



IFL Advanced Training Shift: Welding(TIG AC)

Written By: Thomas James Rotello

Step 1 — Overview



- AC polarity is used to weld aluminum. Alternating Current is when electrons alternate direction of flow.
- When welding in AC be sure to be using green band electrodes.

Step 2 — Controls



- When welding in AC, the "AC Waveshape" settings become active. This setting allows you to adjust your balance and frequency.
- Balance controls your etching and cleaning power. It increases the percentage time that your arc is electronegative vs electropositive.
- Frequency controls the width of your arc. The higher the frequency, the narrower your arc and the narrower your bead.
- To switch back to adjusting your amperage, press the "A" button.

Step 3 — Electrode Setup



- When welding in AC, electrodes need to be balled. This can be done by securing the electrode in the torch with a squared off end.
- Turn your balance down until the screen reads "BALL."
- Press the foot pedal remote while holding the electrode over a cleaned piece of aluminum until the electrode has a ball on the end.
- The more square you hold the electrode over the aluminum, the more centered your ball will be. This ensures the most control over the arc.

Step 4 — Bead Characteristics



- A large part of welding is understanding how to fix your welds and diagnose the problems that may be occurring with your bead.
 - New line.
 - New line.
 - New line.
- These are just a few common problems that you may encounter. You should become familiar with welding problems. This skill comes with a little research and lots of PRACTICE.