

# Fully Demountable Torch - Cleaning & Maintenance of Tubes & Torch Body

Always use gloves supplied when handling the precision ground quartz tubes. This will reduce the possibility of cuts or burns in case of accidents. Using gloves also eliminates fingerprints, which can result in quartz deterioration under high temperature conditions.

The quartz/ceramic tubes should be cleaned daily to remove and prevent deposits from being fused into the material. We generally recommend soaking in aqua regia. Organic deposits can be removed by placing tubes in a muffle oven and taking it to a maximum temperature of 500 deg. Celsius. Note: It is important that tubes are placed in a cold oven and that the temperature is brought up slowly, approx 100 deg every 20 minutes. This will ensure that deposits aren't baked into the material. Once tubes have been cleaned they should be wiped/dried and placed into a clean container.

**Important Note:** Ensure that your glass torch body gets cleaned out thoroughly on a daily basis, before inserting cleaned tubes back into the torch body. Use the specially designed torch brush, supplied with your torch to clean the glass torch body. Do not remove the glass torch body from the torch case. Insert the torch brush carefully inside the glass torch body by continuously rotating it clockwise, and slowly pushing it forward until you reach a stop. Once you have reached the stop, keep rotating the brush clockwise, and start pulling it outwards nice and slowly until the brush is out of the glass torch body. It is now ready for assembly.

Before inserting cleaned tubes back into the torch, wipe them once more using a lint free cloth. This will ensure that dust particles are removed which may interfere with the precision fit.



Note: Glass Expansion advise the use of safety gloves and glasses when handling glass.

## Instructions for Changing Tubes of the PT2000/ABC Demountable Torch

**Caution:** Quartz is a brittle material and should be handled with the same care as glass. The tubes of Glass Expansion demountable torches should not be pushed into or out of position with excessive force.

1. To place new or cleaned tube into torch body, gently push the tube into the main body with a slight wriggling action until tube bottoms out and grips.
2. To remove tube, repeat wriggling action with a slight pulling motion.

**Please note:** In order to get maximum life out of your quartz tubes, clean them on a regular basis to remove any deposits. Plasma torch tubes are exposed to temperatures in the thousand degrees: under these conditions the quartz may react with deposits which cause chemical changes and finally deterioration of tubes.



Note: For safety reasons, Glass Expansion advises that protective gloves and glasses be used when handling glass.