HITBOX HBM200

HITBOX HBM200 140A 3-in-1 MIG/TIG/Stick Welder Instruction Manual

Model: HBM200

1. Introduction

This manual provides essential information for the safe and effective operation of your HITBOX HBM200 140A 3-in-1 Welding Machine. This versatile unit supports Flux Core MIG, Lift TIG, and Stick (MMA) welding processes. Please read this manual thoroughly before use to ensure proper setup, operation, and maintenance.

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, flame-resistant clothing, welding gloves, and safety shoes.
- Ensure adequate ventilation to avoid inhaling welding fumes.
- Protect bystanders from arc rays and sparks.
- Never touch live electrical parts.
- Ensure the welding machine is properly grounded.
- Keep a fire extinguisher nearby.
- The machine is equipped with over-current, over-voltage, over-heating, and over-load protection. Do not bypass these safety features.

Image: HITBOX HBM200 welder highlighting safety features including overvoltage, overcurrent, overheating, overload protection, and IP21 rating.

3. Product Features

- **3-in-1 Multiprocess Welder:** Supports Flux Core MIG, Lift TIG, and Stick (MMA) welding. Accommodates 1.6-3.2mm electrodes (MMA), 1.6mm (Lift TIG), and 0.030/0.039 inch flux core wires. (Note: WP17V TIG Torch is not included and requires separate purchase).
- **Synergic Control:** Simplifies operation by automatically matching recommended current and wire feeding speed after selecting the welding wire diameter.
- **Safety Protection:** Built-in protection against over-current, over-voltage, over-heating, and over-load. Features a working fan cooling system for extended machine lifespan.
- **Ultra-Portable Design:** Compact and lightweight, weighing approximately 7.85 lbs (3.5 kg), making it easy to carry and maneuver.
- **High Integration MCU:** Ensures efficient, stable, and safe operation, improving welding quality.

Image: The HITBOX HBM200 welder illustrating its 4-in-1 multi-process capabilities: Flux MIG, MMA, Lift TIG, and Spool Gun compatibility.

Image: The HITBOX HBM200 welder demonstrating its compact size and light weight, shown next to a men's shoebox for scale.

4. Setup and Connections

4.1 Power Connection

Connect the welder to a 110V power supply. Ensure the power switch on the rear of the machine is in the OFF position before connecting. The machine features a waterproof power switch for durability.

Your browser does not support the video tag. Please update your browser.

Video: This video demonstrates the power connection and initial setup of the HITBOX HBM200 welder, including turning it on and selecting modes.

4.2 ARC (Stick) Welding Connection

1. Connect the electrode holder cable to the "+" terminal on the front panel.
2. Connect the ground clamp cable to the "-" terminal on the front panel.
3. Securely attach the ground clamp to the workpiece.

4.3 Flux Core MIG Welding Connection

1. Connect the ground clamp cable to the "+" terminal on the front panel.
2. Connect the MIG gun cable to the "-" terminal and its interface on the front panel.
3. Securely attach the ground clamp to the workpiece.

4.4 Lift TIG Welding Connection

1. Connect the ground clamp cable to the "+" terminal on the front panel.
2. Connect the TIG torch cable to the "-" terminal on the front panel. (WP17V TIG Torch not included).
3. Securely attach the ground clamp to the workpiece.

Image: The HITBOX HBM200 welder illustrating the correct cable connections for Flux MIG, Stick, Lift TIG, and Spool Gun welding modes.

4.5 Wire Installation (MIG)

The machine supports 1kg 0.8mm and 1.0mm flux core wire spools. Install the wire spool into the designated compartment and feed the wire through the drive rollers and into the MIG gun liner. Ensure the drive roller tension is correctly set to prevent wire bending or slipping.

Image: Diagram illustrating the smooth wire feeding mechanism and key components of the MIG gun, including the shell switch and screw adjustment.

Image: Diagram showing the correct method for installing a D100 0.030" & 0.039" flux core wire spool into the welder.

