

AERI-SPARC INTERFEROMETER UNIT REMOVAL PROCEDURE

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Scope:

This procedure describes the steps required to remove the AERI-SPARC interferometer unit from the SPARC trailer.

Starting Configuration:

The AERI Interferometer Unit is mounted in the SPARC trailer (see figure on last page) and has been powered down. A cart, on which to place the interferometer, is at the ready. Four temporary shock mounts have been placed on the cart to cushion the interferometer for transportation away from the trailer.

Tools and Equipment Required:

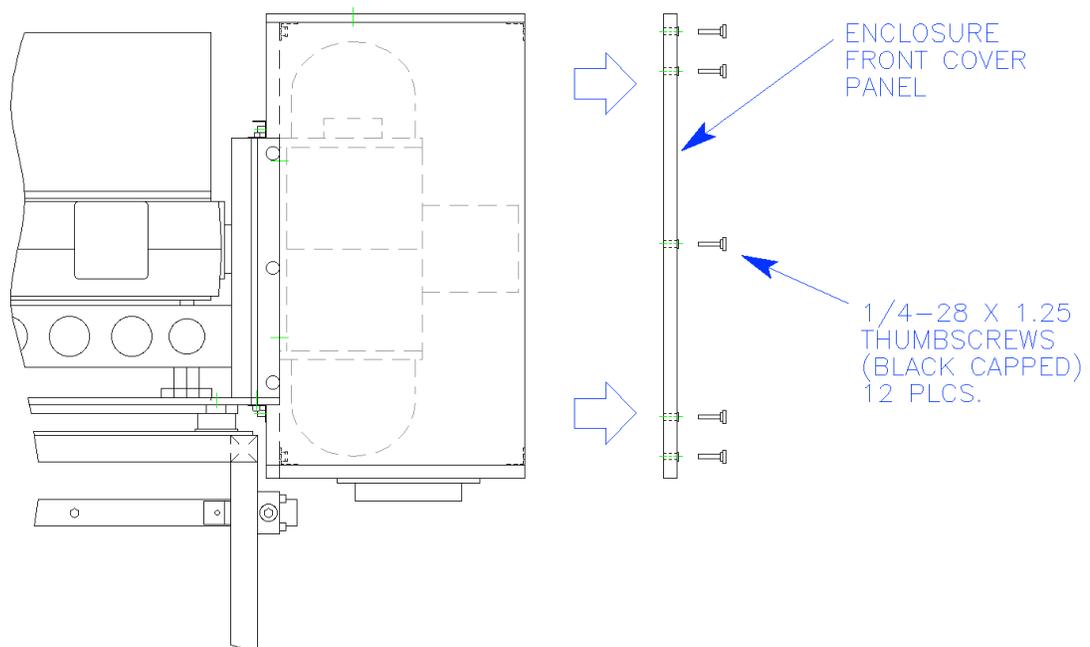
- Rolling cart for interferometer unit
- temporary shock mounts (4) mounted to wood board (for use with above cart)
- ball driver set
- allen wrench set
- screwdrivers, various
- special screwdriver/holder for nylon thumb screws
- small plastic bags (for storing screws)
- Blackbody aperture covers (2)
- Sky-view aperture cover

Precautions:

- The front-end enclosure panels are fragile – handle them with care.
- Keep the blackbody cavities clean by having their apertures covered after removal from the instrument.
- Keep the scene mirror clean by having the sky-view aperture covered prior to moving the interferometer unit out of the trailer.

Procedure:

