



[Manuals.plus](#) /

› [EXCELLWAY](#) /

› EXCELLWAY WM-2A Stick/TIG Welder User Manual

## EXCELLWAY WM-2A

# EXCELLWAY WM-2A Stick/TIG Welder

## USER MANUAL

### 1. Product Overview

---

The EXCELLWAY WM-2A is a versatile 2-in-1 inverter welding machine, capable of both MMA (Stick) and LIFT TIG welding. Designed for portability and efficiency, it features IGBT inverter technology for stable arc performance and a 60% high duty cycle for extended operation. This welder is suitable for a variety of metals including stainless steel, alloy steel, mild steel, copper, and cast iron.



Image: The EXCELLWAY WM-2A welder shown with included accessories: electrode holder, work clamp, welding brush, gloves, and handheld welding cap.

### Key Features:

- **MMA/Stick & LIFT TIG 2-in-1 Functionality:** Offers flexibility for various welding tasks. LIFT TIG mode provides non-contact arc ignition, reducing material consumption.
- **IGBT Inverter Technology:** Ensures stable current output, reduced power loss, and precise welding control.
- **Overheating & Overload Protection:** Enhances safety and durability during operation.
- **60% High Duty Cycle:** Allows for prolonged continuous welding, improving work efficiency.
- **Digital Display:** Provides clear current information for easy adjustment.
- **Portable Design:** Lightweight (approximately 15 lbs) with a sturdy handle for easy transport.

## 2. Safety Information

---

Welding can be hazardous. Always follow safety precautions to prevent injury or damage. Read and understand all instructions before operating the welder.

## General Safety Precautions:

- **Personal Protective Equipment (PPE):** Always wear a welding helmet with appropriate shade, flame-resistant clothing, welding gloves, and safety shoes. Protect eyes and skin from arc rays and hot metal.
- **Ventilation:** Ensure adequate ventilation to remove welding fumes and gases, which can be harmful if inhaled. Work in a well-ventilated area or use local exhaust ventilation.
- **Fire Prevention:** Keep flammable materials away from the welding area. Have a fire extinguisher readily available. Hot slag and sparks can cause fires.
- **Electrical Safety:** Ensure the welder is properly grounded. Do not operate in wet conditions. Inspect cables and connections for damage before each use. Do not touch live electrical parts.
- **Work Area:** Keep the work area clean and free of clutter. Ensure stable footing.
- **Cylinder Safety (for TIG):** If using gas cylinders for TIG welding, secure them properly and handle with care.

## 3. Product Components and Controls

---

Familiarize yourself with the parts and controls of your EXCELLWAY WM-2A welder.

### What's in the Box:

- 1x EXCELLWAY 200A MMA/Stick/LIFT TIG 2 in 1 Welder
- 1x 10Ft Electrode Holder
- 1x 10Ft Work Clamp
- 1x Welding Brush
- 1x User Instruction (this manual)
- 1x Handheld Welding Cap & Gloves



- 1 Power Indicator Light
- 2 Over Current Light
- 3 Digital Display
- 4 Current Adjustment Knob
- 5 Cooling Vent
- 6 Output Connector (DC+)
- 7 Output Connector (DC-)

- 8 Power Switch
- 9 Input AC 110V/220V
- 10 Cooling Fan



Image: Front and rear views of the welder with numbered components. 1. Power Indicator Light, 2. Over Current Light, 3. Digital Display, 4. Current Adjustment Knob, 5. Cooling Vent, 6. Output Connector (DC+), 7. Output Connector (DC-), 8. Power Switch, 9. Input AC 110V/220V, 10. Cooling Fan.

# STICK / MMA



Image: The 10ft Electrode Holder and 10ft Work Clamp connected to the front panel of the EXCELLWAY WM-2A welder.

## 4. Setup

Follow these steps to set up your welder for operation.

1. **Unpacking:** Carefully remove all components from the packaging and inspect for any damage.
2. **Connect Work Clamp:** Connect the work clamp cable to the negative output connector (DC-) on the front panel of the welder. Ensure a secure connection.
3. **Connect Electrode Holder:** Connect the electrode holder cable to the positive output connector (DC+) on the front panel of the welder. Ensure a secure connection.
4. **Power Connection:** Connect the welder's power cord to a suitable 110V or 220V AC power outlet. The welder automatically detects the input voltage. Ensure the power switch (8) on the rear is in the OFF position before plugging in.
5. **Workpiece Preparation:** Ensure the workpiece is clean, dry, and free of rust, paint, or grease. Connect the work clamp securely to the workpiece or a metal workbench that is in good electrical contact with the workpiece.
6. **Ventilation:** Ensure your welding area is well-ventilated to disperse fumes.

