

## DEKO DKA-250Y-EU

# DEKO MMA ARC 250A Inverter Welding Machine and MZ350T Auto-Darkening Welding Helmet User Manual

## INTRODUCTION

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This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your DEKO MMA ARC 250A Inverter Welding Machine and MZ350T Auto-Darkening Welding Helmet. Please read these instructions carefully before use and retain them for future reference.

## SAFETY INFORMATION

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**WARNING: Welding can be dangerous. Always follow safety precautions to prevent injury or death.**

- **Electric Shock:** Can kill. Do not touch live electrical parts. Wear dry welding gloves and protective clothing. Ensure the welding machine 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 and gases from the breathing zone.
- **Arc Rays:** Can burn eyes and skin. Wear a welding helmet with a proper shade filter to protect your eyes and face. Wear appropriate protective clothing to protect your skin.
- **Fire and Explosion:** Welding sparks and hot metal can cause fires. Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Noise:** Can damage hearing. Wear ear protection.
- Always ensure the work area is clean, dry, and well-ventilated.
- Disconnect power before servicing or moving the welding machine.

## PRODUCT OVERVIEW - DEKO MMA ARC 250A WELDING MACHINE

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### Front Panel Components



*Image: Front panel of the DEKO MMA ARC 250A welding machine, showing the power indicator light, overheating indicator light, current meter, welding current adjustment knob, positive output terminal, and negative output terminal.*

- **Power Indicator Light:** Illuminates when the machine is powered on.
- **Overheating Indicator Light:** Illuminates if the machine overheats, indicating a need to cool down.
- **Current Meter:** Displays the current welding amperage.
- **Welding Current Adjustment Knob:** Used to set the desired welding current (amperage).
- **Positive Output Terminal (+):** Connects to the earth clamp.
- **Negative Output Terminal (-):** Connects to the electrode holder.

