



**Computer Weld  
Technology, Inc.**

# WOC-1000™ WELD OSCILLATOR CONTROL

## WOC-1000™

Computer Weld Technology's Weld Oscillator Control (WOC-1000™) is a compact, lightweight, weld torch manipulation control system comprised of the microcontroller based Weld Oscillator Control and a stepper motor driven Pendulum Oscillator or Linear Slide Assemblies. These systems are capable of providing independent control of all torch movements in the horizontal plane. Employing patented "Thru-Arc™" tracking technology, the system provides automatic torch centering and width control.



WOC-500 with Linear Slide

WOC-500 with Pendulum Oscillator

The WOC-1000™ provides automatic torch centering and four modes of operation. Constant width oscillation with automatic torch centering, variable width and center-line control using a depth of penetration parameter to control the width, single right side tracking with constant width and single left side tracking with constant width. All of the seam tracking information is derived from the welding arc and oscillator position.

## FEATURES

- RS-232 Serial Port
- All tracking information derived from welding arc and oscillator position
- User definable 50 sequence P.L.C.
- Stepper motor driven
- External interface capability
- Compact lightweight design
- Convenient flexible mounting

## BENEFITS

- Permits off-line programming, system configuration and remote control
- No bulky probes to contend with or maintain
- Permits independent control of all welding torch movements in the horizontal plane
- Low maintenance cost
- Allows for easy interface with peripheral devices
- Adaptable in confined areas
- Oscillator can be installed in any position

# WOC-1000™ SPECIFICATIONS

The WOC-1000™ provides a user definable 50 sequence Programmable Logic Controller (PLC) with four 24 vdc inputs and two N.O. relay contacts. Using the PLC the user can provide external program control and simple power source interface. The RS-232 serial port is provided for off-line programming and system configuration and can also be used to remotely control the WOC-1000™.

The Weld Oscillator Control provides the necessary command signals to the stepper motor powered drive to permit the selection of the following functions from the front panel of the oscillator control box.

CONTROL	FUNCTION
Run	Enables pendulum oscillation
Track	Enables / Disable Thru-Arc™ tracking
Jog	Jogs the center position in a CW or CCW direction
Speed	Controls the speed of the pendulum oscillation
Left Dwell	Controls the dwell time on the left side of the oscillation pattern
Center Dwell	Controls the dwell time at the center of the oscillation pattern
Right Dwell	Controls the dwell time on the right side of the oscillation pattern
Width	Controls the width or amplitude of the weave pattern
Gain	Provides sensitivity control for all tracking functions

## MECHANICAL SPECIFICATIONS

WOC-500™ WELD OSCILLATOR CONTROL	
Dimensions	6.62"H x 4.12"W x 8.75"L (168mm x 105mm x 222mm)
Weight	5.5 lbs (2.5kg)
Power Requirement	115/220 vac 50/60 Hz @ 220 va
Dwell Time	0.02 to 2.0 seconds (right and left)
Velocity	0.24° to 60° / seconds
Width	± 0.06° to 15°

PENDULUM OSCILLATOR	
Dimensions	4.5" H x 3.375" W x 4" L (114.3mm x 85.7mm x 102mm)
Weight	3.5 lbs (1.6 kg)

HEAVY DUTY SLIDE	
Dimensions	17.08"H x 5.00"W x 2.63"D (434mm X 127mm x 67mm)
Max Travel	7.25" (184mm)
Weight	9-1/2 lbs (4.32kg)
Velocity	0.2 – 1.5 inch/sec
Weight Capacity	45 lbs @ 3" from slide face

Note: Specifications subject to change without notice.