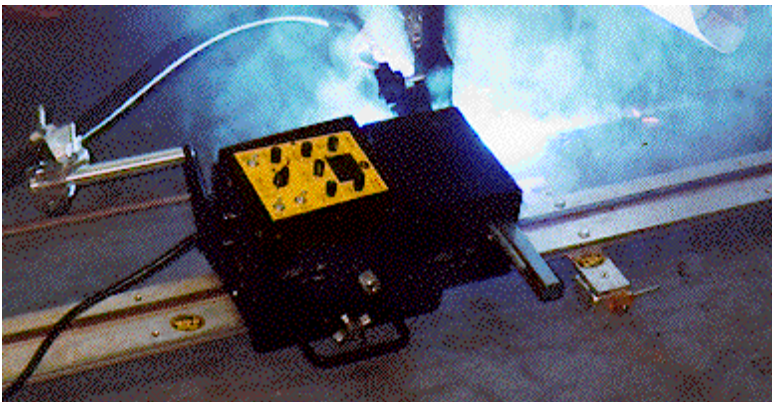
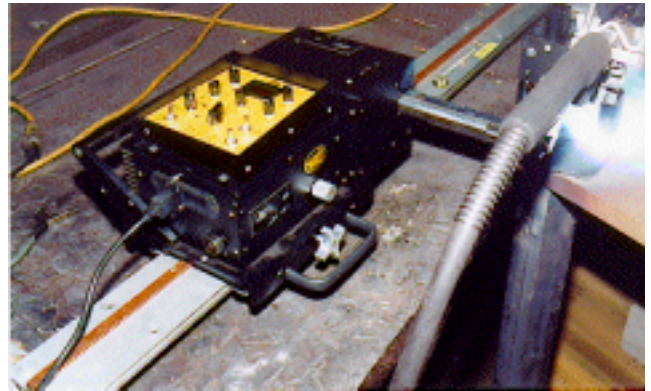
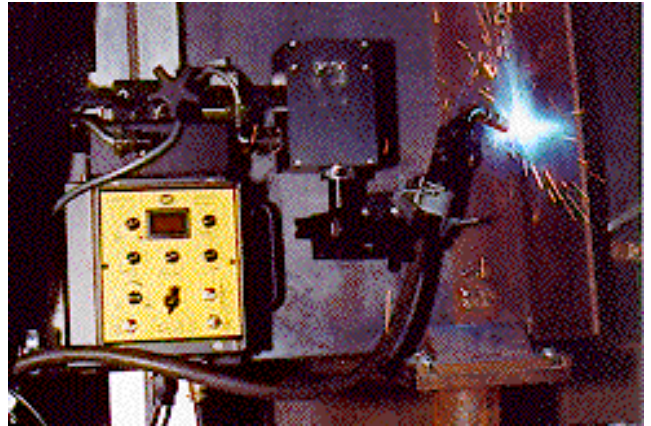
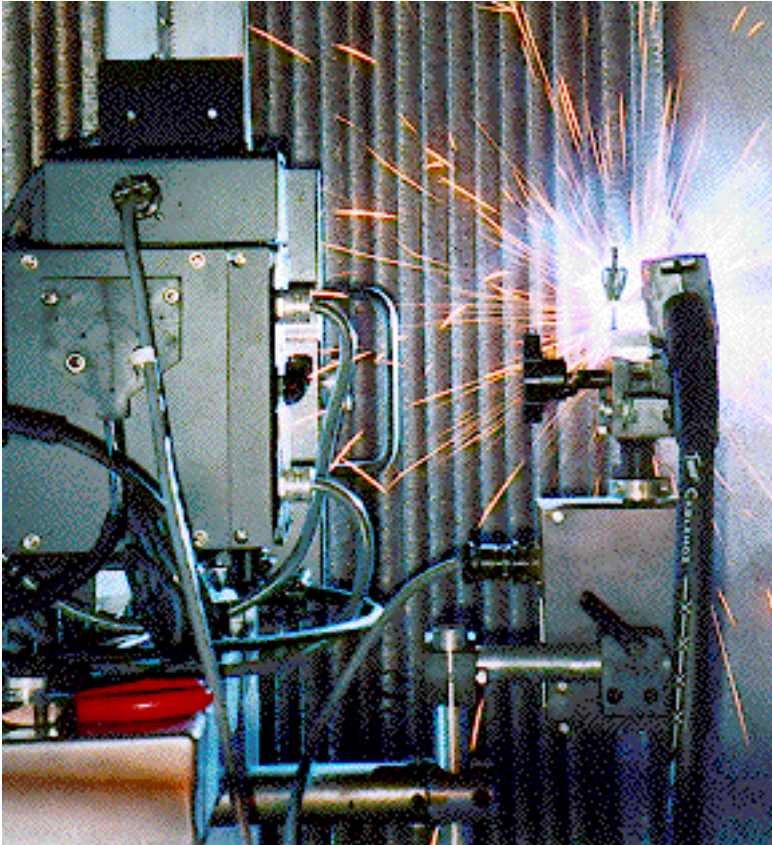


