

## HOW TO REPAIR PIPETTE BULBS

Students have a bad habit of inserting pipettes too far into pipette bulbs. This causes the Liquid Fill Valve glass ball 'S' to be pushed into the bulb or just the tube section before the bulb.

By temporarily removing the Release Valve glass ball 'A', glass ball 'S' can be pushed back into place.

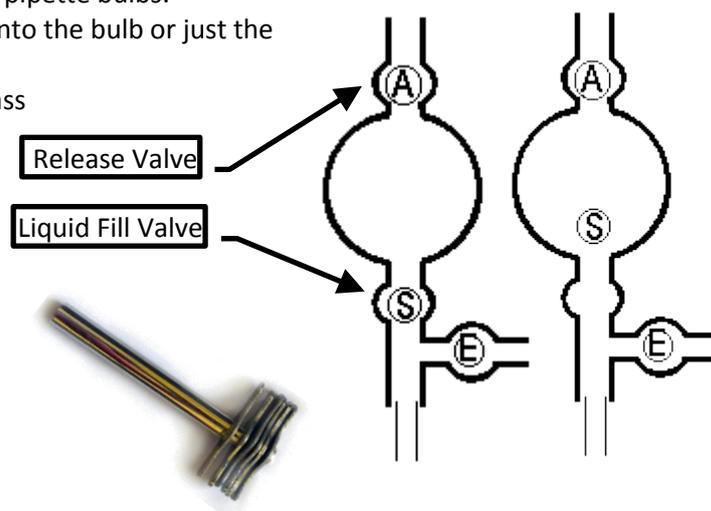
### You will need.

- Large beaker or similar sided vessel with crumpled paper towel inside.
- Small flat blade screwdriver
- The solid pin from a cork borer set

Cork borers come in a set of nested sizes along with a solid pin for pushing the removed cork out of the borer.

Alternative:

#8 knitting needle 120mm long  
– end cut off square



### How to do it.

1. Hold the pipette bulb upside down over the large beaker, pinching the rubber tube between the release valve and the bulb with your thumb and forefinger. Insert the screwdriver up the release valve pipe to get behind its glass ball 'A' and pop it out. Your thumb and forefinger stop the ball being pushed into the bulb. (The crumpled paper towel in the bottom of the beaker is there to stop the ball bouncing out and across the Prep. Room – as experienced by the author!)
2. By shaking the pipette bulb you will know if the 'S' ball is stuck in the pipe or is loose in the bulb. Most likely it is in the pipe.
3. If it's in the pipe:  
Turn the bulb upside down and push the cork borer pin down on a bench to pop the glass ball back into place.  
If it's in the bulb you will have to first push it just into the pipe a little before you can turn it upside down for the final push into place.
4. Now similarly reinsert the glass ball 'A' back into its valve position, whilst once again pinching the rubber tube beyond the valve to stop it going too far and into the bulb.

(Thanks to Liz Beech, Bev Bekker & Brema Samuel for assisting in the development of this repair technique.)

