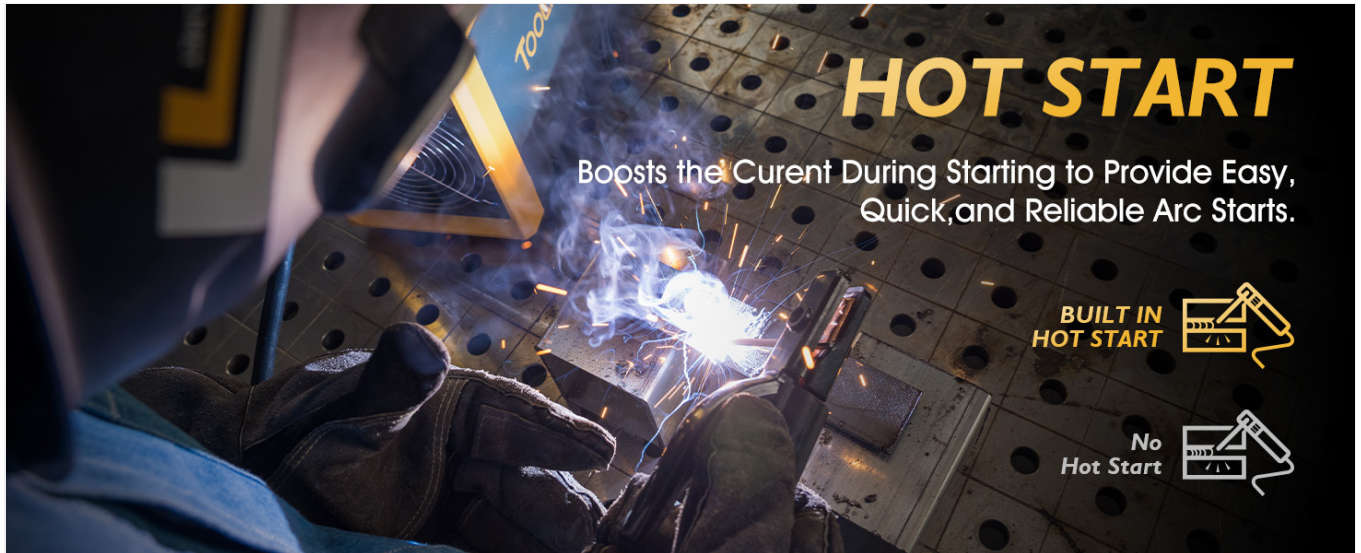


Image: Hot Start feature. Boosts current for easy arc ignition.

Hot Start: This function automatically increases the welding current at the beginning of the weld, making arc ignition easier and more reliable, especially with difficult-to-start electrodes.



Image: Anti-Stick feature. Prevents electrode from sticking.

Anti-Stick: If the electrode sticks to the workpiece, the Anti-Stick function reduces the welding current, preventing the electrode from overheating and making it easier to remove without damaging the electrode holder.



Image: Arc Force feature. Maintains arc stability.

Arc Force: This feature provides a temporary increase in current when the arc length shortens, preventing the arc from extinguishing and ensuring a more stable and consistent weld, especially when welding in challenging positions.

7. WELDING PARAMETERS

The following table provides recommended welding current settings for various electrode types and diameters. These are general guidelines; actual settings may vary based on material, joint type, and operator skill.

Recommended Welding Current (MMA)

Electrodes	Diameter of Electrode (inch)	Recommended Welding Current (A)
E6011	1.6mm	20A-50A
E6013	2.4mm	50A-80A
E7018	3.2mm	80A-135A



Image: Visual representation of the welding parameters table, indicating electrode types, diameters, and recommended current ranges.

8. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your welding machine.

- **Cleaning:** Periodically clean the welder's exterior with a dry, soft cloth. Use compressed air to clear dust and debris from the ventilation openings. Ensure the machine is unplugged before cleaning.
- **Cable Inspection:** Regularly inspect all welding cables, connections, and the power cord for any signs of damage, fraying, or loose connections. Replace damaged components immediately.
- **Storage:** Store the welder in a clean, dry environment, away from excessive dust, moisture, and corrosive materials.

9. TROUBLESHOOTING

If you encounter issues with your TOOLIOM 135A Mini Stick Welder, refer to the following common troubleshooting steps:

- **No Power:** Check the power cord connection, the wall outlet, and ensure the welder's power switch is in the 'ON' position.

position. Verify the circuit breaker has not tripped.

- **No Arc:** Ensure the work clamp has good electrical contact with the workpiece. Check that the electrode is properly inserted into the holder and that all cable connections are secure. Adjust the current setting.
- **Weak Arc / Poor Weld:** Verify the correct current setting for your electrode and material. Ensure the electrode is dry and in good condition. Check for proper polarity.
- **Overheating (Alarm LED On):** If the Alarm LED illuminates, the machine may be overheating. Stop welding and allow the unit to cool down. Ensure ventilation openings are clear and the ambient temperature is within operating limits.
- **Error Codes on LCD:** If an error code appears on the LCD display, consult the full user manual (if provided separately) or contact TOOLIOM customer support for specific guidance.

10. SPECIFICATIONS

Feature	Specification
Model Number	TL-135S
Input Voltage	110V
MMA Output Current Range	20A - 135A
Lift TIG Output Current Range	15A - 135A
Item Weight	8.73 pounds
Package Dimensions	12.24 x 8.19 x 7.32 inches
Manufacturer	TOOLIOM
Electrode Compatibility	6011/6013/7018 (up to 3.2mm)

11. OFFICIAL PRODUCT VIDEOS

Watch these official videos for additional guidance on using your TOOLIOM 135A Mini Stick Welder.

TOOLIOM 135A Stick Welder Portable Welding Machine

Your browser does not support the video tag.

Video: An official product video demonstrating the features and portability of the TOOLIOM 135A Stick Welder. This video provides a visual guide to the machine's capabilities and ease of use.

12. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact TOOLIOM customer service directly. Keep your purchase receipt and product model number (TL-135S) handy when contacting support. Refer to the manufacturer's official website or the product packaging for the most current contact details and warranty terms.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question

and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question