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› FEMEROL 2-in-1 Plasma Cutter and Stick Welder (Model 2 IN 1 CUT 60R) Instruction Manual

FEMEROL 2 IN 1 CUT 60R

FEMEROL 2-in-1 Plasma Cutter and Stick Welder (Model 2 IN 1 CUT 60R) Instruction Manual

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1. INTRODUCTION

This manual provides essential instructions for the safe and effective operation and maintenance of your FEMEROL 2-in-1 Plasma Cutter and Stick Welder, Model 2 IN 1 CUT 60R. This versatile unit combines a 60A plasma cutter with a 200A stick welder, designed for various metalworking tasks.



Figure 1: FEMEROL 2-in-1 Plasma Cutter and Stick Welder (Model 2 IN 1 CUT 60R)

2. SAFETY INFORMATION

Always prioritize safety when operating welding and cutting equipment. Failure to follow safety precautions can result in serious injury or death. Read and understand all safety warnings before use.

- **Eye Protection:** Always wear appropriate welding helmets or safety glasses with the correct shade for welding and cutting operations.
- **Protective Clothing:** Wear flame-resistant clothing, gloves, and footwear to protect against sparks, heat, and UV radiation.
- **Ventilation:** Ensure adequate ventilation to avoid inhaling fumes and gases produced during welding and cutting.
- **Electrical Safety:** Connect the unit to a properly grounded power supply. Do not operate in wet conditions. Inspect cables and connections for damage before each use.
- **Fire Prevention:** Keep flammable materials away from the work area. Have a fire extinguisher readily available.
- **Air Supply:** For plasma cutting, ensure the air compressor is properly connected and regulated.

3. PRODUCT COMPONENTS

The FEMEROL 2-in-1 Plasma Cutter and Stick Welder package includes the following items:

- FEMEROL 2-in-1 Plasma Cutter/Stick Welder Unit
- Plasma Cutting Torch (IPT40 type)
- Electrode Holder (for Stick Welding)
- Ground Clamp
- Air Compressor Filter / Regulator
- Gas Hose
- Power Adapter (for 110V/220V dual voltage)

4. SETUP INSTRUCTIONS

1. Power Connection:

- Ensure the unit is switched off.
- Connect the power cord to the appropriate voltage supply (110V or 220V). Use the provided adapter if necessary.

2. Air Compressor Connection (for Plasma Cutting):

- Attach the air compressor filter/regulator to the designated air inlet on the rear of the unit.
- Connect your air compressor hose to the filter/regulator.
- Adjust the air pressure using the regulator according to the material thickness and cutting requirements (refer to the operating section for recommended settings).

3. Ground Clamp Connection:

- Connect the ground clamp cable to the negative (-) terminal on the front panel of the unit.
- Securely attach the ground clamp to the workpiece or a clean, bare metal work surface to ensure a good electrical connection.

4. Torch/Electrode Holder Connection:

- For Plasma Cutting: Connect the plasma cutting torch to the positive (+) terminal and the air connection on the front panel.
- For Stick Welding (MMA): Connect the electrode holder to the positive (+) terminal on the front panel.

5. OPERATING INSTRUCTIONS

5.1 Powering On and Mode Selection

1. Turn on the main power switch located on the unit. The LED display will illuminate.
2. Press the "MODE" button on the control panel to switch between "CUT" (Plasma Cutting) and "MMA" (Stick Welding) modes. The selected mode will be indicated on the display.

5.2 Plasma Cutting Operation

- Ensure the unit is in "CUT" mode.
- Adjust the cutting amperage using the control knob. Higher amperage is required for thicker materials.
- Verify the air pressure is set correctly for the material thickness. The unit features an intelligent air regulation system with icons on the display to indicate low, normal, or high pressure. Adjust manually via the air regulator if needed.
- The non-touch pilot arc feature allows cutting without direct contact with the workpiece, extending consumable life

and enabling cutting on rusted or painted surfaces.

- Utilize the PT/2T/4T function:
 - **PT (Post Time):** Adjustable from 1-10 seconds. This controls the cooling time of the torch after cutting, protecting consumables. Recommended setting: 4-8 seconds.
 - **2T (Two-Touch):** Semi-automatic cutting control. Press and hold the trigger to cut, release to stop.
 - **4T (Four-Touch):** Automatic cutting control. Press and release the trigger to start cutting, press and release again to stop.
- Always wear appropriate eye and body protection during operation.

5.3 Stick Welding (MMA) Operation

- Ensure the unit is in "MMA" mode.
- Insert the appropriate welding electrode into the electrode holder.
- Adjust the welding amperage using the control knob based on the electrode type and material thickness. The unit performs well with 6011, 6013, and 7018 rods.
- Always wear appropriate welding helmet and protective gear.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your FEMEROL unit.

- **Cleaning:** Periodically clean the unit's exterior and ventilation openings to prevent dust and debris buildup. Use a dry, soft cloth.
- **Air Filter:** Regularly check and clean or replace the air compressor filter to ensure a clean air supply for plasma cutting.
- **Consumables:** Inspect plasma torch consumables (electrodes, nozzles, swirl rings, shield caps) regularly and replace them when worn to maintain cut quality. Consumables for IPT40/S45 style torches are widely available.
- **Cables and Connections:** Inspect all cables, hoses, and connections for signs of wear, damage, or loose fittings before each use. Replace damaged components immediately.
- **Storage:** Store the unit in a clean, dry environment when not in use.

7. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
Unit does not power on	No power supply; faulty power cord/switch	Check power outlet, circuit breaker, and power cord connections.
No arc (Plasma Cutting)	Insufficient air pressure; worn consumables; poor ground connection	Check air pressure and regulator settings. Replace plasma torch consumables. Ensure ground clamp is securely attached to clean metal.
Poor cut quality (Plasma Cutting)	Incorrect amperage/air pressure; worn consumables; torch too far from workpiece	Adjust amperage and air pressure. Replace consumables. Maintain proper torch standoff distance.
No arc (Stick Welding)	Incorrect amperage; poor ground connection; damp electrode	Adjust amperage. Ensure ground clamp is secure. Use dry electrodes.
"Low Pressure" icon illuminated	Air compressor not supplying enough pressure; regulator set too low	Check air compressor operation. Increase air pressure via the regulator.

8. TECHNICAL SPECIFICATIONS

- **Model:** 2 IN 1 CUT 60R
- **Functions:** 60A Plasma Cutter / 200A Stick Welder (MMA)
- **Input Voltage:** 110V/220V Dual Voltage
- **Plasma Arc Start:** Non-Touch Pilot Arc (Non-High Frequency)
- **IGBT Technology:** Yes
- **Duty Cycle:** 60%
- **Plasma Cutting Capacity:**
 - Ideal Clean Cut: 5/16" (8mm) @ 110V, 11/20" (14mm) @ 220V
 - Maximum Cut: 1/2" (12mm) @ 110V, 3/4" (20mm) @ 220V
- **Stick Welding Current:** 200A
- **Post Time Adjustment:** 1-10 seconds
- **Control Features:** PT/2T/4T Function, Intelligent Air Regulation with LED display
- **Item Weight:** 22.5 pounds
- **Package Dimensions:** 18.2 x 13.4 x 11 inches
- **Manufacturer:** FEMEROL

9. WARRANTY AND SUPPORT

This FEMEROL plasma cutter and stick welder unit is covered by a **two-year guarantee** from the date of purchase. During this period, FEMEROL guarantees to address any manufacturing defects or operational issues with the machine. For technical assistance, troubleshooting, or warranty claims, please refer to the contact information provided with your product packaging or visit the official FEMEROL website.



