

# K-BUG 5000

## DIGITAL, COMPACT, ALL POSITION PENDULUM WEAVE WELDER

A track guided travel carriage with  
oscillation for welding in all positions

Increases welding production

Improves weld quality

Reduces operator fatigue



**Bug-O Systems**

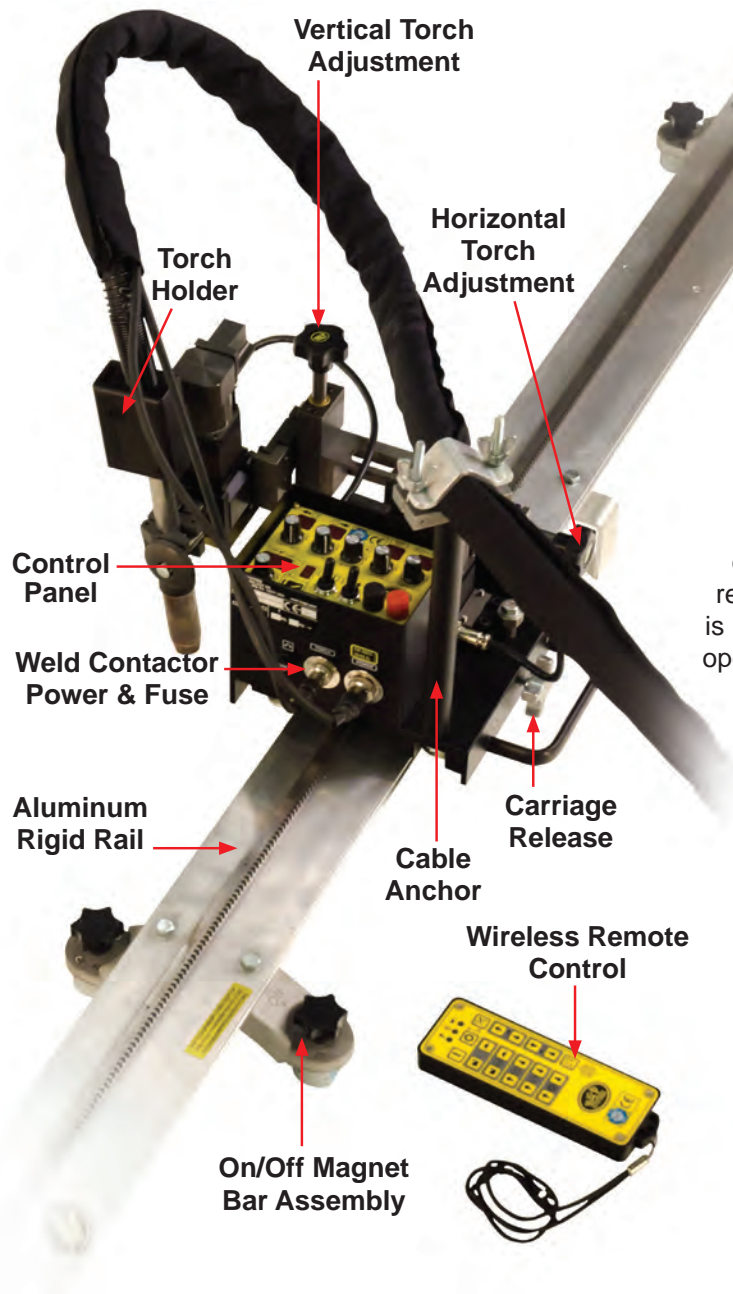
Operator Controlled Mechanization

412-331-1776    [www.bugo.com](http://www.bugo.com)

Bug-O Systems is committed to empowering our customers by providing operator controlled mechanized solutions for their welding, cutting and custom applications.

