

HITBOX HF Plasma Cutter/HBC5500P

HITBOX Plasma Cutter 55Amp User Manual

Model: HF Plasma Cutter/HBC5500P

Brand: HITBOX

INTRODUCTION

This manual provides comprehensive instructions for the safe and effective operation and maintenance of your HITBOX Plasma Cutter 55Amp. Please read this manual thoroughly before operating the machine to ensure proper usage and to prevent injury or damage.

SAFETY INFORMATION

WARNING: Plasma cutting involves high voltage, high temperatures, and intense light. Always follow safety precautions to prevent serious injury or death.

- Always wear appropriate personal protective equipment (PPE), including welding helmet with proper shade, safety glasses, welding gloves, and protective clothing.
- Ensure adequate ventilation to disperse fumes.
- Do not operate in wet conditions or near flammable materials.
- Ensure proper grounding of the equipment.
- Disconnect power before performing any maintenance or changing consumables.
- Keep children and unauthorized personnel away from the work area.

PRODUCT OVERVIEW

The HITBOX Plasma Cutter 55Amp is a high-frequency non-touch pilot arc air plasma cutting machine designed for efficient metal cutting. It features dual voltage compatibility (110V/220V) and advanced IGBT inverter technology for stable performance.

Key Features:

- **Non-Touch Pilot Arc Function:** Enables cutting without direct metal contact, improving cut quality and extending consumable life. Effective on rough, painted, and rusty surfaces.
- **Powerful Cutting Performance:** Advanced IGBT inverter technology with 50/60Hz high frequency and 60% duty cycle. Achieves 12mm ideal clean cut and 21mm maximum severance cut under 220V; 8mm ideal clean cut and 10mm maximum severance cut under 110V.
- **Easy Setup:** Pre-installed air filter regulator and industrial-style quick gas connection for hassle-free setup and 100% air non-leakage.

- Automatic Cutting (2T/4T): Features 2T semi-automatic and 4T automatic cutting control for hands-free operation.
- Versatile Application: Suitable for Stainless Steel, Alloy Steel, Mild Steel, Copper, Aluminum, and other metals.
- Portable Design: Weighs only 6kg, making it easy to transport to any workplace.

COMPONENTS AND ACCESSORIES

Your HITBOX Plasma Cutter package includes the following:

- HITBOX Plasma Cutter Machine (HBC5500)
- AG60 Cutting Torch (1 pcs)
- Earth Clamp (1 pcs)
- Air Hose (1 pcs)
- Nozzles (2 pcs)
- Electrodes (2 pcs)
- Hose Clamps (2 pcs)
- 220V~110V Adapter (1 pcs)
- Instruction Manual

ACCESSORIES SHOW



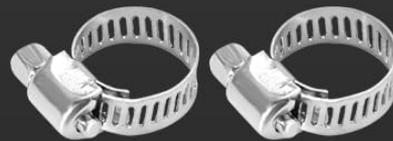
AG60 Cutting torch 1pcs



Earth clamp 1pcs



Nozzle 2pcs



Hose clamp 2pcs



Air hose 1pcs



Electrode 2pcs

Figure 1: Included Components and Accessories

SETUP INSTRUCTIONS

Follow these steps to set up your plasma cutter:

1. Power Connection

The machine supports dual voltage (110V/220V). Use the appropriate power outlet and adapter if necessary.

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Video 1: Initial setup and overview of the HITBOX Plasma Cutter HBC5500, including power connection, component connection, and basic operation.

2. Torch and Ground Clamp Connection

Connect the cutting torch and earth clamp to the designated ports on the front panel of the machine. Ensure connections are secure.



Figure 2: Front Panel Connections (1: Current Display, 2: Current Adjust, 3: 2T/4T, 4: Gas Out, 5: Torch Connector, 6: Earth Connector)

3. Air Connection

Connect the air hose to the pre-installed air filter regulator on the rear of the machine. Ensure a secure, non-leaking connection. An air compressor is required (not included).



Figure 3: Rear Panel Features (7: Waterproof Switch, 8: Air Filter, 9: Cool Fan)

It is recommended to set the air pressure between 42 to 57 PSI for optimal performance.

OPERATING INSTRUCTIONS

1. Power On and Adjust Settings

Turn on the power switch located on the rear panel. Use the current adjust knob on the front panel to set the desired amperage for your cutting task. The digital display will show the current setting.



Figure 4: Digital Display and 2T/4T Selection

2. Select 2T/4T Mode

Press the 2T/4T button to toggle between semi-automatic (2T) and automatic (4T) cutting modes based on your preference and task requirements.

3. Perform Cutting

Position the torch over the material to be cut. The non-touch pilot arc allows for cutting without direct contact. Maintain a consistent distance for a clean cut. The machine is capable of cutting various materials including Stainless Steel, Alloy Steel, Mild Steel, Copper, and Aluminum.



Figure 5: Non-Touch Pilot Arc in Operation



Figure 6: Cutting Thickness Capabilities (12mm clean cut, 21mm max severance at 220V)

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your plasma cutter.

- ****Air Filter:**** Periodically check and drain the moisture from the air filter regulator. Replace the filter element if it becomes clogged or damaged.
- ****Consumables:**** Inspect the torch nozzles and electrodes regularly. Replace them when they show signs of wear to maintain cut quality. The package includes extra consumables.
- ****Cleaning:**** Keep the machine clean and free from dust and debris. Ensure the cooling fan is unobstructed for proper heat dissipation.
- ****Connections:**** Verify all electrical and air connections are tight and secure before each use.

TROUBLESHOOTING

If you encounter issues with your HITBOX Plasma Cutter, consider the following common solutions:

- ****No Arc/Poor Cut:****
 - Check power supply and ensure it matches the machine's requirements (110V/220V).
 - Verify air pressure is within the recommended range (42-57 PSI).
 - Inspect torch consumables (nozzle, electrode) for wear and replace if necessary.
 - Ensure the earth clamp has a good connection to the workpiece.
- ****Overheat Protection:**** The machine has overload protection and will shut down if it overheats or experiences an overcurrent situation. Allow the machine to cool down before resuming operation. Ensure proper ventilation.
- ****Air Leakage:**** Check all air hose connections, especially the quick gas connection, for any leaks.

For persistent issues or technical support, please contact HITBOX customer service.

SPECIFICATIONS

Specification	Value
Manufacturer	HITBOX
Model Number	HF Plasma Cutter/HBC5500P
Item Weight	19.74 pounds
Package Dimensions	19.21 x 11.06 x 9.02 inches
Country of Origin	China
Power Source	AC
Ideal Clean Cut (220V)	12mm
Max Severance Cut (220V)	21mm
Ideal Clean Cut (110V)	8mm
Max Severance Cut (110V)	10mm
Duty Cycle	60%

WARRANTY AND SUPPORT

HITBOX is committed to providing quality products. If you encounter any problems during operation, please contact us at the first time for assistance. Your satisfaction is our priority.