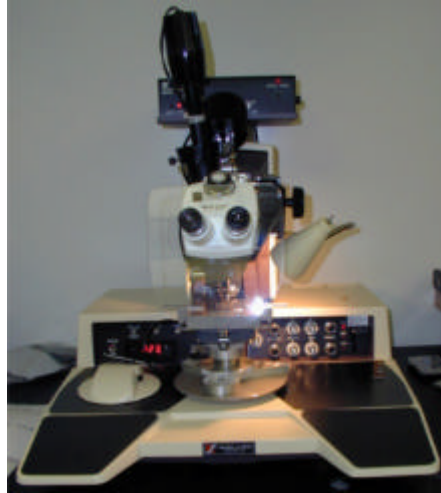


UNC-Charlotte Microelectronic Clean Room  
Kulicke and Soffa Mo#4124  
Universal Thermosonic Gold Ball Bonder



### Turn on Power

Set stage Temp to 150 to 200 C [7]

Push button [7]

Turn knob [6]

### Check Stage height

Use manual z lever [9] to see end of travel

(If end of travel does not touch the IC then raise the Stage [19])

Like-wise, if the end of travel will go far past the plane of the IC then lower the stage)

### Once stage temp. is reached Test Ultrasonic

Press toggle [4]

Check if U/S light [10] is lit

No Check torque of the capillary screw [25]

No Change Setting of Low or High [11] on Back of

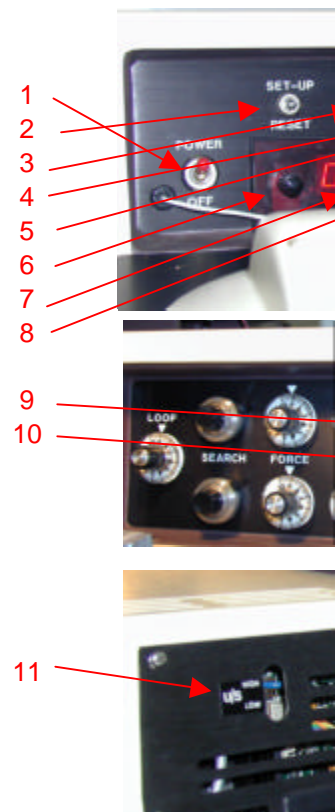
### Pull wire out of the capillary to form ball

To form ball [13]

Lower and move the metal arm [26] underneath the capillary.

Press the manual spark red button [22] to form Ball

Check if the ball does not form



No Make sure the wire is close enough to the arm but not touching



Turn clamp back on (Must be on at the start of bonding process)

**Ready to bond**

Set 1st search height [15] to 10 (always)

Set 2nd search height [15] to 10 (always)

Set Power 1&2 to 5 (adjust for your application)

Set Time [17] 1&2 to 2 (adjust for your application)

Set Force 1 [16] (IC) to 2 or 3 ( adjust for your application)

Set Force 2 [16] (Package) to 5 (adjust for you application)

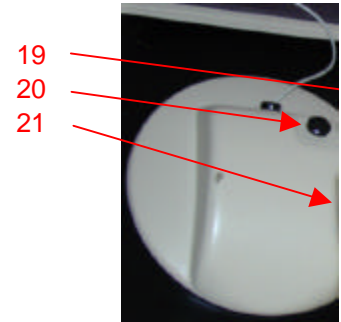


Press and Hold Chessman [20] button and **slowly** lower 1st search height [15]

Be sure not to touch the pad before release of button

Do not hover the pad due to the stage heat causes the bond to break

Release button at lowered height to form ball bond



Press and Hold Chessman button and **slowly** lower 2nd search

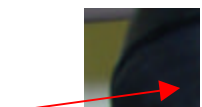
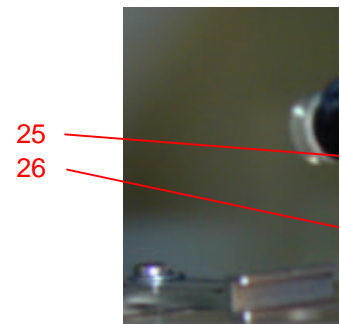
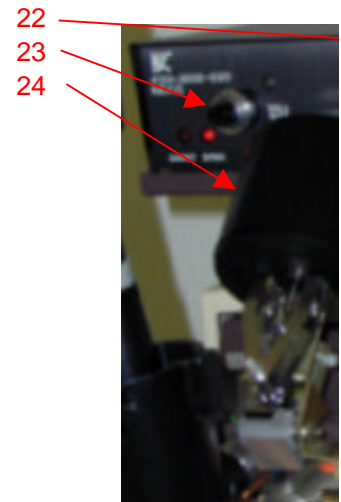
Be sure not to touch the pad before release of button

Do not hover the pad due to the stage heat causes the bond to break

Release button at lowered height to form wedge bond

If the wire is not broken nor a new ball is formed, do this manually

**Before starting new bond reset both search heights.**



Wire is fed off of the spool  
Goes under the glass plate  
and down to the capillary