## 5. Operating Instructions

The EXCELLWAY WM-2A supports both MMA (Stick) and LIFT TIG welding modes.



Image: Visual representation of the welder's dual functionality, supporting both LIFT TIG and Stick/MMA welding processes.

### 5.1. MMA (Stick) Welding:

1. **Select Electrode:** Choose an appropriate electrode rod (e.g., 6010, 6011, 6013, 7018) for your material and application. The welder supports rods from 2.6mm to 3.2mm.
2. **Insert Electrode:** Securely insert the electrode into the electrode holder.
3. **Power On:** Turn on the power switch (8) on the rear of the welder. The digital display (3) will illuminate.
4. **Adjust Current:** Use the Current Adjustment Knob (4) to set the desired welding current. Refer to electrode manufacturer's recommendations for optimal settings.
5. **Strike Arc:** With proper PPE, lightly scratch the electrode against the workpiece to strike an arc. Maintain a consistent arc length and travel speed for a quality weld.

## 5.2. LIFT TIG Welding:

*Note: An extra TIG lift torch is required and not included with this welder.*

1. **Connect TIG Torch:** Connect the TIG torch to the appropriate output connector (usually DC- for steel, DC+ for aluminum if AC TIG, but this is DC only). Connect the work clamp to the workpiece.
2. **Select Tungsten Needle:** Use a tungsten needle of 1.6mm or 2.0mm.
3. **Power On & Adjust Current:** Turn on the welder and adjust the current using the knob.
4. **Initiate Arc:** Gently touch the tungsten electrode to the workpiece and then lift it slightly to initiate the arc. This non-contact ignition helps preserve the tungsten and workpiece.



Image: A visual guide to the two welding modes: Stick/MMA and Lift TIG, highlighting their respective applications.

