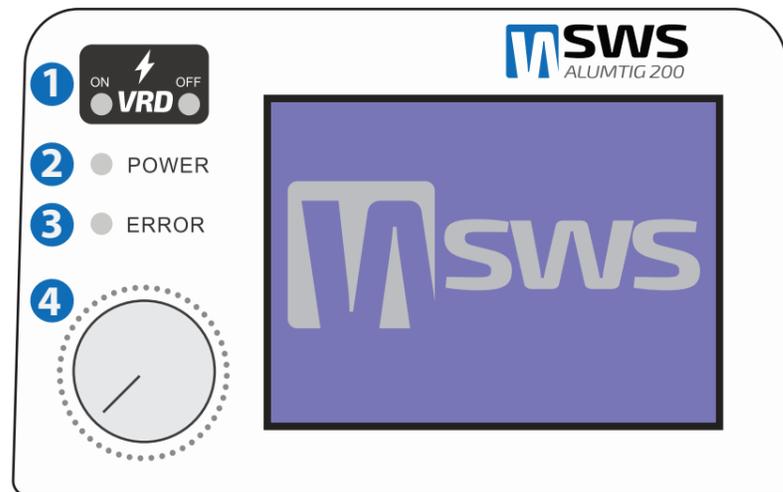


ALUMTIG™ 200

QUICK START GUIDE

- VRD**
MMA ONLY: Voltage Reduction Device reduces maximum unloaded voltage of output terminals to safe levels.
- Power LED**
When illuminated the power source is turned on.
- Error LED**
When illuminated refer to error code on display and resolve.
- Rotary Encoder**
 - Rotate to choose setting.
 - Press to select setting.
 - Rotate to adjust setting.
 - Press to store setting.
 - Press and hold for **GAS purge / Gas check** then press to stop.
 - Press and hold then switch on machine for hard reset (**Use hard reset if frozen or for other errors**)



Main Menu

- TIG Welding Mode**

EASY AC & EASY DC TIG - Ease of setup with optimum settings and the ability to change the trigger mode (2T or 4T) set pulse up to 2Hz and adjust welding amps.

PRO AC & PRO DC TIG - Control all TIG AC or DC welding parameters when a setting is modified it saves automatically in the current program selection. eg PROAC 1, 2, 3, 4, 5.
- Stick Welding Mode**

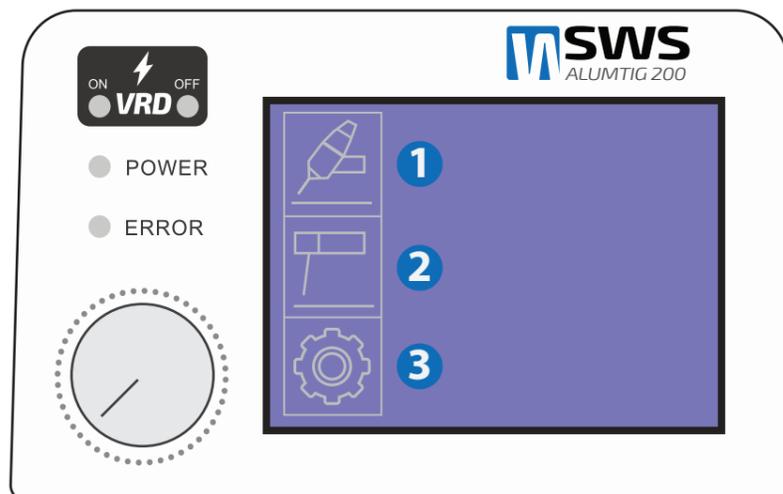
MMA AUTO - Ease of setup with automatic settings with the ability to choose the electrode diameter then fine tune with the Amps Fine mode to increase or decrease amperage while the machine takes care of the rest.

MMA PRO - Control all stick welding parameters.
- Settings**

Reset - Reset all welding parameters to defaults and reset welding timer.

Timer - Displays current total welding time for all welding modes.

Firmware Version - Displays the current version.



