

ARCCAPTAIN TIG200P

ARCCAPTAIN TIG200P MultiProcess TIG Welding Machine User Manual

Model: TIG200P

INTRODUCTION

This manual provides comprehensive instructions for the safe and efficient operation, maintenance, and troubleshooting of your ARCCAPTAIN TIG200P MultiProcess TIG Welding Machine. Please read this manual thoroughly before operation to ensure proper use and to maximize the lifespan of your equipment.

PRODUCT OVERVIEW

The ARCCAPTAIN TIG200P is a versatile 5-in-1 DC multi-function welding machine, designed for a wide range of welding tasks. It integrates LIFT TIG, HF TIG, PULSE TIG, SPOT TIG, and STICK (MMA) welding capabilities, making it suitable for various metals including stainless steel, mild steel, and copper.

Equipped with advanced MCU and IGBT Inverter Technology, the TIG200P delivers precise digital control, ensuring a high arc start success rate, stable arc, minimal spatter, and clean welds. Its large LED display and upgraded controls allow for fine-tuned parameter adjustments, catering to both experienced users and DIY enthusiasts.



Figure 1: ARCCAPTAIN TIG200P MultiProcess TIG Welding Machine with included accessories.

Key Features:

- **5-in-1 DC Multi-Function:** LIFT TIG, HF TIG, PULSE TIG, SPOT TIG, and STICK (with Hot Start & Arc Force) for diverse applications.
- **Advanced MCU & IGBT Inverter Technology:** Ensures precise digital control, smooth arc initiation, stable arc, and minimal spatter.
- **Large LED Display & Upgraded Control:** Provides clear real-time data and fine-tuned parameter adjustments for TIG (pulse frequency, currents, post gas, down-slope, duty cycle) and MMA (Hot Start, Arc Force).
- **2T/4T Modes:** Offers manual control (2T) and continuous welding (4T) options.
- **Safety-Focused & Smart Cooling System:** Features VRD, over-current, over-voltage, overload, and overheat protection, with an on-demand cooling fan.
- **Dual Voltage Capability:** Supports both 110V and 220V input for maximum flexibility.
- **Portable Design:** Weighs 10.25 lbs with a carrying handle and shoulder strap for easy transport.

2025 NEW MULTI FUNCTIONAL WELDER



Smart Fans

Reduces noise and improves life by 60%



Alarm Function

More Safe



VRD

Preventing electrocution



New heat dissipation system

Heat dissipation improved by 130%

Figure 2: The TIG200P features smart fans, alarm functions, VRD, and an improved heat dissipation system for enhanced safety and longevity.

IMPORTANT SAFETY PRECAUTIONS

Always prioritize safety when operating welding equipment. Failure to follow safety guidelines can result in serious injury or death. Ensure you wear appropriate Personal Protective Equipment (PPE) including a welding helmet, gloves, protective clothing, and safety shoes. Work in a well-ventilated area to avoid inhaling fumes.

- **Electrical Safety:** Always connect the machine to a properly grounded power source. Do not operate in wet conditions.
- **Fume Hazards:** Welding fumes can be hazardous. Use local exhaust ventilation or respirators.
- **Arc Rays:** Arc rays can burn eyes and skin. Use proper eye and face protection.
- **Fire and Explosion:** Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Hot Parts:** Welding equipment and welded materials can be hot. Allow them to cool before handling.

The TIG200P includes built-in safety features such as VRD (Voltage Reduction Device), over-current, over-voltage, overload, and overheat protection. These systems automatically shut down the machine to prevent damage and ensure

user safety.

SETUP GUIDE

1. Unpacking and Inspection

Carefully unpack the welding machine and all accessories. Inspect for any shipping damage. Ensure all components listed in the packing list are present. The package typically includes the TIG200P welder, 13ft TIG torch, 10ft ground clamp, 10ft electrode holder, conversion adapter, 8ft Argon gas hose (with connector), brush & hammer, tungsten electrode, and a shoulder strap.

