

# Battery Retrofit Instructions

For  
(1232-A, -AP Tuned Amplifier & Null Detector)

## General

Retrofit kit, part number 950019, modifies a standard 1232 instrument, which presently accepts nine mercury cells, to accept eight standard "AA" alkaline batteries. Estimated battery life is 250 hours. The retrofit kit consists of the following items:

<u>Description</u>	<u>Part Number</u>
Battery holder assembly	800049
Battery retainer foam	300149
Instruction sheet	150055
Battery, "AA" Alkaline (8)	520002*

\*Batteries are readily available under the following manufacturers part numbers:

Everready E91

Duracell MN1500.

Ray-O-Vac B15

## Installation

1. Remove the battery compartment cap and remove the nine mercury cell batteries per paragraph 4.3 of the instruction manual.
2. Remove the instrument cover per paragraph 4.2 of the instruction manual.
3. On the side of the instrument with the battery cap, remove the two screws which secure the front panel to the aluminum end frame. This is necessary in order to move the side panel to remove the battery compartment tube.
4. Remove the nut and lockwasher from the stud which secures the battery tube clamp to the side of the instrument near the battery compartment cap, this hardware will be used to secure the new bracket assembly. On the other side, remove the two screws, nut and lockwashers which secure this battery tube clamp. Now unscrew the long hex spacer from the stud on the other end and remove it.



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5. In order to remove the battery tube it may be necessary to slide at least one of the clamps toward the center of the tube. Loosen the screw that secures one of the clamps to the tube and slide the clamp towards the center. Now remove the tube from the instrument.

6. Install the replacement battery holder assembly. The end with the two open holes should be positioned over the studs and each secured with nut and lockwasher. The other end of the battery holder assembly is secured with screws (previously removed) into the threaded inserts. The long hex spacer is no longer required.

7. Replace the two screws removed in step 2 above which secure the front panel to the end frame.

8. The two leads attached to the battery holder assembly should be soldered as follows:

- Negative lead (on the battery cap end) to ground on the main board where the large red wire is soldered.
- Positive lead to terminal A on the Gain switch. This is the terminal with the lead that goes to the old battery contact (the lead could be soldered to this contact terminal as well).

9. The battery retainer foam should be installed on the rear cover as follows:

- Stand the instrument carefully on its face.
- In order to determine positioning lay the foam over the newly assembled battery holder with the double sided tape up, backing removed so that it will stick to the cover when the cover is placed in position.
- Now place the instrument cover in position so that the foam will stick to it. Remove the cover and press the foam firmly onto the inside of the cover.
- Recheck the above retrofit procedure and then install the 8 'AA' batteries while observing polarity markings.
- Replace the instrument cover, the retrofit is now complete.



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