TIG Modes - Torch Switch

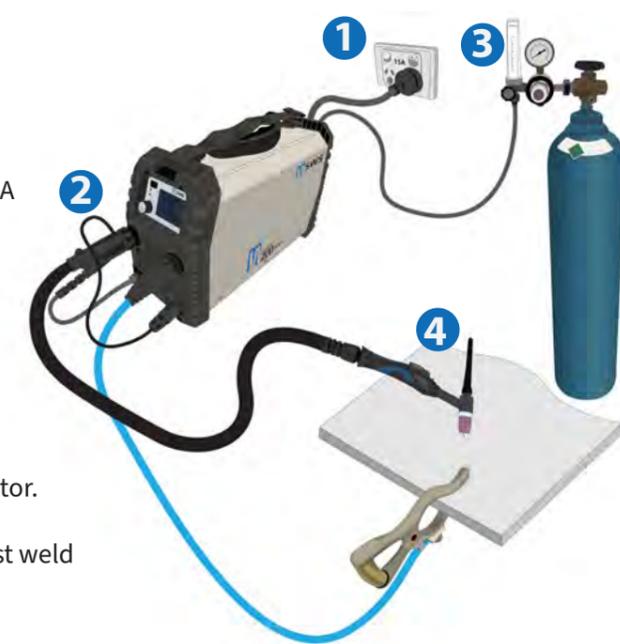
- Input Power**

15 A Outlet - Use a suitable 15 amp power outlet or lead.
10 A Outlet - Use a suitable 15 amp to 10 amp converter with 10 A breaker.
Generator - 10 KVA minimum.
- Polarity**

DCEN - Connect the TIG torch into the socket with the (-) symbol for direct current electrode negative. Connect the ground cable into the (+) symbol.
- Shielding Gas**

Bottle Type - Side outlet bottle is needed for included gas regulator.
Gas Type - 100% Argon
Flow Rate - 8 Litres per minute (Flow rate is approximate do a test weld to determine optimal gas coverage)
- TIG Torch Amp Control**

Torch Push Bottom Switch - Controls the TIG welding arc and works differently depending on the mode see functions on back for operation.
Finger/Thumb Wheel - Controls the welding amps and can only be adjusted when welding. 0 is the minimum welding amps (10A) 10 is machine setting amps. The amp value displays when welding and holds for 5 seconds after the arc finishes.

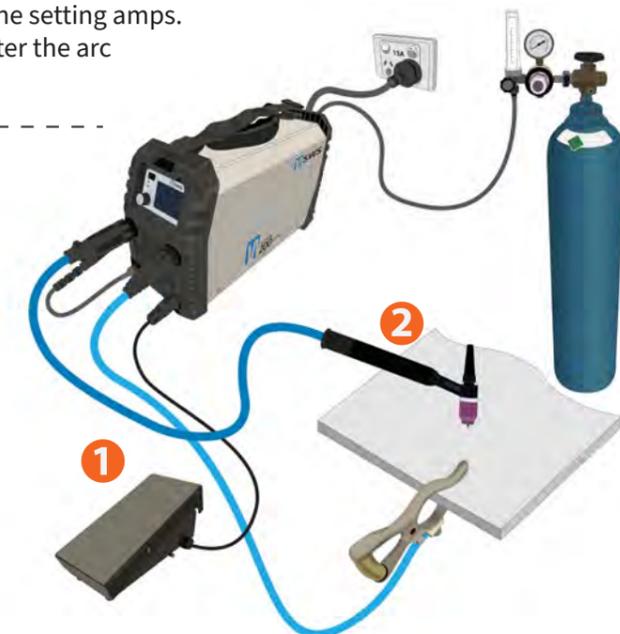


TIG Modes - Foot Pedal

- Foot Pedal**

Pedal Mode - Plug in the foot pedal then turn the machine on to detect. (Pedal can also be used as ON/OFF switch in 2T/4T mode by not detecting the pedal)
Operation - The foot pedal can be used to precisely manipulate the welding amps, which is highly beneficial when welding aluminium. When the pedal is fully depressed the output will make the set weld amps.
PRO TIP - When using the foot pedal set the machine just above the desired amps for the material being welded.
- TIG Torch**

Torch Selection - Both the 4-meter torch and 6-meter torch can be used with the foot pedal. If using the 6 meter torch leave the plug to the side.



Stick Welding Mode

- Polarity**

Connect the stick lead into the socket with the (+) symbol for direct current electrode positive and connect the ground cable into the (-) symbol. In most MMA welding applications DCEP (Direct Current Electrode Positive) is used. In some cases when welding very thin material reversing the polarity to DCEN can be an advantage.



TIG (GTAW) Functions

Function

PRE FLOW (1-10 Seconds)

Purpose

Provides shielding gas to the weld zone before striking an arc to prevent porosity and contamination. When using different torch cup setups and long welding cables, the pre-flow can be increased to provide adequate shielding.

Function

START AMPS (10-200 Amps N/A EASY MODES N/A FOOT CONTROL)

Purpose

This parameter is used to set the start current for TIG. In 4T mode the Initial Current remains on until the torch trigger switch is released after it has been depressed. In 2T mode this is the Initial Current for the Up Slope current ramp.