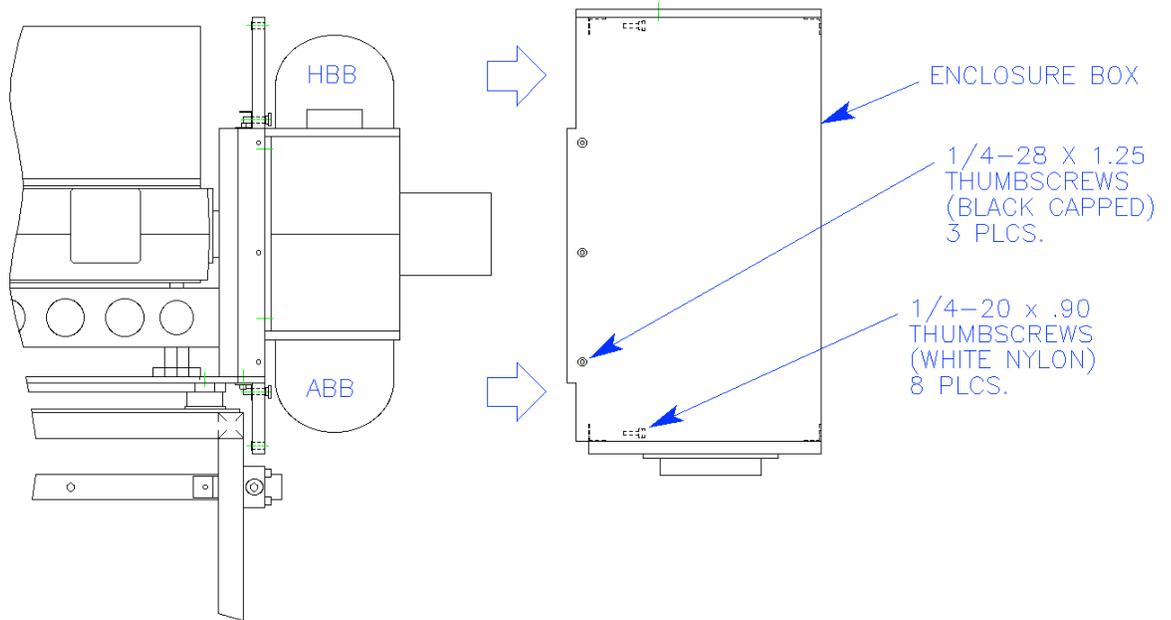
1. Remove the blower duct between the blower and the front-end enclosure.
2. Cover the blower opening (to prevent fasteners and other objects from falling into it.)
3. Remove the workbench from the wall and store it out of the way.
4. Remove any cable ties or clamps that secure the interferometer cable bundle to the AERI stand and/or wall.
5. De-mate the cables that originate from the electronics rack:
 - eight “D” connectors on the IPSD box
 - one “D” connector on the interferometer case
 - one power cord on the IPSD box
6. Carefully slide out the sky-view gap filler from between the top of the front-end enclosure and the trailer ceiling.
(*Note:* You may need to compress the interferometer shock underneath the sky-view to make the gap filler easier to slide. Pull down on the interferometer interface block to do this.)
7. Remove the front cover panel. Bag and label the twelve screws.
(*Caution:* The enclosure panels are fragile – handle them with care.)



8. Install a temporary cover on the sky-view aperture.

9. Remove the front-end enclosure box. Bag and label the three different kinds of thumbscrews:

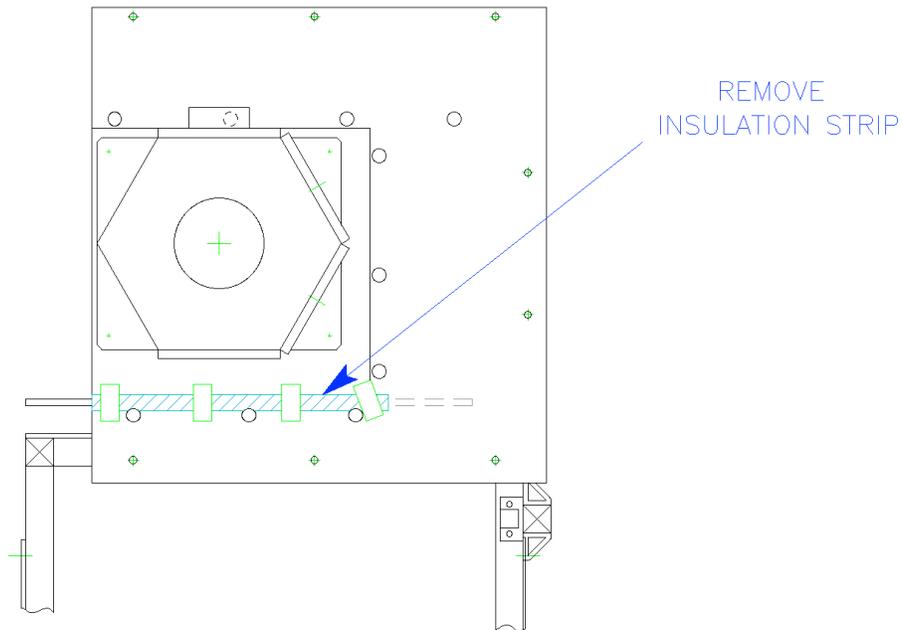
- six 1/4-20 x 7/8" long white nylon thumbscrews at the "interior" gray PVC angles (except at the upper-right & lower-right corners).
- two modified 1/4-20 x 7/8" long white nylon thumbscrews (knob tops are slotted) at the interior gray PVC angles at the upper & lower right corners. Use the special tubular screwdriver tool.
- three 1/4-28 x 1.25" long thumbscrews (steel screws with black knobs) on the exterior aisle-side of the box.



