



ITEM# 410

MIG QUICK START GUIDE

220MP WELDER

Forney®

1.



Read user manual

2.



Select  process

3.

Set polarity for MIG (solid wire) or Flux-Cored



Solid wire



Flux-cored



4.

Connect MIG gun and ground clamp



5.

Install wire spool

0.023" (0.6mm) - 0.035" (0.9mm) diameter

8" (200mm) wire spool

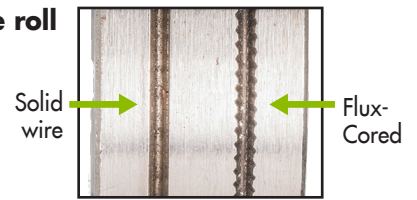


4" (100mm) wire spool



6.

Set drive roll



* Face the appropriate groove towards the inside of machine

7.

Feed wire and set pressure

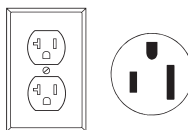


Pressure knob

Knob set ~2-3 marks

8.

 Connect to input power



- Generator OK with continuous output \geq 5,000 W (120V) or 10,000 W (230V)
- Extension cord: #12 AWG (120V) or #8 AWG (230V) or larger. 25' (8m) or shorter extension cords recommended

NOTE: If using gas:



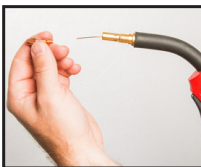
1. Attach gas hose to machine



2. Attach hose to regulator and regulator to gas bottle

9.

Remove consumables and depress trigger until wire comes out. Replace consumables



10.

Adjust wire feed speed (⊖) and voltage (⊕)

See chart on welder for correct settings



11.

With contact tip 3/8" from metal, depress trigger completely to initiate arc



FIND MORE INFORMATION AT FORNEYIND.COM

QUESTIONS OR TROUBLE? Contact Forney Industries at 1-800-521-6038 customerservice@forneyind.com forneyind.com

MIG TROUBLESHOOTING TIPS



Workpiece grounding



Connect ground clamp to clean, bare metal. No rust, paint or other coatings. Attach the ground clamp directly to the workpiece if you are experiencing issues.

Workpiece Preparation



To ensure maximum quality, always clean and prepare welding surfaces.

Frequently tripping circuit breaker or exceeding duty cycle

- Ø Use wire with a diameter between 0.023" (0.6mm) and 0.035" (0.9mm). Larger diameters draw too much amperage.
- ⚡ Trying to weld single pass on material larger than 3/8" (9.5mm) thick is not possible with this machine. Multi-pass recommended for thicker materials.
- ⚡ Welder should be the only thing plugged into the circuit.

Low weld output or poor fusion

110-120V

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords. If one must be used, it must be 3 conductor #12 AWG or larger up to 25 feet.
- Generators must be a minimum 5,000W continuous output with no low-idle function (or low-idle off), 5% THD Max.

Low weld output or poor fusion

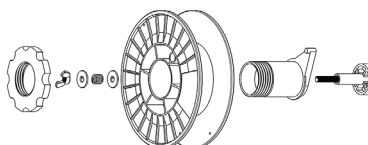
208-240V

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords. If one must be used, it must be 3 conductor #8 AWG.
- Generators must be a minimum 10,000W continuous output with no low-idle function (or low-idle off), 5% THD Max.

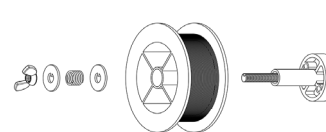
Improper wire spool installation

- Can cause feed issues and inconsistent weld quality.
- Verify all parts are in the proper place. Refer to manual.

8" (200mm) wire spool

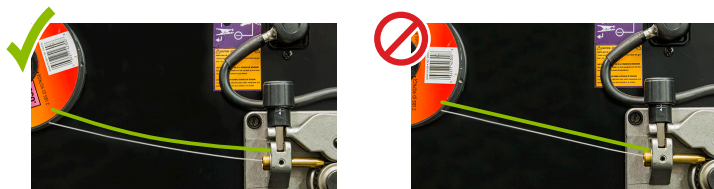


4" (100mm) wire spool



Too much spool tension

Wire from spool to drive should relax with a slight curve after feeding.



Incorrect drive roll pressure

Too little pressure = Roll can slip and feed can be erratic.

Too much pressure = can crush wire, causing wire feeding problems and welder damage.



