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› SSIMDER MIG Welder 5 in 1 Plastic welding/Soldering iron/Flux MIG/Stick/TIG welding Machine 110V/220v Dual Voltage multiprocess Welder with Plastic Repair Torch Soldering Torch Plastic Welder

S SIMDER SD-5010PRO-US

SSIMDER MIG Welder SD-5010PRO-US Instruction Manual

Model: SD-5010PRO-US | Brand: S SIMDER

1. INTRODUCTION

The SSIMDER SD-5010PRO-US is a state-of-the-art 5-in-1 multiprocess welding machine designed for a wide range of applications. This versatile unit integrates MIG welding, Stick (MMA) welding, TIG welding, Plastic welding (Hot Stapler), and Soldering iron functions into a single, portable device. Its dual voltage capability allows for flexible operation in various environments. This manual provides essential information for safe and effective operation, maintenance, and troubleshooting.

5 IN 1 Process Welder

Stick Welding



Lift TIG



Flux Core MIG



Plastic Welding



Soldering Iron



Figure 1: Overview of the SSIMDER SD-5010PRO-US 5-in-1 welding processes.

2. SAFETY INFORMATION

Always prioritize safety when operating welding equipment. Failure to follow safety guidelines can result in serious injury or property damage.

- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including a welding helmet with proper shade, flame-resistant clothing, welding gloves, and safety shoes.
- **Ventilation:** Ensure adequate ventilation in the work area to avoid inhaling hazardous fumes and gases.
- **Fire Hazards:** Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Electrical Safety:** Ensure the welding machine is properly grounded. Do not operate in wet conditions. Inspect cables and connections for damage before each use.
- **Eye and Skin Protection:** Welding arcs emit intense UV and IR radiation that can cause severe burns to eyes and skin.
- **Hot Surfaces:** Welding equipment and materials become extremely hot during operation. Allow sufficient time for cooling before handling.

Figure 2: The SSIMDER SD-5010PRO-US includes multiple safety features for user protection.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- SSIMDER SD-5010PRO-US Welder Unit
- MIG Torch
- Plastic Repair Torch
- Electrode Holder
- Soldering Torch
- Ground Clamp
- Conversion Cord (for dual voltage)
- Operation Manual
- Plastic Welding Staples Kit (200 Pcs)

ACCESSORIES



Soldering Torch



Plastic Repair Torch



MIG Torch



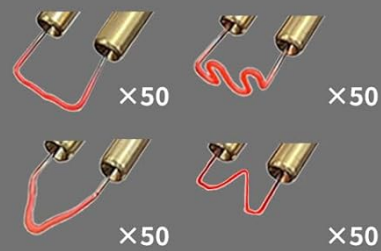
Electrode Holder



Ground Clamp



Operation Manual



Plastic Welding Staples Kit
*200Pcs

Figure 3: All accessories included with the SSIMDER SD-5010PRO-US welder kit.

4. SETUP

4.1 Dual Voltage Connection

The SSIMDER SD-5010PRO-US supports both 110V and 220V power inputs. Use the provided conversion cord to adapt to your available power supply. The machine automatically detects the voltage.



Figure 4: The welder supports both 110V for lightweight work and 220V for construction site work.

4.2 Connecting Accessories

Connect the appropriate torch or holder to the designated ports on the front panel of the welder. Ensure connections are secure before operation.

- **MIG Torch:** Connect for MIG welding operations.
- **Electrode Holder:** Connect for Stick (MMA) welding.
- **Ground Clamp:** Always connect the ground clamp to the workpiece before starting any welding process.
- **Plastic Repair Torch:** Connect for plastic welding/hot stapling.
- **Soldering Torch:** Connect for soldering iron applications.

5. OPERATING MODES

The SSIMDER SD-5010PRO-US features an intuitive LCD screen and control knobs for easy mode selection and adjustment.



Figure 5: The LCD screen provides convenient viewing and operation.

