

# WEST·BOND. INC.



**5400E – 5600E – 5700E SERIES**

**SEMI-AUTOMATIC WIRE BONDERS**

*Continuing a Tradition of Quality*

# 5400E · 5600E · 5700E Series Semi-Automatic Bonders

**545657E - Three-Way Convertibility, 45° Wire Feed, 90° Wire and Ribbon Feed, or Ball Bonder**

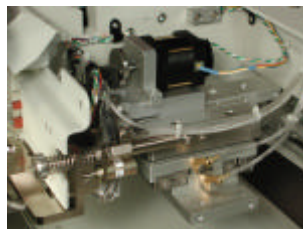
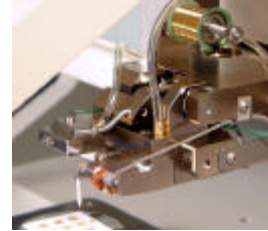
**5456E - Two-Way Convertibility, 45° Wire Feed, or 90° Wire and Ribbon Feed**

**5700E - Single Ball or Ball-Wedge Bonder**



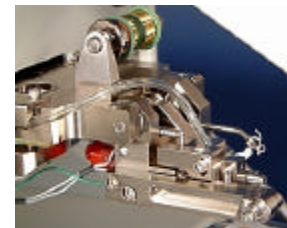
**WEST-BOND'S** Model 545657E brings forward the new advances of the "E" Series, notably the placement of all machine mechanism above the work plane to allow unlimited access, and the setting of axis brakes to lock on target. In this model the tool, rather than the work, is moved, both for alignment and for bonding, with the work pre-rotated. The machine bonds aluminum or gold wires ranging from 0.0007 in. to 0.002 in. and aluminum or gold ribbon ranging from 0.0005 in. x 0.002 in. to 0.001 in. x 0.010 in. Bonds are made by the wedge-wedge or ball-wedge technique using ultrasonic energy and work piece heat

**CONVERTIBILITY** for angled and vertical wire feed wedge bonding is easily accomplished with a simple change of clamping mechanisms, both of which are included with Model 5456E. Model 545657E expands convertibility with a tool head and Negative EFO assembly for single ball or ball-wedge bonding. All program variables and bond settings for each configuration are retained in memory between conversions.



**PROGRAMMING** for thirty different device types may be entered into separate buffers. Each device wire may have up to 21 stitch bonds with individual ultrasonic power, time, force, (high or low) and Z-Axes elevation control data. Program values, action prompts, and fault diagnostics are exhibited on the easy to read 4 lines, 40 characters LCD sequentially with machine operation.

**ADDITIONAL FEATURES** include 63 kHz ultrasonics (110Khz Available), orthogonal X-Y-Z axes with pure vertical Z, motion slaved Z encoder, pneumatic braking of X-Y-Z axes during bonding, and built-in tool heat. Available with the base and work platform for tabletop applications, or without base and work platform for mounting above any work handling system.



## STANDARD SPECIFICATIONS

CONTROL LOGIC: Motorola 68000 microprocessor

MEMORY: 256KB RAM

DATA ENTRY: Keypad -12 keys

DISPLAY: 4 line, 40 character LCD

DEVICE STORAGE: Battery Backup RAM

TOOL Z STROKE: 0.5 inch

MOTORIZED Z RESOLUTION: 0.000208 inch per micro-step

MANUAL Z ENCODER RESOLUTION: 0.001 inch

FORCE RANGE: Adjustable, 10-250 grams,

BOND FORCE: High / Low Programmable

TRANSDUCER: ½ wave, 63 kHz (nominal)

ULTRASONICS: Built-in, 8 bit, 5 watts

ESD PROTECTION: Protection against Electrostatic Discharge

BALL FAULT DETECTION: Ball bonder

TAIL AND PULL STROKES: Programmable

ANGLED FEED TOOL LENGTH: 0.750 inch

VERTICAL FEED TOOL LENGTH: 0.750 inch

BALL CAPILLARY LENGTH: 0.625 inch

WIRE RANGE: 0.7 to 2 mils, ½ x10 mil gold ribbon (vertical feed)

WIRE SPOOL MOUNT: 0.5 inch with ball bearing roller

MICROMANIPULATOR: Counterbalanced, single lever X-Y-Z

RADIANT TOOL HEAT: Built-in

WORK PLATFORM: Fixed height. Adjustable height priced separately

MICROSCOPE: Selection available (ESD types available)

ILLUMINATOR: Selection available (ESD types available)

WORK HOLDERS: Selection available (ESD types available)

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

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