

## WELD EXAMPLES & TROUBLE SHOOTING

### GOOD WELD



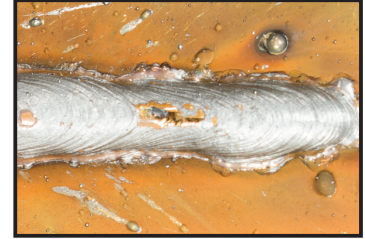
- Smooth bead
- Minimal spatter
- Good fusion

### CURRENT/WFS TOO HIGH



- Too wide
- Bead to flat

### CURRENT TOO LOW



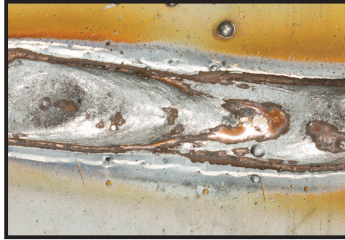
- Lack of fusion

### WELD SPEED TOO FAST



- Stringy and lack of fusion

### WELD SPEED TOO SLOW



- Melt through

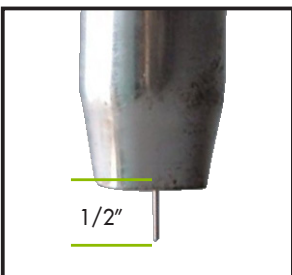
### STICK OUT TOO LONG



- Excessive spatter

## WELDING TIPS

### OPTIMAL STICKOUT



- Stickout 1/2" +/- 1/8"
- Short stickout = more current and more penetration

### VOLTAGE



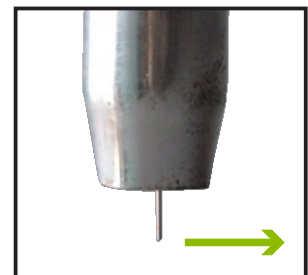
- Affects the arc shape
- Less voltage = tighter arc and potentially more spatter

### WIRE FEED SPEED (WFS)



- Higher wire feed speed equals more amperage
- Can also affect arc shape and penetration

### TRAVEL SPEED



- Affects bead width and height
- Can also affect penetration

**THIN MATERIAL**  
**THICK MATERIAL**

Less voltage  
More voltage

Lower wire feed speed  
Higher wire feed speed

Faster travel speed  
Slower travel speed

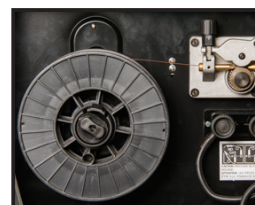
**WARNING:** To prevent serious injury, read manual warnings and instructions before use.

## 210 WELDER QUICK START GUIDE

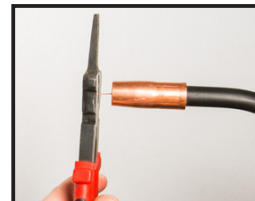
- 1** Attach gas bottle and regulator hose assembly. *(Tools needed: adjustable wrench)*



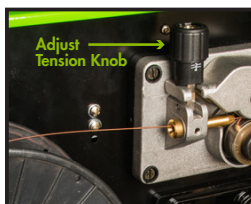
- 2** Install wire spool. Insert wire through both wire liners and clamp it into wire drive. *Make sure drive roll, liner and tip are correct for wire diameter.*



- 3** Install MIG gun, turn it on, and squeeze trigger until wire comes out.



- 4** Tighten wire feed tension knob clockwise until wire will bend from feed tension at 2"-3". Verify polarity is set correctly for MIG or Flux-core welding wire.



- 5** Adjust wire feed speed and voltage per chart on the inside of welder.



- 6** Turn machine on and weld. Adjust stickout, travel speed, wire feed speed and voltage as necessary to achieve a good weld. *See below guide for weld examples and welding tips.*

**WARNING:** To prevent fire and serious injury: Keep torch and wire clear of grounded objects while welder is plugged in. Be sure to follow safe welding procedures and wear proper PPE (clothes, welding helmet, safety glasses, welding gloves, boots, etc.)