

WEST·BOND, INC.



4500E – 4600E SERIES

SEMI-AUTOMATIC WIRE BONDERS

Continuing a Tradition of Quality

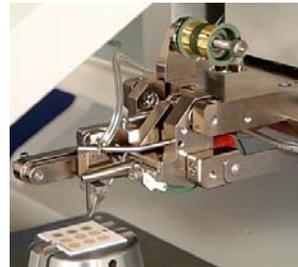
4500E - 4600E Series Semi-Automatic Bonders

4500E - 45° Wire Feed Wedge Bonder
4600E - 90° Wire and Ribbon Feed Wedge Bonder



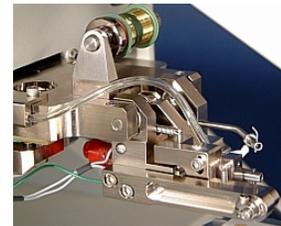
AUTOMATIC PRECISION at a fraction of the cost. Microprocessor controlled motor drives for both Y and Z-axes bond a succession of parallel, single or multiple arched wires maintaining identical loop and bond shapes. Unlimited deep-reach access to bond targets on IC packages of any X-Y dimension with West•Bond's throatless chassis and micromanipulator designs. Ideal for bonding high power, high frequency devices where identical bond and loop shapes are critical.

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 4546E. Model 4546E expands convertibility with a 45° tool head and 90° tool head. All program variables and bond settings for each configuration are retained in memory between conversions.



PROGRAMMING for different types of wire connections are entered into separate buffers, each with individual ultrasonic power, time, force (high or low) and loop control data. Each type may have up to 100 bonds, and may be repeated for any number of wires for up to a maximum of 6,000 individual bonds. Program values, action prompts and fault diagnostics are exhibited on the easy to read 4 line, 40 character LCD sequentially with machine operation.

ADDITIONAL FEATURES include 63 kHz ultrasonics, orthogonal X-Y-Z axes with pure vertical Z, color video and microscope targeting, 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
MONITOR: LCD Flat Screen
TOOL Z STROKE: 0.5 inch
TOOL Y STROKE: 0.5 inch
MOTORIZED Z RESOLUTION: 0.000208 inch per micro-step
MOTORIZED Y RESOLUTION: 0.000208 inch per micro-step
MANUAL Z ENCODER RESOLUTION: 0.001 inch
FORCE RANGE: Adjustable, 10-250 grams,
BOND FORCE: Two levels, adjustable
TRANSDUCER: ½ wave, 63 kHz (nominal)

ULTRASONICS: Built-in, 8 bit, 5 watts
ESD PROTECTION: Protection against Electrostatic Discharge
TAIL AND PULL STROKES: Programmable
ANGLED FEED TOOL LENGTH: 0.750 inch
VERTICAL FEED TOOL LENGTH: 0.750 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)
DIMENSION: W=24.218" x D=22.297" x H=11.000"
WEIGHT: 75 lbs uncreated, or 110 lbs accessorized and created

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