

FLARING FM-215

FLARING 215A Multi-Process Welder Instruction Manual

Model: FM-215
Brand: FLARING

1. INTRODUCTION

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your FLARING 215A Multi-Process Welder, Model FM-215. This versatile welding machine supports multiple welding processes including Gas MIG, Solid Wire MIG, Flux Core, Stick/MMA/ARC, Lift TIG, and Spot Welding. It features dual 120V/240V voltage capability and a maximum output of 215A, suitable for various applications from home use to professional projects.

2. SAFETY INFORMATION

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

- **Wear appropriate personal protective equipment (PPE):** This includes a welding helmet with proper shade, flame-resistant clothing, welding gloves, and safety shoes.
- **Ensure proper ventilation:** Welding fumes can be hazardous. Work in a well-ventilated area or use fume extraction equipment.
- **Prevent electric shock:** Ensure the welder is properly grounded. Do not operate in wet conditions. Inspect cables for damage before each use.
- **Fire prevention:** Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Read and understand the entire manual:** Familiarize yourself with all controls and procedures before operating the machine.

3. PRODUCT OVERVIEW AND COMPONENTS

The FLARING 215A Multi-Process Welder is designed for versatility and ease of use. Below are the main components and included accessories.

3.1 Welder Front Panel and Controls



Figure 1: Front panel with large LED display and control knobs for welding mode, current, and voltage adjustment.

The large LED display provides accurate data, making it easier for beginners to monitor and adjust settings. Control knobs allow precise adjustment of welding parameters for various processes.

3.2 Wire Feed Structure



Figure 2: Internal view of the wire feed mechanism, showing the wire spool, wire feeding wheel, automatic wire feed, and wire pressing wheel.

The welder features a stable and smooth wire feed system, compatible with 2lb and 11lb wire spools. The wire feed structure includes a max handle wire spool (11LBS), wire feeding wheel, automatic wire feed, and wire pressing wheel.

3.3 Included Accessories



Figure 3: All accessories included with the FLARING 215A Multi-Process Welder.

The package includes the MIG welding machine, MIG welding torch, electrode holder with cable, earth ground clamp with cable, air hose, flux core wire spool, wire feed wheels, wrench, and a consumable set (nozzles, contact tips). A 110V-220V adapter is also included for dual voltage operation.

4. SETUP

Proper setup is crucial for safe and efficient welding. Follow these steps to prepare your welder for operation.

4.1 Initial Connection and Power

Connect the power cable to a suitable 120V or 240V power outlet. The machine automatically detects the input voltage. Ensure the power switch is in the OFF position before connecting to power.

4.2 Connecting Welding Cables

Connect the electrode holder cable and the earth ground clamp cable to the appropriate terminals on the front panel of the welder. Ensure connections are secure.



Video 1: Demonstrates the proper connection of welding cables and accessories to the FLARING 215A Multi-Process Welder.

4.3 Gas Connection (for Gas MIG)

For Gas MIG welding, connect the gas hose from your shielding gas cylinder to the gas inlet on the welder. Ensure all connections are tight to prevent gas leaks.

4.4 Wire Spool Installation



Figure 4: Illustration of 2lb and 11lb wire spool installation and compatibility.

Open the side panel of the welder and install the appropriate wire spool (2lb or 11lb) onto the spindle. Thread the welding wire through the wire feed mechanism according to the instructions inside the wire compartment. Ensure the wire feed rollers match the wire size.

4.5 TIG Torch Setup



Figure 5: A welder preparing the TIG torch with tungsten electrode and ceramic cup.

For Lift TIG welding, assemble the TIG torch by inserting the tungsten electrode, collet, collet body, and ceramic cup. Connect the TIG torch to the designated port on the welder. Ensure the gas line for TIG is also connected if using shielding gas.

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Video 2: Demonstrates the setup and operation of the TIG welding function.

5. OPERATING INSTRUCTIONS

The FLARING 215A offers multiple welding processes. Select the appropriate mode and adjust parameters for your specific task.

5.1 Selecting Welding Mode

Turn on the welder. Use the mode selection button on the front panel to cycle through the available welding processes: MIG (Gas/Gasless), Stick/MMA/ARC, and Lift TIG. The selected mode will be displayed on the LED screen.

