



Shenzhen Wisdomshow Technology Co., LTD.

深圳市智诚精展科技有限公司

WDS-650 BGA Rework Station Product Presentation



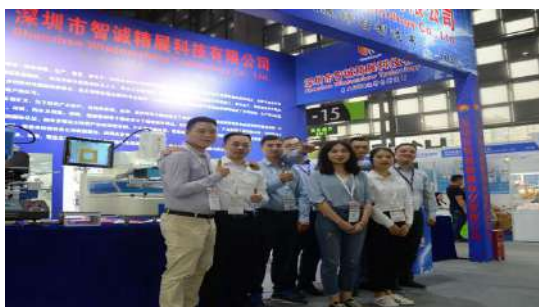
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 - Application
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- Business Partner

Company Profile



Shenzhen Wisdomshow Technology Co., LTD.

1. Following the business philosophy of "professional, integrity, excellence, customer first";
2. One of the leading manufacturer of BGA rework stations;
3. Over 10 years' experience in the BGA rework industry;
4. All models have passed the CE Certificate and ISO;
5. 100% QC inspection before shipment;
6. Customized brand logo is acceptable;
7. Owning a large market share in the world;





Model: WDS-650

Item: BGA Rework Station

- 5 working modes
- 15" HD LCD monitor
- 7" HD touch screen
- CCD color optical alignment system
- Laser light for positioning
- Infrared preheat tubes + hot air heating areas
- HD camera comes in & out automatically by button
- Temperature accuracy within $\pm 1^{\circ}\text{C}$
- Mounting precision within $\pm 0.01\text{mm}$
- Repair success rate: 99% +

Power supply	AC 110V / 220V \pm 10% 50/60Hz
Total power	Max 6400W
Heater power	Top heater(hot air) 1200W; bottom heater(hot air) 1200W; bottom heater(infrared) 4000W
PCB size	410*380mm - 10*10 mm
BGA chip size	70*70mm - 1*1 mm
Applicable PCB thickness	0.3 - 5mm
Sensor	3pcs
Mounting accuracy	$\pm 0.01\text{mm}$
Dimension	L 600*W 640*H 850mm
Net Weight	60KG
Alignment system	Optical lens + HD industrial camera
Locating way	V shape PCB support + external universal fixture + laser light for centering and positioning
Temperature control	high precision K-sensor+ closed loop control + independent temp.controller (the precision can reach $\pm 1^{\circ}\text{C}$)
Electrical material	Driving motor + smart temp. controller + color touch screen
Tin spot monitoring	Optional external camera to monitor solder ball melting process during welding
Working modes	Five: Semi-auto/Manual/Remove/Mount/Weld

Precision Optical Alignment System

Using high definition and adjustable CCD color optical alignment system, beam split, amplification, lessening, fine adjustment and auto focus with the function that automatic color aberration resolution and brightness adjustment, adjustable image contrast; equipped with 15 " high definition LCD monitor and micro-adjustment.



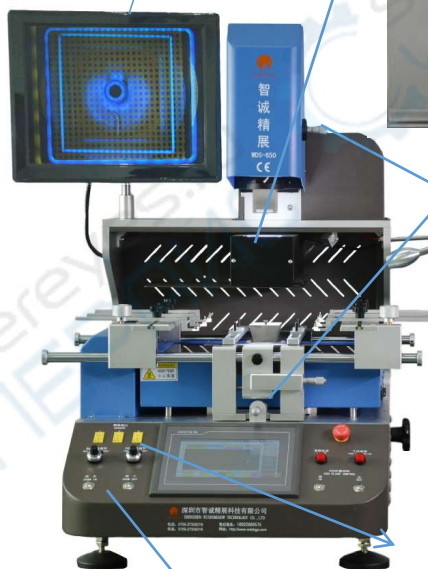
15" HD Digital Display Monitor

- Effectively and clearly show the condition of alignment of soldering joint in 2 color points;
- Note: blue point is for IC chip while yellow point is for soldering point on PCB board;