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# Two New Solutions for Precision Automation of Weld Weaving Applications!

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**Modular Drive Weaving Machines from BUG-O SYSTEMS Produce Smooth, Accurate Welds.**



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A DIVISION OF WELD TOOLING CORPORATION



3001 WEST CARSON STREET PITTSBURGH, PENNSYLVANIA USA 15204-1899  
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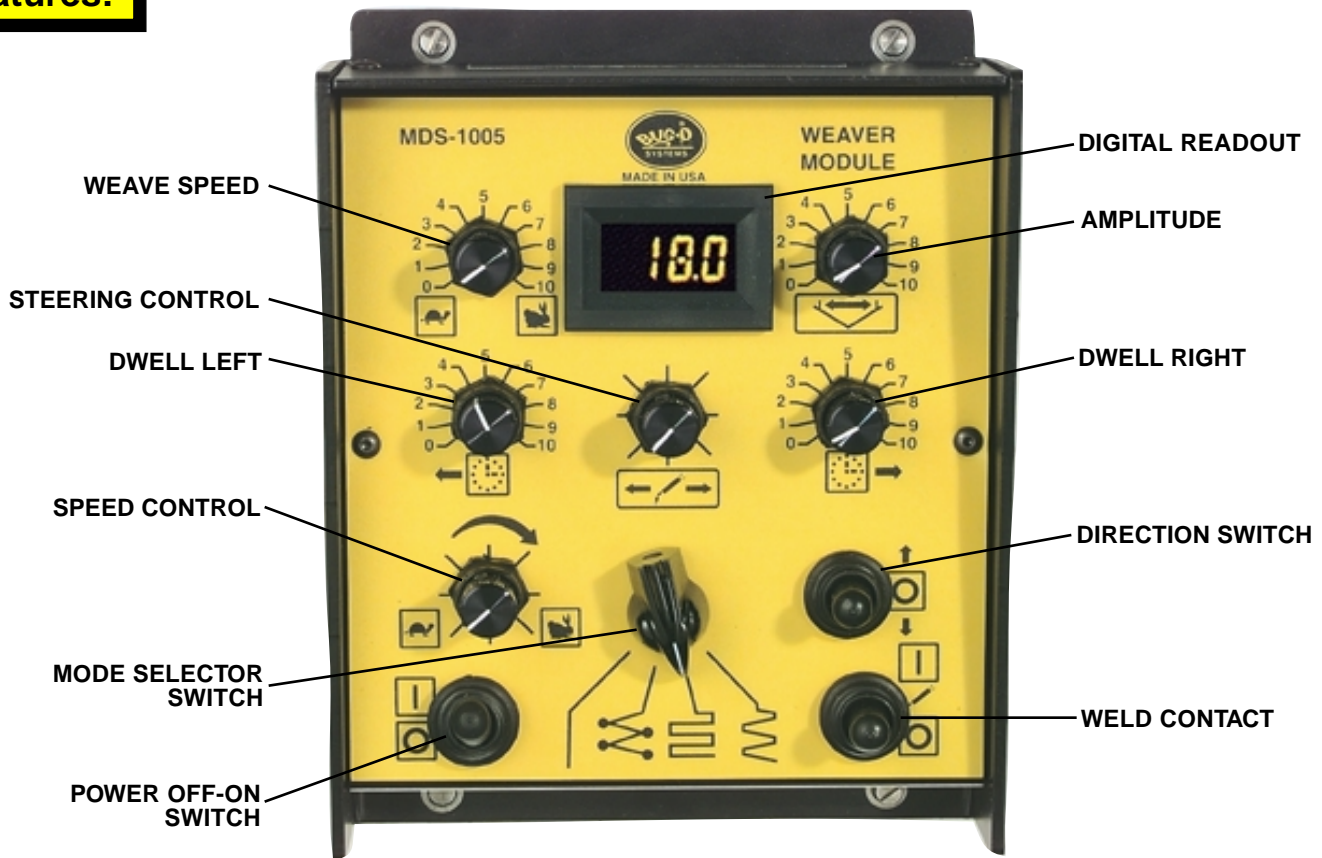
# Weaver Control Module