5.2 MIG Welding (Gas & Gasless Flux Core)



Figure 6: Overview of the multi-process capabilities including Spool Gun, Flux MIG, Gas MIG, Stick, and Lift TIG.

This welder supports both Gas MIG (with solid wire, e.g., 0.030"/0.8mm) and Gasless Flux Core MIG (with flux core wire, e.g., 0.030"/0.8mm or 0.035"/0.9mm). Adjust the current and voltage knobs to achieve the desired welding parameters for your material thickness and wire type. The synergic control assists in setting optimal parameters.

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Video 3: A brief demonstration of the MIG welding process.

5.3 Stick/MMA/ARC Welding



Figure 7: Various types and sizes of electrodes compatible with the MMA welding function.

For manual welding, the machine supports electrodes such as 6013 and 7018. Select the Stick/MMA/ARC mode and adjust the current according to the electrode type and diameter. Ensure the electrode holder is connected to the positive terminal (DCEP+) for most electrodes.

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Video 4: Demonstrates the Stick/MMA welding process.

5.4 Lift TIG Welding

In Lift TIG mode, touch the tungsten electrode to the workpiece and then lift it slightly to initiate the arc. This method minimizes tungsten contamination. Adjust the current for precise control over the weld puddle.

5.5 Spot Welding & Spool Gun

The FLARING 215A also includes spot welding functionality. A spool gun connector is available for optional use (spool gun not included), providing enhanced wire feeding for aluminum and other soft wires.

5.6 Welding Performance Examples



Figure 8: Example of welding aluminum with the FLARING 215A welder, highlighting IGBT technology, hot start, arc force, and anti-stick features.



Figure 9: Various welding samples on different materials including iron block, galvanized pipe, round tube, chair, stainless steel, and steel frame.

6. MAINTENANCE

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

- **Clean regularly:** Use compressed air to blow out dust and debris from the cooling vents.
- **Inspect cables and connections:** Check for cuts, abrasions, or loose connections on all welding cables and power cords. Replace damaged components immediately.
- **Check wire feed mechanism:** Ensure the wire feed rollers are clean and free of debris. Replace worn rollers.
- **Store properly:** When not in use, store the welder in a dry, clean environment, protected from dust and moisture.

7. TROUBLESHOOTING

Refer to this section for common issues and their solutions.

Problem	Possible Cause	Solution
No power	Power cable disconnected, circuit breaker tripped, faulty power switch.	Check power connections, reset circuit breaker, contact service if switch is faulty.
No arc	Poor ground connection, incorrect welding parameters, faulty torch/electrode holder.	Ensure good ground contact, adjust current/voltage, inspect torch/holder for damage.
Wire feed issues	Incorrect wire tension, clogged liner, wrong drive roller size, tangled wire.	Adjust tension, clean/replace liner, ensure correct drive rollers, untangle wire.
Poor weld quality	Incorrect settings, improper technique, contaminated material, insufficient shielding gas.	Adjust parameters, practice technique, clean workpiece, check gas flow/supply.

8. SPECIFICATIONS

Detailed technical specifications for the FLARING 215A Multi-Process Welder.



Figure 10: Detailed welding parameters and electrical specifications for Model FM-215.

Feature	Detail
Manufacturer	FLARING
Model Number	FM-215
Product Dimensions	38 x 18.01 x 24 cm
Item Weight	10.5 kg
Power Source	AC/DC
Input Voltage	120V/240V Dual Voltage
Max Output Current	215A
Welding Processes	Gas MIG, Solid Wire MIG, Flux Core, Stick/MMA/ARC, Lift TIG, Spot Welding
Max Welding Thickness	Up to 6mm (mild steel)
Wire Spool Compatibility	2lbs / 11lbs

9. WARRANTY AND SUPPORT

Your FLARING 215A Multi-Process Welder comes with a 1-year warranty from the date of purchase, covering manufacturing defects. Please retain your proof of purchase for warranty claims.

For technical support, troubleshooting assistance, or warranty inquiries, please contact FLARING customer service through the retailer where the product was purchased or visit the official FLARING website for contact information.

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

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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