

HITBOX SYNMIG200PRO

HITBOX 5 in 1 Aluminum MIG Welder Instruction Manual

Model: SYNMIG200PRO | Brand: HITBOX

1. INTRODUCTION

The HITBOX SYNMIG200PRO is a versatile 5-in-1 synergic control welding machine designed for various welding applications. It features a digital LCD display that guides the user through the welding process, making it suitable for both experienced welders and beginners. This machine supports MIG Gas, MIG Gasless (FCAW-S), MMA (Stick), and Lift TIG welding modes, and is capable of welding aluminum, iron, carbon steel, and stainless steel.



Figure 1.1: The HITBOX SYN-MIG200PRO 5-in-1 Aluminum MIG Welder with included accessories, including the welding machine, MIG torch, earth clamp, and stick holder.

2. SAFETY INFORMATION

Always prioritize safety when operating welding equipment. Failure to follow safety guidelines can result in serious injury or death.

- **Eye and Face Protection:** Always wear a welding helmet with appropriate shade lenses to protect your eyes and face from intense light, UV radiation, and sparks.
- **Body Protection:** Wear flame-resistant clothing, welding gloves, and safety shoes to protect against burns and electrical shock.
- **Ventilation:** Ensure adequate ventilation in the work area to remove welding fumes and gases. If working in confined spaces, use a respirator.
- **Electrical Safety:** Ensure the welding machine is properly grounded. Do not operate in wet conditions. Inspect cables and connections for damage before each use.
- **Fire Prevention:** Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Machine Protections:** The SYN-MIG200PRO is equipped with Voltage Reduction Device (VRD), Overheating



Figure 2.1: The HITBOX SYN-MIG200PRO features multiple safety protections, including VRD, overheating protection, welding aluminum capability, silence protection, and overcurrent protection, along with a fan-on-demand system.

3. PRODUCT OVERVIEW

The HITBOX SYN-MIG200PRO is a compact and powerful welding machine offering multiple welding processes. Its intuitive LCD display simplifies parameter adjustments, making it user-friendly.

3.1 Key Features

- 5-in-1 Welding Modes: MIG Gas, MIG Gasless, MMA, Lift TIG, and Spool Gun compatibility.
- Synergic Control: Automatic parameter recommendations based on material, wire/electrode size, and thickness.
- Digital LCD Display: Clear interface for monitoring and adjusting welding settings.
- Wide Material Compatibility: Capable of welding aluminum, iron, carbon steel, and stainless steel.
- Portable Design: Lightweight and compact for easy transport.

SAFETY & RELIABLE



VRD



OVERHEATING
PROTECTION



WELDING ALU



SILENCE
PROTECTION



OVER CURRENT
PROTECTION



Figure 3.1: The HITBOX SYN-MIG200PRO offers five welding functions: MIG Gas, MIG Gasless, MMA, Lift TIG, and Spool Gun compatibility.

Connection method



Figure 3.2: The compact dimensions of the HITBOX SYNMI200PRO, measuring approximately 17.7 inches (45 cm) in length, 7.9 inches (20 cm) in width, and 13 inches (33 cm) in height.

4. SETUP

4.1 Power Connection

Connect the welder to a suitable 220V AC power source. Ensure the power outlet meets the machine's requirements. The machine can resist cable attenuation even with extended power cords up to 160 feet.

4.2 Wire Reel Installation (for MIG/MAG/FCAW-S)

The machine is designed to handle 1-5kg (11lb-21lb) wire reels. Follow these steps to install the wire reel:

1. Open the wire feeder compartment.
2. Place the wire reel onto the spindle, ensuring it rotates freely.
3. Secure the reel with the retaining nut.
4. Feed the wire through the guide tube and into the wire feeder mechanism.
5. Close the compartment.



Figure 4.1: Illustration of how to install 1-5kg (11lb-21lb) wire reels into the welding machine's wire feeder compartment.

4.3 Connection Methods for Different Modes

Properly connect the welding accessories based on the desired welding mode:



Dimensions

The latest upgrade



Figure 4.2: Connection diagrams for various welding modes: MMA (Stick Holder +, Earth Clamp -), MIG Gasless (Earth Clamp +, Mig Torch -), MIG Gas (Mig Torch +, Earth Clamp -), and Lift TIG (Earth Clamp +, WP-26V TIG Gun -).