## Rear Panel Components

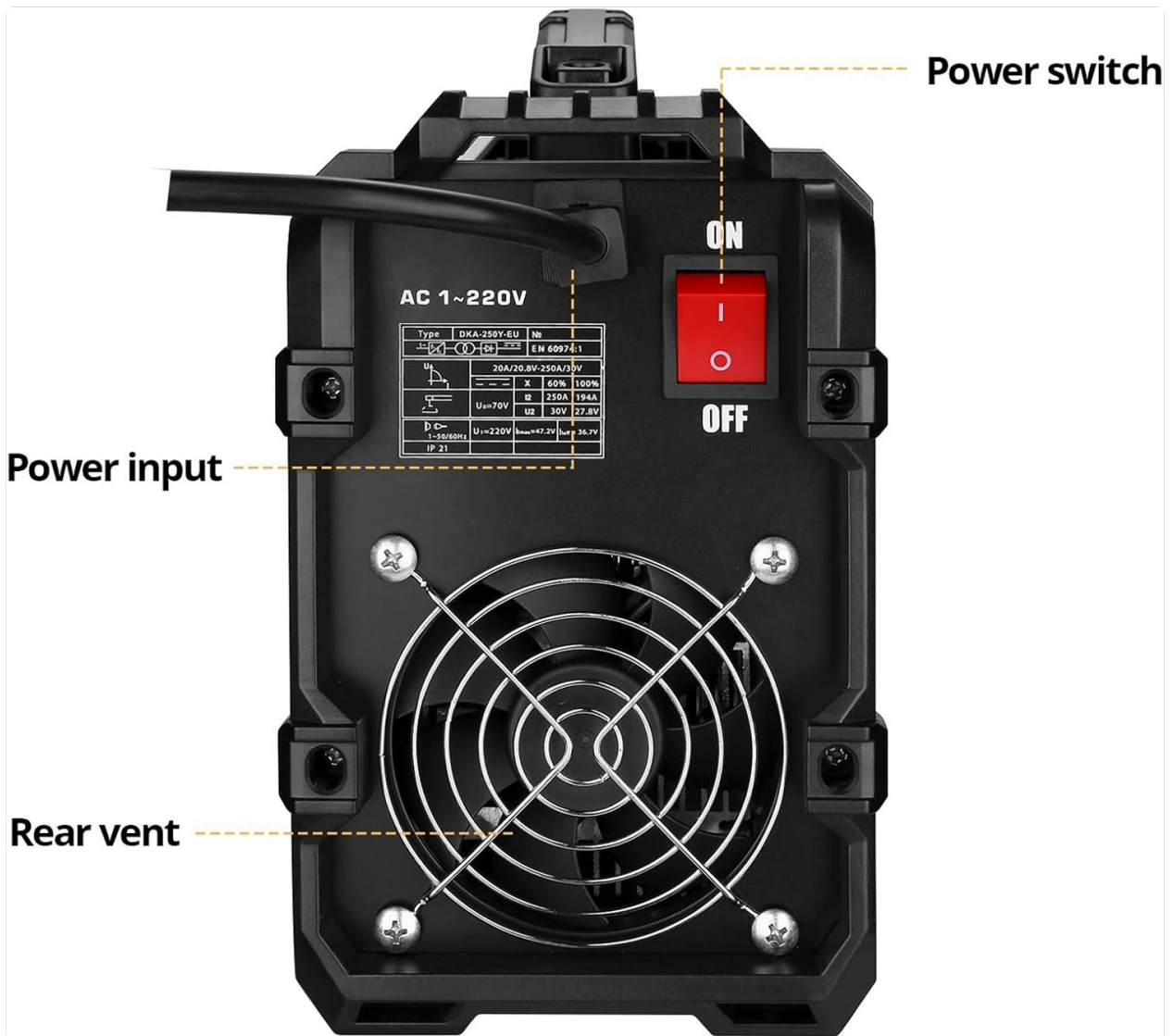


Image: Rear panel of the DEKO MMA ARC 250A welding machine, showing the power switch, power input, and rear vent.

- **Power Switch:** Turns the welding machine ON or OFF.
- **Power Input:** Connects the machine to the main power supply (AC 1~220V).
- **Rear Vent:** Provides cooling for the internal components. Ensure it is not obstructed.

## PRODUCT OVERVIEW - DEKO MZ350T AUTO-DARKENING WELDING HELMET

### Helmet Components



*Image: DEKO MZ350T Auto-Darkening Welding Helmet, highlighting the solar battery panel, headgear tightness knob, arc sensor, inner filter, and dark shade knob.*

- **Solar Battery Panel:** Powers the auto-darkening filter and charges the internal battery.
- **Headgear Tightness Knob:** Adjusts the fit of the helmet headgear for comfort and stability.
- **Arc Sensor:** Detects the welding arc and triggers the auto-darkening function.
- **Inner Filter:** The auto-darkening lens assembly.
- **Dark Shade Knob:** Adjusts the dark shade level (DIN 9-13) for different welding processes and amperages.