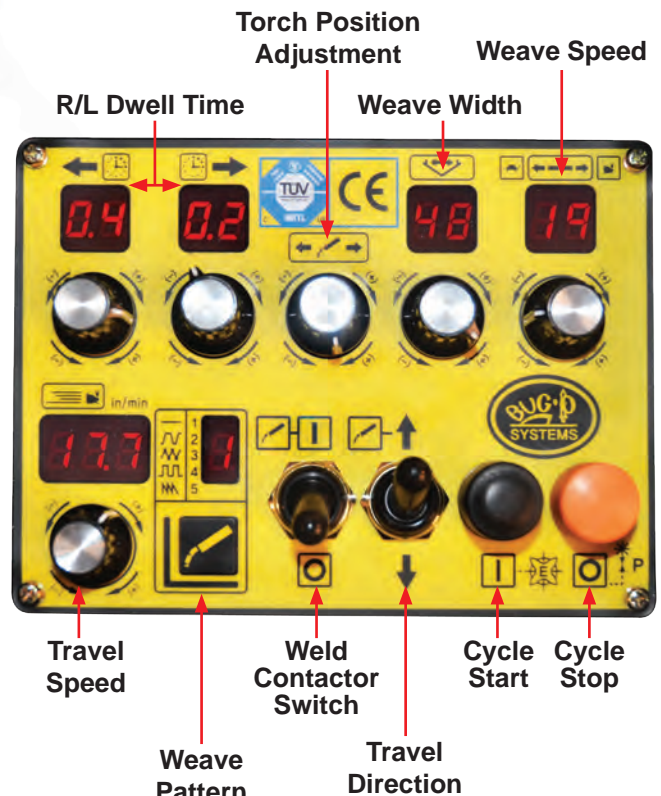


# K-BUG 5000 DIGITAL COMPACT ALL POSITION WEAVE WELDER



The **K-BUG 5000** is a compact portable welding unit with an integrated pendulum weaver for all position welding. It mounts to BUG-O Systems Aluminum Rigid Rail and attaches to work surface via magnets or vacuum system in any position. It will perform continuous welding at a constant travel speed producing high quality uniform welds in a fraction of the time required for manual welding. Regulated travel speed without starting and stopping the welding process will eliminate excessive weld deposition and help reduce defects. Precise weld weaving with programmable dwells will improve weld penetration and control undercut.

Control of all tractor and welding functions can be set or adjusted on the tractor's panel or remotely via wireless remote control. Maximum wireless remote control range is 32 ft (10 meters). Remote includes a magnetic back for operator convenience.



## Five Weave Patterns to choose from with just a push of a button.

- |  |   |
|--|---|
|  | 1. <b>NO WEAVE</b> - Straight line  |
|  | 2. <b>RUN</b> - The tractor moves continuously during the weave and dwell   |
|  | 3. <b>WEAVE</b> - The tractor and weave both stop during dwells   |
|  | 4. <b>STEP</b> - The tractor is stationary during the weave and moves only during the dwell   |
|  | 5. <b>TRACTOR STOP ON DWELL</b> - When the weave moves away from tractor, the tractor is stationary<br>When weave moves towards tractor, the tractor also moves |



# K-BUG 5000 DIGITAL COMPACT ALL POSITION WEAVE WELDER

## Features:

- High torque, low inertia motor for precise stops and starts
- Lightweight and easy to carry, weighing just 18 lbs. (8.2 kg)
- Aluminum Rigid Rail with rack and pinion drive insures precise path and consistent speeds
- Precision drive motor prevents unit from moving when power is off
- High geared pendulum motor prevents torch movement when power is off
- High speed motor for pendulum weaving
- Programmable puddle control and crater fill
- Independent control of pendulum weaving right and left dwell times
- Drive unit motor overload protection
- Closed loop speed and position control for adjustable and repeatable operation
- Closed loop speed control to prevent drift from center weld position
- Storage of welding parameters after power is turned off
- Carriage Travel and arc start in one switch
- Wireless Remote Control
- Independent control of puddle build and crater fill
- Weld Contactor ON/OFF Switch



## Rail Options:

The **K-BUG 5000** package is designed to run on Bug-O Systems Aluminum Rigid Rail (ARR) and Semi-Flex Rail (AFR) for uses in straight line applications. Carriage wheels run in recessed V-grooves that are protected from dirt and spatter. Both rails can be mounted with magnets, vacuum cups or bolted to a permanent fixture.

### Heavy Duty Rigid Rail ARR-1080 & ARR-1085



### Semi-Flex Rail AFR-3000



### Vacuum Pump Kit

(Necessary for use w/vacuum cups)

ARV-2020 120 Volt/50-60 Hz or 100-1297-120 120 Volt/50-60 Hz  
 ARV-2030 240 Volt/50-60 Hz or 100-1297-240 240 Volt/50-60 Hz



ARV-1085 Vacuum Kit for  
ARR-1085 4' (1.17 m)  
Rigid Rail



ARV-1080 Vacuum Kit for  
ARR-1080 8' (2.37 m) Rigid Rail



ARV-1080 Vacuum Kit for  
AFR-3000 8' (2.37 m) Semi-Flex Rail



# K-BUG 5000 DIGITAL COMPACT ALL POSITION WEAVE WELDER

## Accessories:

### All-In-One (AIO) Mechanized Guns for KBUGs

Choose from the options below to fit your application.