Knob set ~2-3 marks

No arc start on contact

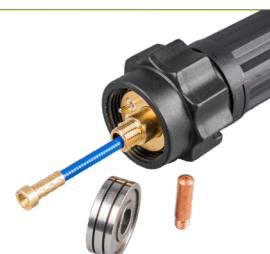


Trigger must be pulled to initiate the arc. This will initiate the arc and begin feeding the wire.

DEPRESS THE TRIGGER COMPLETELY

Mismatched drive roll, liner, or contact tip size

- Can cause feed and weld issues and arc instability.
- Each component must be sized for wire diameter used.





ITEM# 410

TIG QUICK START GUIDE

220MP WELDER (NOT RECOMMENDED FOR ALUMINUM)



1.



Read user manual

2.



Select process



3.

Connect TIG torch and ground clamp



4.

Connect TIG torch lead to gas (100% Argon)



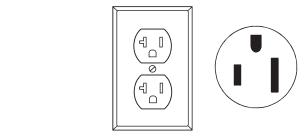
5.

Adjust amperage per material thickness



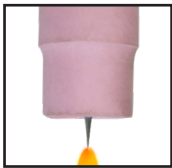
6.

Connect to input power



- Generator OK with continuous output \geq 5,000 W (120V) or 10,000 W (230V)
- Extension cord: #12 AWG (120V) or #8 AWG (230V) or larger. 25' (8m) or shorter extension cords recommended

7.



Choose between High Frequency (HF) start or Lift start.

ELECTRODE IS ALWAYS ELECTRICALLY HOT WHILE IN TIG MODE

FIND MORE INFORMATION AT FORNEYIND.COM

TIG TROUBLESHOOTING TIPS

Workpiece grounding



Connect ground clamp to clean, bare metal. No rust, paint or other coatings. Attach the ground clamp directly to the workpiece if you are experiencing issues.

Workpiece Preparation



To ensure maximum quality, always clean and prepare welding surfaces.

Aluminum welding



- Not recommended for this machine.
- Output is DC only which is not recommended for TIG welding aluminum.

Frequently tripping circuit breaker or exceeding duty cycle

Welder should be the only thing plugged into the circuit.

Low weld output or poor fusion

110-120V

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords. If one must be used, it must be 3 conductor #12 AWG or larger up to 25 feet.
- Generators must be a minimum 5,000W continuous output with no low-idle function (or low-idle off), 5% THD Max.

Low weld output or poor fusion

208-240V

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords. If one must be used, it must be 3 conductor #8 AWG.
- Generators must be a minimum 10,000W continuous output with no low-idle function (or low-idle off), 5% THD Max.

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ITEM# 410

STICK QUICK START GUIDE

220MP WELDER



1.



Read user manual

2.



Select process



3.

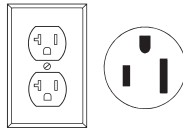
Connect electrode holder and ground clamp according to desired polarity



Usually DCEP - Electrode Positive

4.

Connect to input power



- Generator OK with continuous output \geq 5,000 W (120V) or 10,000 W (230V)
- Extension cord: #12 AWG (120V) or #8 AWG (230V) or larger. 25' (8m) or shorter extension cords recommended

5.

Adjust amperage per chart on the inside of the welder



6.

Recommended electrodes

Electrode	Electrode Amperage		
	3/32"	1/8"	5/32"
E6010	30-75	75-125	110-165
E6011	40-85	75-125	110-165
E6013	40-90	70-110	115-140
E7014	70-90	90-140	140-190
E7018	65-100	110-165	150-220
E308L	40-70	75-115	105-160
Ni55	50-65	80-95	110-135

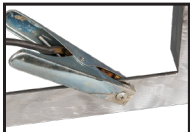
*Performance may vary by brand

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STICK TROUBLESHOOTING TIPS

Workpiece grounding



Connect ground clamp to clean, bare metal. No rust, paint or other coatings. Attach the ground clamp directly to the workpiece if you are experiencing issues.

Workpiece Preparation



To ensure maximum quality, always clean and prepare welding surfaces.

Frequently tripping circuit breaker or exceeding duty cycle

- Use 3/16" diameter electrodes or smaller. Some 3/16" will draw too much amperage.
- Trying to weld single pass on material larger than 3/8" thick is not possible with this machine. Multi-pass recommended for thicker materials.
- Welder should be the only thing plugged into the circuit.

Low weld output or poor fusion

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