

ANDELI MCT-416P

ANDELI MCT-416P Multi-Process Welder/Cutter Instruction Manual

Model: MCT-416P

1. SAFETY INSTRUCTIONS

Read and understand all safety precautions before operating the ANDELI MCT-416P Multi-Process Welder/Cutter. Failure to follow these instructions can result in serious injury or death.

- **Electrical Safety:** Ensure proper grounding. Do not operate in wet conditions. Always disconnect power before servicing.
- **Fume Hazards:** Welding and cutting produce fumes and gases. Work in a well-ventilated area or use a fume extractor.
- **Arc Rays:** Arc rays can burn eyes and skin. Wear appropriate welding helmets with proper shade filters and protective clothing.
- **Fire and Explosion:** Keep flammable materials away from the work area. Welding sparks can cause fires.
- **Hot Parts:** Welding and cutting equipment can become extremely hot. Allow equipment to cool before handling.
- **Personal Protective Equipment (PPE):** Always wear welding gloves, protective clothing, safety glasses, and a welding helmet.

2. PRODUCT OVERVIEW

The ANDELI MCT-416P is a versatile 6-in-1 multi-process welding and plasma cutting machine, designed for a wide range of applications. It supports Pulse MIG, HF TIG, HF CUT, Stick, and Flux Core welding, operating on both 110V and 220V dual voltage inputs.

PLASMA CUTTING OFFERS HIGH-SPEED PRECISION

Producing clean and smooth cuts for industrial-grade efficiency and versatility.



Image Description: This image displays the ANDELI MCT-416P multi-process machine. A user is shown performing plasma cutting on a metal workpiece. Insets at the bottom illustrate the cutting capabilities at different voltages: a 12mm (0.59 inch) thick cut achieved with 110V input, and a 15mm (0.59 inch) thick cut achieved with 220V input, highlighting the machine's dual voltage performance for high-speed precision cutting.

Key Features:

- **6-in-1 Functionality:** Pulse MIG, HF TIG, HF CUT, Stick, Flux Core.
- **Dual Voltage:** Compatible with 110V and 220V power sources.
- **High-Frequency (HF) Start:** For TIG and Plasma Cutting, ensuring clean arc initiation.
- **Digital Display:** For precise control and monitoring of welding parameters.

3. SETUP

3.1 Unpacking and Inspection

Carefully remove the machine and all accessories from the packaging. Inspect for any shipping damage. Report any damage to your supplier immediately.

3.2 Power Connection

The MCT-416P supports both 110V and 220V power inputs. Ensure the correct power cord and plug are used for your region and power supply. Connect the machine to a dedicated circuit with appropriate overcurrent protection.

- **110V Connection:** Use the provided 110V adapter if necessary.
- **220V Connection:** Connect directly to a 220V outlet.

3.3 Gas Connection (for MIG, TIG, CUT)

For MIG, TIG, and Plasma Cutting operations, connect the appropriate gas supply to the machine's gas inlet. Ensure all connections are secure and leak-free.

- **MIG Welding:** Use shielding gas (e.g., Argon/CO2 mix for steel, 100% Argon for aluminum).
- **TIG Welding:** Use 100% Argon shielding gas.
- **Plasma Cutting:** Use compressed air.

3.4 Torch and Ground Clamp Connection

Connect the welding/cutting torch and the ground clamp to their respective terminals on the front panel of the machine. Ensure connections are tight to prevent poor electrical contact.

4. OPERATING INSTRUCTIONS

The MCT-416P features a user-friendly interface for selecting modes and adjusting parameters.

4.1 Mode Selection

Use the mode selection button on the control panel to cycle through the available functions: Pulse MIG, HF TIG, HF CUT, Stick, and Flux Core. The selected mode will be indicated on the digital display.

4.2 Plasma Cutting (HF CUT)

1. Select 'CUT' mode.
2. Connect the plasma torch and ground clamp.
3. Connect compressed air supply and set pressure according to material thickness.
4. Adjust cutting current (Amps) based on material type and thickness.
5. Ensure proper ventilation and wear full PPE.
6. Initiate arc by pressing the torch trigger. Maintain a consistent standoff distance for optimal cut quality.

