

SO2 module (A) – Checking the UV filter

On API benches, the 214 nm filter is used to let only the light with a wavelength of 214 nm go through the bench and reach the reference detector. It needs to be checked on a regular basis and exchanged if necessary. It should not be confused with the PMT filter, which is used to let only the light with a wavelength of 330 nm go through the bench and reach the PMT

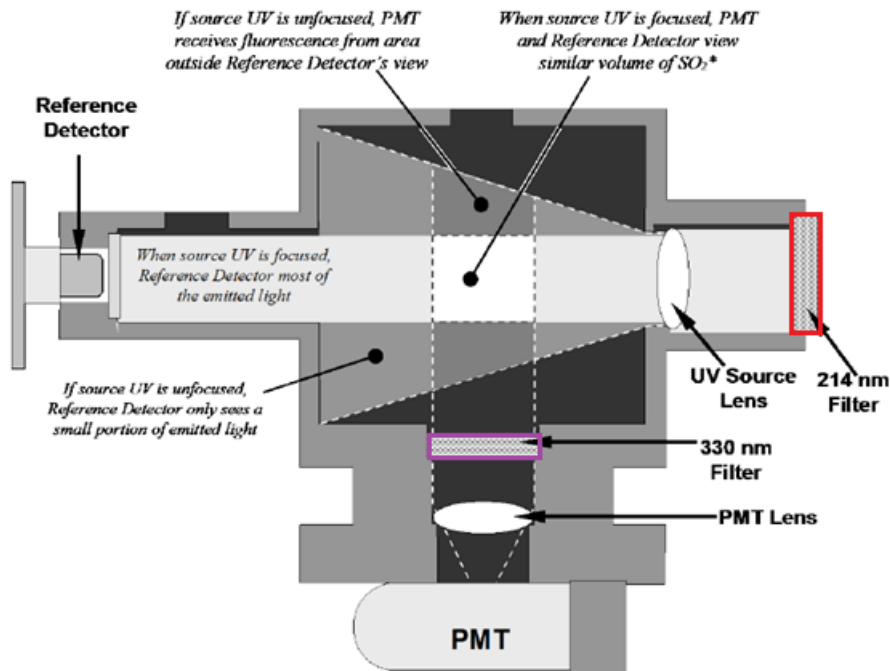
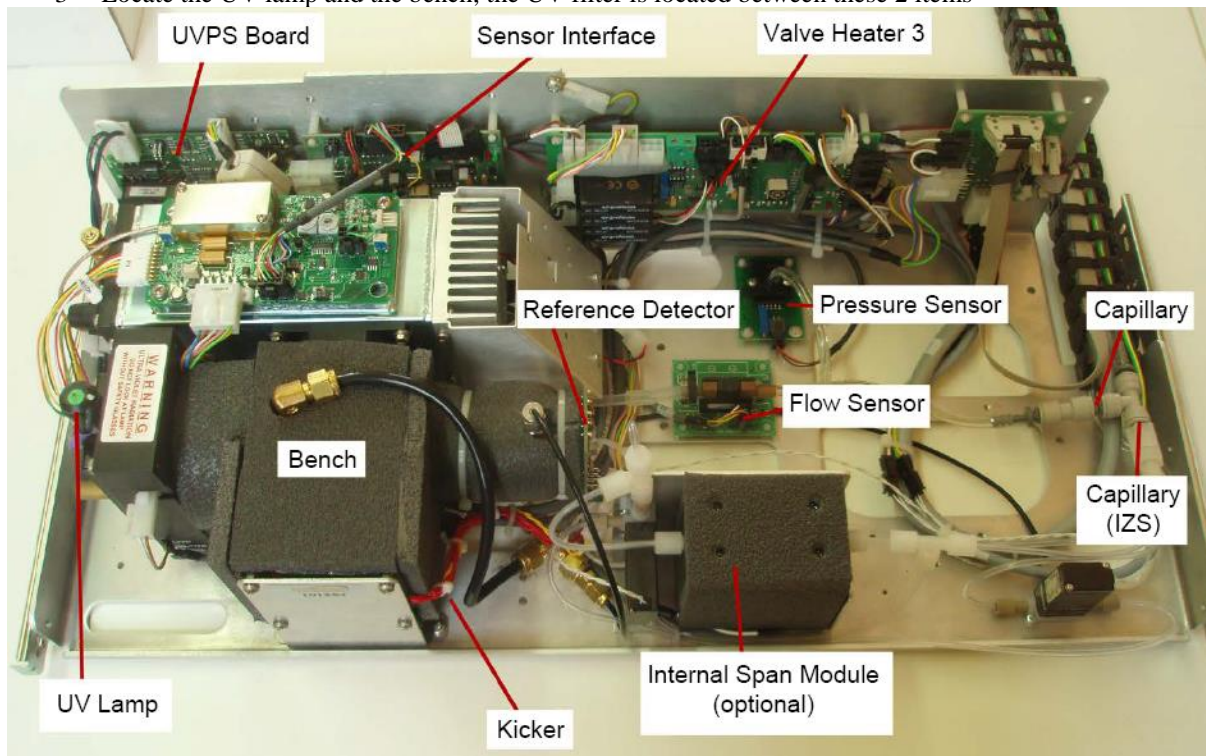