- **MMA (Stick) Welding:** Connect the stick holder to the positive (+) terminal and the earth clamp to the negative (-) terminal.
- **MIG Gasless Welding:** Connect the earth clamp to the positive (+) terminal and the MIG torch to the negative (-) terminal.
- **MIG Gas Welding:** Connect the MIG torch to the positive (+) terminal and the earth clamp to the negative (-) terminal. Ensure gas cylinder and regulator are properly connected.
- **Lift TIG Welding:** Connect the earth clamp to the positive (+) terminal and the WP-26V TIG gun (not included) to the negative (-) terminal.

5. OPERATING MODES

5.1 Synergic Control and LCD Display

The SYN-MIG200PRO features synergic control, which simplifies setup by automatically recommending welding parameters. The LCD display provides real-time information and allows for fine-tuning.

ACCURATE SYNERGIC CONTROL

Getting Started In Seconds By Clearly Automatic Parameters

EASY TO WELDING

1: ADJUSTING WIRE FEED SPEED 2: MATCHING WELDING VOLTAGE



Figure 5.1: The LCD display of the SYN-MIG200PRO showing synergic control parameters, including wire feed speed, voltage, welding mode, gas type, material, wire diameter, and metal thickness.

To operate:

1. Select the desired welding mode (MIG, MMA, TIG) on the display.
2. Input the material type (e.g., Fe for Iron, Al for Aluminum).
3. Specify the wire/electrode/tungsten size.
4. Enter the plate thickness.
5. The machine will recommend suitable current and voltage settings. Adjust as needed for optimal results.

5.2 MIG/MAG Welding

This mode is suitable for 0.6mm, 0.8mm, and 1.0mm solid wires with MIX GAS or CO₂ gas. It is effective for welding metal plates from 0.7mm to 8mm thick. The 2T/4T function helps reduce hand fatigue during extended welding sessions. The welding molten pool is well-formed, with a stable arc and minimal spatter.

5.3 FCAW-S (Gasless MIG) Welding

This mode uses 0.6mm to 1.0mm flux-cored wire and is suitable for welding plates from 1mm to 6.4mm thick. It does not require external shielding gas.

5.4 LIFT TIG Welding

Lift TIG welding is compatible with 1.6mm and 2.4mm tungsten electrodes. It can weld materials with a thickness of 1.0mm to 6.4mm. A WP-26V TIG torch (not included) is recommended for this mode.

5.5 MMA (ARC) Welding

This mode supports 2.5mm, 3.2mm, and 4.0mm electrodes. It is suitable for welding plates from 1.6mm to 8.0mm thick. The machine maintains normal operation even with a 160-foot power cord extension, making it ideal for various job sites.

5.6 Applicable Materials and Applications

The HITBOX SYN-MIG200PRO can weld a variety of metals and is suitable for numerous applications:

- **Weldable Materials:** Aluminum (requires graphite conduit liner replacement), Iron, Carbon Steel, Stainless Steel, Copper.
- **Applications:** Pipe installations, mold repairs, petrochemical industry, architectural decorations, car repairs, bicycle fabrication, handicrafts, general manufacturing, construction sites, house maintenance, docks, and agricultural sites.

5 In 1 MULTIFUNCTIONAL WELDING MACHINE



MIG GAS **MIG GASLESS**

MMA **LIFT TIG**

SPOOL GUN

HITBOX
WWW.HITWELD.COM
888.919.8283

Figure 5.2: The HITBOX SYNMI200PRO is capable of welding various metals, including aluminum, stainless steel, iron, and copper.



Figure 5.3: Examples of wide applications for the HITBOX welder, including welded iron frames, pipes, shelves, outdoor welding, welding sheds, and welding crafts.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your welding machine.

- **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 welding cables, torch, and earth clamp for cuts, fraying, or loose connections. Replace damaged components immediately.
- **Wire Feeder Maintenance:** For MIG/MAG welding, ensure the wire feeder rollers are clean and free of debris. Check for proper tension.
- **Storage:** Store the welder in a dry, clean environment when not in use.