The Weaver Control Module operates the Pendulum or Linear Weaver, and the Master Drive Unit. The Control Module features include: a digital readout and control knob for longitudinal travel speed; a switch for Forward/Stop/Reverse tractor control; an amplitude knob to set weave width from 1/8"-2" (3-50 mm); weave speed control up to 100 in/min (254 cm/min); controls for left and right dwell; a knob to control steering up to 2" (50 mm), either side of center; weld contact; and a power On/Off switch. One of four weld patterns can be chosen using the mode selector switch, as shown in the figure below.

## Weaver Control Module

Order reference: **MDS-1005**

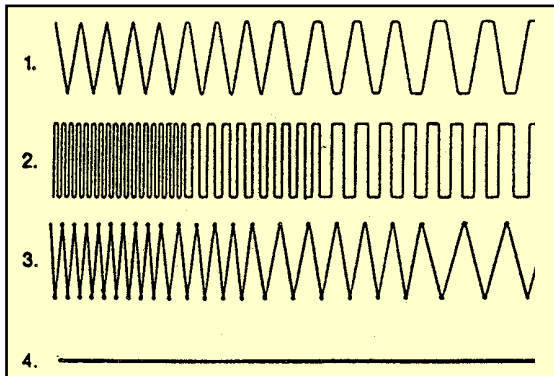
### Features:



## MDS-1005 Weaver Control Module

Digital display is factory set at cm/min; Field convertible to in/min.

### Weld Patterns:



- 1. RUN:** In this mode, power to the drive unit is always on and the machine travels continuously both during weave and dwell. Weave speed and dwell time both affect the weld pattern.
- 2. STEP:** The unit travels only during dwell, and stops during the oscillator cross stroke. Changing weave speed does not effect the weld pattern – dwell time does.
- 3. TRACTOR STOP ON DWELL:** The tractor travels during weave stroke; the tractor and weaver stop during dwell.
- 4. NO WEAVER:** In this mode oscillation is stopped. Only the tractor is powered. This mode is used for stringer passes.

# WPD-2000 Pendulum Weaver

The Pendulum Weaver and the Weaver Control Module add a pendulum weaving motion to the Modular Drive System. The Pendulum Weaver is particularly useful for weaving fillet welds in a corner joint. The Weaver Control Module plugs onto the top of the Master Drive Unit, as shown in the figure below. The Pendulum Weaver Electronics Box bolts onto the front end of the Master Drive. Then, a mounting plate is fastened to the front of the Carriage. The Pendulum Mounting Group attaches to this plate, and supports the Pendulum Gear Box. The Electronics Box and Gear Box connect using the cable provided.