4.3 Pulse MIG Welding

1. Select 'PULSE MIG' mode.
2. Install appropriate wire spool and feed wire through the torch liner.
3. Connect shielding gas (e.g., Argon for aluminum, Argon/CO2 for steel).
4. Adjust wire feed speed, voltage, and pulse parameters according to the material and wire diameter.
5. Ensure proper ground connection and wear PPE.
6. Begin welding by pressing the torch trigger.

4.4 HF TIG Welding

1. Select 'HF TIG' mode.
2. Install a sharpened tungsten electrode into the TIG torch.

- 3. Connect 100% Argon shielding gas.
- 4. Adjust welding current (Amps) and gas flow rate.
- 5. Ensure proper ground connection and wear PPE.
- 6. Initiate arc using the HF start feature by pressing the torch trigger.

4.5 Stick Welding (MMA)

- 1. Select 'STICK' mode.
- 2. Insert the appropriate electrode into the electrode holder.
- 3. Adjust welding current (Amps) based on electrode type and diameter.
- 4. Ensure proper ground connection and wear PPE.
- 5. Strike the arc by lightly touching and then lifting the electrode from the workpiece.

4.6 Flux Core Welding

- 1. Select 'FLUX CORE' mode.
- 2. Install flux-cored wire spool and feed wire through the torch liner.
- 3. No external shielding gas is required for self-shielded flux core wire.
- 4. Adjust wire feed speed and voltage.
- 5. Ensure proper ground connection and wear PPE.
- 6. Begin welding by pressing the torch trigger.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your MCT-416P.

- **Cleaning:** Periodically clean the machine's exterior with a dry cloth. Use compressed air to blow out dust and debris from inside the machine, ensuring power is disconnected first.
- **Consumable Replacement:** Regularly inspect and replace worn consumables such as plasma torch tips, electrodes, nozzles, MIG contact tips, and TIG tungsten electrodes.
- **Cable Inspection:** Check all cables (power, ground, torch) for damage, cuts, or frayed insulation. Replace damaged cables immediately.
- **Gas Lines:** Inspect gas lines for leaks or damage.
- **Storage:** Store the machine in a clean, dry environment, protected from dust and moisture.

6. TROUBLESHOOTING

This section addresses common issues you might encounter. For problems not listed here, contact customer support.

Problem	Possible Cause	Solution
Machine does not power on	No power supply; tripped circuit breaker; faulty power cord.	Check power connection; reset circuit breaker; inspect power cord.
No arc initiation	Poor ground connection; incorrect settings; worn consumables; gas supply issue (for TIG/CUT/MIG).	Ensure ground clamp is secure; verify settings; replace consumables; check gas flow.

Problem	Possible Cause	Solution
Poor weld/cut quality	Incorrect parameters (Amps, Volts, Wire Speed); improper technique; contaminated material; worn consumables.	Adjust settings; refine technique; clean workpiece; replace consumables.
Overheating protection activated	Exceeded duty cycle; blocked ventilation.	Allow machine to cool down; ensure clear airflow around the machine.

7. SPECIFICATIONS

Feature	Specification
Model	MCT-416P
Input Voltage	110V/220V Dual Voltage (AC)
Max Output Current	160 Amp (approximate, varies by process)
Processes	Pulse MIG, HF TIG, HF CUT, Stick (MMA), Flux Core
Item Weight	18.85 pounds
Package Dimensions	19.7 x 14.6 x 13.4 inches
Manufacturer	ANDELI

8. WARRANTY AND SUPPORT

ANDELI products are manufactured to high-quality standards. For warranty information, please refer to the warranty card included with your product or contact ANDELI customer support directly. Keep your purchase receipt as proof of purchase.

For technical assistance, troubleshooting, or parts inquiries, please contact ANDELI customer service through their official website or the contact information provided in your product packaging.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question