

HITBOX MIG250DP

HITBOX MIG250DP 5-in-1 250A Multi-Process Welder Instruction Manual

Model: MIG250DP | Brand: HITBOX

1. SAFETY INFORMATION

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

1.1 General Safety Precautions

- Read and understand the entire instruction manual before operation.
- Wear appropriate Personal Protective Equipment (PPE), including welding helmet, gloves, protective clothing, and safety shoes.
- Ensure the work area is well-ventilated to avoid inhaling welding fumes.
- Keep children and unauthorized personnel away from the welding area.
- Do not operate the welder in damp or wet conditions.
- Always disconnect power before performing maintenance or changing accessories.

1.2 Electrical Safety

- Ensure the power supply matches the welder's requirements (230V DC).
- Use only properly grounded power outlets.
- Inspect power cables and welding leads for damage before each use. Replace damaged cables immediately.
- Avoid touching live electrical parts.

1.3 Welding Specific Hazards

- **Arc Rays:** Can burn eyes and skin. Use a welding helmet with appropriate shade.
- **Fumes and Gases:** Can be hazardous to your health. Work in a well-ventilated area.

- **Electric Shock:** Can kill. Ensure proper grounding and insulation.
- **Fire and Explosion:** Welding sparks can cause fires. Keep flammable materials away from the work area.

SÉCURITÉ & FIABILITÉ



Surchauffe

Protection automatique de votre machine contre la surchauffe



Surcharge

Système d'arrêt automatique



VRD

Dispositif de réduction de la tension – protection pour la sécurité de l'utilisateur



Tension excessive

Dispose également d'une protection contre les surintensités. Protège votre sécurité absolue pendant l'utilisation



Figure 1: Safety features of the HITBOX MIG250DP, including overheat, overload, VRD (Voltage Reduction Device), and excessive voltage protection.

2. PRODUCT OVERVIEW

The HITBOX MIG250DP is a versatile 5-in-1 multi-process welding machine designed for various welding

applications, including gas MIG, gasless MIG, MMA (Stick), and LIFT TIG welding. It features advanced single-pulse aluminum welding capabilities and a user-friendly interface.

2.1 Key Features

- **5-in-1 Multi-Process:** Supports MIG CORED FLUX, MIG CO₂, MIG MIX, LIFT TIG, and MMA welding.
- **Single Pulse Aluminum Welding:** Reduces deformation and breakage on thin materials (down to 0.7mm).
- **Synergic Control:** Automatically adjusts current and wire feed speed based on wire diameter and gas selection, simplifying operation.
- **Color LED Display:** Provides precise data display for easy monitoring.
- **Safety Protections:** Equipped with overheat and overcurrent protection, Insulation Class F, and Protection Degree IP21.
- **AC36V Gas Heater Connection:** For improved weld aesthetics.

MACHINE MULTI-PROCESSUS



Figure 2: The HITBOX MIG250DP supports multiple welding processes.

CONÇU POUR LE SOUDAGE DE L'ALUMINIUM

(Achetez le fil d'aluminium séparément)

- Contrôle synergique
- Pulsation unique
- Épaisseur soudable : 0,7MM+



Figure 3: Advanced features for aluminum welding with the HITBOX MIG250DP.

MIG250DP



1. GRAND ÉCRAN LCD

2. SYNERGIQUE, FACILE À UTILISER

3. 6 EN 1



4. PROTECTION SILENCIEUSE

5. SOUDAGE D'ALUMINIUM

AUTRES



VS



1. Petit affichage



2. Réglage manuel des données



3. Fonction unique



4. Niveau de bruit élevé



5. Soudage uniquement de certains métaux

Figure 4: Advantages of the HITBOX MIG250DP, including its large LCD and synergic 5-in-1 functions.

3. SETUP

3.1 Unboxing and Components

Carefully unpack the welding machine and all accessories. Verify that all components listed in the manual are present.

ACCESSOIRES & TAILLE

1. Pince de soudage 2M*1
2. Pince de terre 1,8M*1
3. Torche MIG de 3M*1

26.45 LB



Figure 5: Included accessories with the HITBOX MIG250DP.

3.2 Wire Feed Installation

Open the side panel of the welder to access the wire feed mechanism. Install the appropriate welding wire (solid, aluminum, or flux-cored) onto the spool holder. Ensure the wire is correctly threaded through the drive rollers and into the MIG torch liner.

SILENCIEUX ET GRANDE CAPACITÉ



Ventilateurs



Fonction de refroidissement



Mode silencieux



Figure 6: Wire feed mechanism and spool support.