5.1 Plastic Welding (Hot Stapler)

The plastic welding function is ideal for repairing plastic components. The 200W plastic welding gun heats up to 600°C (1112°F) in approximately 2.5 seconds.

LCD SCREEN

More convenient to view and operate



Figure 6: Plastic welding in action, ideal for repairs.

Your browser does not support the video tag. Please update your browser.

Video 1: Demonstration of the hot stapler function. The video shows the hot stapler heating up quickly (0:17-0:22) and its application on plastic (1:06-2:22, 3:55-4:50).

5.2 Soldering Iron

The 90W soldering iron is suitable for delicate electronics and intricate soldering tasks. It reaches temperatures between 100°C and 500°C (212°F to 932°F) in approximately 15 seconds.



Figure 7: Soldering iron in use for electronic components.

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Video 2: Demonstration of the soldering iron function. The video shows the soldering iron being prepared and used to solder wires (5:10-6:15, 7:12-8:30).

5.3 MIG Welding (Flux Core)

For metal fabrication, the MIG welding function supports flux cored wires of 0.8 mm, 0.9 mm, and 1.0 mm. This mode provides efficient and strong welds for various metal projects.



Figure 8: MIG welding for robust metal fabrication.

5.4 Stick (MMA) Welding

The Stick welding mode is compatible with E7018 and E6013 welding rods, making it suitable for a variety of applications, from home repairs to professional tasks. The unique IGBT control mode ensures good arc stability for smoother welds.



Figure 9: MMA welding for general purpose applications.

5.5 TIG Welding

For precision tasks, the TIG welding function provides clean and accurate welds, especially useful for thinner materials and detailed work.



Figure 10: TIG welding for high-precision applications.

6. MAINTENANCE

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

- **Cleaning:** Regularly clean the exterior of the machine and ventilation openings to prevent dust and debris buildup. Use a dry, soft cloth.
- **Cable Inspection:** Periodically inspect all cables, torches, and connections for wear, cuts, or damage. Replace any damaged components immediately.
- **Storage:** Store the welder in a dry, clean environment away from direct sunlight and extreme temperatures.
- **Consumables:** Ensure proper storage of welding rods, wires, and soldering wire to maintain their quality.

7. TROUBLESHOOTING

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

- **No Power:** Check the power cord connection, wall outlet, and circuit breaker. Ensure the machine's power switch is in the 'ON' position.
- **Poor Arc/Weld Quality:** Verify proper grounding of the workpiece. Check welding parameters (amperage, voltage, wire speed) for the material and thickness. Ensure consumables (rods, wire, tips) are correct and in good condition.
- **Overheating:** If the machine shuts down due to overheating, allow it to cool down. Ensure ventilation openings are clear and the duty cycle is not exceeded.
- **Plastic Welder Not Heating:** Check the connection of the plastic repair torch to the unit. Ensure the correct mode is selected and temperature is set.
- **Soldering Iron Not Heating:** Verify the soldering torch is securely connected. Ensure the soldering iron mode is active and the temperature is set appropriately.

8. SPECIFICATIONS

Feature	Specification
Manufacturer	S SIMDER
Part Number	SD-5010PRO-US
Item Weight	17.21 pounds
Package Dimensions	15.5 x 12.88 x 10 inches
Item Model Number	SD-5010PRO-US
Voltage	110V/220V (Dual Voltage)
Plastic Welding Gun Power	200W
Plastic Welding Gun Temp.	Up to 600°C (1112°F)
Soldering Iron Power	90W
Soldering Iron Temp. Range	100°C - 500°C (212°F - 932°F)
Supported Flux Cored Wires	0.8 mm, 0.9 mm, 1.0 mm
Compatible Welding Rods	E7018, E6013
Date First Available	August 23, 2024

9. WARRANTY AND SUPPORT

S SIMDER is committed to providing reliable tools and excellent customer service. For any questions, technical support, or warranty claims, please refer to the contact information provided in your product packaging or visit the official S SIMDER website.