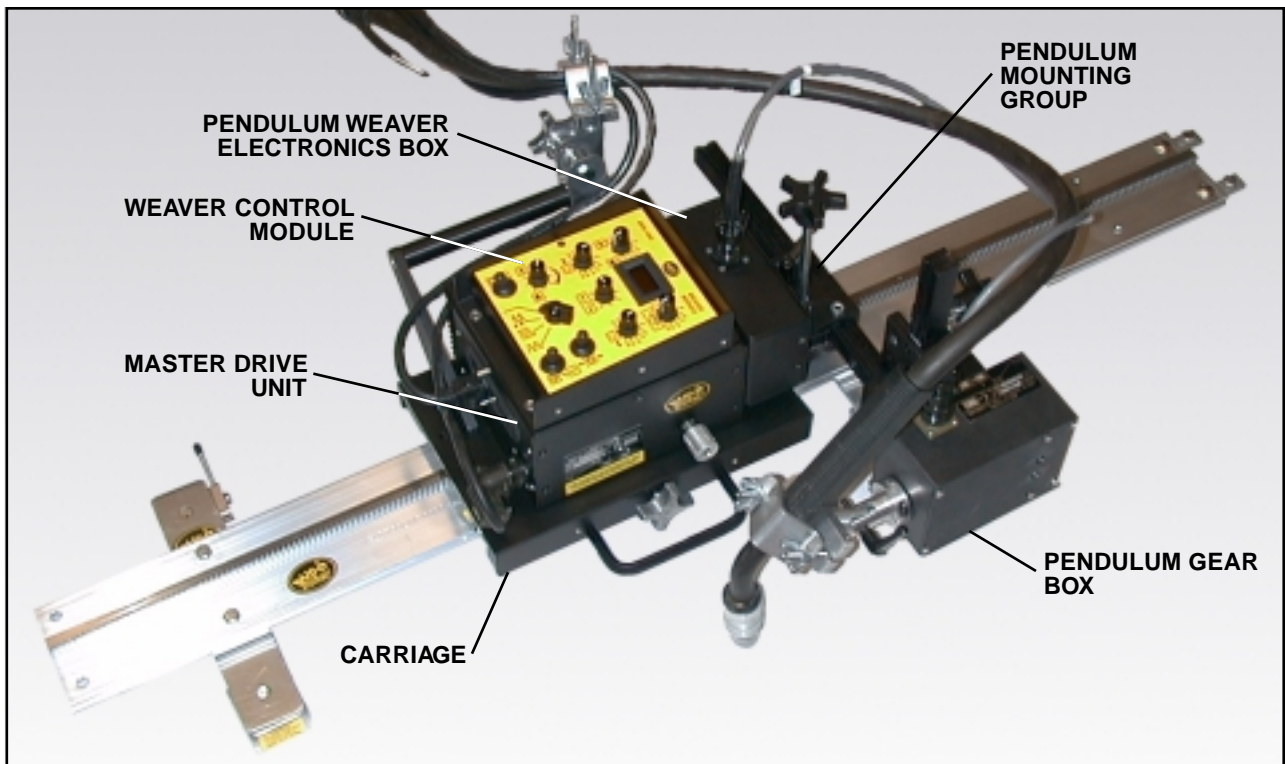
## Pendulum Weaver

Order reference: **WPD-2000**

### Features:

The Pendulum Weaver and Weaver Control Module incorporate the following standard features:

- High torque, low inertia motor for precise starts and stops.
- Heavy duty planetary gear box with powerful output for rotating welding gun and attachments.
- High speed pendulum motion with independent control of right and left dwell times.
- High motor gearing ratio, prevents the welding gun moving by backdriving the gear train when power is off.
- Closed loop speed control for adjustable and repeatable control of critical welding or cutting parameters.
- Closed loop position control to prevent drift from the center weld position.
- Gun mounting group with adjustable racking for accurate positioning of the gun.
- Weld Contactor ON/OFF switch.



**NOTE:** The Pendulum Weaver is also available as an independent unit.

# WPD-1000 Linear Weaver

The Linear Weaver and the Weaver Control Module give the Modular Drive System linear weave motion, producing welds from 1/8" to 2" (3-50 mm) wide. The Linear Weaver bolts onto the front of the Carriage and the Weaver Control Module plugs onto the top of the Master Drive Unit, as shown in the figure below. An optional Remote Control Cable is available which mounts between the Master Drive and the Control Module, allowing the operator to perform work in confined areas where it would be difficult to reach the controls.