## Material Thickness Capabilities:

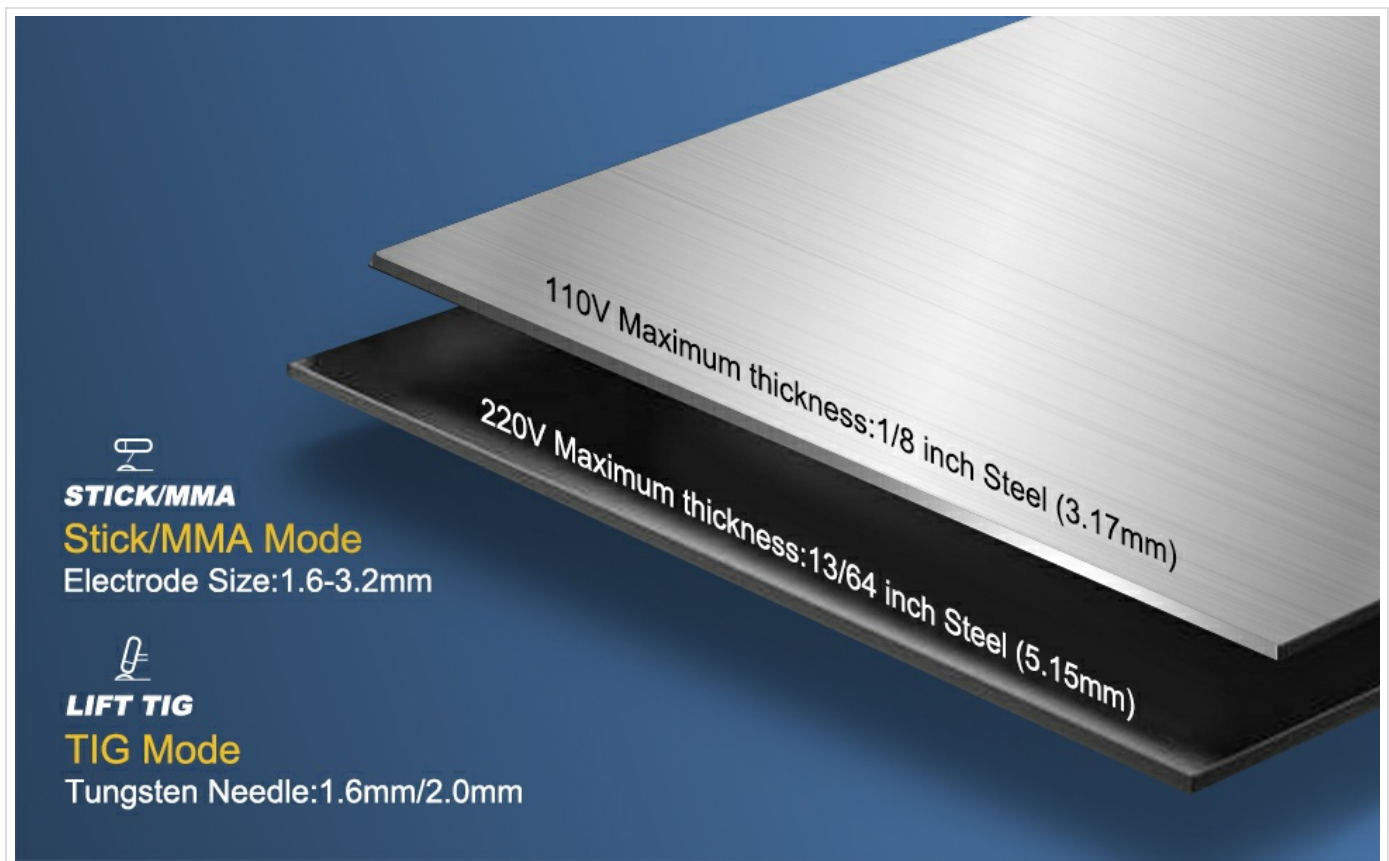


Image: A chart indicating the maximum welding thickness for different input voltages: 110V supports up to 1/8 inch (3.17mm) steel, and 220V supports up to 13/64 inch (5.15mm) steel.

## 6. Maintenance

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

- **Cleaning:** Periodically clean the cooling vents (5) and the interior of the machine using compressed air to remove dust and debris. Ensure the welder is unplugged before cleaning.
- **Cable Inspection:** Regularly inspect all welding cables, connections, and the power cord for cuts, abrasions, or loose connections. Replace damaged components immediately.
- **Storage:** Store the welder in a dry, clean environment, away from excessive dust, moisture, and extreme temperatures.

## 7. Troubleshooting

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

Problem	Possible Cause	Solution
Welder does not power on	No power supply; Power switch off; Faulty power cord	Check power outlet and circuit breaker; Ensure power switch is ON; Inspect power cord for damage.
Arc does not strike or is unstable	Poor workpiece connection; Incorrect current setting; Damp or incorrect electrode; Loose cable connections	Ensure work clamp has good contact; Adjust current; Use dry, appropriate electrodes; Tighten all cable connections.
Over Current Light (2) is on	Overheating; Overload	Allow welder to cool down; Reduce duty cycle or current setting.

Problem	Possible Cause	Solution
Poor weld quality	Incorrect current; Improper arc length; Fast travel speed; Dirty workpiece	Adjust current; Maintain proper arc length; Slow down travel speed; Clean workpiece thoroughly.

## 8. Specifications

Detailed technical specifications for the EXCELLWAY WM-2A welder.

<b>PRODUCTION SPECIFICATION</b>		
<b>Model : WM-2A</b>		
	1PAC 110-120V,50/60HZ (85-120v)	1PAC 110-120V,50/60HZ (165-240v)
Rated Input Voltage(v)		
Rated Input Power(KVA)	6.6KW	8.7KW
Rated Input Curren(A)	38.5A	37.9A
Rated output Current&Voltage	150A / 26v	200A/28V
output Curren(A)	35A-150A	35A-200A
No-load voltage(v)	53V	53V
Rated Duty Cycle(%)	60%	60%
Efficiency(%)	85%	85%
Power Factor	0.73	0.73
Protection Class	IP21S	IP21S
Insulation Class	F	F

Image: A table detailing the production specifications for the WM-2A model, including rated input voltage, power, current, output current & voltage, no-load voltage, rated duty cycle, efficiency, power factor, protection class, and insulation class for both 110V and 220V operation.

Specification	Value
Model	WM-2A
Manufacturer	EXCELLWAY
Item Weight	16.96 pounds
Product Dimensions	16.73 x 13.35 x 9.41 inches
Rated Input Voltage	110V/220V (Dual Voltage)
Rated Duty Cycle	60%
Protection Standard	IP21

## 9. Warranty and Support

For specific warranty information, please refer to the documentation provided with your purchase or contact EXCELLWAY customer support directly. This manual does not contain explicit warranty details.

## Additional Resources:

- **User Manual (PDF):** For a downloadable version of the user manual, please visit:  
<https://manuals.plus/m/24500511d13c8b3db4a803ee19a4936fcec7df19eabcd673f24702c55a3c103f>
- **EXCELLWAY Store:** Explore other products and information from EXCELLWAY:  
<https://www.amazon.com/stores/EXCELLWAY/page/EB29331C-A830-4119-9CE4-EA003903212E>