

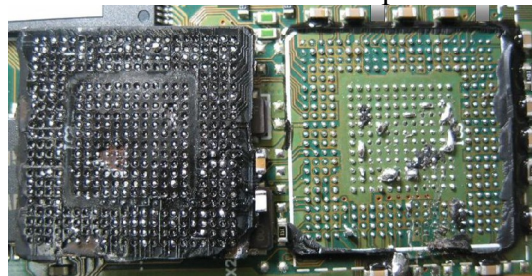
**BGA Remover** for Smartphone, Automotive navigation system and Tablet PC.  
**Do you have a hard time by the removal of BGA with underfill ?**



Heating tip



BGA removal example



### BGA Remover Model:BR-515

BR-515 is an exclusive device removing BGA from PCB of a Smartphone, Automotive navigation system and Tablet PCs. This device removes BGA which applied underfill material easily in 20-80 seconds. And positioning of PCB is very simple, too. Accordingly 1/3-1/10 can shorten work time than the BGA removal by Rework stations. And repair yield improves very much.

#### Features

- BR-515 removes BGA with underfill from PCB in 20-80 seconds.
- This device is overheated with a heating tip directly from the BGA upper part.
- This device fits strongest epoxy underfill material.
- This device removes BGA from PCB before underfill material does curing by a short time heating.
- Only BGA heats directly, and this device does not heat an adjacent part. And PCB bottom heater is unnecessary.
- Positioning of PCB is very simple.
  - ① Do Setting PCB to a work holder.
  - ② Do positioning of BGA to a bottom of a heating tip.
  - ③ Do fixing a work holder with an electromagnet.
- BR-515 is equipped with Thermo-profiler of 3ch. This Thermo-profiler measures heating temperature and time of BGA. Then this Thermo-profiler operates independently.

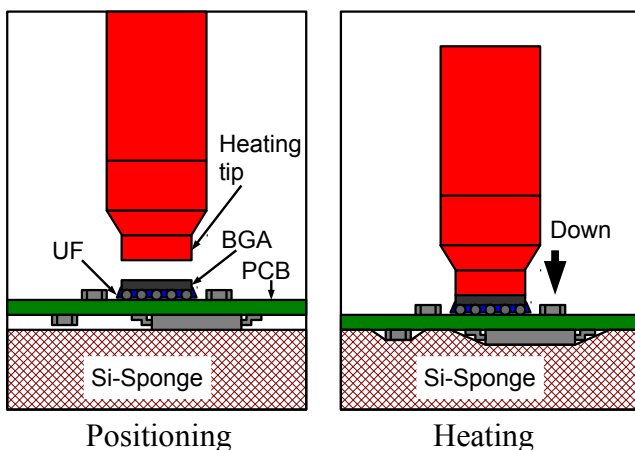
## Specifications

- Applicable BGA : 7mm×7mm - 20mm×20mm
- PCB : Normal work holder : 30×30mm - 170×105mm t : 0.4 - 1.2mm  
Optional work holder : 50×50mm - 220×160mm t : 0.4 - 1.6mm
- Heating temperature: Heating bar : 300 - 440°C (Heating tip : 280 - 420°C) PID Control.
- Heating time : Auto : 0.1 - 999.9sec (Timer)  
Manual : START - RESET (Free)
- Heating tip : Aluminum (5052) + Dioxide Molybdenum coating (Hard lubrication coating)  
Normal accessories (3pcs) : 7mm×7mm, 12mm×12mm, 18mm×18mm  
Optional tip : 8mm×8mm, 10mm×10mm, 15mm×15mm, 20mm×20mm, Special order tip.
- Tip contact pressure : About 300g, Pressure adjustment : +5 steps / -2 steps, 0.5mm step.  
Height of a heating tip : +2.5mm (5 steps) / -1.0mm (2 steps)
- Positioning : Take down a heating tip to an around on BGA.  
And match a position with BGA.
- Work holder : Normal work holder : (W)200mm×(D)125mm×(H)21mm 600g  
Optional work holder : (W)240mm×(D)180mm×(H)21mm 1050g  
PCB lower part support : Silicon sponge, attachment t=8mm/10mm (consumption articles)  
Positioning : Free (X - Y)  
Fixation : Electromagnetic lock
- Thermo-profiler : 3ch, Software attachment. (PC is not attached.)
- Power supply : Single-phase, AC100V 260W / AC220V 260W
- External dimensions / Weight : (W)260×(D)370×(H)360mm, 13kg

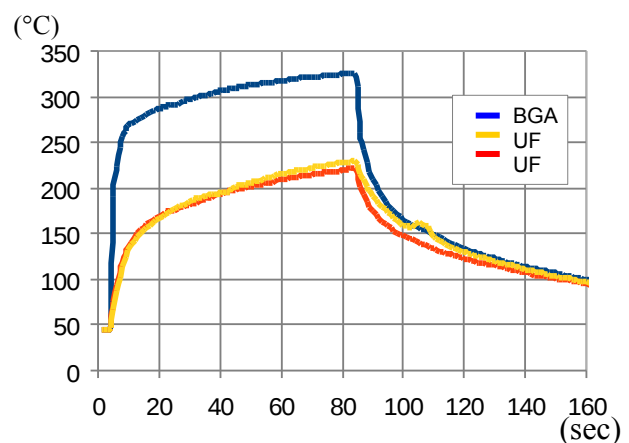
## Applications

- Work to remove BGA in PCB repair of Smartphone, Automotive navigation system, Tablet PC.
- Removal work of BGA which applied underfill material from PCB.

## Heating method

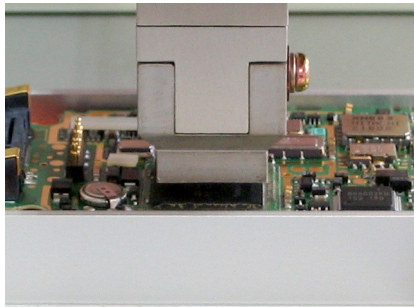


## Temperature profile

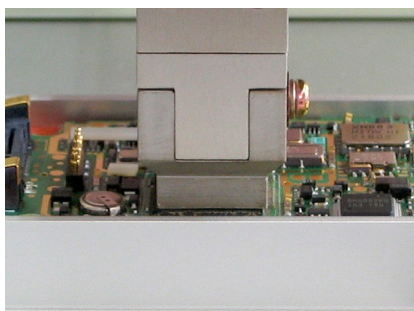


## Work procedure

- ① Set a heating tip of size the same as BGA.
- ② Set PCB to a work holder.
- ③ **DOWN** Take down a heating bar in a positioning level.
- ④ Move a work holder and match a position of a heating tip with BGA. And **LOCK** it.

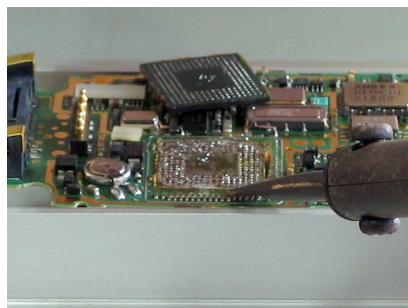
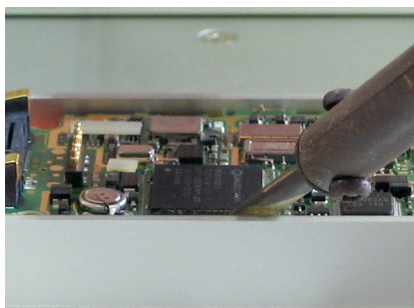


- ⑤ Set heating temperature (300-440°C) and time (20-80sec).  
(Measure a temperature profile and confirm it.)
- ⑥ **AUTO** **START** A heating bar goes down and heats BGA directly from the upper part.



- ⑦ Then a buzzer sounds, and a heating bar rises time-up. And remove BGA with a spatula (a heating spatula).

**MANUAL** : A heating bar rises in **RESET**.



## Movie

Look from our Web. <http://www.jpl.com/products/smt/asx/BR-515.asx>

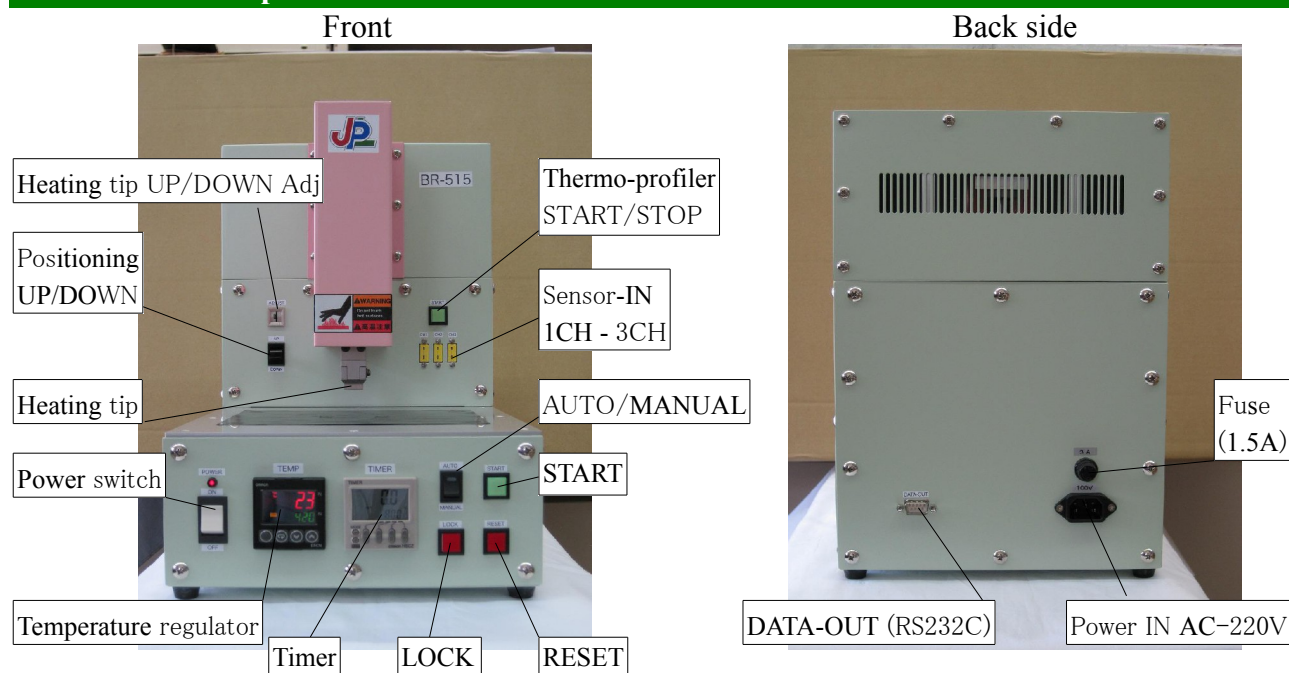
## Main body and Accessories

- |                                    |       |
|------------------------------------|-------|
| ① Main body                        | 1 set |
| ② Heating tip 7mm × 7mm            | 1 pc  |
| ③ Heating tip 12mm × 12mm          | 1 pc  |
| ④ Heating tip 18mm × 18mm          | 1 pc  |
| ⑤ Normal work holder (with sponge) | 1 pc  |
| ⑥ Sensor K 0.127mmφ                | 3 pcs |
| ⑦ Kapton tape                      | 1 pc  |
| ⑧ USB (RS-232C conversion) cable   | 1 pc  |
| ⑨ Power supply cord                | 1 pc  |

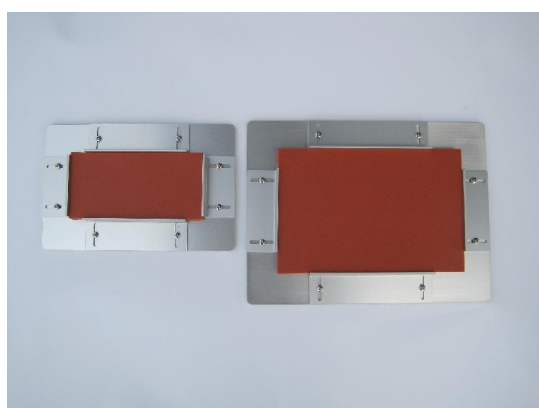
## Optional parts

- |   |            |
|---|------------|
| ① Heating tip 8mm × 8mm                 |            |
| ② Heating tip 10mm × 10mm               |            |
| ③ Heating tip 15mm × 15mm               |            |
| ④ Heating tip 20mm × 20mm               |            |
| ⑤ Heating tip Special order             |            |
| ⑥ Optional work holder (with si-sponge) |            |
| ⑦ Si-sponge 130mm × 65mm                | 8t/10t/12t |
| ⑧ Si-sponge 180mm × 120mm               | 8t/10t/12t |

## Name of each department

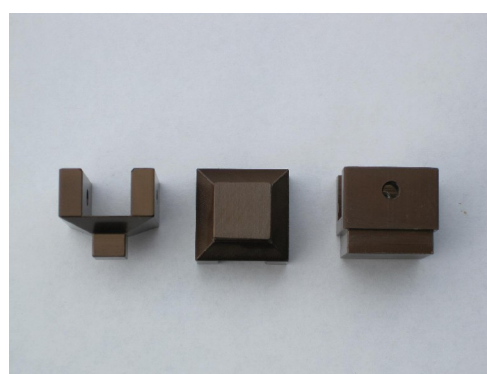


## Work holder



Normal work holder      Optional work holder

## Heating tip



7×7mm   12×12mm   18×18mm

\*Specifications subject to change without notice.