CCD Optical HD Camera

- Brand: Panasonic
- Precision optical prism;
- 5 million pixels;
- Mounting accuracy within $\pm 0.01\text{mm}$;



Micrometer

- Slightly adjust the position of PCB board to ensure the precision alignment;
- Ensure the mounting accuracy within $\pm 0.01\text{mm}$;
- Effectively increase the success rate of repairing;



Micrometer

- Slightly adjust the angle of IC chip for precision alignment;
- Ensure the mounting accuracy within $\pm 0.01\text{mm}$;
- Effectively increase the success rate of repairing;



BGA Light Adjust & PCB Light Adjust

- Slightly adjust the brightness of the light of CCD lens to observe the alignment clearly;
- Effectively increase the success rate of repairing;



Zoom In & Zoom Out Buttons

- Adjust the resolution of points in the screen from 1X to 200X to observe the alignment clearly;
- Effectively increase the success rate of repairing;

Multi-functional & Humanized Operation System

1. Adopting the HD touch human-machine interface; upper heating head and mounting head designed 2 in 1; providing many kinds of titanium alloy BGA tuyere can be rotated in 360 degree for easy installation and replacement.
2. X, Y and R angle adopted micrometer fine-tuning, accuracy locating, precision can reach $\pm 0.01\text{mm}$.



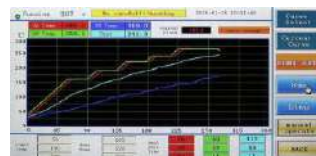
7" Color Touch Screen

- 5 work modes and some common temperature curves are provided in the system;
- Chinese and English are already in the system, but Spanish, French and other languages are available;



Parameter Setting

- 8 temp. phases for soldering/desoldering;
- Users can set different temp. curves according to different chips;
- Time-saving: users can save multi temperature profiles for different PCB boards and name them;

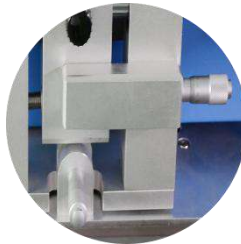


Temperature Curve

- Instantly analyze the temp. on touch screen, which can avoid failed repairing and correct the temp. in time;
- Different colored curves mean different temperatures for different heaters and the heating chip;

Multi-functional & Humanized Operation System

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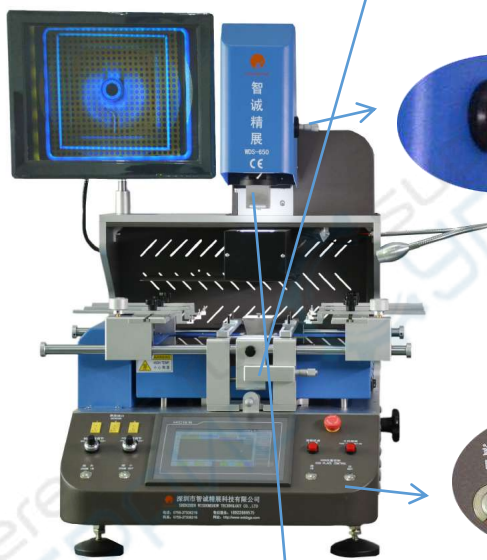
Micrometer

- Slightly adjust the position of PCB board to ensure the precision alignment;
- Ensure the mounting accuracy within $\pm 0.01\text{mm}$;
- Effectively increase the success rate of repairing;



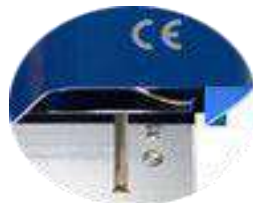
Micrometer

- Slightly adjust the angle of IC chip for precision alignment;
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- Effectively increase the success rate of repairing



CCD Place Control (In & Out)

- Press the button to control the camera move in or out conveniently to observe the image on the monitor

