

## AWELCO PR3436

# AWELCO PROWELTEK ARC 250 Inverter Welder User Manual

Model: PR3436

## 1. INTRODUCTION

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Welcome to the user manual for your AWELCO PROWELTEK ARC 250 Inverter Welder. This document provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your welding machine. Please read this manual thoroughly before operating the device and keep it for future reference.

## 2. IMPORTANT SAFETY INSTRUCTIONS

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Always follow these safety precautions to prevent injury or damage to the equipment:

- **Eye and Face Protection:** Always wear a welding helmet with appropriate shade lenses and safety glasses underneath to protect against arc flash and sparks.
- **Body Protection:** Wear flame-resistant clothing, welding gloves, and protective footwear.
- **Ventilation:** Ensure adequate ventilation in the work area to disperse welding fumes. Avoid breathing fumes directly.
- **Electrical Safety:** Never operate the welder in wet conditions. Ensure the power cord and connections are in good condition. Disconnect power before performing any maintenance or adjustments.
- **Fire Prevention:** Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Work Area:** Keep the work area clean and free of clutter. Ensure stable footing.
- **Children and Bystanders:** Keep children and unauthorized persons away from the welding area.

## 3. PACKAGE CONTENTS

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Please check the package to ensure all the following items are included:

- AWELCO PROWELTEK ARC 250 Inverter Welder Unit
- Electrode Holder with Cable
- Ground Clamp with Cable

- Welding Mask (basic)



Image: The AWELCO PROWELTEK ARC 250 Inverter Welder shown with its included electrode holder, ground clamp, and connecting cables.

## 4. PRODUCT OVERVIEW

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Familiarize yourself with the main components of your ARC 250 Inverter Welder.

### Front Panel



Image: Front view of the AWELCO PROWELTEK ARC 250 Inverter Welder, highlighting the control panel, electrode holder connection, and ground clamp connection.

- **Amperage Control Knob:** Adjusts the welding current.
- **Digital Display:** Shows the current amperage setting.

- **Indicator Lights:** Power (green), Overload/Overheat (red).
- **Electrode Holder Connection:** Positive (+) terminal for the electrode holder.
- **Ground Clamp Connection:** Negative (-) terminal for the ground clamp.

## Rear Panel



Image: Rear view of the AWELCO PROWELTEK ARC 250 Inverter Welder, showing the main power switch and the cooling fan.

- **Power Switch:** Turns the welder ON/OFF.
- **Cooling Fan:** Provides essential cooling during operation. Ensure it is not obstructed.
- **Power Cord:** Connects the welder to the main power supply.

## Control Panel Detail



Image: A detailed view of the control panel on the AWELCO PROWELTEK ARC 250, showing the amperage adjustment knob and the digital display for current settings.

## 5. SETUP

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### 5.1 Connecting Welding Cables

1. Ensure the welder is turned OFF and unplugged from the power source.
2. Connect the electrode holder cable to the positive (+) terminal on the front panel. Twist to secure.
3. Connect the ground clamp cable to the negative (-) terminal on the front panel. Twist to secure.
4. Attach the ground clamp securely to the workpiece or a clean, bare metal part of the welding table. Ensure good electrical contact.



Image: The electrode holder and ground clamp with their respective cables, ready for connection to the welder.

## 5.2 Power Connection

1. Ensure the power switch on the rear panel is in the OFF position.
2. Plug the welder's power cord into a suitable electrical outlet. Verify that the power supply matches the welder's requirements (voltage and amperage).

## 6. OPERATING INSTRUCTIONS

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### 6.1 Basic Welding Procedure

1. **Prepare Workpiece:** Clean the workpiece thoroughly to remove rust, paint, oil, or other contaminants.
2. **Select Electrode:** Choose an electrode suitable for your material and welding task (e.g., rutile, basic, stainless steel, cast iron).
3. **Insert Electrode:** Securely insert the electrode into the electrode holder.
4. **Set Amperage:** Turn the welder ON using the rear power switch. Adjust the amperage control knob to the recommended setting for your chosen electrode and material thickness. The digital display will show the current setting.
5. **Wear Safety Gear:** Put on your welding helmet, gloves, and other protective gear.
6. **Start Arc:** Strike the electrode against the workpiece to initiate the arc. Maintain a consistent arc length and travel speed.
7. **Weld:** Guide the electrode along the joint, maintaining the correct angle and travel speed.
8. **Finish:** When finished, lift the electrode, turn off the welder, and allow the workpiece to cool before handling.

### 6.2 Amperage Adjustment

The optimal amperage setting depends on the electrode diameter, material type, and thickness. Refer to the electrode manufacturer's recommendations. Start with a lower setting and gradually increase until a stable arc and good weld penetration are achieved.

### 6.3 Safety Gear

Always use the provided welding mask or a higher-quality auto-darkening helmet for optimal protection. Welding produces intense light and heat that can cause severe eye and skin damage.



Image: A basic welding mask, essential for protecting the eyes and face from arc flash and sparks during welding operations.

## 7. MAINTENANCE

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Regular maintenance ensures the longevity and safe operation of your welder.

- **Cleaning:** Periodically clean the exterior of the welder with a dry cloth. Use compressed air to blow out dust from the cooling vents. Ensure the welder is unplugged before cleaning.
- **Cable Inspection:** Regularly inspect welding cables, electrode holder, and ground clamp for damage, cuts, or loose connections. Replace damaged components immediately.
- **Storage:** Store the welder in a dry, clean, and well-ventilated area, away from direct sunlight and extreme temperatures.

## 8. TROUBLESHOOTING

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If you encounter issues, refer to the table below for common problems and solutions.

Problem	Possible Cause	Solution
Welder does not turn on	No power supply; Power switch off; Faulty power cord	Check power outlet; Ensure power switch is ON; Inspect power cord for damage.
No arc or weak arc	Poor ground connection; Incorrect amperage setting; Damp electrode; Loose cable connections	Ensure good ground contact; Adjust amperage; Use dry electrodes; Tighten all cable connections.
Overload/Overheat light on	Exceeded duty cycle; Insufficient ventilation; High ambient temperature	Allow welder to cool down; Ensure cooling fan is not obstructed; Work in a cooler environment.
Excessive spatter	Amperage too high; Incorrect arc length; Dirty workpiece	Reduce amperage; Adjust arc length; Clean workpiece thoroughly.

## 9. SPECIFICATIONS

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Technical specifications for the AWELCO PROWELTEK ARC 250 Inverter Welder.

Feature	Detail
Manufacturer	AWELCO
Model Number	PR3436
Technology	Inverter
Suitable Electrodes	Rutile, Basic, Stainless Steel, Cast Iron
Batteries Required	No
Batteries Included	No
First Available Date	21 February 2020

## 10. WARRANTY AND SUPPORT

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For warranty information and technical support, please refer to the documentation provided with your purchase or contact AWELCO customer service directly. Keep your proof of purchase for any warranty claims.

You can often find additional support and contact details on the official AWELCO website: [www.awelco.com](http://www.awelco.com)