

FEIFANKE ARC140

FEIFANKE ARC140 Mini Inverter Welder Instruction Manual

Model: ARC140

1. INTRODUCTION

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your FEIFANKE ARC140 Mini Inverter Welder. Please read this manual thoroughly before using the equipment.

2. SAFETY INFORMATION

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

- Always wear appropriate personal protective equipment (PPE), including a welding helmet with proper shade, welding gloves, protective clothing, and safety shoes.
- Ensure adequate ventilation to avoid inhaling welding fumes.
- Protect bystanders from arc rays and sparks.
- Ensure the welding machine is properly grounded.
- Do not operate the welder in wet conditions or near flammable materials.
- Disconnect power before performing any maintenance or changing accessories.

SEGURO Y FIABLE



Protección
Contra
Sobrecargas



Protección
Contra
Sobrecalentamiento



Protección
Contra
Sobrecorriente



Protección
Contra
Sobretenión



Image: The FEIFANKE ARC140 welder features multiple safety protections, including overload, overheating, overcurrent, and overvoltage protection, ensuring safe operation.

3. PACKAGE CONTENTS

The FEIFANKE ARC140 Mini Inverter Welder package typically includes the following items:

- 1 x ARC140 Mini Inverter Welder
- 1 x Ground Clamp
- 1 x Electrode Holder
- 1 x Carrying Strap
- Instruction Manual

Your browser does not support the video tag.

Video: This video demonstrates the unboxing of a similar model, the ARC145, showing the typical contents included with the welder, such as the machine itself, cables, and accessories.

4. PRODUCT FEATURES

The FEIFANKE ARC140 Mini Inverter Welder is designed for efficiency and portability, incorporating advanced technology for reliable performance.

- **Ultracompact and Portable:** Weighing only 2.1 kg and measuring 210 x 130 x 90 mm, this welder is highly portable and includes a carrying strap for easy transport.
- **Advanced IGBT Inverter Technology:** Equipped with the latest MCU and IGBT inverter technology, it ensures increased reliability, smoother welding, deeper penetration, and stable arc performance.
- **2-in-1 Welding Modes:** Supports both MMA (Stick) and Lift TIG welding modes, offering versatility for various applications.
- **Enhanced Arc Features:** Features adjustable Hot Start for easy electrode ignition and consistent welding, and Anti-Stick function to prevent electrodes from sticking.
- **Wide Electrode Compatibility:** Ideal for most E6013, E6011, E6010, E7018, and E308-16 electrodes, supporting sizes from 1.6-3.2 mm.



PORTÁTIL



COMPACTO

Image: The FEIFANKE ARC140 welder is designed for portability and compact storage, making it easy to transport and use in various work environments.



Soldador Inverter



Soldador TIG

(La linterna WP17V Debe Comprarse Por Separado)

Image: The FEIFANKE ARC140 supports both Inverter (MMA) and TIG welding modes, offering versatility for different welding tasks.

5. CONTROL PANEL OVERVIEW

Familiarize yourself with the control panel components for proper operation:



PANEL DE CONTROL

- 1 Perilla De Corriente: Ajusta La Corriente Necesaria Para Soldar.
- 2 Luz De Encendido: Indicador Luminoso De Encendido.
- 3 Luz: Indicador Luminoso De Sobrecorriente Y Sobre calentamiento.
- 4 Pantalla Digital: Muestra El Valor Actual.
- 5 Terminal De Salida «+»: Consulte Los Pasos De Instalación Para Conocer El Uso Específico.
- 6 Terminal De Salida «-»: Consulte Los Pasos De Instalación Para Conocer El Uso Específico.
- 7 Interruptor De Encendido: Para Encender O Apagar La Máquina.
- 8 Cable De Alimentación: El Cable De Alimentación No Requiere Instalación Adicional.
- 9 Ventilador De Refrigeración: Acelera La Refrigeración De La Máquina.

Image: The control panel of the FEIFANKE ARC140, showing various indicators and controls.

1. **Current Knob:** Adjusts the welding current (Amperage).
2. **Power Indicator Light:** Illuminates when the machine is powered on.
3. **Warning Light:** Indicates overcurrent or overheating.
4. **Digital Display:** Shows the current welding value.
5. **Output Terminal (+):** Connects to the ground clamp for MMA or TIG torch for Lift TIG.
6. **Output Terminal (-):** Connects to the electrode holder for MMA or ground clamp for Lift TIG.
7. **Power Switch:** Turns the machine on or off.
8. **Power Cable:** Integrated power supply cable.
9. **Cooling Fan:** Accelerates machine cooling during operation.

6. SETUP

6.1. MMA (Stick) Welding Setup

1. Ensure the welder is turned off and unplugged.
2. Connect the ground clamp cable to the negative (-) output terminal of the welding machine.
3. Securely attach the ground clamp to the workpiece.
4. Connect the electrode holder cable to the positive (+) output terminal of the welding machine.
5. Insert the desired electrode into the electrode holder.
6. Plug in the welder and turn on the power switch.



Image: Proper connection for MMA (Stick) welding, illustrating the ground clamp and electrode holder connections.