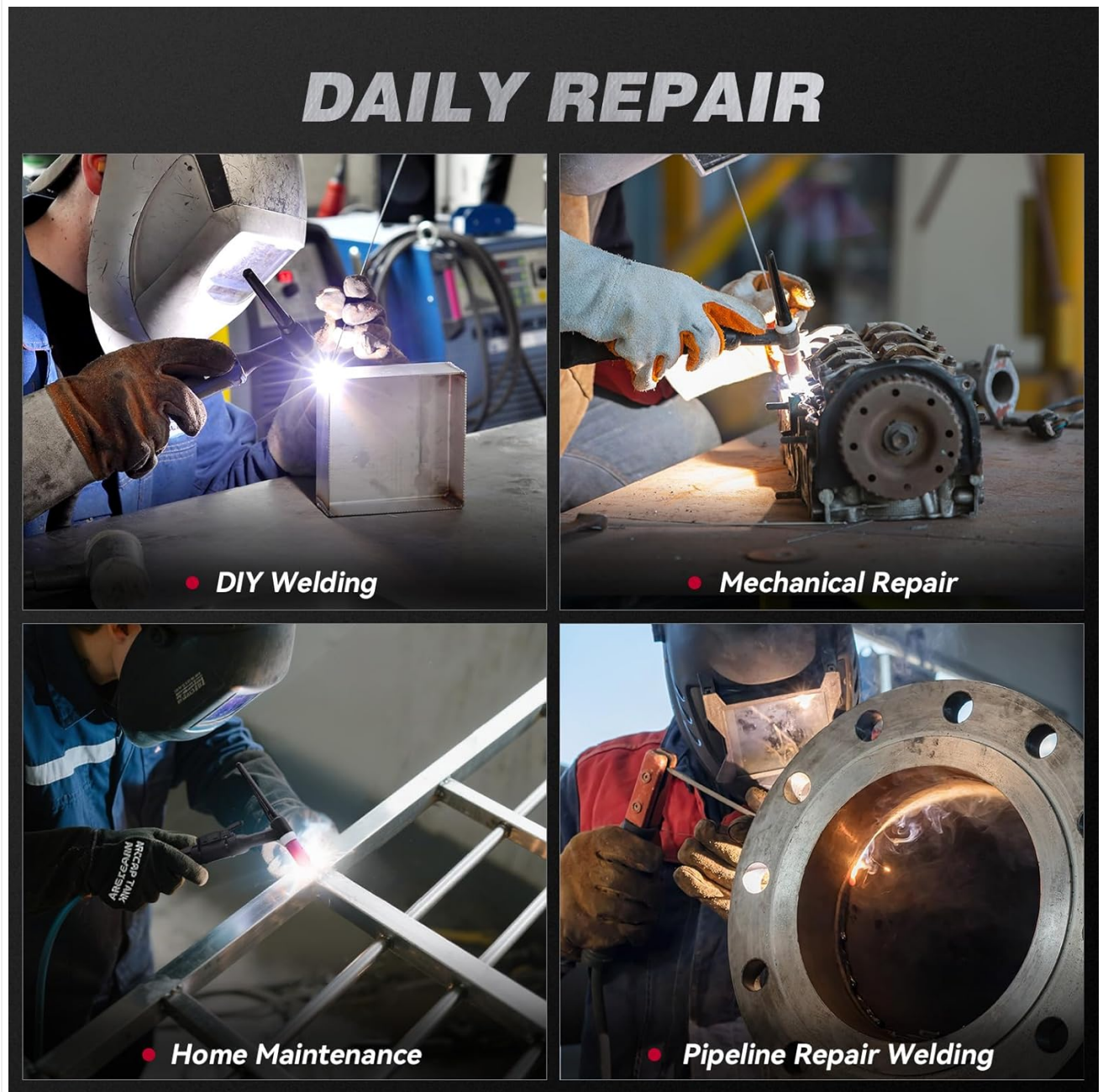


Figure 3: Standard accessories included with the ARCCAPTAIN TIG200P.

2. Power Connection

The TIG200P supports dual voltage input (110V/220V). Ensure the correct power plug is used for your power supply. Before switching between voltages, ensure the machine is turned off and the cooling fan has stopped operating.

PEDAL CONTROL WELDING

*Allowing you to control the welding current dynamically,
As you gradually press down the pedal, the current
increases proportionally.*



(Foot Pedal Not Included)

Figure 4: The TIG200P is lightweight at 10.25 lbs and supports dual voltage operation.