Figure 1 : Effects of Focusing Source UV in Sample Chamber

- 1- Tools you need
 - medium Philips screwdriver
 - flashlight

- 2- Turn off and unplug the airpointer. Pull the SO2 module drawer

3- Locate the UV lamp and the bench; the UV filter is located between these 2 items



4- To reach the 214 nm filter, first unscrew the 4 screws of the UV lamp and shutter cover



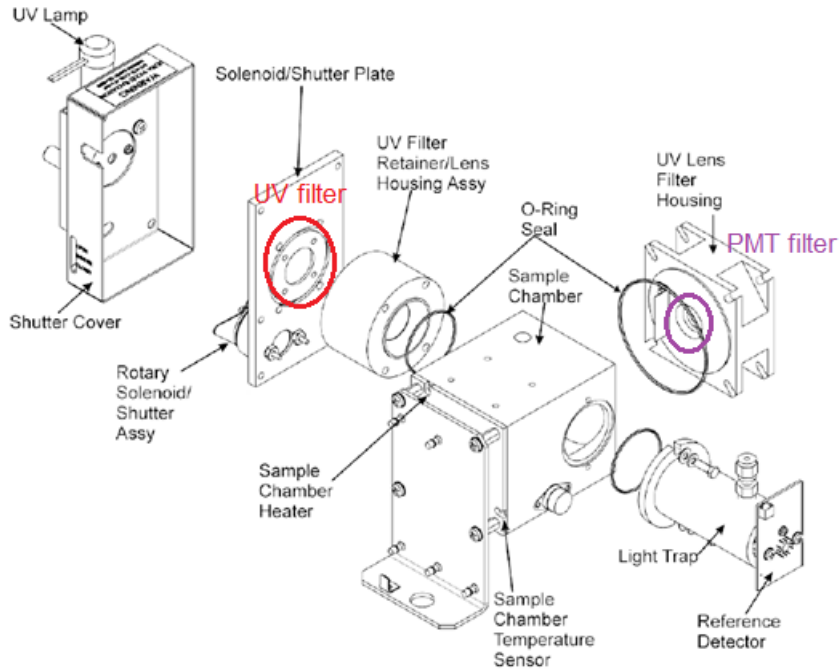
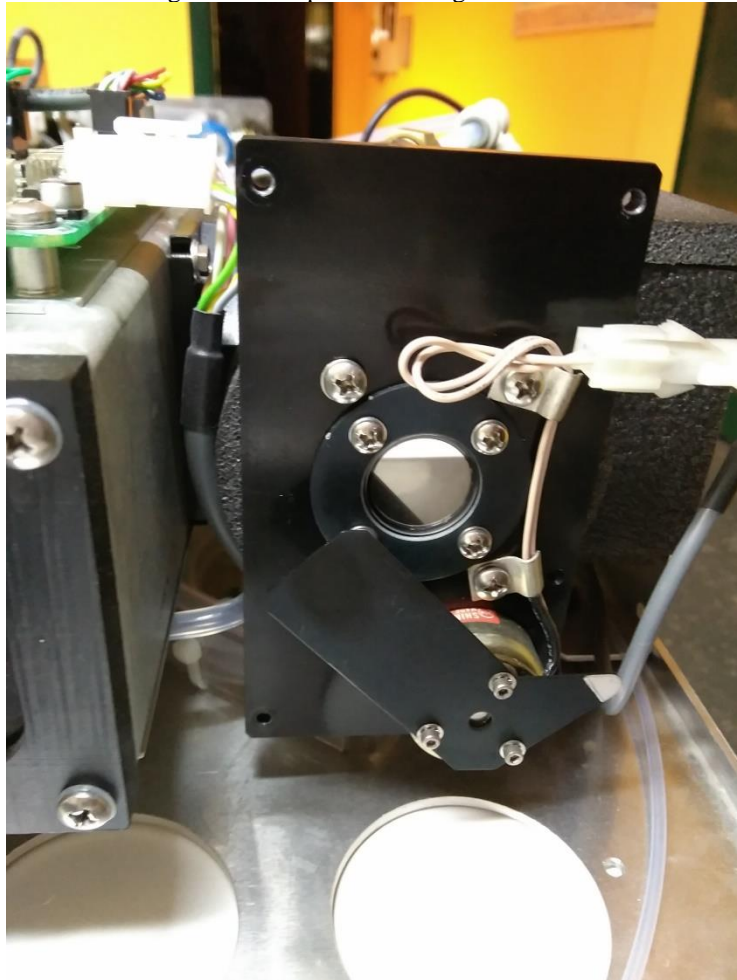


