



NTN Motorbox Replacement, ACM Collector

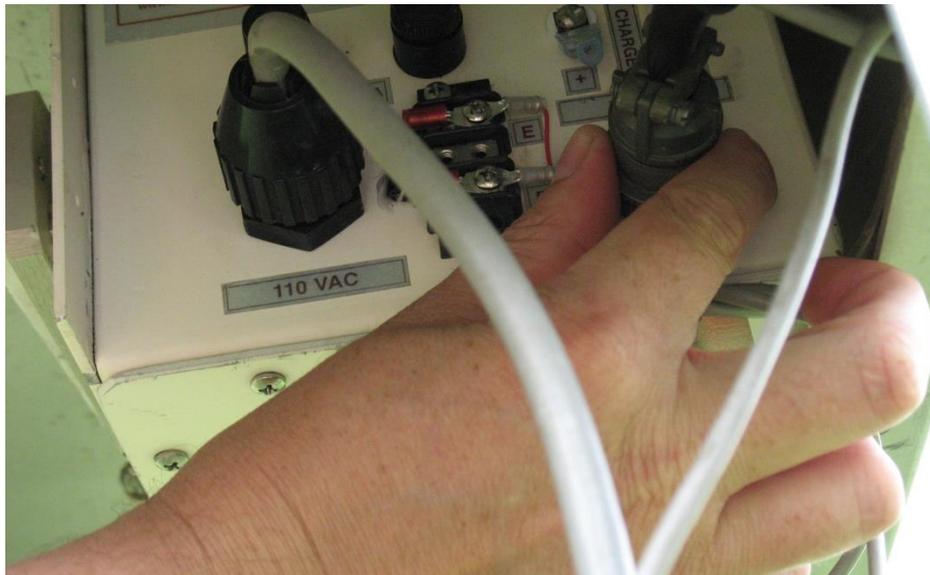
Items needed:

- Replacement motorbox
- Small and medium-sized, straight blade screwdriver
- Small and medium-sized, Phillips head screwdriver
- Small adjustable wrench or 7/16" wrench or socket
- Pliers (small)
- Field Observer Report Form (FORF) for current week's sample

Instructions:

If unfamiliar with the parts of the collector, review the diagrams in the Appendix to this document.

1. If AC power is used, disconnect power to the collector, e.g., unplug the motorbox's power cord. DC power will be disconnected in a subsequent step.
2. Disconnect the sensor from the motorbox by unscrewing the connector from the motorbox.

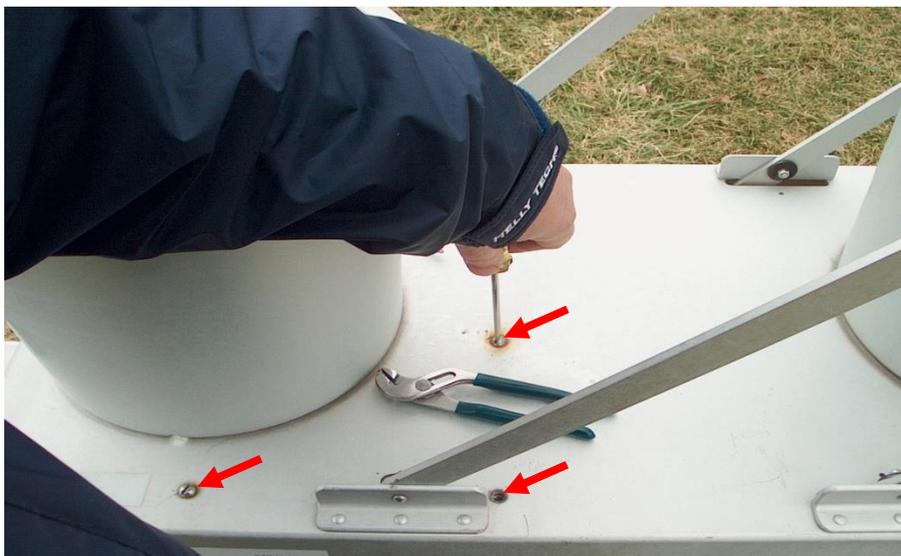


3. Remove the clutch arm bolt and associated hardware from the push rod and motorbox. The push rod will swing free. Save the bolt, washers (2, bronze and nylon), and the bronze bushing to re-use when installing the replacement motorbox.

