



**SafEye™ Quasar 900**  
**Open Path Gas Detector**  
**Quick Start Guide**  
**Installation and Calibration Procedure**

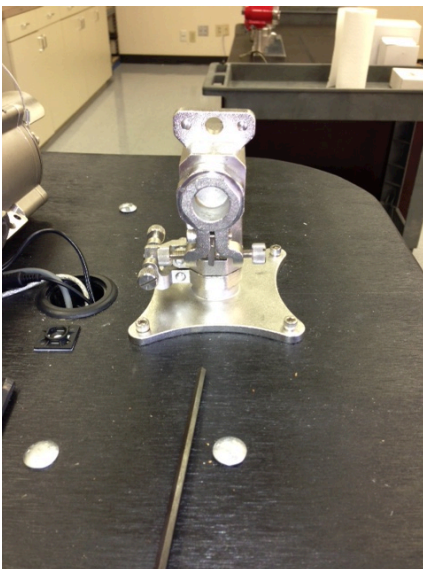
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## Step 1:

The first step in installing the Quasar 900 Open Path Gas Detector is to remove the detector (receiver), the flash source (transmitter) and both tilt mounts from their packaging. Once you have removed the units from their packaging it is always good to double-check the model numbers on the identification tags. This way you can ensure that you have the correct items to meet your specific requirements. (At this time it is good practice to ensure you have the correct components for your installation distance.



## Step 2:

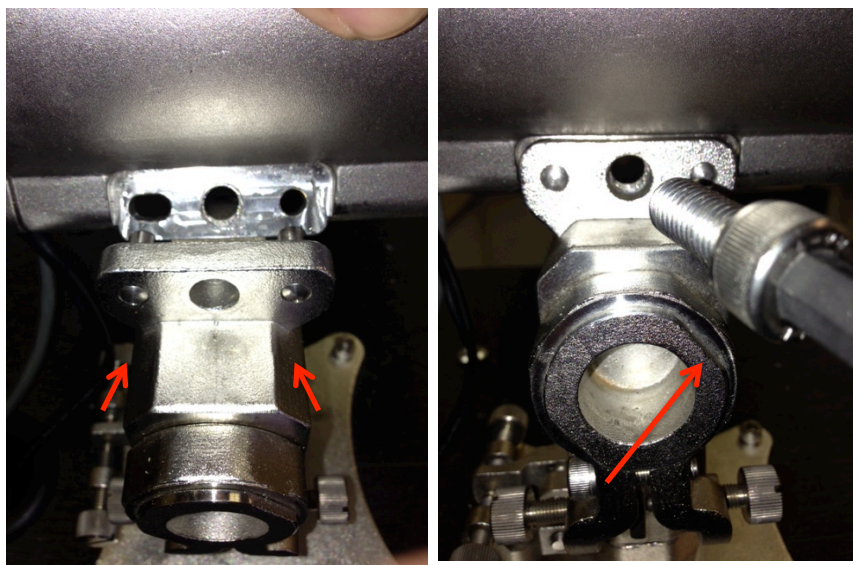


The next step in the process is to attach the mounting brackets (pn: 888270) to whatever surface according to the specifications of the project. Please note the orientation of the detector mount so that the mounting brackets are pointed in the correct direction.

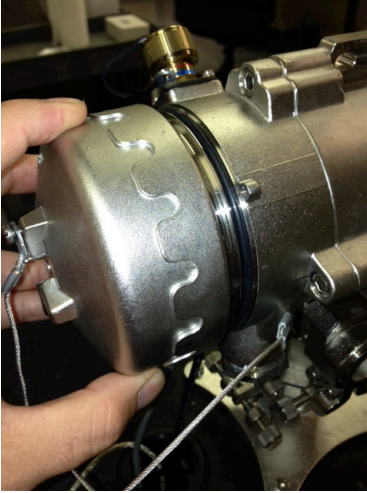
Please Note: If you are using the 5" Pole Mount Adapter (pn: 799225), you will first attach this adapter plate to the pole. Then you will attach the mounting bracket to the adapter plate.

## Step 3:

Next, align the pins on the mounting bracket to the corresponding hole on the mount tab of the 900 detector or flash source. Then using the large hex-head screw and hex key, attach the detector or flash source to the mounting bracket. Ensure the threads are engaged.



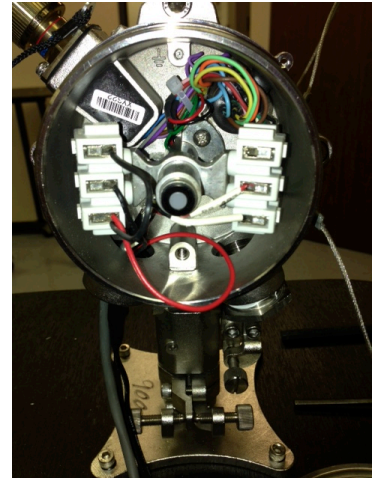
## Step 4:



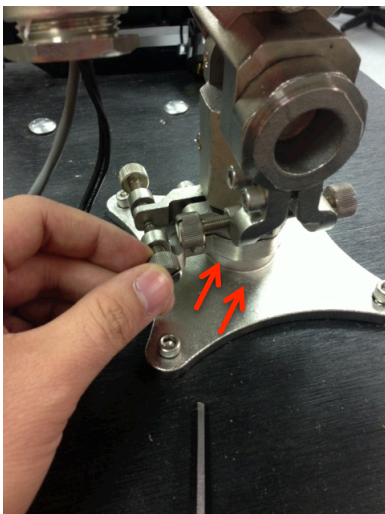
Now that the detector and flash source have been attached to the mounting brackets it is time to connect power and signal wires to the appropriate terminals. But first you must remove the back cover from the unit. Simply screw the unit off counter-clockwise revealing the wiring terminals.

## Step 5:

With the back cover off of the units is now time to wire them with 24VDC Power and 4-20mA output (RS-485 Modbus output can also be connected at this time and Appendix A below refers to the use of the RS-485/USB software).



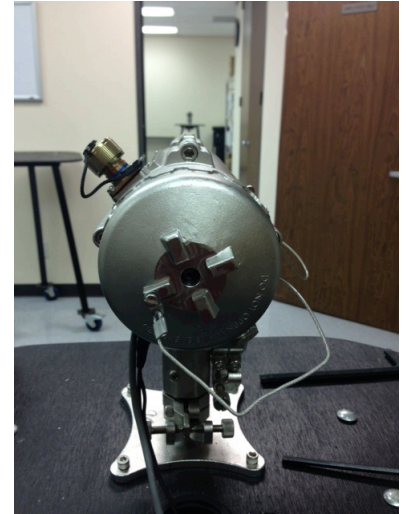
## Step 6:



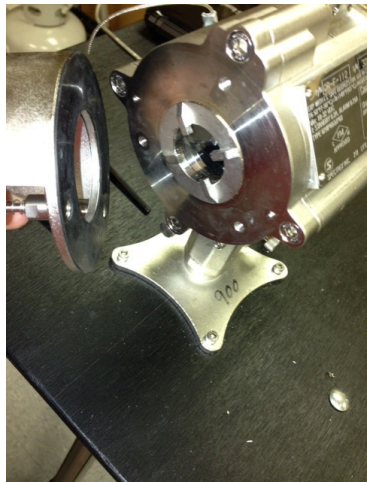
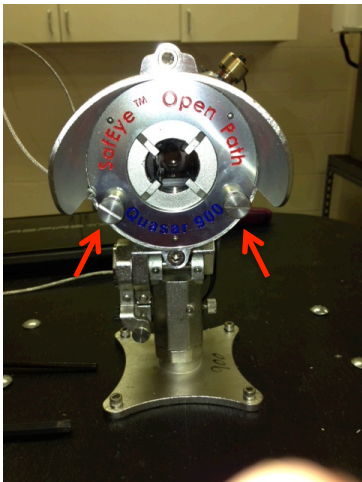
Now it is time to loosen both tensioning bolts on both the vertical and horizontal alignment shafts. This will allow the unit to have free range of motion using your hands to perform the rough alignment. Please note that when doing vertical adjustment it is important to hold the unit so it does not swing down with force.

## Step 7:

Then roughly align the detector with the flash source. Once this is done, tighten the inner-most tensioning bolts on the vertical and horizontal alignment shafts.



