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› ESAB MINIARC Rogue ES 130i Stick Welding System User Manual

ESAB 0700500091

ESAB MINIARC Rogue ES 130i Stick Welding System

USER INSTRUCTION MANUAL

Model: 0700500091 | Brand: ESAB

1. INTRODUCTION

The ESAB Rogue ES 130i is a robust and durable power source designed for professional welders. It delivers state-of-the-art welding performance and reliability through advanced power electronics and digital control, ensuring a precise and consistent arc. This system provides smooth DC (Direct Current) welding power, suitable for a variety of metals including alloyed and non-alloyed steel, stainless steel, and cast iron.

Key features include adjustable Arc Force and Hot Start settings, allowing users to fine-tune the arc for specific tasks. Its digital micro-processor precisely controls all functions, providing best-in-class welding performance across its amperage range. The Rogue ES 130i also supports TIG welding with a "Live TIG" start when equipped with an optional TIG-Torch, gas valve, and regulator.



Figure 1.1: The ESAB Rogue ES 130i Stick Welding System, including the main unit, electrode holder, ground clamp, and power adapter.

Product Highlights:

- **Dual Voltage Input:** Supports flexible power connections for various work environments.
- **Superior Arc Characteristics:** Provides smooth and stable performance, including a special mode for Stick 6010 electrodes.
- **Generator Compliant:** Recommended for use with a 7kW generator.
- **User-Friendly Operation:** Simple current setting for excellent welding results.
- **Portable Design:** Practical and easy to carry, suitable for various worksites.
- **Robust Construction:** IP23S rated, designed for fabrication shops or site applications.
- **Power Factor Control (PFC):** Ensures a stable arc, resistant to power fluctuations, even with long extension cables (up to 300 feet, 12 AWG size).

2. SAFETY INFORMATION

Welding operations can be hazardous. It is crucial to read and understand all safety precautions before operating the ESAB Rogue ES 130i. Failure to follow safety guidelines can result in serious injury or death.

General Welding Safety:

- **Electric Shock:** Can kill. Do not touch live electrical parts. Wear dry welding gloves and protective clothing. Ensure the workpiece is properly grounded.
- **Fumes and Gases:** Can be hazardous to your health. Keep your head out of the fumes. Use ventilation or exhaust to remove fumes from the breathing zone.

- **Arc Rays:** Can burn eyes and skin. Wear a welding helmet with a proper shade filter. Use protective clothing to cover exposed skin.
- **Fire and Explosion:** Welding can cause fire or explosion. Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Hot Parts:** Can cause severe burns. Allow hot parts to cool before handling. Use insulated tools and gloves.
- **Noise:** Excessive noise can damage hearing. Wear ear protection.

Electrical Safety:

- Ensure the power source is connected to a properly grounded electrical supply.
- Inspect all cables and connections for damage before each use. Replace damaged cables immediately.
- Do not operate the welder in wet conditions or damp environments.
- Always disconnect power before performing any maintenance or service.

3. SETUP AND CONNECTIONS

Proper setup is essential for safe and effective welding. Follow these steps to prepare your ESAB Rogue ES 130i for operation.

3.1. Unpacking and Inspection:

- Carefully remove the welding system from its packaging.
- Inspect all components for any signs of shipping damage. Report any damage to your supplier immediately.
- Ensure all listed components are present: welding power source, electrode holder with cable, ground clamp with cable, and power adapter.

3.2. Power Connection:

The Rogue ES 130i features dual voltage input. Connect the power cord to a suitable grounded electrical outlet. Ensure the power supply matches the voltage requirements of the unit (120V or 230V AC).



Figure 3.1: Rear view of the ESAB Rogue ES 130i, illustrating the power input connection.

3.3. Electrode Holder and Ground Clamp Connection:

- Connect the electrode holder cable to the positive (+) terminal on the front panel of the welder.
- Connect the ground clamp cable to the negative (-) terminal on the front panel.
- Securely attach the ground clamp to the workpiece or work table, ensuring good electrical contact. The ground connection must be clean and free of paint, rust, or other insulating materials.



Figure 3.2: Front view of the ESAB Rogue ES 130i, showing the connection points for the electrode holder and ground clamp.

4. OPERATING INSTRUCTIONS

This section provides guidance on operating your ESAB Rogue ES 130i for optimal welding performance.

4.1. Control Panel Overview:

Familiarize yourself with the control panel for setting welding parameters.