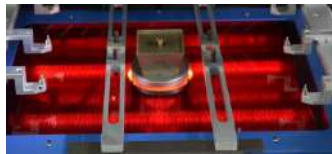


Suction with Sucker

- Pick up the chips automatically;
- Different sizes of nozzles and vacuum sucker work for different sizes of chips;
- Equipped with pressure testing device; the head of machine will stop declining automatically to protect the PCB from being damaged when the testing device detects pressure;

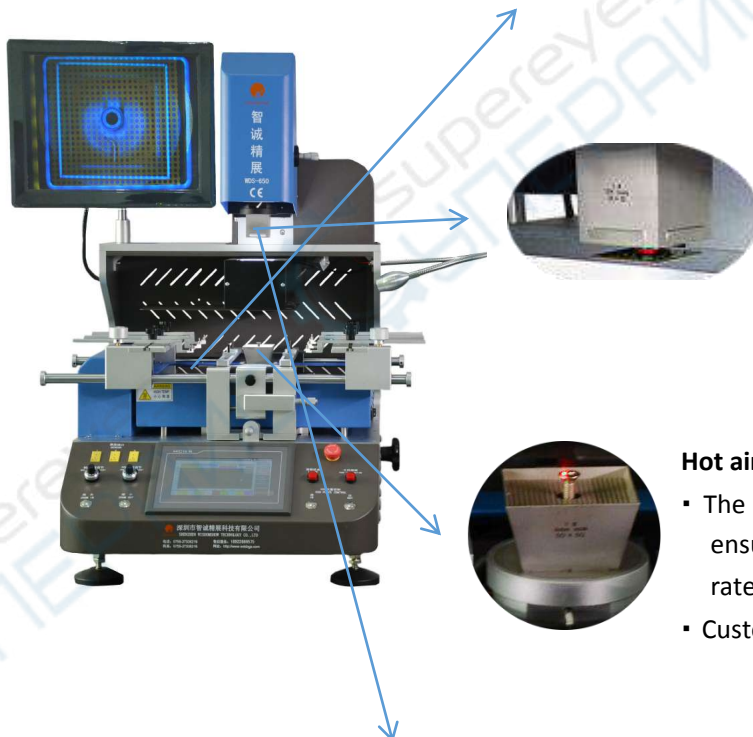
Independent 3 Heating Zones Temperature Control System

1. Large infrared heater preheats the bottom of PCB and avoid PCB deformation during transformation;
2. Top or bottom heater can be used separately and freely combined with lower energy heating elements.
3. Built-in high-precision k-type thermocouple closed-loop control and PID parameter self-tuning system;
4. Equipped with different sizes of nozzles;



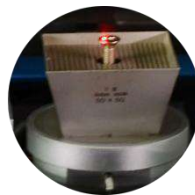
Infrared Preheater (Bottom Heater 4000W)

- High temp. resistance ceramic glass prevents the chips from being dropped and burnt;
- Infrared heating makes the PCB board evenly being heated and prevents it from deformation;



Hot air Heater (Top Heater 1200W)

- Reflow vent designed nozzle helps the PCB board being heated evenly;
- The flow of top heater can be adjusted according to the chips;



Hot air Heater (Bottom Heater 1200W)

- The height of bottom heater can be adjusted to ensure the perfect heating and repair success rate.
- Customized nozzles are available;



Nozzle

- Top heater can be equipped with different sizes of nozzles to fit for different sizes of chips;
- Reflow vent designed nozzle helps the PCB board being heated evenly;
- Customized nozzles are available;

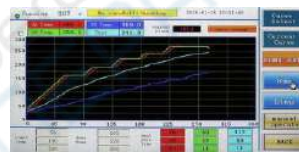
Independent 3 Heating Zones Temperature Control System

5. Three sensors for different temperature analysis;
6. 8 sections of temperature independent control;
7. Equipped with the function of curve analysis.
8. Temperature accuracy is within $\pm 1^{\circ}\text{C}$;



