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› HITBOX MT2000II 100V/200V Multi-Function Welder Instruction Manual

## HITBOX MT2000II

# HITBOX MT2000II 100V/200V Multi-Function Welder Instruction Manual

Model: MT2000II | Brand: HITBOX

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## 1. INTRODUCTION

The HITBOX MT2000II is a versatile multi-function welding machine designed for both household and professional use. It supports four welding modes: Gas MIG, Non-Gas MIG, Stick Welding (MMA), and Lift TIG. This unit features 100V/200V dual voltage compatibility, a maximum output current of 200A, and a 60% rated duty cycle, making it suitable for welding various materials including carbon steel, stainless steel, and iron. The intuitive LCD digital panel and synergic mode simplify operation, ensuring stable arc starts and excellent welding performance for both beginners and experienced users.

# 新世代なカラースクリーン

使用易くて、各モードの変換も便利です。



Image: The HITBOX MT2000II multi-function welder, showcasing its compact design and digital display.

## 2. SAFETY INFORMATION

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

### 2.1 General Safety Precautions

- **Electric Shock:** Welding current can cause fatal electric shock. Ensure proper grounding and insulation. Never touch live electrical parts. Wear dry welding gloves and protective clothing.
- **Fumes and Gases:** Welding produces fumes and gases that can be hazardous to health. Work in a well-ventilated area or use a fume extractor. Keep your head out of the fumes.
- **Arc Rays:** Arc rays can burn eyes and skin. Wear a welding helmet with appropriate shade lenses and protective clothing (gloves, long sleeves, pants).
- **Fire and Explosion:** Welding sparks and hot metal can cause fires or explosions. Keep flammable materials away from the welding area. Have a fire extinguisher readily available.

- **Hot Parts:** Welded materials and equipment can remain hot for a long time. Use insulated gloves and allow materials to cool before handling.
- **Moving Parts:** Keep hands and body clear of moving parts like wire feed rollers.
- **Pacemakers:** Individuals with pacemakers should consult their doctor before welding.

## 2.2 Personal Protective Equipment (PPE)

Always wear the following PPE:

- Welding helmet with appropriate shade.
- Flame-resistant clothing (long sleeves and pants).
- Heavy-duty welding gloves.
- Safety glasses (worn under the helmet).
- Ear protection.
- Safety shoes.

## 3. PRODUCT OVERVIEW

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The HITBOX MT2000II is a compact and powerful welding machine. Familiarize yourself with its components and controls before operation.

### 3.1 Front Panel Controls and Connections





# 4-in-1マルチ半自動溶接機



*Image: Visual representation of the four welding modes supported by the MT2000II: Stick Welding (MMA), Gas MIG, Mixed Gas MIG, Non-Gas MIG, and Lift TIG.*

The MT2000II offers four distinct welding processes:

- **Gas MIG:** Uses shielding gas (e.g., CO<sub>2</sub>, Argon-CO<sub>2</sub> mix) and solid wire for clean, high-quality welds.
- **Non-Gas MIG (Flux-Cored):** Uses flux-cored wire that generates its own shielding gas, suitable for outdoor use or when gas cylinders are impractical.
- **Stick Welding (MMA):** Uses coated electrodes for general-purpose welding, especially on thicker materials or in windy conditions.
- **Lift TIG:** Provides precise, high-quality welds on thin materials, requiring a separate TIG torch and shielding gas.

## 4. SETUP

Proper setup is crucial for safe and effective welding. Follow these steps carefully for each welding mode.

### 4.1 Power Connection

- Ensure the power switch is in the OFF position.
- Connect the power cable to a suitable 100V or 200V power outlet. The machine automatically detects the voltage.

## 4.2 Stick Welding (MMA) Setup

- Connect the electrode holder cable to the positive (+) terminal on the front panel.
- Connect the ground clamp cable to the negative (-) terminal on the front panel.
- Securely attach the ground clamp to the workpiece or a clean, bare metal work surface.
- Insert the welding electrode into the electrode holder.

*Text Description for MMA Setup:* This section details how to set up the machine for Stick Welding (MMA). It involves connecting the electrode holder to the positive terminal and the ground clamp to the negative terminal, then attaching the ground clamp to the workpiece and inserting an electrode into the holder. This prepares the machine for manual arc welding.