Function

UPSLOPE (0-10 Seconds N/A EASY MODES)

Purpose

This parameter is used to set the time for the weld current to ramp up from INITIAL current to BASE current.

Function

WELD AMPS (10-200 Amps)

Purpose

This parameter sets the welding current. In PULSE TIG mode, this parameter sets the PEAK current.

Function

PULSE BASE AMPS (10-200 Amps)

Purpose

In PULSE TIG mode, this parameter sets the BASE current.

Function

DOWNSLOPE (0-10 Seconds N/A EASY MODES)

Purpose

Down Slope will ramp amps “down” from the welding amp value to the end amp value to give time to fill the crater left at the end of the weld bead. Can also be used in the 4T mode to help with heat control by briefly tapping the switch to cool off the weld before tapping it again to restart the up slope sequence before the arc reaches the end amp stage.

Function

END AMPS (10-200 Amps N/A EASY MODES N/A FOOT CONTROL)

Purpose

Sets the final or minimum current before the arc is terminated. Used for filling craters at the ends of the weld and crack prevention.

Function

PULSE TIME ON (10-90% NA EASY MODES)

Purpose

The pulse consists of two stages: Welding amps (upper /Peak) and Pulse amps (lower/background current). This is represented by a % of total time the pulse spends in the pulse amp stage of the cycle during one full pulse. The feature can be used to increase or decrease pulse amp time relative to the welding amp time of the cycle to help manage heat input.

Function

PULSE FREQUENCY (1-500Hz NA EASY MODES)

Purpose

Represented by Hertz (Hz), the pulse frequency defines the actual number of times each second the pulse makes one complete cycle between welding amps (peak/high amp value) and pulse amps (background/low amp value). This is also commonly referred to as Pulses Per Second (PPS). Low pulse frequencies are ideal for timing the point where filler metal is added. This helps improve appearance and uniformity. Higher pulse frequencies are useful for welding seams and edges of thin material and for better penetration on thicker metals.

Function

HF ON/OFF

Purpose

HF - High Frequency Start which allows non contact starting of the arc or when off (lift tig) requires contact with the metal to initiate the arc (for AC and DC). (HF is selected when symbol is not striked out) The lift start function on the ALUMTIG 200 provides a cold electrode for safety, and prevents accidental starts.

Function

AC BALANCE (50-98% NA EASY MODES)

Purpose

Controls arc cleaning action when welding on AC. Adjusting the % electrode negative (EN) AC wave controls the width of the cleaning zone surrounding the weld. Lower percentage AC balance more cleaning action but less penetration. Higher percentage AC balance less cleaning action but more penetration. PRO TIP: Typically a range between 65% - 75% is used.

Function

AC FREQUENCY (50-98% NA EASY MODES)

Purpose

Governs the number of times per second that the current alternates in AC mode. To achieve greater arc focus (constriction) and increase puddle agitation while welding in AC mode, increase AC frequency. This allows pinpoint use on thin materials, and helps penetration on thicker materials. Ideal adjustment range is usually between 80-120Hertz. For comparison most transformer welders operate on 60 Hz. Greater arc control and stability can be achieved through the higher frequency range offered by this welder. Lower Frequencies will widen and soften the arc and reduce the level of control.

Function

2T, 4T, TACK CONTROL (0.1 - 10 Seconds)

Purpose

2T MODE: Press and hold the switch. The program will cycle automatically. When the switch is released, the arc will downslope and terminate with post gas flow.

4T MODE: Switch is pressed and held to start the pre-flow then start amps part of the cycle. When released, upslope begins and continues until the amps are raised to the preset welding amps. When pressed and held again, downslope starts and ramps down to the end amp stage. If released before downslope ends program will cycle to main amps if released after downslope ends the arc terminates, and post flow begins.

TACK CONTROL: Select this mode to control the arc on time for precision tack welds.

Stick (MMA) PRO Functions

Function

HOT START (0-60 Amps)

Purpose

Sets the starting amps to reduce sticking of the electrode during the arc strike phase.

Function

WELD AMPS (10-200 Amps)

Purpose

Welding amps define the top limit of amps at which the machine has been programmed to operate.

Function

ARC FORCE (0-99%)

Purpose

Controls the arc response when an arc is held short and voltage begins to drop. Arc force automatically compensates by modifying the volt/amp curve to maintain the energy needed to weld. Represented as a percent of available arc force amperage.

Stick (MMA) AUTO Functions

Function

ELEC DIA (2-5mm)

Purpose

Machine automatically adjusts amps relevant to the diameter of electrode being used.

Function

Amps Fine Tuning (-20-20%)

Purpose

Fine tunes the amps for the metal being welded.