Sensor

- Test the outlet temperature to ensure using the correct temp. or revise the temp.;
- Test the PCB board temp.;
- Test the tin point temperature of melting;



Temperature Curve

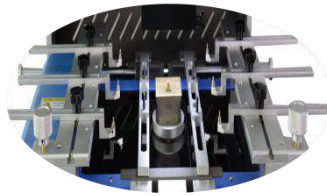
- Instantly analyze the temp. on touch screen;
- Can measure the effective heating and correct the temp. in time;
- Different colored curves mean different temperatures for different heaters and the heating chip;



Bottom Heater Height Adjust

- Distance between Bottom nozzle and PCB board can be adjusted by this handle to ensure the perfect heating and repair success rate.

Other Functions



External Universal Fixture

- V shape slot;
- PCB support jigs are adjustable;
- Movable PCB holder shelves;
- Extended PCB holder strips hold the PCB more stable



Infrared Laser Light

- Infrared laser light makes fast centering and positioning for PCB board



LED Light

- Bright enough;
- It helps user observe the melting of solder balls and check the condition of PCB board;



USB Port

- Transfer information;
- Update the system;



Emergency Button

- Press it in case of any emergency;
- The whole machine automatically cuts the power supply;



Cooling Fan

- It starts to work when the soldering/desoldering completes;
- It prevents the PCB board from deformation by the remaining temperature



Voice Alarm

- It can alarm by itself when the soldering/desoldering finishes;
- Advance warning time can be set;

WDS-650 BGA Rework Station can be used in many fields, such as

- Laptop and computer boards rework and repair.
- Game consoles applications rework and repair.
- Small and medium size electronics assembly factories.
- Military sophisticated applications rework and repair.
- Medical equipment applications rework and repair.
- Automotive applications rework and repair.
- Light systems and LED applications.
- Home appliance and personal Gadgets applications rework and repair.
- Networking and communication applications rework, repair and assembly.
- Power supply and control PCB applications rework, repair and assembly.



STB Motherboard



PlayStation Motherboard



LED Module Motherboard



TV Motherboard



Laptop Motherboard

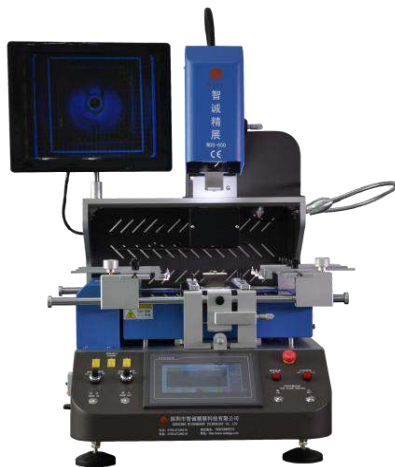


Computer Motherboard

Free accessories are provided together with WDS-650 BGA machine.

Here is the packing list:

- (1).Titanium alloy hot air upper nozzle-4 pcs; (2).Bottom nozzle-1 pc;
- (3). Red high temperature resistant sucker-5 pcs; (4).Temperature measurement line-3 pcs;
- (5). Brush-1 pc; (6). Plum handle-6 pcs; (7).T-type nut and screw-1 set;
- (8). Universal fixture-6 pcs; (9).User manual -1 pc;



Hot air upper nozzle(4pcs):

41*41mm, 38*38mm, 28*28mm, 18*18mm

P.S.: customized sizes are available)

Hot air bottom nozzle(1pc):

50*50mm

P.S.: customized sizes are available

We also have other related BGA tools to assist your repair work.



- Warranty: one year for the whole machine;
- Package: individual standard export strong wooden box;
- Operation guidance: providing user manual and demo video;
- Delivery: within 1-2 work days after receiving the full payment;
- Training: online training by video call / on-site training at our factory;
- Service: lifetime technical support & professional after-sales service;



Business Partner



We are looking forward to cooperating with you.

Together, we solve the chips problem!