Figure 4.1: Close-up view of the ESAB Rogue ES 130i control panel, displaying the digital amperage readout and control knobs.

- **Digital Display:** Shows the set welding current (amperage).
- **Current Adjustment Knob:** Used to set the desired welding amperage.
- **Mode Selection:** Allows selection between Stick (SMAW) and Live TIG (GTAW) modes.
- **Arc Force/Hot Start Adjustment:** Buttons to fine-tune arc characteristics for better arc stability and easier starting.
- **6010 Mode:** Dedicated setting for optimized performance with 6010 electrodes.

4.2. Stick Welding (SMAW):

- **Electrode Selection:** Choose the appropriate electrode type and diameter for your material and application. The Rogue ES 130i supports electrodes up to 1/8 inch.
- **Current Setting:** Refer to the electrode manufacturer's recommendations for amperage settings. Adjust the current adjustment knob to the desired value on the digital display.
- **Arc Force/Hot Start:** Experiment with these settings to achieve the best arc stability and penetration for your specific welding conditions.
- **Welding Technique:** Maintain a consistent arc length and travel speed. Practice on scrap material before welding your final piece.

4.3. Live TIG Welding (GTAW - Optional):

To perform TIG welding, you will need an optional TIG-Torch with a built-in gas valve and regulator, and a cylinder of shielding gas (e.g., Argon).

- **Connect TIG Torch:** Attach the TIG torch to the appropriate terminal on the welder.
- **Gas Connection:** Connect the gas hose from the TIG torch to your shielding gas regulator.
- **Select TIG Mode:** Switch the welder to TIG mode.
- **Live TIG Start:** Initiate the arc by briefly touching the tungsten electrode to the workpiece and then lifting it slightly.

- **Welding:** Maintain a consistent arc length and feed filler material if required.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your ESAB Rogue ES 130i.

- **Cleaning:** Periodically clean the exterior of the unit with a dry, soft cloth. Use compressed air to blow out dust and debris from the cooling vents. Ensure the power is disconnected before cleaning.
- **Cable Inspection:** Regularly inspect welding cables, electrode holder, and ground clamp for cuts, cracks, or loose connections. Replace damaged components immediately.
- **Storage:** Store the welder in a clean, dry environment, away from excessive dust, moisture, and extreme temperatures.
- **Fan Operation:** Ensure the cooling fan operates freely and is not obstructed.

6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your ESAB Rogue ES 130i.

Problem	Possible Cause	Solution
Welder does not power on.	No power from outlet; power cord damaged; internal fuse blown.	Check power outlet and circuit breaker. Inspect power cord for damage. Contact service if fuse is suspected.
No arc or weak arc.	Poor ground connection; incorrect amperage setting; damp electrodes; faulty cables.	Ensure ground clamp has good contact. Increase amperage. Use dry electrodes. Inspect and replace cables if damaged.
Arc is unstable or sputters.	Incorrect Arc Force setting; improper electrode angle/travel speed; material contamination.	Adjust Arc Force. Improve welding technique. Clean workpiece thoroughly.
Overheat indicator active.	Exceeded duty cycle; obstructed cooling vents; high ambient temperature.	Allow unit to cool down. Ensure vents are clear. Operate in a well-ventilated area.

If you encounter issues not listed here or if solutions do not resolve the problem, please contact ESAB customer support or an authorized service center.

7. TECHNICAL SPECIFICATIONS

Specification	Detail
Model Number	0700500091
Manufacturer	ESAB
Product Type	Stick Welding System (SMAW), Live TIG (GTAW capable)

Specification	Detail
Power Source	AC, Dual Voltage Input
Input Voltage	120V / 230V
Max Electrode Diameter	Up to 1/8 inch
Item Weight	18 pounds
Product Dimensions (L x W x H)	18.5 x 14 x 9.5 inches
IP Rating	IP23S
Included Components	Stick Welder, Electrode Holder, Ground Clamp
Special Features	Adjustable Hot Start/Arc Force, Stick 6010 Mode, Power Factor Control (PFC)

8. WARRANTY AND SUPPORT

The ESAB Rogue ES 130i Stick Welding System is covered by a Manufacturer Warranty. For specific terms and conditions of the warranty, please refer to the documentation included with your product or visit the official ESAB website.

For technical support, service, or warranty claims, please contact ESAB customer service. You can find contact information on the ESAB official website or through your authorized dealer.

ESAB Official Website: www.esab.com

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