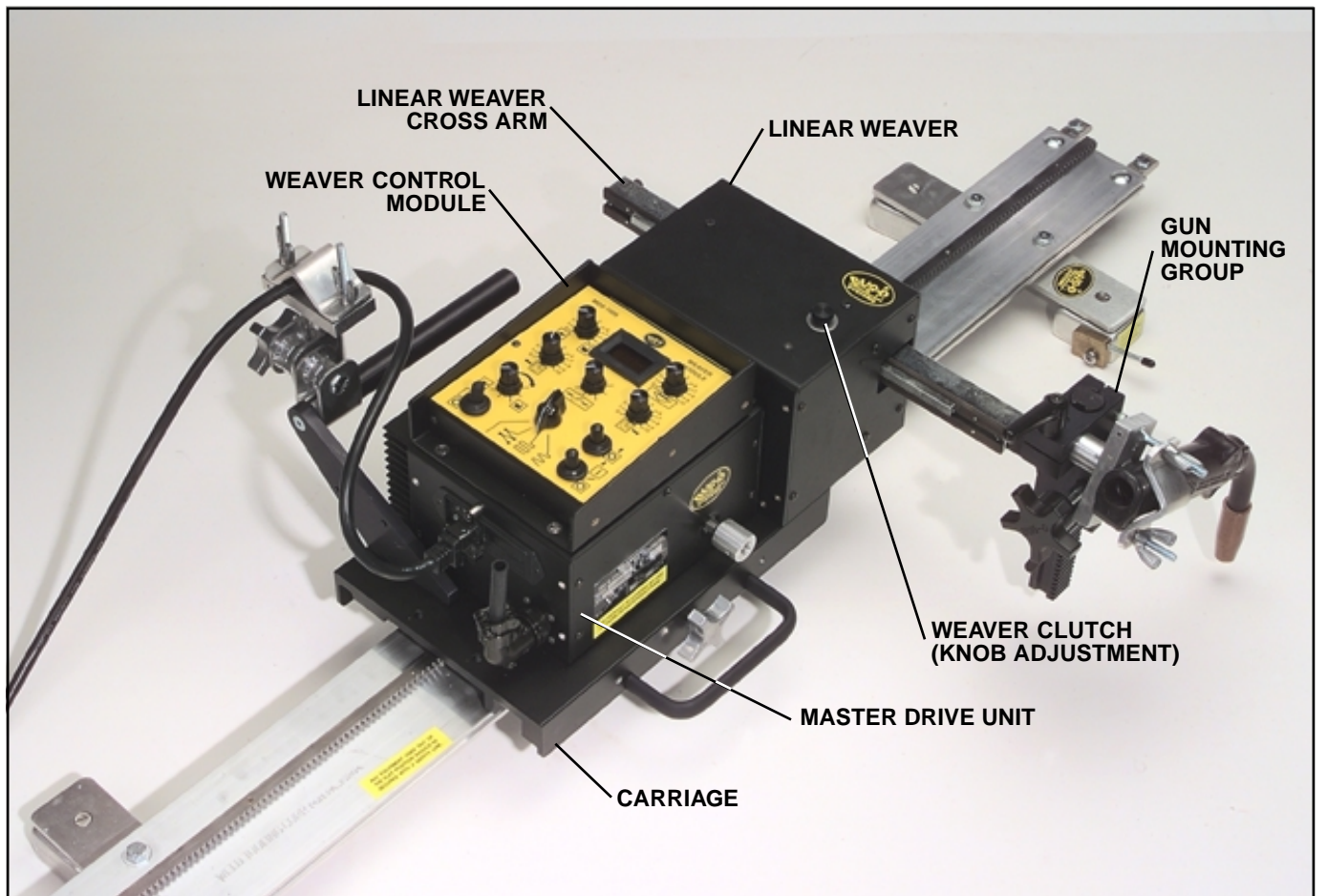
## Linear Weaver

Order reference: **WPD-1000**

### Features:

The Linear Weaver and Weaver Control Module incorporate the following standard features:

- High torque, low inertia motor for precise starts and stops.
- High speed Linear Weaver for weaving, with independent control of right and left dwell times.
- Motor overload protection which turns off the motor when too much load is placed on the Linear Weaver.
- High motor gearing which prevents the crossarm from moving when the unit is turned off.
- Closed loop speed control for adjustable and repeatable control of critical welding parameters.
- Closed loop position control to prevent drift from the weld center position.
- Clutch, to enable rapid installation or replacement of the weaver cross arm.
- Gun mounting group with adjustable racking for accurate positioning of the gun.
- Contactor ON/OFF switch.



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