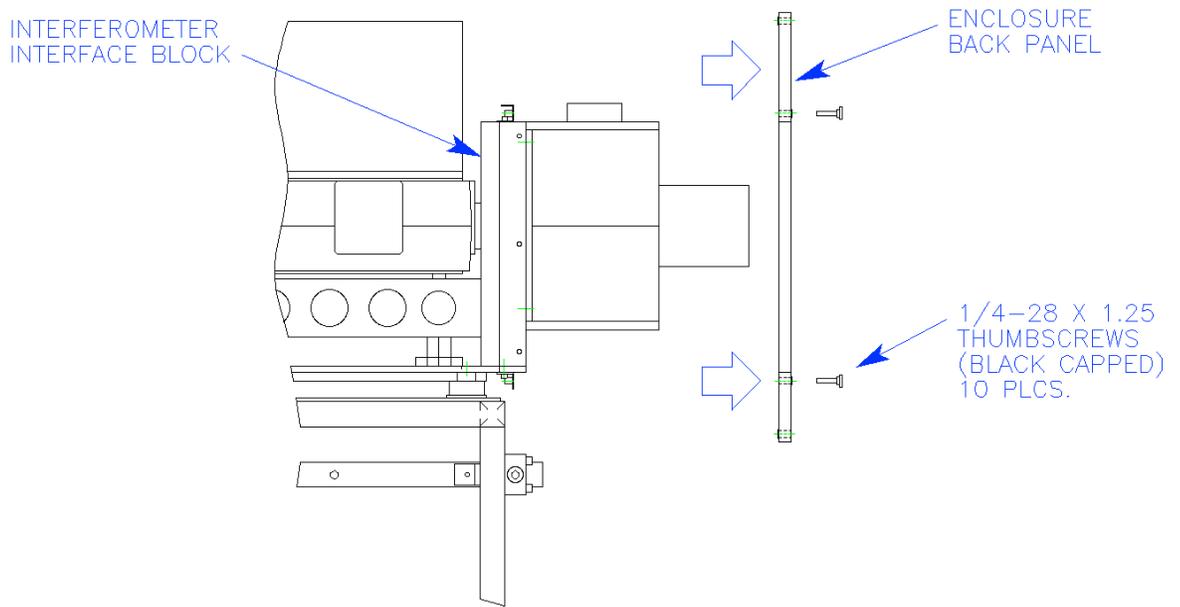
11. De-mate the blackbody connectors, and remove any cable ties that may be securing cables to the blackbodies.

12. Remove the two blackbodies. Bag and label the eight screws, and install covers over the apertures.

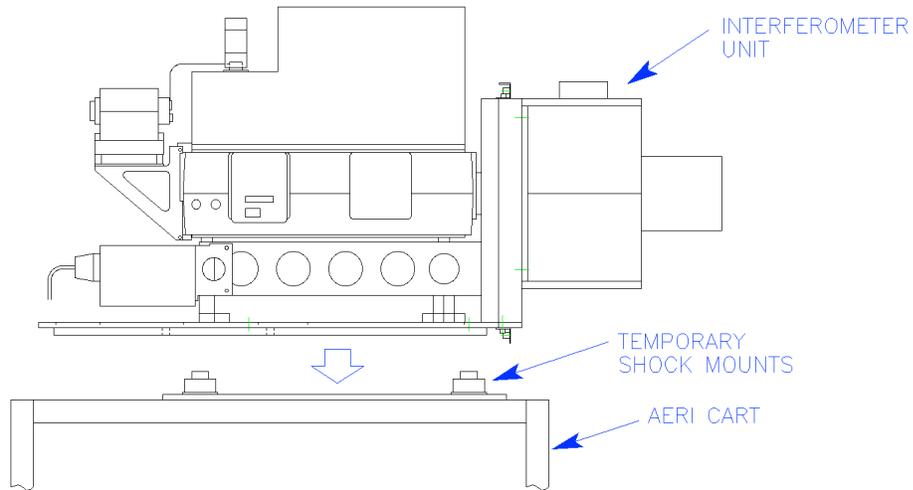
13. Remove the insulation strip that covers the edge of the interferometer baseplate.



