

Alpha Spectra, Inc. Scintillation Detectors

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Instructions for Dismounting a Photomultiplier Tube from a Demountable Style Scintillation Detector

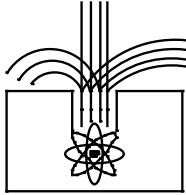
Removing the PMT from a Demountable Style Detector can be achieved in several easy steps.

1. Read all of these instructions first before proceeding. If there are any questions please contact ASI.
2. Disconnect the High Voltage and Signal connections to the PMT.
3. Locate the mounting screws that attach the PMT light shield flange to the crystal housing. Remove the screws with the appropriate size hex head wrench.



4. Note whether or not there is an RTV (soft silicone elastomer) between the 14 pin base and the metal light shield and if there is any RTV between the light shield flange and the crystal body. If there is any RTV remove it carefully with a knife edge. This will break a weak adhesive bond between the light shield and the 14 pin base and the flange and the crystal body. If there is a hard (epoxy) seal at the joint between the light shield and the 14 pin base we recommend that you contact us.
5. Now remove the light shield from the crystal body by rotating it back and forth and pulling up with a small force. The light shield should easily slide upwards.
6. The PMT is attached to an optical window with optical coupling grease. This grease can create a slight vacuum. While holding one hand on the crystal body and the other on the PMT, slowly rotate the PMT back and forth (about 90° is sufficient). If the PMT will not rotate contact us. It should rotate with some small amount of rotational force.





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8. If the optical window is not in a recessed cavity then it should easily slide off.
9. Those units that do have the PMT mounted in a recessed cavity proceed as follows. After rotating the PMT back and for the 5-6 times you should notice that the PMT is rotating more freely. If not, add a slight amount of alcohol in the gap around the PMT, this will loosen the optical grease and allow the PMT to rotate more freely. After rotating the PMT and noticing that it is loosening, pull up on the PMT and it will separate from the optical window.



10. Do not hesitate to contact us if you have any questions.