7. TROUBLESHOOTING

If you encounter issues with your HITBOX SYNMIG200PRO, refer to the following common troubleshooting steps:

- **No Power:** Check the power cord connection, wall outlet, and circuit breaker. Ensure the machine's power switch is in the 'ON' position.
- **No Arc:** Verify that the earth clamp is securely attached to the workpiece and has good electrical contact. Check the welding torch connection. Ensure correct welding mode and parameters are selected.
- **Poor Weld Quality:** Adjust welding parameters (current, voltage, wire feed speed) according to the material and thickness. Ensure proper gas flow (for MIG Gas) or correct wire type (for FCAW-S). Clean the workpiece surface.
- **Wire Feeding Issues:** Check for tangled wire, correct wire reel installation, and proper tension on the wire feeder rollers. Ensure the MIG torch liner is not clogged or damaged.
- **Overheating Protection Activated:** If the machine stops and the overheating indicator lights up, allow the machine to cool down. Ensure adequate ventilation around the machine. Reduce the duty cycle or welding current if continuously triggering protection.

For persistent issues, contact customer support.

8. SPECIFICATIONS

Feature	Specification
Manufacturer	SHENZHEN UNITWELD WELDING AND MOTOR
Part Number	SYNMIG200RO
Item Weight	18 pounds
Product Dimensions	17.7 x 3.11 x 13 inches
Item Model Number	SYNMIG200RO
Color	5 in 1 Mig Welder 200a
Power Source	AC
Included Components	Welder
Batteries Required?	No
Date First Available	January 1, 2025

9. WARRANTY AND SUPPORT

HITBOX provides a 1-year warranty for this product. If you encounter any problems during use, please contact HITBOX customer support. They offer efficient and professional assistance through their US local agent.

For support, please refer to the contact information provided with your product packaging or visit the official HITBOX website.



[HITBOX MIG250DP Professional MIG Welding Machine for Aluminum](#)

Discover the HITBOX MIG250DP, a versatile 5-in-1 MIG welding machine designed for aluminum and other metals. Features include 2T/4T function, synergic control, IGBT inverter, and advanced digital display. Ideal for professional and beginner welders.



[HITBOX SYN MIG200 MIG/MAG Inverter Welder Test Report](#)

This comprehensive test report details the performance and compliance of the HITBOX SYN MIG200 MIG/MAG inverter welder, tested by Dongguan NTEK Testing Service Co., Ltd. against CAN/CSA E60974-1-12 and ANSI/IEC 60974-1 standards.

Dear customer,
 NTEK offers good services. If you have any problem
 when using our products, please contact us at the Email, Line,
 and Whatsapp. We will always be happy to help you.
 Our Email: sales@nitek.com
 Whatsapp: +8613532098887
 Wechat: Nteky77
 LINE: @NTEK090909 / @nitek090909
 Facebook: <https://www.facebook.com/nitek0909090909>
 Hopeful,
 Good luck

[HITBOX Product Support and Contact Information | Warranty & Service](#)

Get in touch with HITBOX customer support for warranty inquiries and product assistance. Find contact details including email, WhatsApp, WeChat, LINE, and Facebook.



[HITBOX MIG250DP Professional MIG Welding Machine for Aluminum](#)

Discover the HITBOX MIG250DP, a versatile 5-in-1 MIG welding machine designed for aluminum and other metals. Features include 2T/4T function, synergic control, IGBT inverter, and advanced digital display. Ideal for professional and beginner welders.



[HZXVOGEN MIG185II Operation Instruction Manual - Welding Machine Guide](#)

Comprehensive operation instruction manual for the HZXVOGEN MIG185II welding machine. Learn about features, applications, parameters, troubleshooting, and safety for this IGBT inverter welder.



[HITBOX SYN MIG200 MIG/MAG Inverter Welder Test Report](#)

This comprehensive test report details the performance and compliance of the HITBOX SYN MIG200 MIG/MAG inverter welder, tested by Dongguan NTEK Testing Service Co., Ltd. against CAN/CSA E60974-1-12 and ANSI/IEC 60974-1 standards.