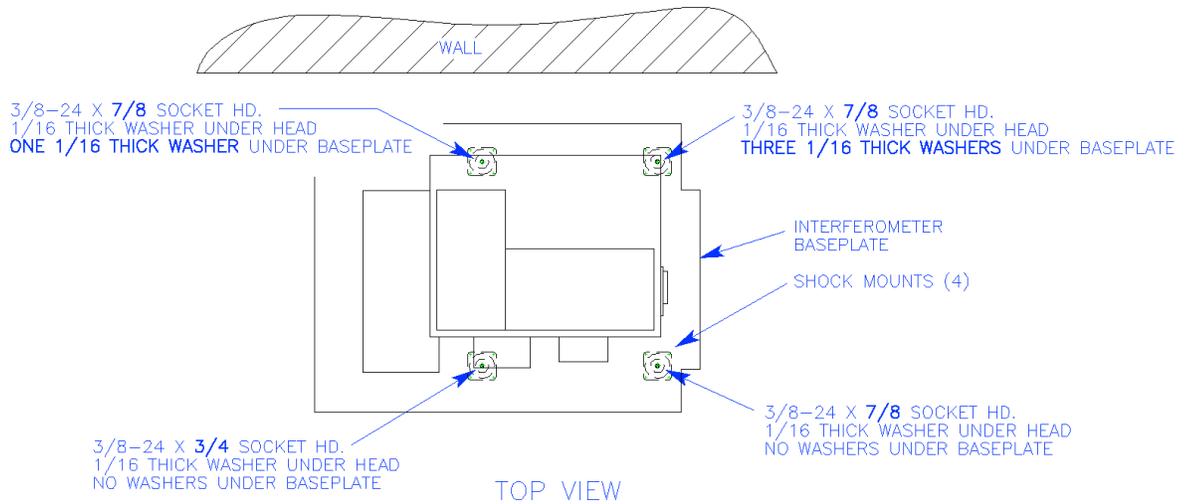
14. Unfasten the ten black-capped thumbscrews that secure the enclosure back panel to the interferometer interface block. Bag and label the screws. Then carefully remove the back panel of the front-end enclosure from the interface block: Pull the panel out a fraction of an inch, then lift it about 1/4" over some sky-view aperture screws, then slide it out at an angle from the wall side. (If having difficulty removing the panel, temporarily remove the sky-view aperture.)



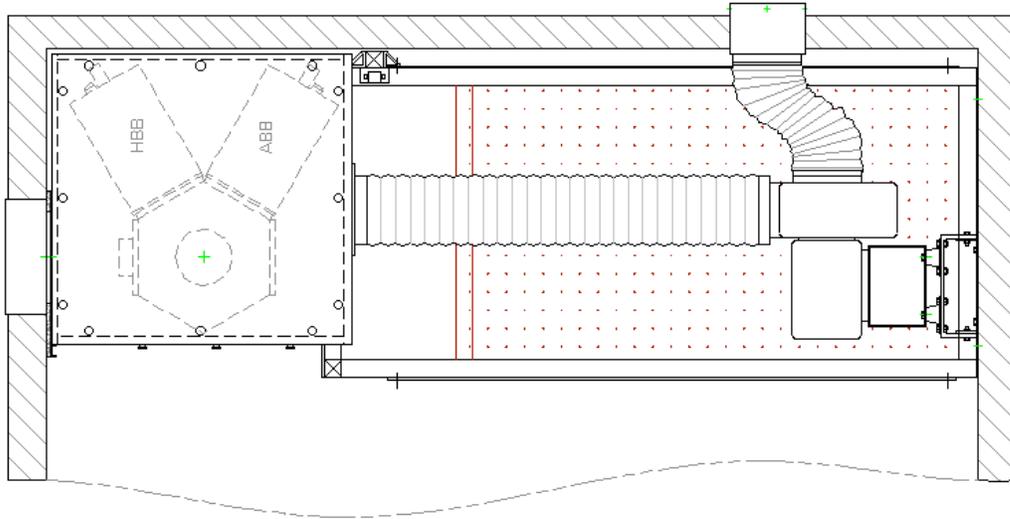
15. Remove the four mounting screws and washers that attach the interferometer baseplate to the stand shock mounts. (Note that one screw is a different length, and that there are additional spacer washers under the baseplate at two locations. Do not mix these items – see step 17.)
16. Lift the interferometer from the stand onto the cart. (Four persons required, one at each corner. Weight \approx 200 lbs.) Let the interferometer rest on the shocks – no screws are required.
(*Caution:* There is limited clearance with the ceiling. Do not let the interferometer bump the ceiling.)