## Lens Display and Controls

# LENS DISPLAY

## Replaceable Lithium Battery (CR2032)

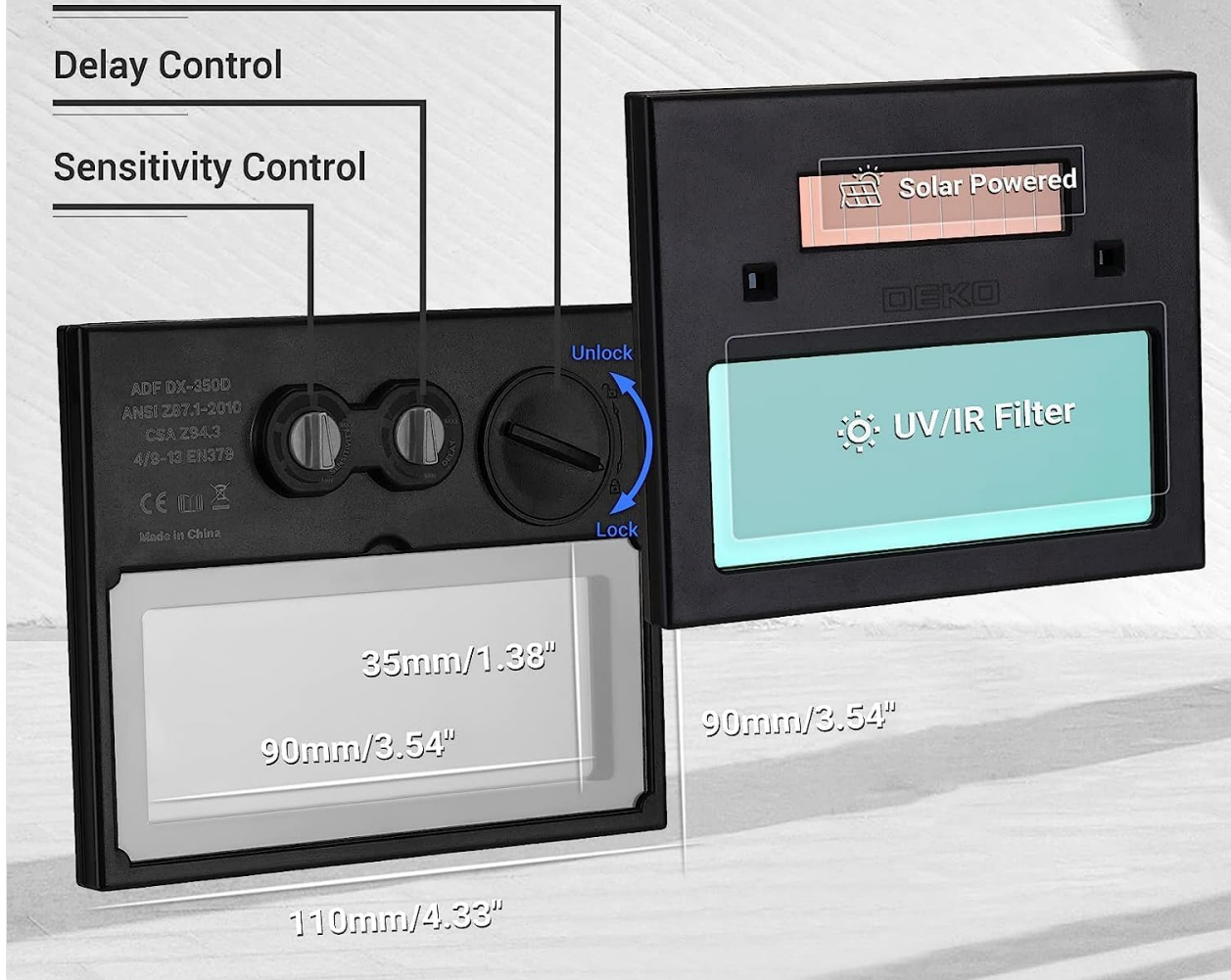


Image: Close-up of the DEKO MZ350T Auto-Darkening Welding Helmet lens display, showing the replaceable lithium battery (CR2032), delay control, and sensitivity control.

- **Replaceable Lithium Battery (CR2032):** Provides backup power for the auto-darkening filter.
- **Delay Control:** Adjusts the time it takes for the lens to return to its light state after welding stops.
- **Sensitivity Control:** Adjusts the sensitivity of the arc sensors to detect the welding arc.

## SETUP

### Welding Machine Setup

1. **Placement:** Place the welding machine on a stable, level surface in a well-ventilated area, away from flammable materials. Ensure the rear vent is unobstructed.
2. **Connect Earth Clamp:** Connect the earth clamp cable to the positive output terminal (+) on the front panel. Securely attach the earth clamp to the workpiece or welding table, ensuring good electrical contact.
3. **Connect Electrode Holder:** Connect the electrode holder cable to the negative output terminal (-) on the front panel. Insert the welding electrode into the electrode holder.
4. **Power Connection:** Ensure the power switch on the rear panel is in the OFF position. Connect the

power input cable to a suitable AC 1~220V power outlet.

## Welding Helmet Setup

1. **Adjust Headgear:** Fit the helmet on your head and adjust the headgear tightness knob for a comfortable and secure fit. Ensure the helmet sits evenly and the viewing area is aligned with your eyes.
2. **Check Battery:** Verify the internal CR2032 battery is installed and functional. The solar panel will help maintain the charge.
3. **Set Shade Level:** Adjust the dark shade knob to the appropriate DIN level (9-13) for your welding application. Refer to welding safety standards for recommended shade levels.
4. **Set Sensitivity and Delay:** Adjust the sensitivity control to ensure the arc sensors reliably detect the welding arc. Adjust the delay control to your preference for the lens to return to its light state.

## OPERATING INSTRUCTIONS

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### Welding Machine Operation

1. **Power On:** Turn the power switch on the rear panel to the ON position. The power indicator light on the front panel should illuminate.
2. **Set Welding Current:** Use the welding current adjustment knob to set the desired amperage. The current meter will display the selected value.
3. **Begin Welding:** With the helmet on and properly adjusted, strike an arc with the electrode. The helmet lens will automatically darken.
4. **Monitor Overheating:** If the overheating indicator light illuminates, stop welding immediately and allow the machine to cool down. Do not turn off the machine, as the fan needs to operate for cooling.
5. **Power Off:** After completing your work, turn the power switch to the OFF position and disconnect the machine from the power supply.