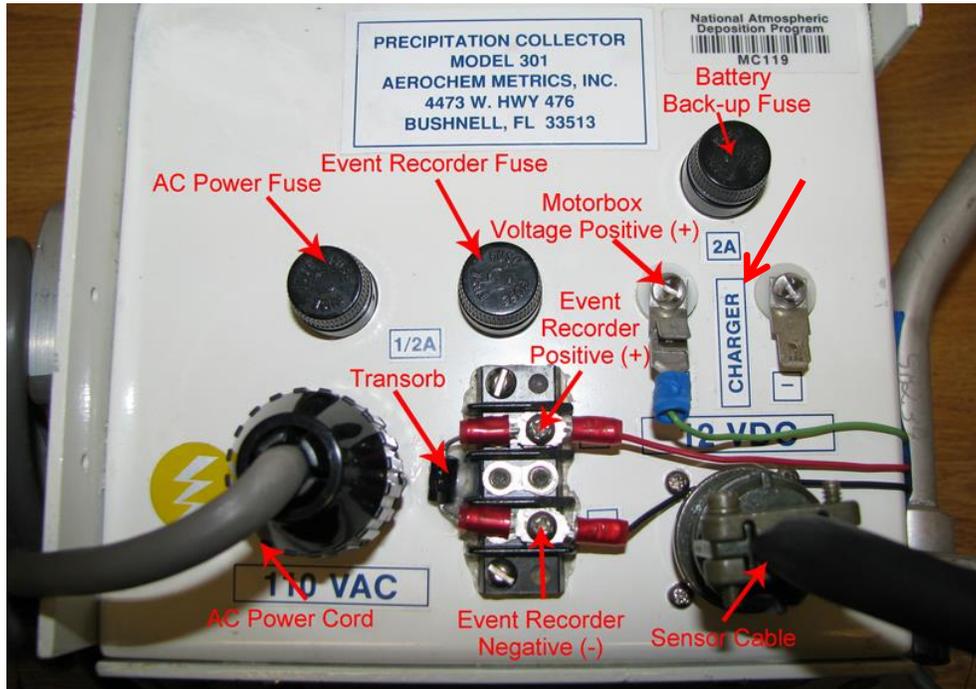


4. Remove the screws (4) that secure the motorbox to the top of the collector (see arrows in the image below). Remove the dry-side bucket to access the 4th screw. It is located inside the bucket holder under the dry-side bucket.

Be careful not to drop or misplace the screws as they will be re-used with the replacement motorbox. Support the motorbox with one hand when removing the last screw to prevent the motorbox from falling to the ground.



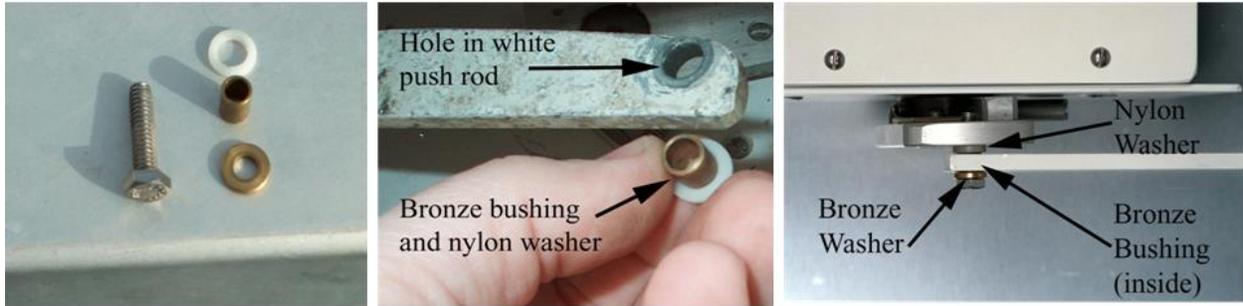
5. Disconnect the wires (positive and negative) for the event recorder and the battery backup (labeled “charger” in the diagram) from the motorbox.



