



# Setting up a Calibrated FROG-4000



**Attention: For proper analysis perform these steps within 24 hours of receiving your FROG**

[www.defiant-tech.com](http://www.defiant-tech.com)

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## Step 1: Turn Frog on and Run a Blank Water or Air Sample

This step establishes that the FROG is clean and ready to analyze samples. This also allows the instrument to warm up. A blank sample is simply a sample of clean air or water. Analyze it as you would any normal sample.

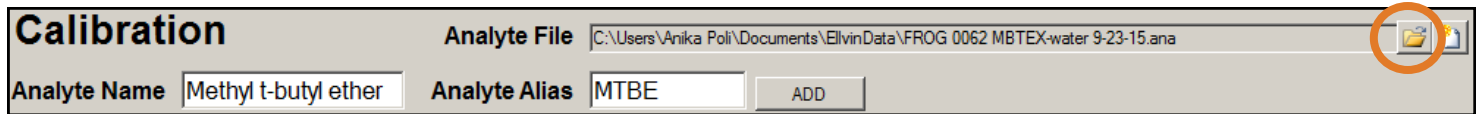
## Step 2: Run the Retention Time Check Sent With the Frog

It is important to check the retention time for each analyte the Frog has been calibrated to. Retention time is simply how long it takes the analyte to move through the instrument. As an analyte reaches the detector, a peak will appear on your computer screen. The crest of that peak is the retention time. Your retention time check sample will be either a vial of a solution or a Tedlar bag filled with an air sample. It contains the same analytes as your calibration and you will use the retention times that you observe to adjust the retention times in your calibration.

## Step 3: Find, Save and Open the Calibration File

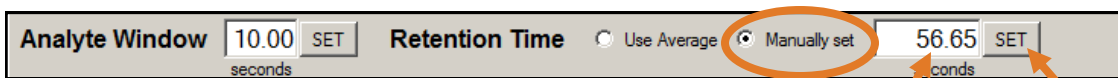
Attach the mini-USB to USB cable to the FROG. The Frog’s memory will appear as a removable drive on your computer. The analyte calibration file has an extension of \*.ANA and will likely be in a file folder labeled with the calibration name and date. Copy and paste the file to your computer and save it in a location where it is easy to find. Alternatively, the calibration file may have been emailed to you; if this is the case, download and save the file to your computer.

Go to the calibration tab. Select the “Open Calibration File” button. Then find your calibration file and open it.

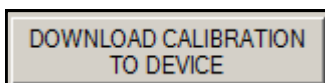


## Step 4: Adjust Retention Times

Determine the retention times of the analytes in the calibration based on the chromatograph resulting from the retention time check ran in step 2. In the calibration tab of Ellvin under retention time settings select “Manually set,” enter the new retention time and select “SET.” Do this for each analyte. The calibration can now be downloaded to the device



Enter New Retention Time Here, clicking on SET will save it



## Step 5: Run Another Blank

Prior to running any samples, it is important to run a blank sample (air or water) to clean any excess analyte from the system.