#### 1 GUN



#### Each gun includes:

- 5X 100-0490 / 65-3103 EHD Retaining Head/Diffuser
- 10X 100-0489 / 65-1135 EHD Contact Tip 0.035"
- 10X 100-0488 / 65-1145 EHD Contact Tip 0.045"
- 2X 100-0635 / 65-2550 Nozzle, Copper 1/2" Bore, 1/8" Tip Recess
- 1X 100-0492 / 64-4515 0.045-1/16", 15 Ft., Coil Liner

- 100-1011-1-4.5-XX** 500 amp Lightning Auto Gun, 180 degree gooseneck with integrated cable management system
- 100-1011-1-4.5-T** Includes 100-0484 Tweco #4 Power Pin
- 100-1011-1-4.5-M** Includes 100-0485 Miller Power Pin
- 100-1011-1-4.5-L** Includes 100-0486 Lincoln Power Pin Old Style

#### 2 BUG-O TRIGGER CABLE

Connects the contact cable in the torch to the contact trigger amphenol on the bug.



100-1012-3-0.15 KBUG-2T-F

#### 3 AIO TO BUG POWER ADAPTER (Bug End)



100-1013-3-0.15 AC Power Cable, KBUG, 0.15M

#### 4 WIRE FEEDER TRIGGER CABLES (Feeder End)

Required to choose 1

Connects the contact cable in the torch to the wire feeder.

100-1020-1-0.15 (two male spade connectors) 100-1020-2-0.15 4-P Miller



100-1020-3-0.15 5-P Lincoln



#### 5 STANDARD POWER CORD (From Rear of Gun Cable to Power Input)

BUG-9454 120VAC



BUG-9454-240 240VAC



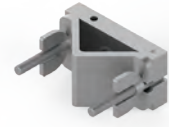
BUG-9454-42 42VAC



### Optional Torch Holders Available:



**KBUG-3120-1**  
1" Torch Holder



**KBUG-4190**  
1" KBUG Gun Clamp 3/4"-2"



**100-0953**  
Gun Clamp Assembly 3/4"-2"

Contact American Torch Tip for other consumables: 800-342-8477



# K-BUG 5000 DIGITAL COMPACT ALL POSITION WEAVE WELDER

## Technical Data:

**Power Requirements:**  
**KBUG-5000** 120VAC/50-60Hz/1Ph  
**KBUG-5002** 240VAC/50-60Hz/1Ph

**Net Weight:** 18 lbs. (8.2 kg.)

**Shipping Weight:** 24 lbs. (10.9 kg.)

**Welding Position:** All position

**Torch Holder:** Fits barrels up to 0.75 in (19 mm) dia.

**Vertical Lifting Power:** 50 lbs. (22.7 kg.)

**Tractor Dimensions:**  
**(WxLxH) inch:** 13 5/8 to 16 x 9 x 10 1/4  
**mm:** (346 to 406 x 228 x 260)

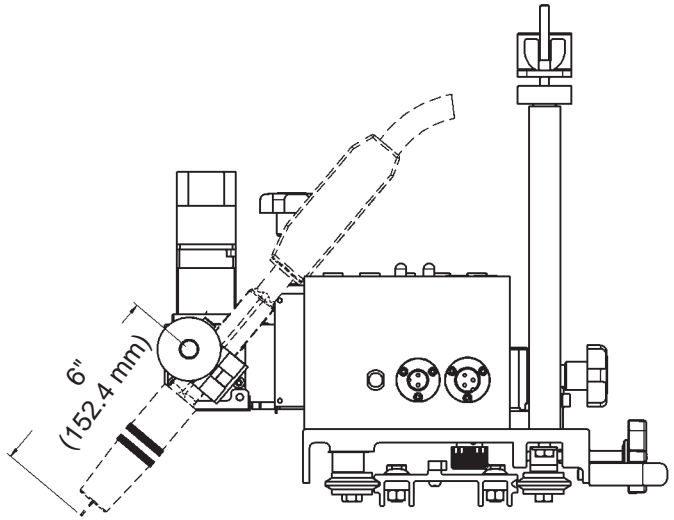
**Torch Support Adj.:**  
**Y-Stroke:** 2.05" (52 mm) ± 5%  
**Z-Stroke:** 1.69" (43 mm) ± 5%

**Weaver Speed:** 0 to 188 in/min (478 cm/min)

**Weave Width\*:** 0 to 1.05" (26.7 mm)

**Cycles\*:** 80 cycles per min. at 1.05" (26.67 mm) stroke  
 115 cycles per min. at .525" (13.34 mm) stroke  
 200 cycles per min. at .25" (6.35 mm) stroke

Digital LED speed indicator: 1 to 34.7 ipm (25 to 881 mm/min)



\* When torch Pivot-to-Tip length is 6" (152.4 mm) as shown above. Increasing the Pivot-to-Tip length will increase the maximum speed and the weave width.

## Dimensions:

