



Shenzhen Wisdomshow Technology Co., Ltd.

深圳市智诚精展科技有限公司

WDS-750 BGA Rework Station

Product Introduction



Content

I .	Company Profile	-----	3
II .	Business Partners & Application Domain	---	4
III.	Product Line	-----	5
IV.	Product Parameter	-----	6
V .	Exploded View	-----	7
VI.	Function Details	-----	8
VII.	Packing List	-----	13

Company Profile

- We are manufacturer = own factory+ machine design+sheet metal produced by ourselves+spray the powder+ strong assemble the machine team + packaging+free training
- Rich experience in BGA rework station field
- Develop new products to meet different requirements based on customer feedback
- Provide OEM services
- 100% NEW from WDS factory
- Have excellent teams and focus on product development & design, quality control & inspection
- Good reputation both at home and abroad



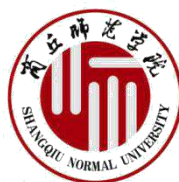
WDS/wisdomshow



Your satisfaction, our goal

Best service from factory

Business Partners



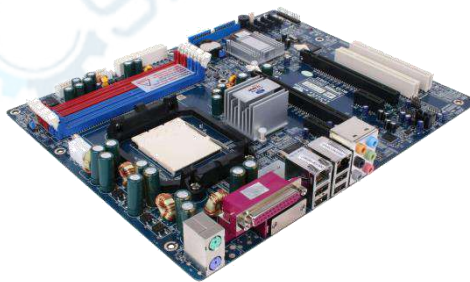
Inspired Brands.
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Application Domain



Server Motherboard



Laptop Motherboard



STB Motherboard



TV Motherboard



PlayStation Motherboard



LED Motherboard

Product Line



WDS-750/6800W



WDS-800/7600W



WDS-620/5300W



WDS-650/6400W



WDS-580/4800W



WDS-700/2600W



WDS-200/1200W



WDS-520/3800W

Product Parameter

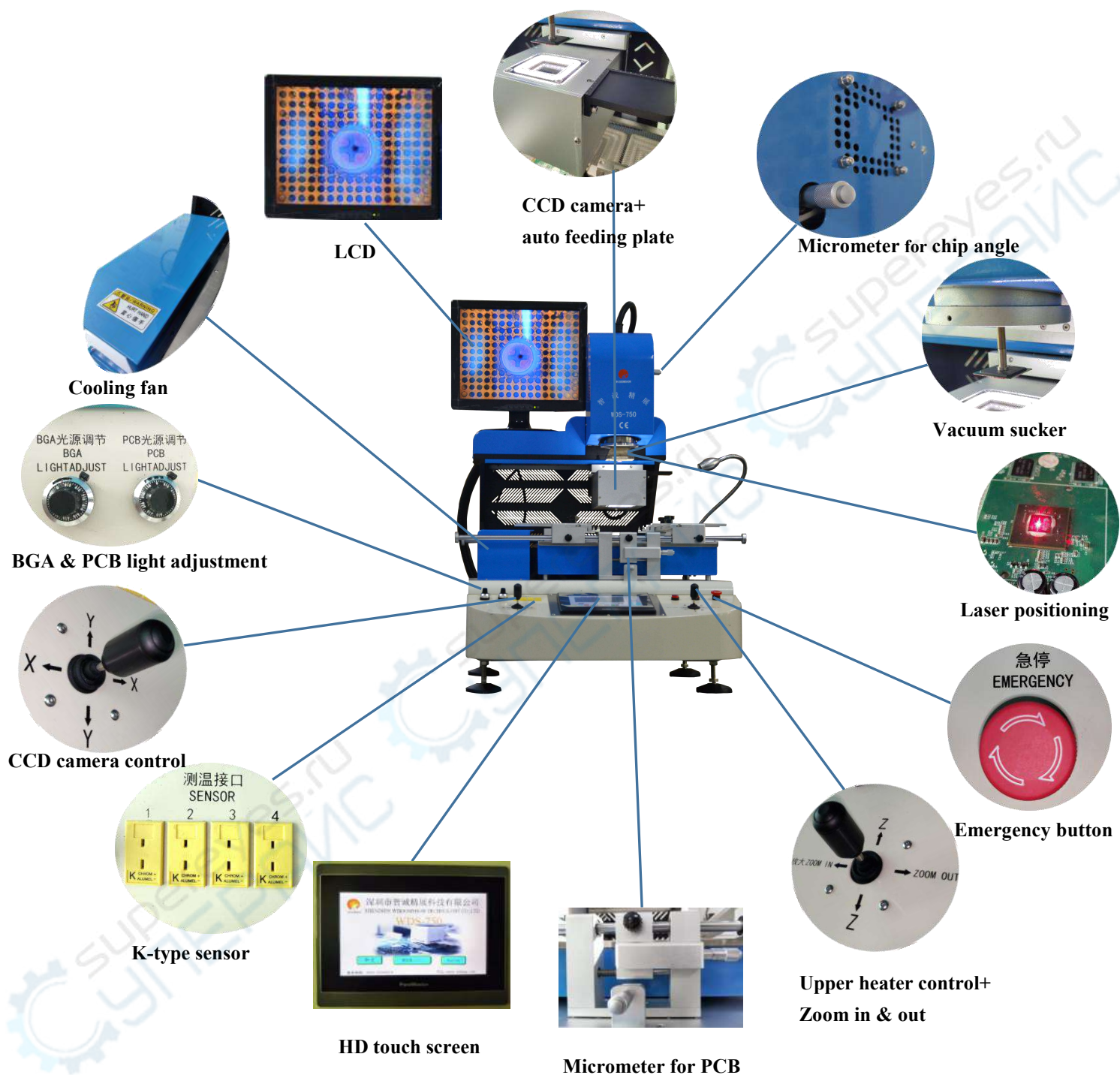


WDS-750 BGA rework station

- ① Full-automatic & manual
- ② Panasonic PLC control
- ③ Servo motor
- ④ Sensitive touch screen
- ⑤ Laser positioning
- ⑥ Optical alignment mount precision: $\pm 0.01\text{mm}$
- ⑦ Moveable optical alignment system
- ⑧ Auto feeding system

Total power	6800W
Upper heating power	1200W
Bottom heating power	1200W
Bottom IR heating power	4200W (2400W is controlled)
Power supply	(Single Phase) AC 110V/220V \pm 10 50Hz
Location way	Optical camera+ V-shape card slot + laser position for fast location
Temperature control	High precision K sensor closed loop control,independent temperature control
Temperature precision	$\pm 1\text{ }^{\circ}\text{C}$
Appliance selection	High sensitive touch screen + temperature control mode +Panasonic PLC + servo motor
Max. PCB size	550 \times 480mm
Min. PCB size	10 \times 10mm(customizable)
Sensor	4 units
Chip amplification multiple	1-200X
PCB thickness	0.5-8mm
Chip size	0.2*0.4mm-9cm
Min. chip space	0.15mm
Max. mount loading	500G
Mount precision	$\pm 0.01\text{mm}$
Overall size	L830 \times W670 \times H850mm
Optical camera	Can be removed front and back,left and right,prevent the dead angle
Machine weight	90kg

Exploded View

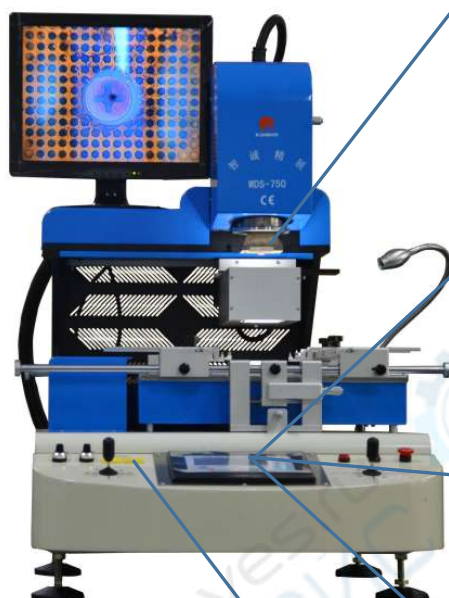
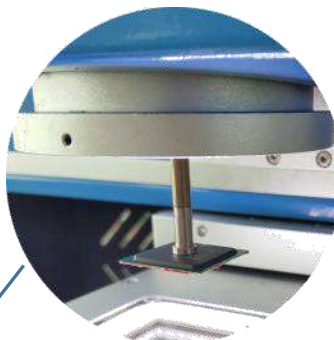


Function Details

Operation system

- Manual & automatic modes are available
- Solder, desolder, mount, pick and replace the chip automatically
- Panasonic PLC control

1. Pick up & replace chip automatically
2. Built-in vacuum pump, rotate 360°, fine-tune mounting suction nozzle precisely.
3. Built-in pressure testing device, can detect pressure of 8-10g, 0 pressure when picking up the chip and mounting.
While the pressure is detected, the top head stop declining automatically to protect PCB from being damaged.
4. Different vacuum sucker sizes for different chip sizes.



1. 7 " HD Touch Screen
2. Resolution: 800*480
3. Remove/Mount/Weld modes
4. English/Spanish/Portuguese/French and other languages are available.
5. Panasonic PLC control, instantly analyze temperature.



1. 8 segments of temperature up/down and 8 segments of constant temperature control, mass storage of temperatures, analyze temperature curve.
2. Set different temperature for different chip. Same and similar PCB use same profile. Time-saving.



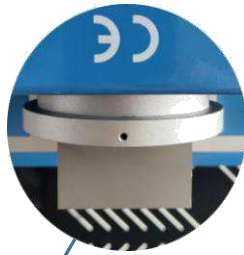
Panasonic PLC control the machine operation, with temperature precision within $\pm 1^{\circ}\text{C}$, effectively increase repairing success rate.



Real-time detect and analyze temperature at multipoint, determine the temperature of air outlet and tin melting point, calibrate the temperature.

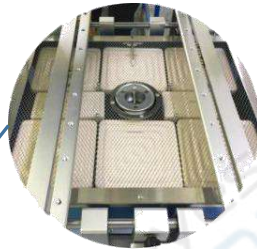
Independent 3 heating zones temperature control system

- Panasonic PLC control, real-time temperature curve display, show the setting curve and actual curve, analyze the thermometry curve.
- Infrared heating plate, 3 independent heating zones, each heating zone can set up the heating temp, heating time, temp rise rate; Six period of heating temperature, simulate the reflow heating mode, set up as Preheating, keeping, heating, welding, welding, cooling.
- Using the high precision K-type thermocouple closed-loop control which is imported from USA, with the unique heating method, ensure the weld temperature precision control within $\pm 1^{\circ}\text{C}$.
- 4 pcs independent sensors, check the temperature accurately for the chip points, ensure the weld yield.



Top Heater, 1200W

1. Hot air heat head and mount head are combined 2 in 1, equipped with servo motor, solder and desolder the chip automatically.
2. With 3 independent heating zones, temperature rise fast, make the large temp difference between the repairing BGA and nearby BGA, no affect the surrounding BGA while heating, have perfect repair effect.



Bottom Heater, 1200W&IR 4200W

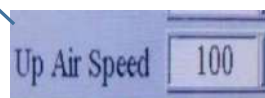
1. Using the protecting mesh over the infrared area to prevent components falling or human burns happen.
2. Bigger heater area for bigger and thicker motherboard, Max size is 550*480mm
3. Make heating flow more evenly.



Infrared heating area control switch, 4 pcs, control 4 pcs heating plates in four corners, reduce the maximum power output, energy saving.



Bottom heater height adjustment. The distance between PCB and suction nozzle is 2-3mm.



Upper Air Flow Adjust

1. Adjusting the wind-force according to the chip size, prevent the small BGA chip from moving flow by strong air.
2. Make air flow suitable for different chip sizes.



Powerful Cross-flow Cooling Fan

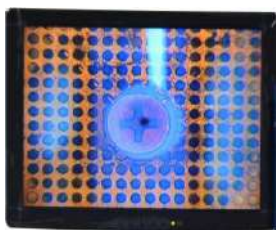
Producing cooling air flow as soon as the soldering/desoldering process finish, avoid PCB deformation.

Precision Optical Alignment System

- HD adjustable CCD color optical alignment system with split vision, zoom in, zoom out and auto-focusing functions, equipped with aberration detection device, brightness adjustment device and software operation, can adjust image resolution
- Remove and pick up the chip automatically. Auto feeding system.