3.3 Cable Connections

Connect the welding cables according to the specific welding process you intend to use. Ensure all connections are secure.

3.3.1 Spool Gun Connection (for Aluminum Welding)

For aluminum welding, a spool gun is often used. Connect the spool gun to the designated port on the welder. Ensure the mode button is set to the MIG gun status to activate wire feeding from the spool gun. Press the torch handle switch to start wire feed and perform welding operations.

Your browser does not support the video tag. This video demonstrates the operation of a spool gun for welding.

Video 1: Spool gun operation for welding. This video shows how to connect and use a spool gun with a welding machine, including switching modes and feeding wire.

Your browser does not support the video tag. This video demonstrates the usage of a spool gun.

Video 2: Usage of a spool gun. This video illustrates the process of setting up and using a spool gun for welding applications.

4. OPERATING MODES

The MIG250DP offers multiple welding modes. Select the appropriate mode and adjust parameters using the color LED display and control knobs.

4.1 MIG Welding (Gas & Gasless)

- **MIG Gas (CO₂/MIX):** Connect the gas cylinder to the gas inlet on the rear of the machine. Use solid wire and appropriate shielding gas (CO₂ or Argon/CO₂ mix).
- **MIG Gasless (Flux-Cored):** Use flux-cored wire. No external shielding gas is required.
- **Synergic Mode:** Select the wire diameter and material type on the display. The machine will automatically suggest optimal current and wire feed speed. Fine-tune as needed.

4.2 MMA (Stick) Welding

- Connect the electrode holder to the positive (+) terminal and the ground clamp to the negative (-) terminal.
- Select MMA mode on the display.
- Adjust the current based on the electrode type and diameter.

4.3 LIFT TIG Welding

- Connect the TIG torch to the negative (-) terminal and the ground clamp to the positive (+) terminal.
- Connect an argon gas cylinder to the gas inlet.
- Select LIFT TIG mode.
- Initiate the arc by gently touching the tungsten electrode to the workpiece and lifting it slightly.

4.4 Aluminum Pulse Welding

The MIG250DP features a single-pulse function specifically for aluminum welding. This mode helps to control heat input, reducing burn-through and distortion on thinner aluminum materials. Use a spool gun with aluminum wire and 100% Argon shielding gas for best results.

5. MAINTENANCE

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

- **Cleaning:** Periodically clean the internal components of the welder using compressed air to remove dust

and metal particles. Ensure the machine is unplugged before cleaning.

- **Torch and Cable Inspection:** Regularly inspect welding torches, cables, and connections for wear, damage, or loose fittings. Replace any damaged parts.
- **Wire Feed System:** Keep the wire feed rollers clean and free of debris. Ensure the correct drive rollers are installed for the wire type and diameter being used.
- **Storage:** Store the welder in a clean, dry environment, away from excessive dust, moisture, and extreme temperatures.

6. TROUBLESHOOTING

This section provides solutions to common issues. For problems not listed here, contact customer support.

6.1 Common Issues and Solutions

- **No Arc:** Check power supply, ground clamp connection, and welding mode selection. Ensure the electrode or wire is making proper contact.
- **Poor Weld Quality:** Verify correct parameters (current, voltage, wire feed speed), proper gas flow (if applicable), and clean workpiece. Check for correct electrode/wire size.
- **Wire Feeding Issues:** Inspect wire spool for tangles, check drive roller tension, ensure correct drive rollers are installed, and clean the torch liner.
- **Overheat Protection Activated:** Allow the machine to cool down. Ensure proper ventilation and avoid exceeding the duty cycle.

7. SPECIFICATIONS

Feature	Value
Manufacturer	HITBOX
Product Dimensions (L x W x H)	47 x 29 x 37 cm
Model Reference	MIG250DP
Style	MIG250DP
Power Type	DC
Item Quantity	1
Components Included	1
Batteries Included?	No
Batteries Required?	No

Weight	8 Kilograms
Spare Parts Availability	Information unavailable on spare parts
ASIN	B0CPNZRH2S
First Available Date	December 19, 2023

8. WARRANTY AND SUPPORT

The HITBOX MIG250DP comes with a comprehensive after-sales service. If you encounter any problems during the use of this machine, please contact us first. Our 24-hour online customer service will assist you in resolving your issues.

The package includes: 1x MIG250DP machine, 1x MB15 torch, 1x ground clamp, 1x welding clamp, 1x welding wire, 1x graphite sheath, 1x gas tube, 1x instruction manual.