Figure 3: T100 Sample Chamber

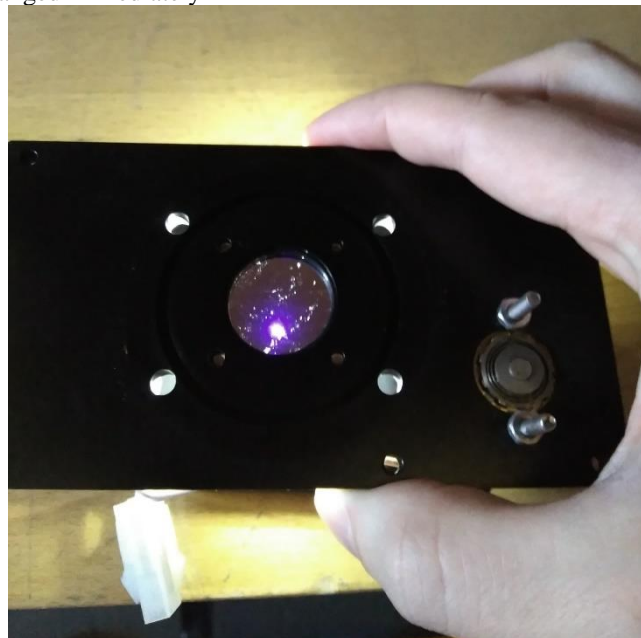
- 5- unscrew the 4 screws holding the shutter plate including the UV filter from the bench



- 6- In a dark area, position the UV filter over a flash lamp and check that a purple light is going through



- 7- The white spots you may see are holes in the filter. There should be less than 10 of them, and they should not be bigger than the diameter of a needle. The image below is an example of UV filter that needs to be exchanged immediately



- 8- If the filter needs replacement, unscrew it from the shutter plate and install a new one. Repeat the steps 1 to 4 in the reverse order
- 9- Leak-check and recalibrate the module