### Welding Helmet Operation

1. **Pre-Check:** Before each use, ensure the helmet is clean and free from damage. Check that the lens is clear and the sensors are unobstructed.
2. **Auto-Darkening Function:** When an arc is struck, the arc sensors will detect the light, and the lens will automatically darken within 1/15000 seconds to the preset shade level.
3. **Return to Light State:** After the arc is extinguished, the lens will return to its light state after the set delay time.



*Image: A person demonstrating welding while wearing the DEKO auto-darkening welding helmet, illustrating the helmet's use during operation.*

## MAINTENANCE

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### Welding Machine Maintenance

- **Cleaning:** Regularly clean the machine's exterior with a dry, soft cloth. Use compressed air to blow out dust from the vents and internal components periodically. Ensure the machine is disconnected from power before cleaning.
- **Cable Inspection:** Inspect welding cables, electrode holder, and earth clamp for damage, fraying, or loose connections before each use. Replace damaged components immediately.
- **Storage:** Store the welding machine in a dry, dust-free environment when not in use.

### Welding Helmet Maintenance

- **Lens Cleaning:** Clean the outer and inner protective lenses regularly with a soft, clean cloth and a mild cleaning solution. Do not use abrasive cleaners.
- **Battery Replacement:** If the auto-darkening function becomes unreliable, replace the CR2032 lithium battery. Refer to the lens display image for battery location.

- **Protective Lens Replacement:** Replace scratched or damaged outer and inner protective lenses to maintain clear vision and protection.
- **Sensor Cleaning:** Keep the arc sensors clean and free from obstructions to ensure proper auto-darkening function.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Welding machine does not power on.	No power supply; Power switch off; Faulty power cable.	Check power outlet; Ensure power switch is ON; Inspect and replace power cable if damaged.
No welding arc or weak arc.	Poor earth clamp connection; Incorrect current setting; Damaged cables; Wet electrode.	Ensure good earth connection; Adjust current knob; Inspect cables; Use dry electrodes.
Overheating indicator light is on.	Machine overloaded; Insufficient ventilation.	Allow machine to cool down (do not turn off); Ensure vents are clear and work in a well-ventilated area.
Welding helmet does not darken.	Low battery; Obstructed arc sensors; Incorrect sensitivity setting; Damaged lens.	Replace CR2032 battery; Clean arc sensors; Adjust sensitivity control; Replace lens if damaged.
Helmet lens flickers or stays dark.	Low battery; Incorrect sensitivity/delay settings; External light interference.	Replace battery; Adjust sensitivity/delay; Ensure no strong light sources interfere with sensors.

## SPECIFICATIONS

### DEKO MMA ARC 250A Welding Machine (Model: DKA-250Y-EU)



Model	DKA-250Y-EU
Color	Yellow/Gray/Black
Power Voltage	AC 1-230V±15%
Rated Input Capacity	5.8 KVA
Efficiency	85%
Duty Cycle	40%
Insulation Degree	F
Current Range	20-200A
Usage	Welding Task
Input Voltage	220V-240V
No-load Voltage	60V
Protection Degree	IP21S
Dimensions	28cm*12.5cm*23cm
Input Power	4.1KW
Power Factor	0.93
Electrode Diameter	1.6-4.0mm
N.W	4.56kg

*Image: Detailed specifications table for the DEKO MMA ARC 250A welding machine.*

Parameter	Value
Model	DKA-250Y-EU
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## DEKO MZ350T Auto-Darkening Welding Helmet

- **Viewing Area:** 3.54" x 1.38" (90mm x 35mm)
- **Switching Time:** 1/15000 sec (light to dark)
- **Shade Range:** DIN 9-13 (adjustable)
- **Power Source:** Solar-powered with replaceable CR2032 lithium battery
- **Features:** True Color technology, Fast Auto-Darkening, Sensitivity Control, Delay Control, UV/IR Filter
- **Material:** PP Strong Material

## WARRANTY AND SUPPORT

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For warranty information, technical support, or service inquiries, please refer to the documentation provided with your purchase or contact DEKO customer service. Keep your purchase receipt as proof of purchase.