3. Connecting Welding Accessories

Connect the TIG torch and ground clamp to the appropriate terminals on the front panel. For Stick welding, connect the electrode holder and ground clamp.



Figure 5: Proper connection of TIG torch and ground clamp for TIG welding, and electrode holder for Stick welding.

4. Gas Connection (for TIG)

For TIG welding, connect the Argon gas hose from your gas cylinder regulator to the gas inlet on the rear of the machine. Ensure all connections are secure to prevent gas leaks.

OPERATING MODES

The TIG200P offers five distinct welding modes, each optimized for specific applications. The large LED display provides intuitive control over various parameters.

EXCLUSIVE LARGE LED DISPLAY

Offers multiple functions and adjustable parameters, ensuring easy operation and adaptability to diverse welding needs.



Figure 6: The intuitive large LED digital display for setting welding parameters.

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Video 1: Overview of the 5-in-1 Multi-Process TIG Welder, demonstrating Pulse TIG, HF TIG, Lift TIG, Spot TIG, and Stick welding applications.

1. Pulse TIG Welding

Pulse TIG mode allows for precise heat control, ideal for welding thin materials or when minimal heat input is desired. Adjustable parameters include Pre-flow time, Initial current, Up-Slope time, Peak current, Base current, Down-Slope time, Finish current, Post-flow time, Pulse frequency, and Duty cycle.

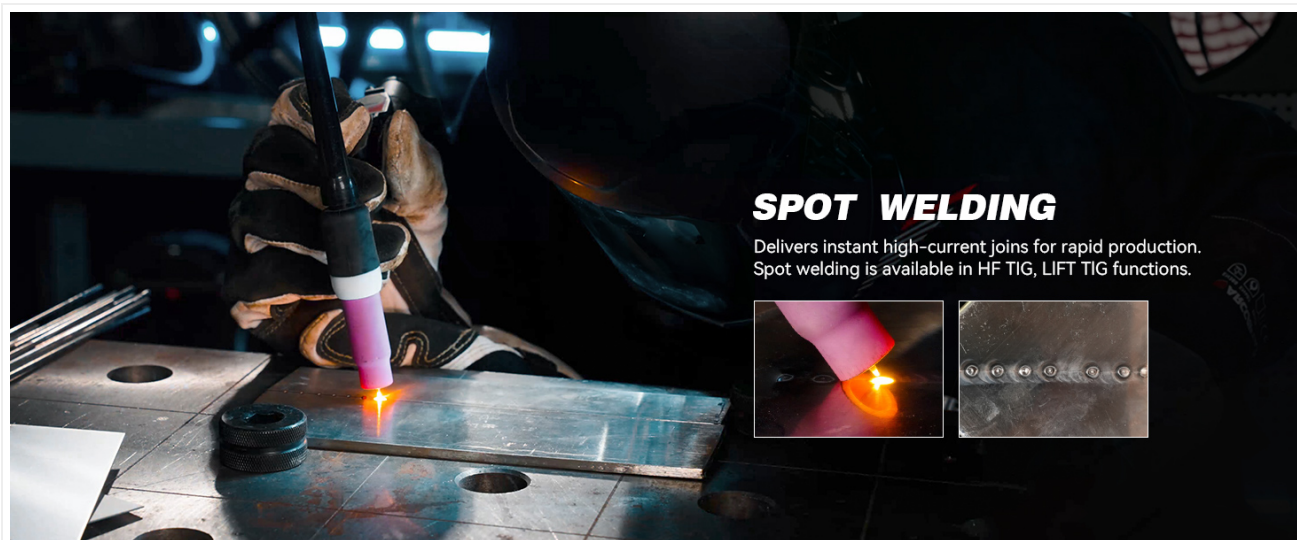


Figure 7: Demonstrating Pulse TIG welding, which offers enhanced control over heat input.

2. HF TIG Welding

High-Frequency (HF) TIG provides a non-contact arc start, preventing tungsten contamination and ensuring a clean, precise weld. This mode is excellent for sensitive materials and applications requiring high-quality finishes.

