5430E – 5630E – 5730E SERIES (High Frequency)

SEMI-AUTOMATIC WIRE BONDERS

Continuing a Tradition of Quality
WEST-BOND’S Model 545730E 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 545630E. Model 545730E 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 110 kHz ultrasonics (110Khz Available), orthogonal X-Y-Z axes with pure vertical Z motion, 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
- **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:** 0.000020 inch per micro-step
- **MANUAL Z ENCODER RESOLUTION:** 0.001 inch
- **FORCE RANGE:** Adjustable, 10-250 grams,
- **BOND FORCE:** High / Low Programmable
- **TRANSUDER:** Full wave, 110 kHz (nominal)
- **ULTRASONICS:** Built-in, 8 bit, 3 watts
- **ESD PROTECTION:** Protection against Electrostatic Discharge
- **BALL FAULT DETECTION:** Ball bonder
- **TAIL AND PULL STROKES:** Programmable
- **ANGLED FEED TOOL LENGTH:** 0.828 inch
- **VERTICAL FEED TOOL LENGTH:** 0.828 inch
- **BALL CAPILLARY LENGTH:** 0.750 inch
- **WIRE RANGE:** 0.7 to 2 mils, ⅛ 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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