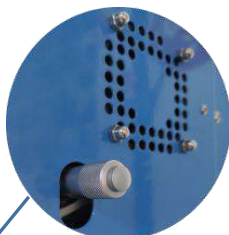
15 " Color HD LCD display

1. Shows the image of every soldering joint, increase the repair success rate.
2. Yellow point is the soldering point on PCB, blue point is the soldering point on BGA chip.



Micrometer for Chip Angle Adjustment

1. Slightly adjust the chip angle
2. Equipped with Servo Motor, mount accuracy within $\pm 0.01\text{mm}$.
3. 2 pcs cooling fan



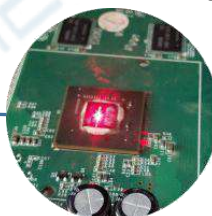
Precision Optical Alignment System

1. Imported optical alignment system, 8 million pixels.
2. Mount accuracy within $\pm 0.01\text{mm}$.



Auto feeding system

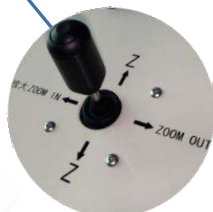
1. Identify the centre location of chip automatically
2. Desoldering: top head pick up the chip and put it on the feeding plate automatically.
3. Soldering: top head pick up the chip from feeding plate automatically.



Laser positioning for fast location on PCB.



Micrometer for PCB Adjustment
Slightly adjust PCB location, ensure precision alignment of every soldering joint.



Joystick Control

1. Zoom in & zoom out the image
2. Top head up/down movement
3. The button at the top of joystick, make the top head back to origin.

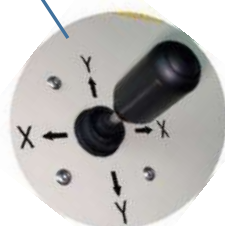
Joystick Control of CCD Camera

Control the camera to move left & right, front & back, without vision dead corner, realize that repairing large PCB with relatively small device volume.



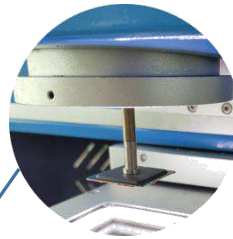
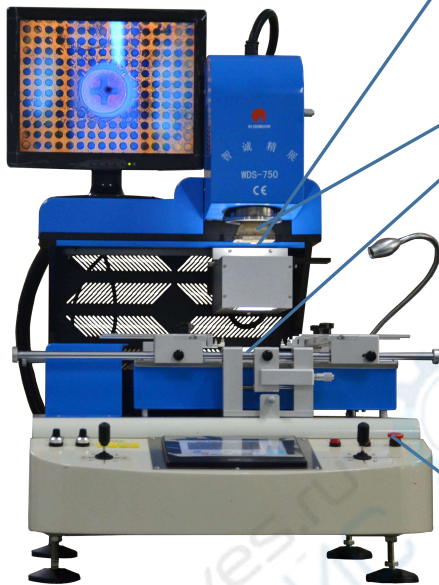
BGA light & PCB light Adjust

Slightly adjust the LED light of CCD lens, make the image on LCD more clearly, increase the success rate.



Superior safety protection system

- CE certified
- With emergency button and automatic power-off protection device when abnormal accident happens, double over-heating protection device.
- Temperature curves with password protection to prevent arbitrary modification, equipped with fool-proofing function.



Built-in pressure testing device, can detect pressure of 8-10g, 0 pressure when picking up the chip and mounting. While the pressure is detected, the top head stop declining automatically to protect PCB from being damaged.



Different alloy heating nozzle sizes are available, meet different soldering



Alarm system

1. Alarming in advance when the soldering/desoldering is finished, can set the alarm time.
2. Alarming when temperature is over-heating or abnormal temperature rise automatically.