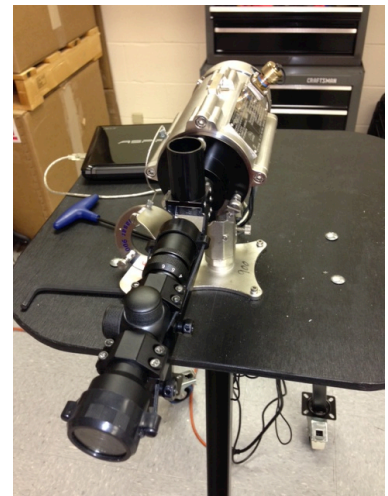
## Step 8:



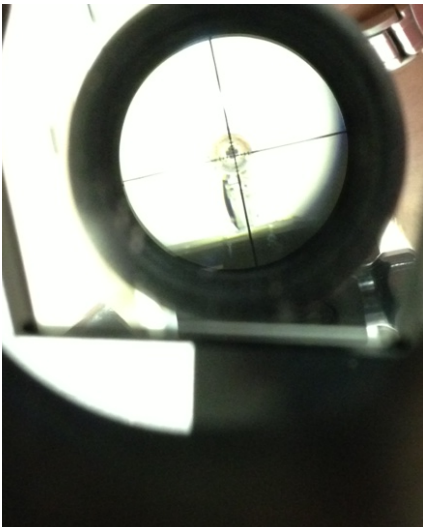
It is now time to attach the alignment telescope to perform the fine alignment. However, you must first remove the protective visor from the front of the detector or flash source.

## Step 9:

With the protective cover off of the front of the detector and flash source it is now time to attach the alignment telescope for the fine alignment process. With the telescope attached you can look through the 90° rotating periscope and see the corresponding detector or flash source you are aligning it with. Note: It is important to start with the top screw first, followed by the side screws.



## Step 10:



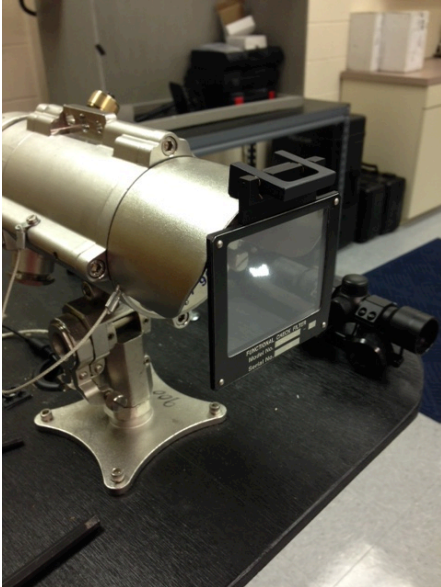
Using the alignment telescope and the fine alignment adjustment knobs located on the horizontal and vertical adjustment shafts. Slowly make your alignments until the crosshairs of the scope are directly centered with the sapphire lens of the corresponding unit. Please note that this process will have to be done with the detector aligned to the flash source and repeated with the flash source aligned to the detector. Once this process is complete you can then firmly tighten the remaining tensioning bolts in the mounting bracket. Remove telescope and reattach protective visors.

## Step 11:

It is now time to Calibrate the Zero on the open path unit using the magnetic mode selector included in the commissioning kit. Using the magnet, swipe it along the side of the detector (receiver) opposite of the identification tag a total of three times with at least 5 seconds between each swipe. The first swipe will put the unit in to alignment mode indicated by a **flashing yellow/orange** LED. The second swipe will put the unit in to stand by mode also indicated by a **flashing yellow/orange** LED. The third and final swipe will put the unit into zero calibration mode indicated by a **solid yellow/orange** LED. After the unit has finished the zero calibration mode the detector will go in to normal operation mode indicated by a **flashing green** LED.



## Step 12:



The last step in the process is to remove the alignment telescope, reattach the protective visors and perform the function test. Using the supplied function test filters, attach the filters one at a time to the protective visor of the detector (receiver). The warning filter should put the unit in to warning mode indicated by a **flashing red** LED. The alarm filter should put the unit in to alarm mode indicated by a **solid red** LED. Once the filters are removed the detector should return to normal mode indicated by a **flashing green** LED. The installation and calibration of the Quasar 900 open path gas detector is now complete.