



ITEM# 421

# TIG QUICK START GUIDE

## 220 AC/DC WELDER



### 1.



Read user manual

### 2.



Select  process



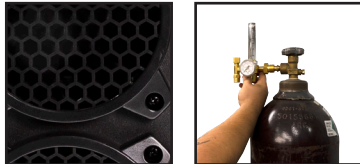
### 3.

Connect TIG torch and ground clamp



### 4.

Connect TIG torch lead to gas (100% Argon)



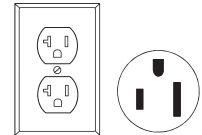
### 5.

Adjust amperage per material thickness



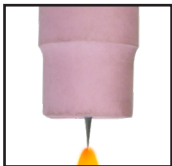
### 6.

 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

- 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.

**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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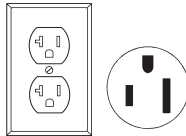
Connect electrode holder and ground clamp according to desired polarity



Usually DCEP - Electrode Positive

4.

Connect to input power



- 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 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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