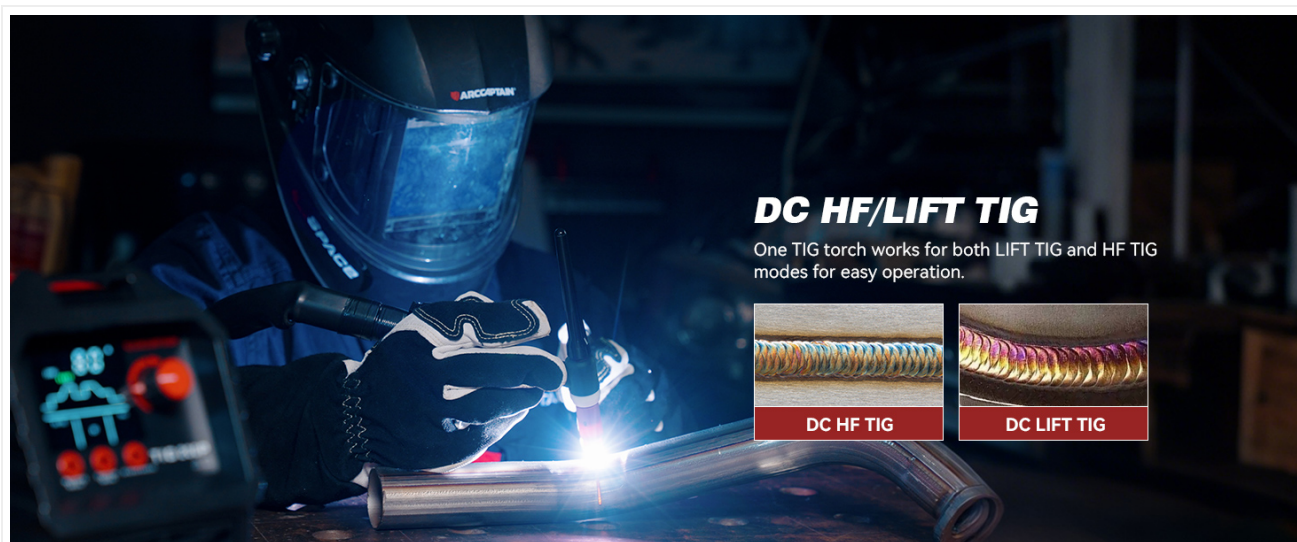


Figure 8: HF TIG welding in progress, showing the clean arc start and precise control.

3. Lift TIG Welding

Lift TIG offers an alternative arc starting method where the tungsten electrode is touched to the workpiece and then lifted to initiate the arc. This mode is useful in environments where HF interference is a concern.

4. Spot TIG Welding

Spot TIG delivers instant high-current joins for rapid production, ideal for tack welding or joining thin sheets. This function is available in HF TIG and LIFT TIG modes.



Figure 9: Spot welding application, providing quick and precise joins.

5. Stick (MMA) Welding

The TIG200P also functions as a powerful Stick (MMA) welder, suitable for various electrode types. It features Hot Start for easy arc ignition and Arc Force to prevent electrode sticking, ensuring stable performance.