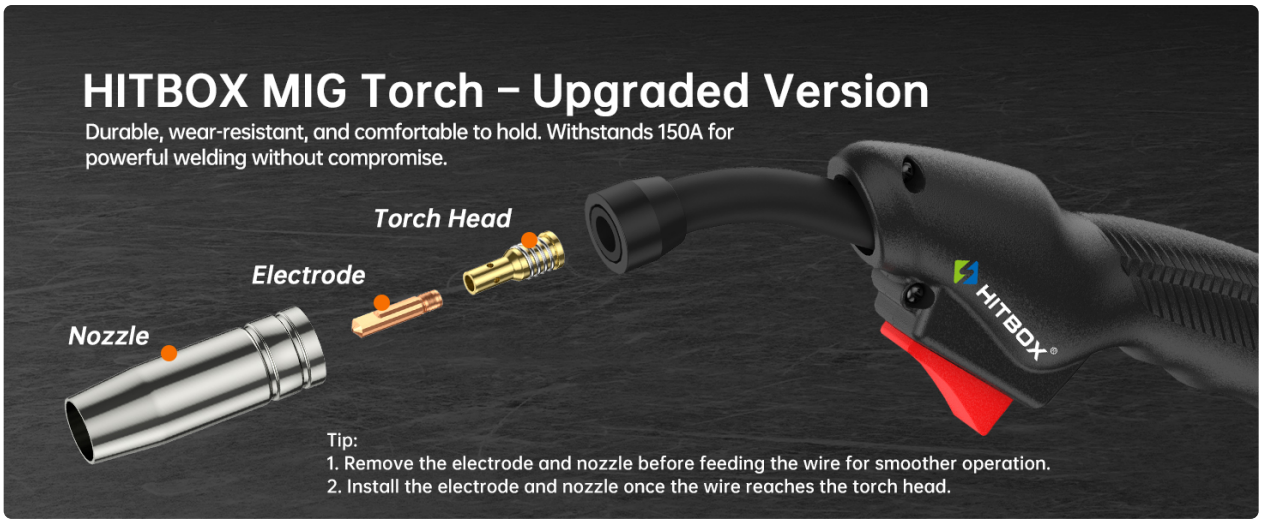

Image: Diagram of the HITBOX MIG Torch, detailing the assembly of the nozzle and electrode. Tip: Remove electrode and nozzle before feeding wire, then reinstall.

5. Operating the Welder

The HBM200 features a clear LED display and intuitive controls for selecting welding modes and adjusting parameters.

5.1 Mode Selection and Adjustment

1. Turn on the machine. The display will show the default mode.
2. Press the mode selection button to cycle through Flux MIG, Lift TIG, and MMA (Stick) welding modes.
3. For Flux MIG, select the wire diameter (0.8mm or 1.0mm) using the dedicated buttons. The synergic control system will automatically suggest appropriate current and wire feed speed.
4. Adjust the current using the main control knob. The display will show the current in Amps (20-200 Amps).

Image: The HITBOX HBM200 welder display, illustrating the synergic control feature for MIG welding, where wire size selection automatically adjusts wire feed speed.

5.2 Welding Process Overview

- **Flux Core MIG:** This gasless process is suitable for outdoor use and welding dirty or rusty materials. The flux in the wire creates a shielding gas.
- **ARC (Stick) Welding:** Uses covered electrodes and is versatile for various metals and thicknesses.
- **Lift TIG Welding:** Provides precise welds, ideal for thinner materials and applications requiring high aesthetic quality. Requires a separate TIG torch and shielding gas (99.9% Argon recommended).

Mode	Shielding Gas	Wire Type		Material Thickness	0.023" 0.6mm	0.030" 0.8mm	0.040" 1.0mm	0.050" 1.25mm	0.059" 1.5mm	0.078" 2.0mm	0.098" 2.5mm	0.118" 3.0mm	0.157" 4.0mm
Flux Cord MIG	NO Gas	E71T-GS		Recommended Current(A)	—	40-50	45-55	55-65	60-70	90-100	110-120	130-140	—
MMA	NO Gas	Electrode φ	2.5mm(3/32")		—	—	—	—	75	105	100	115	—
			3.2mm(1/8")		—	—	—	—	—				140
Lift TIG	99.9% Ar	Tungsten φ	1.6mm(1/16")		45	65	75	105	115	125	135	—	—
			2.4mm(3/32")		—	—						140	—

Image: Example of consistent weld beads, demonstrating the welding performance of the HITBOX HBM200.

6. Welding Parameter Guide

The following table provides recommended current settings for different welding modes, wire types, and material thicknesses. These are starting points and may require fine-tuning based on your specific application and skill level.

Image: Welding parameter chart detailing recommended current (Amps) for Flux Core MIG, MMA, and Lift TIG across various material thicknesses and wire/electrode types.

7. Maintenance

- **Regular Cleaning:** Keep the machine clean and free from dust and debris. Use compressed air to clean the cooling fan and internal components periodically.
- **Cable Inspection:** Regularly inspect all welding cables, connections, and the MIG gun for wear, damage, or loose connections. Replace damaged parts immediately.
- **Wire Feeder Maintenance:** Clean the wire feed rollers and guide tubes to ensure smooth wire feeding. Check roller tension.
- **Storage:** Store the welder in a dry, clean environment when not in use.

8. Troubleshooting

If you encounter issues with your HITBOX HBM200 welder, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Welder does not power on	No power supply; Power switch off; Internal fault	Check power outlet and circuit breaker; Ensure power switch is ON; Contact customer support if issue persists.
No arc/Poor arc starting	Poor ground connection; Incorrect settings; Damaged electrode/wire; Loose cable connections	Ensure ground clamp is on clean metal; Adjust current/voltage settings; Replace consumables; Tighten all connections.
Wire feeding issues (MIG)	Incorrect roller tension; Clogged liner; Wrong wire size; Kinked wire	Adjust drive roller tension; Clean or replace liner; Ensure correct wire size for rollers; Straighten wire.
Overheat indicator active	Exceeded duty cycle; Blocked ventilation	Allow machine to cool down; Ensure clear airflow to cooling fan.

9. Specifications

Feature	Detail
Model	HBM200
Welding Processes	Flux Core MIG, Lift TIG, Stick (MMA)
Input Voltage	110V
Max Output Current	140A
Item Weight	6.22 kg (approx. 7.85 lbs)
Parcel Dimensions	37.9 x 27.5 x 20.1 cm
Manufacturer	HITBOX

10. Warranty and Support

Your HITBOX HBM200 welding machine comes with a**2-year quality service guarantee**. For any welding-related inquiries or technical support, our professional technical team provides fast responses, typically within 24 hours. Please contact us through the retailer or the official HITBOX website for assistance.