



# FROG-4000™ Changing the Air Scrubber Material



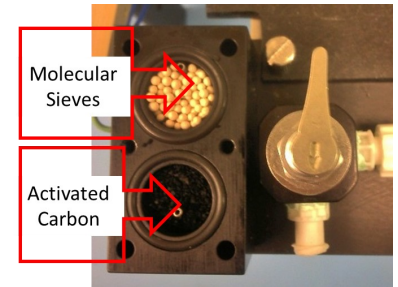
## Defiant recommends that you change your FROG's scrubber material every month

Very inexpensive and easy to replace

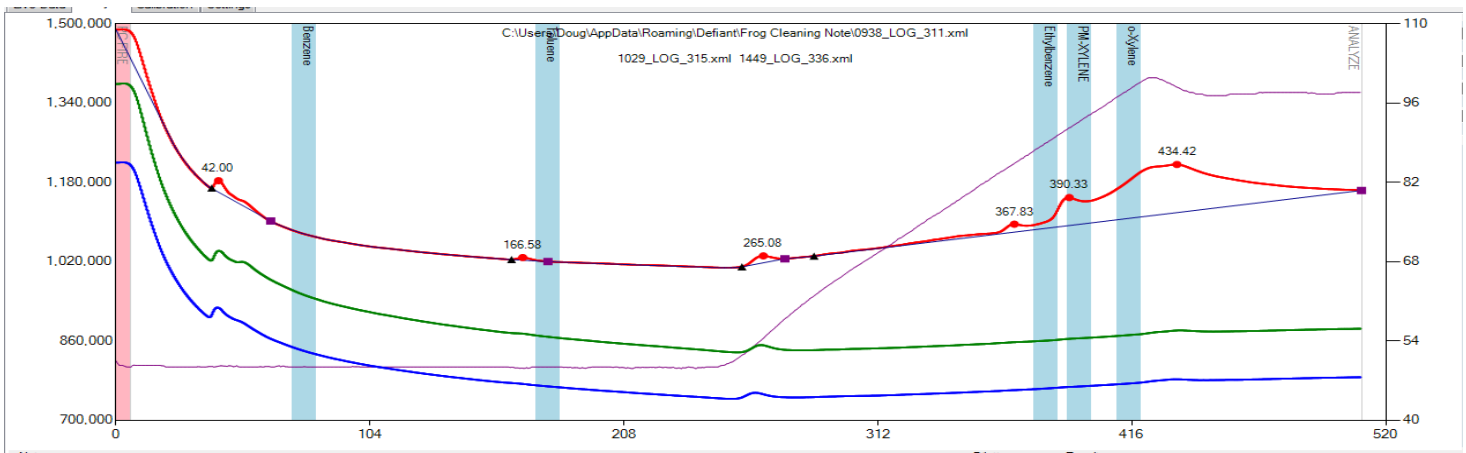
**No carrier gas or  
other specialty  
gases required.**



**The FROG scrubs  
ambient air for the  
carrier gas.**



Defiant recommends that change your FROG's scrubber material monthly to keep the system running smoothly. Unfasten the 4-40 screws located at each corner of the scrubber housing. The scrubber housing should now release from the sparge block assembly. Unfasten the two (2) center 4-40 screws to remove the lid. Follow your company's guidelines to dispose of the used activated carbon and molecular sieves. The scrubber housing will only fit in one direction. Molecular sieves must be placed in the rear compartment (closest to the FROG's display). New activated carbon must be placed in the forward compartment farthest from the display. Brush away any loose material from the sealing face of the scrubber block. Place the lid on the block and secure in with the two (2) smaller 4-40 screws. Place the scrubber block assembly on the spare block ensuring that each piece of steel tubing is aligned with the matching hole. Secure the scrubber block assembly with the four (4) longer 4-40 screws. First fasten opposite corners and then secure the opposite two corners. Now tighten each screw securely. Both molecular sieves and activated carbon can be purchased on our website at [www.defiant-tech.com/](http://www.defiant-tech.com/).



The red trace in the chromatogram above shows signs that the scrubber material needs to be changed. You will notice a few broad peaks at the end of the chromatogram. These are due to compounds bleeding off of the scrubber when it has saturated. After observing this feature we replaced both the molecular sieves and the activated carbon. The green trace and the blue trace are evidence that the scrubber material has been replaced and is working properly.