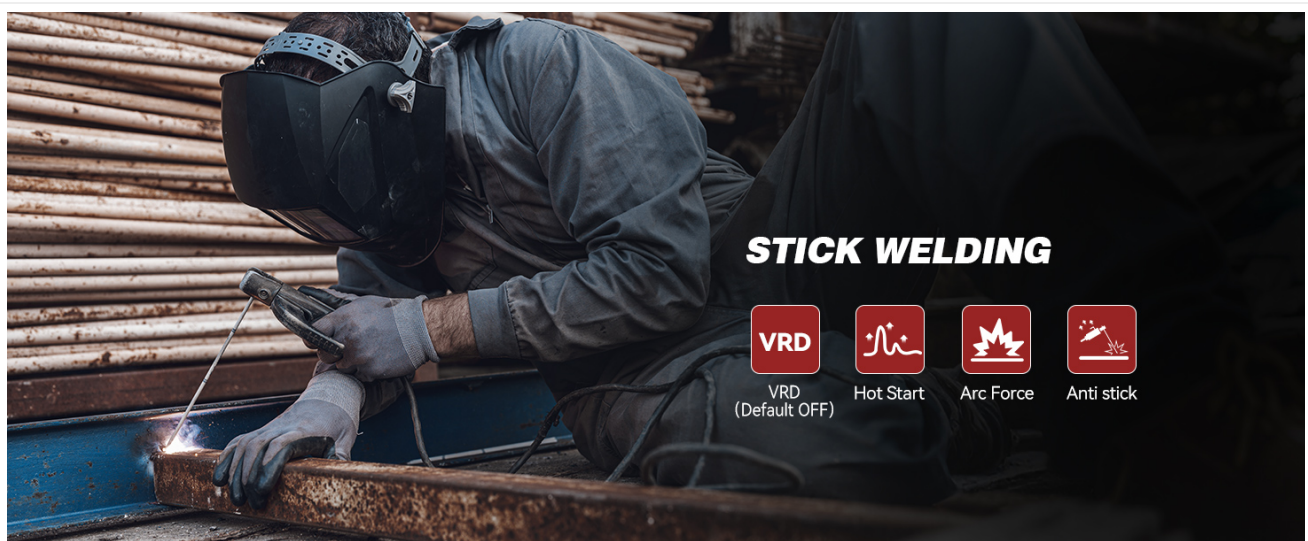


Figure 10: Stick welding in action, highlighting the machine's versatility.

6. 2T/4T Function

The 2T (Two-Touch) mode requires the trigger to be held down during welding, providing direct control. The 4T (Four-Touch) mode allows for continuous welding without holding the trigger, ideal for long weld passes, reducing operator fatigue.

Material	Thickness		Amperage	Tungsten Dia.		Tungsten Color	Filler Metal	Filler Metal Dia.		Pre Flow (sec) 0.4	Post Flow (sec)	Gas Flowrate (scfh)
Steel							ER70S-2					
	3/32 inch	2.4 mm	70-110	1/16 inch	1.6 mm	Red		1/6 inch	1.6 mm		5	12
	1/8 inch	3.2 mm	75-125	1/8 inch	3.2 mm	White		3/32 inch	2.4 mm		6	12
	3/16 inch	4.8 mm	110-200	1/32 inch	2.4 mm	Purple		1/8 inch	3.2 mm		6	14
Stainless Steel	1/16 inch	1.6 mm	50-90	1/6 inch	1.6 mm	Gray	ER308/308L	1/6 inch	1.6 mm	0.4	5	12
	3/32 inch	2.4 mm	80-120	1/6 inch	1.6 mm	Red		1/6 inch	1.6 mm		5	12
	1/8 inch	3.2 mm	85-140	1/8 inch	3.2 mm	White		3/32 inch	2.4 mm		6	12
	3/16 inch	4.8 mm	125-200	1/32 inch	2.4 mm	Purple		1/8 inch	3.2 mm		6	14

Note: This set-up information is intended to act as a guide only. Please refer to the operating manual for further information.

Compatible Metals

The ARCCAPTAIN TIG200P is designed to weld a variety of metals, including but not limited to:

- Carbon Steel
- Stainless Steel
- Copper
- Sheet Metal
- Square Pipe
- Round Tube

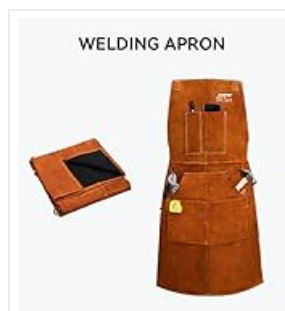


Figure 13: Examples of metal types suitable for welding with the TIG200P.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your welding machine. Always disconnect the power supply before performing any maintenance.

- **Cleaning:** Periodically clean the internal components using compressed air to remove dust and debris. Ensure cooling vents are clear.
- **Cable Inspection:** Regularly inspect all cables, connections, and the TIG torch for wear, damage, or loose

connections. Replace damaged parts immediately.

- **Storage:** Store the machine in a clean, dry environment, protected from extreme temperatures and humidity.
- **Consumables:** Check and replace TIG torch consumables (collets, collet bodies, nozzles, tungsten electrodes) as needed to maintain weld quality.

TROUBLESHOOTING

If you encounter issues with your TIG200P, refer to the following common problems and solutions. For complex issues, contact ARCCAPTAIN technical support.