## 4.3 Gas MIG Welding Setup

- Open the side panel of the machine.
- Install the solid welding wire spool onto the spindle, ensuring it rotates freely.
- Feed the wire through the wire feeder mechanism, ensuring it passes through the correct groove for the wire diameter.
- Close the wire feeder tension arm and adjust the tension appropriately (not too tight, not too loose).
- Connect the MIG torch to the main MIG torch connector on the front panel.
- Connect the ground clamp cable to the negative (-) terminal on the front panel.
- Securely attach the ground clamp to the workpiece.
- Connect the gas hose from your shielding gas cylinder (e.g., CO<sub>2</sub>, Argon-CO<sub>2</sub> mix) to the gas inlet on the rear panel of the machine. Secure with a hose clamp.
- Ensure the gas regulator is properly installed on the gas cylinder and adjust the gas flow rate according to your welding requirements.

*Text Description for Gas MIG Setup:* This section outlines the steps for setting up Gas MIG welding. It covers installing the solid wire spool, feeding the wire through the feeder, connecting the MIG torch to the main connector, connecting the ground clamp to the negative terminal and the workpiece, and finally connecting the shielding gas hose to the machine and cylinder, adjusting the gas flow.

## 4.4 Non-Gas MIG (Flux-Cored) Welding Setup

- Open the side panel of the machine.
- Install the flux-cored welding wire spool onto the spindle.
- Feed the wire through the wire feeder mechanism, ensuring it passes through the correct groove for the wire diameter.
- Close the wire feeder tension arm and adjust the tension.
- Connect the MIG torch to the main MIG torch connector on the front panel.
- Connect the ground clamp cable to the positive (+) terminal on the front panel.
- Securely attach the ground clamp to the workpiece.
- No shielding gas connection is required for Non-Gas MIG welding.

*Text Description for Non-Gas MIG Setup:* This section explains how to set up for Non-Gas MIG welding. It involves installing flux-cored wire, feeding it through the feeder, connecting the MIG torch, and connecting the ground clamp to the positive terminal and the workpiece. No external shielding gas is needed for this process.

## 4.5 Lift TIG Welding Setup

- Connect the TIG torch to the negative (-) terminal on the front panel.
- Connect the ground clamp cable to the positive (+) terminal on the front panel.

- Securely attach the ground clamp to the workpiece.
- Connect the gas hose from your Argon shielding gas cylinder to the gas inlet on the rear panel of the machine. Secure with a hose clamp.
- Ensure the gas regulator is properly installed on the gas cylinder and adjust the Argon gas flow rate.
- Install a tungsten electrode into the TIG torch.

*Text Description for Lift TIG Setup:* This section details the setup for Lift TIG welding. It involves connecting the TIG torch to the negative terminal, the ground clamp to the positive terminal and the workpiece, and connecting an Argon gas cylinder to the machine's gas inlet with proper flow adjustment. A tungsten electrode must be installed in the TIG torch.



*Image: Diagram illustrating the correct cable connections for Non-Gas MIG, Gas MIG, Stick Welding (MMA), and Lift TIG modes.*

## 5. OPERATION

Once the machine is properly set up for your desired welding mode, follow these general operating instructions.

### 5.1 Power On and Mode Selection

- Turn the power switch to the ON position. The digital display will illuminate.
- Press the "Function Selection Button" to cycle through the available welding modes until your desired mode is selected (MMA, Gas MIG, Non-Gas MIG, Lift TIG).



Image: Close-up of the control panel showing the voltage and current adjustment dials, indicating ease of use.

## 5.2 Adjusting Welding Parameters

- **Synergic Mode:** The MT2000II features a synergic mode that automatically sets optimal initial welding current based on the selected mode and wire diameter.
- **Voltage Adjustment:** Use the "Voltage Adjusting Knob" to fine-tune the welding voltage.
- **Current Adjustment:** Use the "Current Adjusting Knob" to adjust the welding current. Refer to welding charts or practice on scrap material to find optimal settings for your specific material thickness and type.

*Note:* For MIG welding, the wire feed speed is typically synchronized with the current setting in synergic mode. If manual adjustment is needed, consult the detailed manual for specific instructions.

