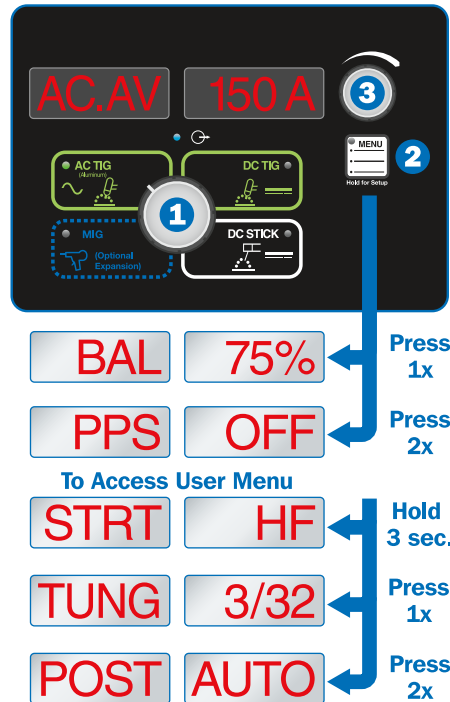


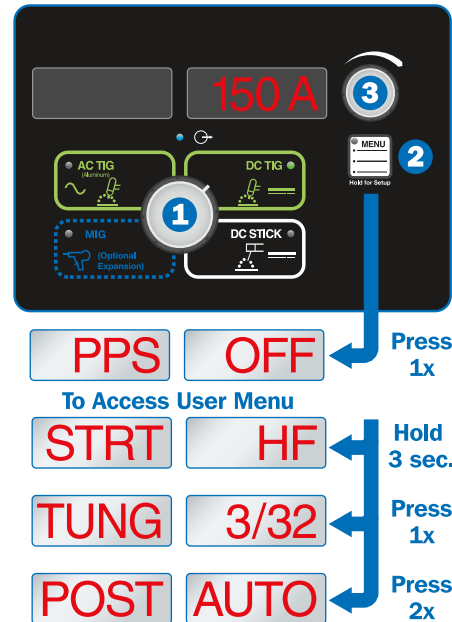
Set Up Machine in 3 Easy Steps

- 1 Process Selection Control**
Turn to select process.
- 2 Menu Button**
Press to access process parameters. Menu automatically returns to amperage setting 15 seconds after adjustment.
- 3 Encoder Control**
Turn to adjust selected parameter.

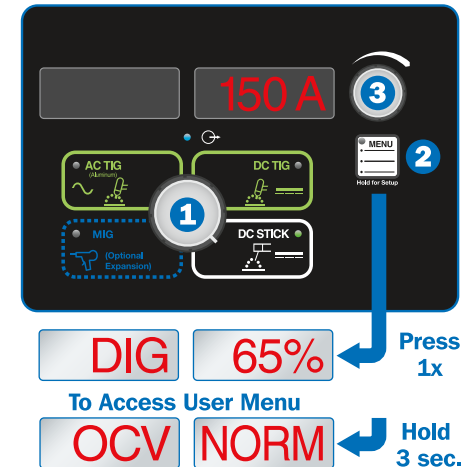
AC TIG (Aluminum)



DC TIG



DC Stick



Amperage Control

Controls the welding amperage output. Limits the maximum output of a remote amperage device.

[AC.AV] AC Average

Indication of the average AC output current.

[BAL] Balance Control (% EN)*

Controls oxide cleaning. Increasing setting reduces oxide cleaning. Range is 60–80%. Pro-Set value is 75%. (See tips on back).

[PPS] Pulse Control

Reduces heat input to minimize distortion and increase travel speed. Set PPS (pulses per second). The range is OFF–50 PPS. The background amperage and peak amperage are not adjustable. Background amperage = 50% of peak amperage. Peak amperage time = 50%.

[DIG] Arc Force Control*

Controls the amount of additional amperage at low voltage (short arc length) conditions. Adjust the force of the arc for different joint configurations and electrodes. Range is OFF–100%. Features Pro-Set values for both 6010 (65%) and 7018 (30%) electrodes.

** Pro-Set™ selectable parameter. Provides professional settings developed for the weld process. To use Pro-Set, press the menu button to display the parameter and adjust the encoder control until PRO-SET flashes on the display. PRO-SET flashes one time and reveals the professional setting for the parameter.*

User Menu—Hold Down Menu Button for 3 Seconds to Access

[STRT] Starts

Determines the method used to initiate the arc. Choose the appropriate start by using the Encoder Control. Select from [HF] high-frequency starts and [LIFT] lift starts.

[TUNG] Tungsten Selection

Each tungsten diameter requires specific preset parameters for optimized starting. Choose the correct tungsten electrode size you are welding with using the Encoder Control. Select from 1/8, 3/32, 1/16 and .040 diameters.

[POST] Post Flow Control

Controls the length of time gas flows after welding stops. Range is [AUTO] or [OFF–50T (seconds)]. AUTO calculates the time based on the maximum amperage of each welding cycle. The minimum time is 8 seconds. Auto = maximum amperage/10.

[OCV] Open Circuit Voltage




Sets voltage at the terminals while not welding. Select either [NORM] normal or [LOW] low.



Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.

Note: These settings are intended to be a starting point for control panel setup — this is not a welding procedure specification nor a substitute for procedure qualification.

Tungsten Selection and Prep

Tungsten Type	Application Notes	Diameter	Amp Range
 2% Cerium	Good all-around tungsten for both AC and DC welding.	0.020" 0.040" 1/16" 3/32" 1/8"	5-20 10-80 10-150 60-250 100-400
 1.5-2% Lanthanum	Excellent low amp starts for AC and DC welding.	5/32" 3/16" 1/4"	160-500 190-750 325-1100
 2% Thorium	Commonly used for DC welding, not ideal for AC.		



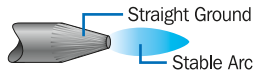
PURE TUNGSTEN (green) is NOT recommended for inverters!
For best results in most applications use a sharpened cerium or lanthanum electrode for AC and DC welding.

See owner's manual for more information.

Tungsten Preparation: Sharpen tungsten for AC and DC welding.

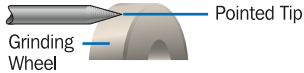
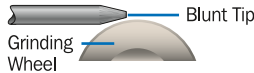
CORRECT

Ideal Preparation—Stable Arc



INCORRECT

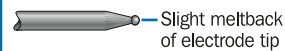
Wrong Preparation—Wandering Arc



IDEAL GRIND ANGLE RANGE



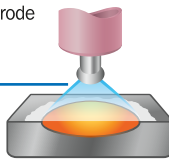
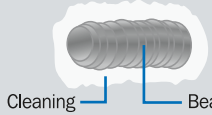
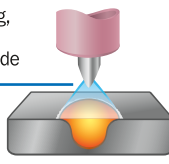
AC EFFECT



Note: Do not use wheel for other jobs or tungsten can become contaminated.

Tip: Blunting the tip of the electrode is sometimes done to help maintain consistent geometry and resist tungsten erosion. This is especially helpful in AC when melt-back of the tungsten electrode is common.

AC Waveshape Controls

Feature	Setting	Arc Effect	Weld Effect
Tip: AC Balance AC balance controls arc cleaning action. If floating black spots appear in the puddle, the balance setting is too high. Turn the balance down until puddle becomes clear.	60%	Increases electrode balling action 	Wider bead and cleaning action 
	75%	Reduces balling, helps maintain point of electrode 	Narrow bead with reduced cleaning 