Problem	Possible Cause	Solution
No power/Machine does not turn on	Loose power connection, tripped circuit breaker, faulty power switch.	Check power cord, reset breaker, ensure switch is ON.
No arc/Weak arc	Improper ground connection, incorrect welding parameters, contaminated tungsten, gas flow issues (TIG).	Secure ground clamp, adjust amperage/voltage, replace tungsten, check gas supply/flow.
Overheat protection activated	Exceeded duty cycle, blocked cooling vents, high ambient temperature.	Allow machine to cool down, clear vents, operate in cooler environment.
Poor weld quality (porosity, spatter)	Improper gas shielding, contaminated base metal, incorrect travel speed/technique.	Check gas flow/purity, clean workpiece, adjust technique.

TECHNICAL SPECIFICATIONS

Specification	Detail
Manufacturer	ARCCAPTAIN
Model Number	TIG200P
Item Weight	20.8 pounds
Package Dimensions	16.81 x 16.65 x 7.17 inches
Power Source	DC
Input Voltage	110V/220V Dual Voltage
Welding Modes	LIFT TIG, HF TIG, PULSE TIG, SPOT TIG, STICK (MMA)
Insulation Class	H
Protection Class	IP21S
Date First Available	June 18, 2025



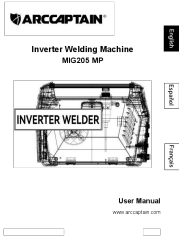
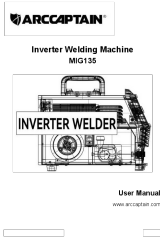
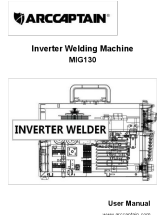
WARRANTY AND SUPPORT

The ARCCAPTAIN TIG200P MultiProcess TIG Welding Machine is backed by a 2-year quality guarantee. Every machine undergoes strict laboratory testing under simulated extreme conditions before shipping to ensure reliability and performance.

For technical assistance, warranty claims, or any product-related inquiries, please contact the ARCCAPTAIN technical

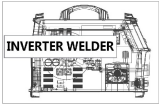
support team. You can typically find contact information on the official ARCCAPTAIN website or through your purchase platform.

Related Documents - TIG200P

	<p>ARCCAPTAIN TIG200PACDC Welding Setup Guide: Material & Parameter Settings</p> <p>Comprehensive setup guide for the ARCCAPTAIN TIG200PACDC welding machine. Provides essential parameters like amperage, pulse, gas flow, and tungsten settings for TIG welding aluminum, steel, and stainless steel.</p>
	<p>ARCCAPTAIN TIG200P Inverter Welding Machine User Manual</p> <p>Comprehensive user manual for the ARCCAPTAIN TIG200P Inverter Welding Machine, covering safety, product description, functions, installation, operation, troubleshooting, and maintenance.</p>
	<p>ARCCAPTAIN MIG205 MP Inverter Welding Machine User Manual</p> <p>User manual for the ARCCAPTAIN MIG205 MP Inverter Welding Machine. Covers safety, installation, operation (MIG, TIG, MMA, CUT), maintenance, and troubleshooting for this versatile welding equipment.</p>
	<p>ARCCAPTAIN MIG135 Inverter Welding Machine User Manual</p> <p>Comprehensive user manual for the ARCCAPTAIN MIG135 Inverter Welding Machine, covering safety, product overview, operation, installation, maintenance, and troubleshooting.</p>
	<p>ARCCAPTAIN MIG130 Inverter Welding Machine User Manual</p> <p>Comprehensive user manual for the ARCCAPTAIN MIG130 Inverter Welding Machine, covering safety, product introduction, installation, operation, maintenance, and troubleshooting. Learn how to use your MIG130 for MIG, MMA, and TIG welding.</p>



Inverter Welding Machine
MIG160



User Manual
www.arccaptain.com

[ARCCAPTAIN MIG160 Inverter Welding Machine User Manual](#)

Comprehensive user manual for the ARCCAPTAIN MIG160, an advanced inverter welding machine designed for versatile welding applications. Covers safety, operation, installation, maintenance, and troubleshooting for MIG, MMA, and TIG welding.