## 5.3 Welding Process

- Ensure proper ventilation and wear all required PPE.
- Position the workpiece and ground clamp securely.
- Initiate the arc according to the specific technique for your chosen welding mode (e.g., striking for MMA, trigger pull for MIG, lift-start for TIG).
- Maintain a consistent travel speed and arc length for a uniform weld bead.
- After welding, turn off the machine and allow the workpiece to cool before handling.



Image: A welder operating the HITBOX MT2000II, demonstrating the welding process with sparks and arc light.

## 6. MAINTENANCE

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

- **Cleaning:** Regularly clean the machine's exterior with a dry cloth. Use compressed air to blow out dust and debris from the cooling vents.
- **Cable Inspection:** Periodically inspect all welding cables, torch, and ground clamp for damage, fraying, or loose connections. Replace damaged components immediately.
- **Wire Feeder:** Keep the wire feeder rollers clean and free of debris. Ensure proper wire tension.
- **MIG Torch Consumables:** Regularly check and replace MIG torch consumables (contact tips, nozzles, diffusers) as they wear out.
- **TIG Torch Consumables:** Inspect and replace tungsten electrodes and ceramic nozzles as needed for Lift TIG.
- **Gas Connections:** For Gas MIG and Lift TIG, check gas hoses and connections for leaks.
- **Storage:** Store the welding machine in a clean, dry environment when not in use.

## 7. TROUBLESHOOTING

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This section provides solutions to common issues you might encounter.

Problem	Possible Cause	Solution
Machine does not power on.	No power supply, faulty power cable, internal fault.	Check power outlet, power cable, and circuit breaker. Contact support if issue persists.
No welding arc (MMA).	Poor ground connection, incorrect current setting, wet electrode, faulty cable.	Ensure ground clamp is on clean metal. Adjust current. Use dry electrodes. Check cables.
No wire feed (MIG).	Wire tangled, wire feeder tension incorrect, contact tip blocked, wrong wire diameter.	Check wire spool for tangles. Adjust wire feeder tension. Clean/replace contact tip. Ensure correct wire diameter.
Poor weld quality (MIG/TIG).	Incorrect voltage/current, improper gas flow, contaminated workpiece, worn consumables.	Adjust settings. Check gas cylinder and flow rate. Clean workpiece. Replace worn contact tips/nozzles/tungsten.
Overheat indicator active.	Exceeded duty cycle, blocked cooling vents.	Allow machine to cool down. Ensure cooling vents are clear. Reduce continuous welding time.

## 8. SPECIFICATIONS

Feature	Detail
Brand	HITBOX
Model Number	MT2000II
Input Voltage	100V/200V (Dual Voltage)
Max Output Current	200A
Rated Duty Cycle	60%
Welding Modes	Gas MIG, Non-Gas MIG, Stick Welding (MMA), Lift TIG
Applicable Welding Rod (MMA)	φ1.4mm - φ3.2mm
Applicable Welding Wire (MIG)	φ0.8mm / φ1.0mm
Applicable Plate Thickness (MIG)	1-10mm
Applicable Plate Thickness (TIG)	1.2-6mm
Applicable Plate Thickness (MMA)	2-12mm
Applicable Tungsten Electrode (TIG)	φ1.6mm
Product Dimensions	41.7 x 33.7 x 28.2 cm
Product Weight	10.14 kg

## 9. INCLUDED ACCESSORIES

The following accessories are included with your HITBOX MT2000II welding machine:

- Welding machine main unit
- 2.5m MIG welding torch

- 1.5m electrode holder
- 1.5m ground clamp cable
- Welding wire (0.8mm)
- 3m gas hose
- Hose clamps (2 pieces)
- Nozzles (2 pieces)
- 0.8mm contact tips (2 pieces)
- 1.0mm contact tips (2 pieces)
- 110V/220V adapter

Note: A Lift TIG torch is not included and must be purchased separately for Lift TIG welding.

## 付属品

2Mの半自動溶接トーチ、2Mの接地クリップ  
3Mのガスホース、0.8MMのフラックス入りワイヤ、ホースバンド2個



Image: All included accessories laid out next to the HITBOX MT2000II welding machine.

## 10. WARRANTY AND SUPPORT

Your HITBOX MT2000II welding machine comes with a 2-year warranty from the date of purchase. If you encounter any issues with the product, please contact our customer support team. We are committed to providing responsible assistance.

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