6.2. Lift TIG Welding Setup

Note: A TIG torch (WP-17V type) must be purchased separately.

1. Ensure the welder is turned off and unplugged.
2. Connect the ground clamp cable to the positive (+) output terminal of the welding machine.
3. Securely attach the ground clamp to the workpiece.
4. Connect the TIG torch cable to the negative (-) output terminal of the welding machine.
5. Ensure the TIG torch is equipped with a suitable tungsten electrode.
6. Plug in the welder and turn on the power switch.



Image: Proper connection for Lift TIG welding, illustrating the ground clamp and TIG torch connections.

7. OPERATING INSTRUCTIONS

7.1. MMA (Stick) Welding

1. After setup, select the appropriate current using the Current Knob based on the electrode diameter and material thickness (refer to the Welding Parameters table below).
2. Strike the arc by lightly touching the electrode to the workpiece and quickly lifting it slightly to establish a stable arc.
3. Maintain a consistent arc length and travel speed for a smooth weld bead.
4. The Hot Start function assists in easy arc ignition, and Anti-Stick prevents the electrode from fusing to the workpiece.

Your browser does not support the video tag.

Video: This video demonstrates the general operation of an MMA (Stick) welder, including setting current and performing a weld.

Note that the specific model shown in the video is ARC205, but the operational principles are similar for the ARC140.

7.2. Lift TIG Welding

1. After setup, select the appropriate current using the Current Knob.
2. Gently touch the tungsten electrode to the workpiece to initiate the arc (Lift TIG).
3. Lift the torch slightly to establish the arc and begin welding.
4. Feed filler rod into the weld puddle as needed.

Your browser does not support the video tag.

Video: This video provides an introduction to TIG welding, demonstrating the process of arc initiation and welding with a TIG torch.

Note that the specific model shown in the video is ARC140, which is the same model as this manual.

7.3. Welding Parameters (For Reference Only)

PARÁMETROS DE SOLDADURA

(SOLO A TÍTULO INFORMATIVO)

Diámetro Del Electrodo (MM)	Corriente De Soldadura Recomendada (A)	Tensión De Soldadura Recomendada (V)
1.0	20~50	20.8~22
1.6	30~60	21.2~22.4
2.0	50~90	22~23.6
2.5	70~120	21.8~24.8
3.2	90~140	23.6~25.6
4.0	130~200	25.2~28

Image: A table providing recommended welding parameters based on electrode diameter, welding current, and welding voltage. These values are for informational purposes only and may vary based on specific materials and conditions.

Recommended Welding Parameters

Electrode Diameter (MM)	Recommended Welding Current (A)	Recommended Welding Voltage (V)
1.0	20~50	20.8~22
1.6	30~60	21.2~22.4
2.0	50~90	22~23.6
2.5	70~120	21.8~24.8
3.2	90~140	23.6~25.6
4.0	130~200	25.2~28

8. MAINTENANCE

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

- **Cleaning:** Periodically clean the machine's exterior and ventilation openings to prevent dust and debris buildup. Use compressed air to clear internal components if necessary, ensuring the machine is unplugged.
- **Cable Inspection:** Regularly inspect all cables (power, electrode, ground) for cuts, fraying, or damaged insulation. Replace damaged cables immediately.
- **Terminal Check:** Ensure all connections and terminals are tight and free from corrosion.
- **Storage:** Store the welder in a dry, clean environment, away from excessive dust, moisture, and extreme temperatures.

9. TROUBLESHOOTING

If you encounter issues with your FEIFANKE ARC140 welder, refer to the following common troubleshooting steps:

- **No Power:** Check the power cable connection, wall outlet, and ensure the power switch is ON. Verify the circuit breaker has not tripped.
- **No Arc:** Ensure the ground clamp is securely attached to the workpiece and the electrode holder has a good connection to the electrode. Check for proper current settings.

- **Weak/Unstable Arc:** Adjust the welding current. Ensure the electrode is dry and of the correct type and size for the material. Check for proper arc length.
- **Overheating (Warning Light ON):** The machine has activated its thermal protection. Allow the welder to cool down. Ensure ventilation openings are clear and the cooling fan is operating. Reduce the duty cycle or welding current.
- **Electrode Sticking:** Increase the welding current. Ensure the Anti-Stick function is active. Practice striking the arc correctly.

If the problem persists after following these steps, please contact customer support.

10. SPECIFICATIONS

Specification	Value
Manufacturer	FEIFANKE
Model Number	ARC140
Product Dimensions	210 x 130 x 90 mm
Product Weight	2 kg
Color	Orange
Material	Painted Stainless Steel, Water Resistant
Power Source	AC/DC
Voltage	240 Volts
Electrical Power	4000 Watts
Output Current	20-140 Amp (220V)
Electrode Diameter	1.6-3.2 mm
Welding Modes	MMA, Lift TIG
Special Features	IGBT Inverter Technology, LED Display, Hot Start, Anti-Stick

11. WARRANTY AND SUPPORT

FEIFANKE provides comprehensive after-sales service for your ARC140 Mini Inverter Welder. If you encounter any problems with your welding machine, please do not hesitate to contact us. Refer to your purchase documentation for specific warranty terms and contact information.