



ITEM# 420

TIG QUICK START GUIDE

220 AC/DC WELDER



1.



Read user manual

2.



Select  process



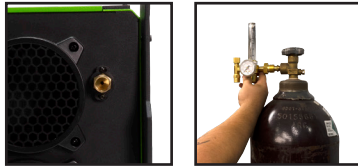
3.

Connect TIG torch and ground clamp



4.

Connect TIG torch lead to gas (100% Argon)



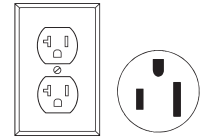
5.

Adjust amperage per material thickness



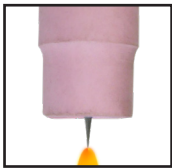
6.

 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

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.

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

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

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.

FIND MORE INFORMATION AT FORNEYIND.COM

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



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Select process



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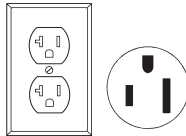
Connect electrode holder and ground clamp according to desired polarity



Usually DCEP - Electrode Positive

4.

Connect to input power



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- Extension cord: #12 AWG (120V) or #8 AWG (230V) or larger. 25' (8m) or shorter extension cords recommended.

5.

Adjust amperage per settings chart on 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



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.

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