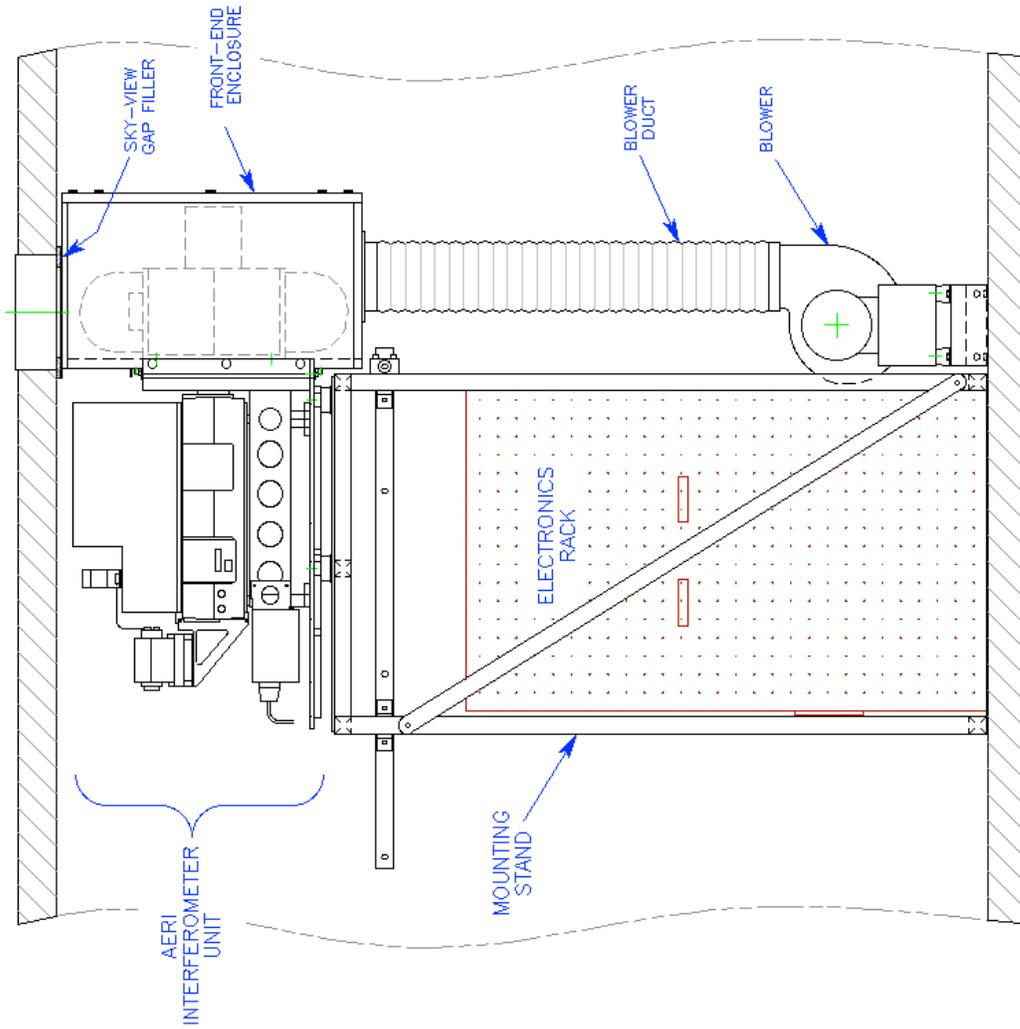
17. Place the baseplate mounting screws, washers, and associated spacer washers back into the shock mounts for storage. Place them in their original locations. Refer to the figure below.



18. Roll the AERI interferometer out of the trailer via the back door.
(*Caution:* The interferometer is “loose” on the cart, and could slide off.)



(LOOKING FWD IN THE TRAILER)



AERI-SPARC INSTALLED
(LOOKING STARBOARD IN THE TRAILER)