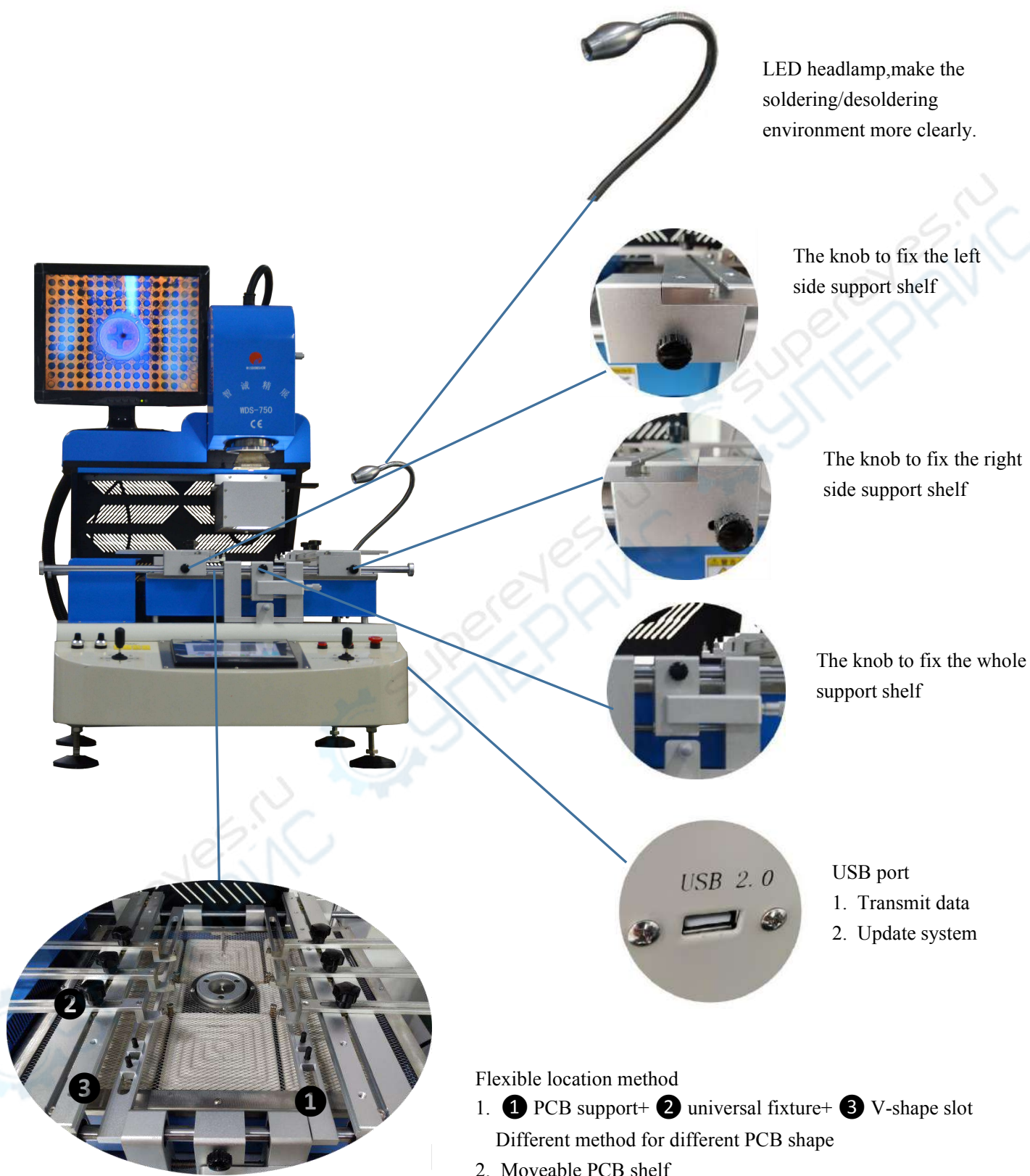
Pressing it to cut off the power supply in case of emergency.

Ensure 100% safety of operator and machine.



Air Switch, trip when electric leakage happens to protect the machine.

Other functions



Packing list

WDS-750 accessories includes:

- ① BGA rework station ----- 1 set
- ② LCD ----- 1set
- ③ Titanium alloy hot air nozzle --6pcs (customizable)
 - ◆For upper heater:
18*18mm/28*28mm/38*38mm/41*41mm
 - ◆For bottom heater:
35*35mm/50*50mm
- ④ Universal fixture ----- 6pcs
- ⑤ Heat resisting suction cup --- 10pcs
- ⑥ Suction nozzle ----- 2pcs
- ⑦ Plum handle ----- 6pcs
- ⑧ T type nut and screw ----- 1set
- ⑨ Red brush ----- 1pc
- ⑩ Temperature line ----- 4pcs
- ⑪ Tool box ----- 1pc
- ⑫ User book ----- 1copy

