

WEST•BOND® INC.  
WEST•BOND INTERNATIONAL INC.



# 7KE CONVERTIBILITY

45° Wedge – Wedge

90° Feed – Deep Access Wire

90° Feed – Deep Access Ribbon

Single Ball / Ball – Stitch / Stitch on Ball  
Tab

**ALL IN A SINGLE TOOL HEAD**

Two models available 7KE (Low Frequency) and 7KEH (High Frequency)





**UNLIMITED PART SIZE:** Access to remote bond targets on large packages or modules with WEST·BOND's throat-less chassis and micromanipulator design. All machine components are arrayed above the horizontal bond plane, eliminating any restriction to package size or shape. With the EX version of this system, the bonder can be suspended over very large parts. This manual model can be configured to bond all types of applications from • Microwave • Semiconductor to • RF and • Hybrid production.

**CONVERTABILITY:** WEST·BOND introduced the first triple convertible wire bonder back in November of 1969, today WEST·BOND introduces a new tool head that can bond it all: 45° wedge, 90° feed for wire and ribbon as well as ball bonding. A simple exchange of clamp assemblies, bond tool, and wire path provided with the software mode will allow conventional 45° wire feed, deep access wire or ribbon, ball bonding, insulated wire and single point tab / lead bonding. All programmed bond variables as well as machine settings for each bond mode are retained in the machine's memory.



**PROGRAMMING:** The machine can be programmed for up to thirty devices per bond mode in separate buffers. Each device may have up to 21 stitch bonds with individual ultrasonic power, time, force (high or low) and loop elevation control data. Program values, action prompts and fault diagnostics are displayed on an easy to read 4 lines, 40 characters LCD.

**FEATURES:** Include programmable force (high or low), pure vertical Z, orthogonal X,Y,Z, 8:1 micromanipulator, pneumatic braking of all axes during bonding and radiant tool heat. The system is available without the base and work platform as a 7KEX for tabletop or conveyor system. Risers are also available for extra tall parts.

## MACHINE SPECIFICATIONS:

Control Logic: Motorola 68000 microprocessor  
 Memory: 512K of Battery Back-up RAM  
 Data Entry: Selector switches via LCD Display

### BOND AREA

ESD Protection: Conductive and dissipative  
 Bond Platform: 11" x 11" (280 mm x 280 mm)  
 20" x 20" (508 mm x 508 mm) optional  
 Z Travel: 0.5625" (14.3 mm) / 0.001" (25µm) resolution  
 XY Travel: 0.7"sq (17.8 mm<sup>2</sup>)  
 Manual control via an 8:1 ratio micromanipulator arm

### WIRE AND TOOL CAPABILITY

Au / Al: 0.7 to 3 mil (18 to 75µm)  
 Ribbon: 0.5 x 2mil to 1 x 10 mil (12.5 x 50µm to 25µ x 250µm)  
 Ball Bonding: Cu 0.7 to 1.5 mil (18 to 38µm)  
 Au 0.7 to 2.0 mil (18 to 50µm)  
 Spool: ½" standard; 2" optional  
 Tool Diameter: 1/16" (1.58 mm)  
 Shank Length: 0.750" (19 mm) standard for wedge bonding  
 0.625" (16 mm) standard for ball bonding

### ULTRASONIC SYSTEM

½ wave length, 63 KHz transducer, 110 KHz Optional  
 8 bit, 4 watt PLL Ultrasonic Generator  
 Ultrasonic tool positioning utility  
 Low Power: 2.5 W; High Power: 4 W

### BOND PARAMETERS

Bond Force: 10 – 150 grams  
 Bond Time: 0 – 999 ms.  
 Individual power and time per bond in 30 buffers  
 Ball Formation: Negative EFO  
 Missing ball detection via Open and Short error

### FACILITY REQUIREMENTS

100 – 120 / 220 – 240 VAC 50/60Hz  
 50 PSI clean dry air  
 Dimensions: 24" (610 mm)W x 21.25" (540 mm)D  
 x 11.625" (295mm) H  
 Weight: Crated with accessories: 140lbs (63.5 kg)  
 Uncrated: 60lbs (27 kg)

[www.westbond.com](http://www.westbond.com)

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