

[Manuals.plus](#) /

› [ANDELI](#) /

› ANDELI MCT-520DPL 5-in-1 Multiprocess Welder Instruction Manual

ANDELI MCT-520DPL

ANDELI MCT-520DPL 5-in-1 Multiprocess Welder Instruction Manual

Model: MCT-520DPL | Brand: ANDELI

1. PRODUCT OVERVIEW

The ANDELI MCT-520DPL is a versatile 5-in-1 multiprocess welding machine designed for various welding and cutting applications. It supports MIG (CO₂/MIX/FLUX), TIG (HF), CUT (Plasma Cutting), COLD welding, PULSE TIG, and MMA (Stick) welding modes. This manual provides essential information for safe and effective operation of your welder.

5-in-1 Multi-function Welder MCT-520DPL



Weight : 16KG

Dimension : 489×210×327MM



Allen Wrench



Ground Clamp



15AK 3M



PT-31 4M



WP-9F 4M



MMA Holder 3M



Gas Pipe 3M



Nozzle Shield*2



Tungsten Electrode*10



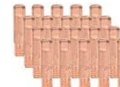
Tip*10



Electrode*10



Collet*10



Nozzle*20



Stainless Steel Wire



Welding Rod*5



Flux-cored Wire 1KG



Nozzle*10



Hose Barb*2



Pneumatic Joint*2



Hose Hoop*2

Figure 1.1: ANDELI MCT-520DPL Multiprocess Welder.

ANDELI

MULTIFUNCTIONAL WELDING MACHINE



Figure 1.2: Overview of the MCT-520DPL's welding and cutting functions.

2. SAFETY INFORMATION

Always prioritize safety when operating welding and cutting equipment. This machine is CE certified. Read and understand all safety warnings and instructions before use.

- Wear appropriate personal protective equipment (PPE), including welding helmet, gloves, and protective clothing.
- Ensure proper ventilation to avoid inhaling fumes.
- Connect the machine to a properly grounded 220V power supply.
- Keep children and unauthorized personnel away from the work area.
- The machine features a durable transformer and advanced IGBT technology for stable performance.
- An automatic shutdown feature is integrated to prevent damage in case of overload.
- The sheet metal construction is shock-resistant for enhanced durability.



Figure 2.1: Key safety and performance features of the welder.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- MCT-520DPL Multiprocess Welder with US plug
- Ground clamp
- MIG torch 15AK
- CUT torch PT-31
- TIG torch WP-9F
- Gas pipe (3m)
- Air pressure regulator
- Hose clamp (x2)
- Tungsten electrode (x10)
- Tip (x10)
- Electrode (x10)
- Collet (x10)
- Nozzle (x20)
- Stainless steel wire
- Nozzle shield (x2)
- Carbon steel wire (1kg)
- Welding wire (3m)
- Welding gloves
- MMA holder
- Welding rod (x5)



Figure 3.1: The MCT-520DPL welder and its comprehensive set of included accessories.

4. SETUP

Follow these steps to set up your ANDELI MCT-520DPL welder:

1. **Power Connection:** Connect the welder to a stable 220V power source using the provided US plug. Ensure the power outlet is properly grounded.
2. **Ground Clamp:** Attach the ground clamp securely to the workpiece or a clean, conductive work surface. A good ground connection is crucial for safe and effective welding.
3. **Torch Connection:** Connect the appropriate torch (MIG, TIG, or CUT) to its designated port on the front panel. Ensure connections are tight.
4. **Gas Connection (for MIG, TIG, COLD):** If using a shielding gas, connect the gas pipe from your gas cylinder (e.g., CO₂, Argon, or Argon/CO₂ mix) to the air pressure regulator, then to the gas inlet on the welder. Adjust the gas flow rate as required for your welding process.
5. **Air Compressor Connection (for CUT):** For plasma cutting, connect an external air compressor to the air inlet on the welder and set the air pressure to approximately 80 PSI.
6. **Welding Wire/Electrode Installation:**
 - For MIG: Install the appropriate welding wire spool (e.g., carbon steel wire, stainless steel wire, flux-cored wire) into the wire feeder compartment. Thread the wire through the liner to the MIG torch.
 - For TIG: Insert a tungsten electrode into the TIG torch collet.
 - For MMA: Insert a welding rod into the MMA holder.

SAFETY PERFORMANCE



Sheet Metal
Shock-resistant



Durable
Transformer



If Overload
Auto Shutdown



Advanced
IGBT Technology

Figure 4.1: Proper connection points for torches, ground clamp, and gas/air lines.

Your browser does not support the video tag.

Video 4.1: Official product video demonstrating the setup and various welding modes of the ANDELI MCT-520DPL welder.

5. OPERATING INSTRUCTIONS

The MCT-520DPL features an intuitive control panel. Familiarize yourself with the controls before operation.

PANEL BUTTON INTRODUCTION

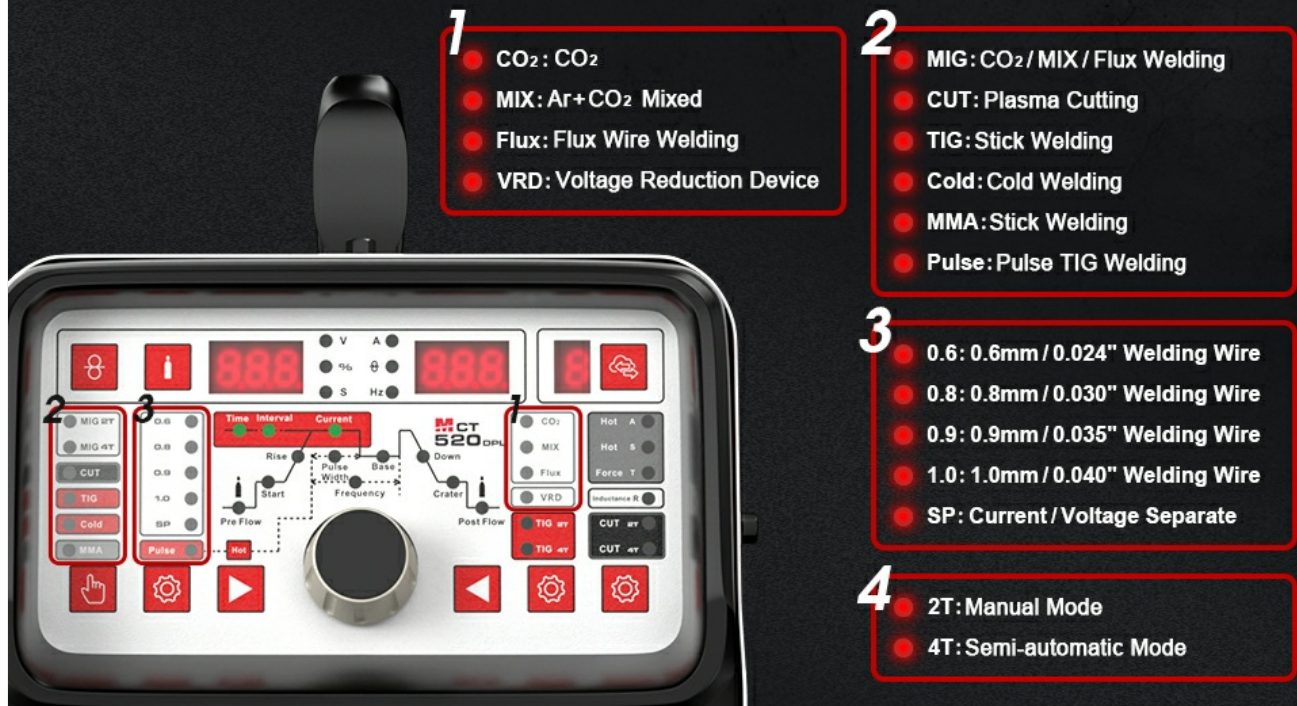


Figure 5.1: Detailed introduction to the control panel buttons and indicators.

5.1. MIG Welding (Gas/Gasless Flux)

MIG welding is suitable for ordinary thin steel, iron, stainless steel, low-carbon steel, and mold repair. It is not suitable for welding aluminum. The machine supports CO₂, mixed gas, or flux-cored wire without gas.

- Select MIG mode on the control panel.
- Choose the appropriate wire diameter: 0.6mm (0.024"), 0.8mm (0.030"), 0.9mm (0.035"), or 1.0mm (0.040").
- Adjust welding current and voltage according to material thickness and wire type.
- For gas MIG, ensure proper gas flow. For flux-cored wire, no external gas is needed.



Figure 5.2: Example of MIG welding in progress.

5.2. TIG Welding (HF & Pulse)

TIG welding provides precise control and high-quality welds, especially for thinner materials.

- Select TIG mode (HF or Pulse TIG) on the control panel.
- Ensure pure argon gas is connected and flowing.
- Adjust current, pulse frequency, and other parameters based on material and desired weld.



Figure 5.3: Example of TIG welding in progress.

5.3. CUT (Plasma Cutting)

The plasma cutting function allows for efficient cutting of various metals with a cutting thickness range of 6-10mm.

- Select CUT mode.
- Ensure an air compressor is connected and providing approximately 80 PSI of air pressure.
- Adjust cutting current based on material thickness.



Figure 5.4: Example of plasma cutting in progress.

5.4. COLD Welding

COLD welding is ideal for thin stainless steel, thin steel, and carbon steel, minimizing heat deformation and discoloration for high aesthetic results. This mode requires pure argon gas.

- Select COLD mode.
- Ensure pure argon gas is connected and flowing.
- Adjust parameters for precise, low-heat welding.

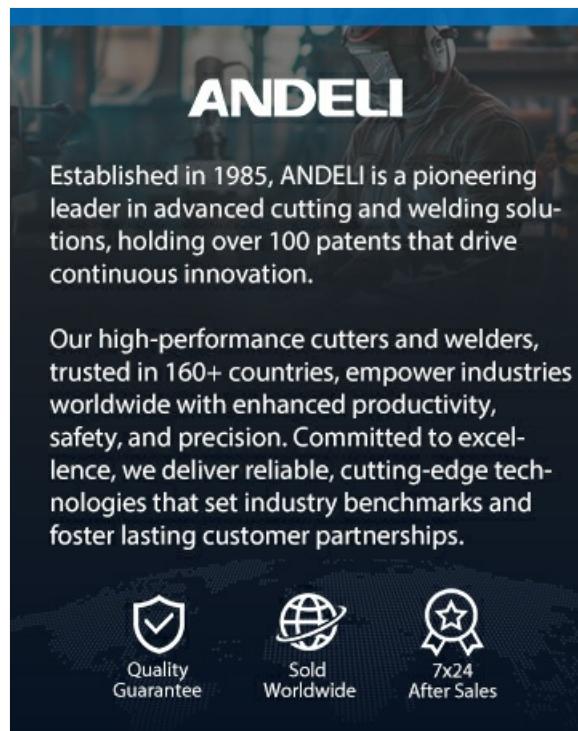


Figure 5.5: Example of cold welding application.

5.5. MMA Welding (Stick)

MMA (Manual Metal Arc) welding, also known as stick welding, is a robust process suitable for various applications using welding rods up to 3.2mm.

- Select MMA mode.
- Insert the appropriate welding rod into the MMA holder.
- Adjust welding current based on rod type and material thickness.



Figure 5.6: Example of MMA (stick) welding in progress.



Figure 5.7: Visual comparison of welding results from MIG, CUT, TIG, COLD, and MMA modes.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your welder.

- **Cleaning:** Periodically clean the exterior of the machine with a dry cloth. Ensure ventilation openings are free from dust and debris. Use compressed air to gently clear internal dust if necessary, ensuring the machine is unplugged.
- **Torch Inspection:** Inspect welding torches regularly for wear and tear on nozzles, contact tips, and electrodes. Replace worn parts to maintain weld quality.
- **Cable Check:** Examine all cables (power, ground, torch) for cuts, fraying, or damage. Replace damaged cables immediately.
- **Gas/Air Lines:** Check gas and air lines for leaks or blockages. Ensure connections are secure.
- **Storage:** Store the welder in a clean, dry environment when not in use.

7. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
No power	Power cable disconnected, circuit breaker tripped, faulty power switch	Check power cable, reset circuit breaker, contact support if switch is faulty
Poor arc start/stability	Improper ground connection, incorrect settings, worn consumables (tip, electrode)	Ensure good ground, adjust current/voltage, replace consumables
Wire feeding issues (MIG)	Tangled wire, incorrect tension, clogged liner, worn drive roller	Untangle wire, adjust tension, clean/replace liner, check drive roller

Problem	Possible Cause	Solution
No gas flow (MIG/TIG/COLD)	Empty gas cylinder, closed valve, kinked hose, faulty regulator	Check cylinder level, open valves, straighten hose, inspect regulator
Overload shutdown	Exceeded duty cycle, insufficient ventilation	Allow machine to cool down, ensure adequate ventilation, reduce current/duty cycle

If the problem persists after attempting these solutions, please contact customer service for further assistance.

8. SPECIFICATIONS

Detailed technical specifications for the ANDELI MCT-520DPL welder:



Figure 8.1: Technical specifications table for the MCT-520DPL.

Feature	Specification
Manufacturer	ANDELI
Part Number	MCT-520DPL
Item Weight	58.4 pounds (Approx. 16 KG)
Package Dimensions	23.8 x 22.9 x 12.5 inches
Item Model Number	MCT-520DPL
Voltage	220 Volts (230V $\pm$ 10%)
Frequency	50 / 60 Hz
Power Factor	0.73-0.76
Efficiency	80-85%
Rated Input Power (KW)	MIG: ~8.2, MMA: ~9.5, CUT: ~8.5
Welding Current Range (A)	MIG: 50-200, TIG: 10-200, MMA: 10-200, CUT: 20-50

Feature	Specification
No-Load Voltage (V)	64
Duty Cycle (40°C 10min)	30% (200A/24V), 60% (141A/21.1V), 100% (110A/19.5V) for MIG/TIG/MMA
Protection Class	IP21S
Insulation Class	H
Cooling	FAN & AIR
Dimension (MM)	489×210×327

9. WARRANTY AND SUPPORT

ANDELI is committed to providing reliable products and excellent customer service.

- **Warranty:** This product comes with a two-year warranty and free replacement parts for manufacturing defects.
- **Returns and Exchanges:** Returns and exchanges are available within 30 days of receiving the goods.
- **Customer Service:** An efficient customer service team is available to provide free guidance if you encounter any problems with your product. Please contact us through the official channels for support.