6. Set the old motorbox aside for return to the NADP Network Equipment Depot (NED).
7. Retrieve the new/replacement motorbox.
8. Attach wires for the event recorder and the battery backup to the replacement motorbox.
9. Support the motorbox with one hand and secure it to the collector using the 4 screws that were removed in step 5.



10. Using hardware from step 4, attach the clutch arm bolt to the push rod and the motorbox. Do not over tighten the bolt.



11. Verify that the push rod is straight and secure.
12. Re-attach the sensor cable to the motorbox. Align the sensor connector with the motorbox connector. Tighten the connector to secure the cable to the motorbox.



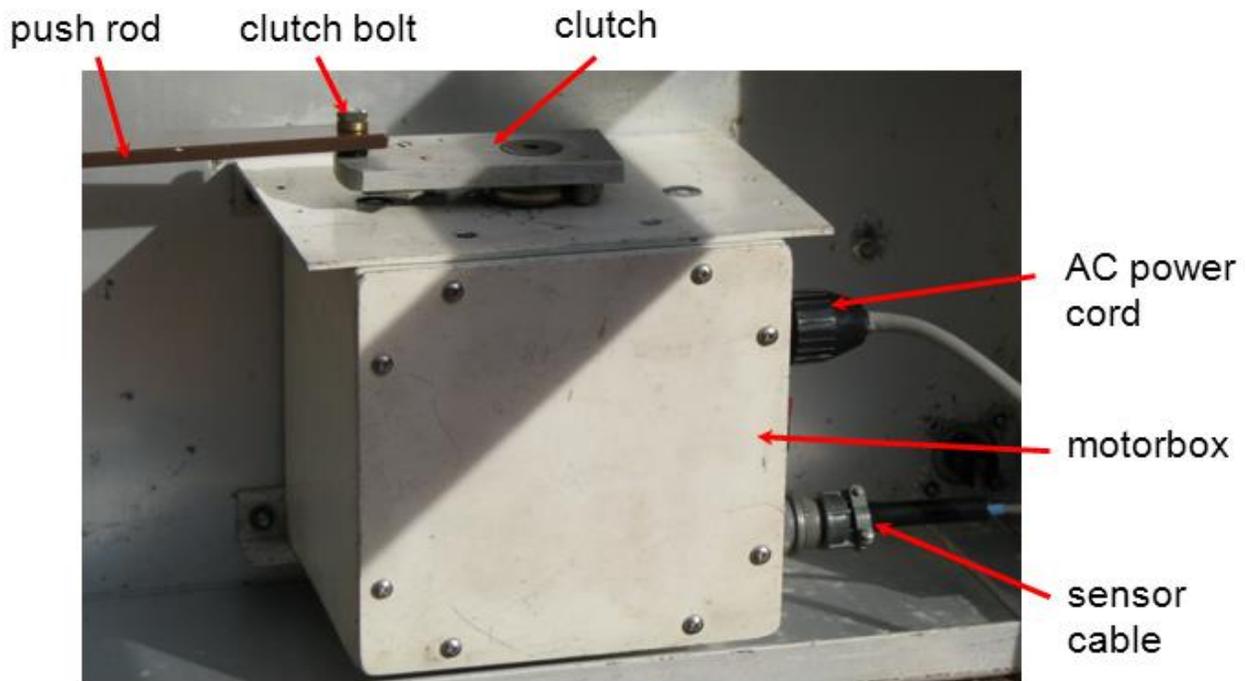
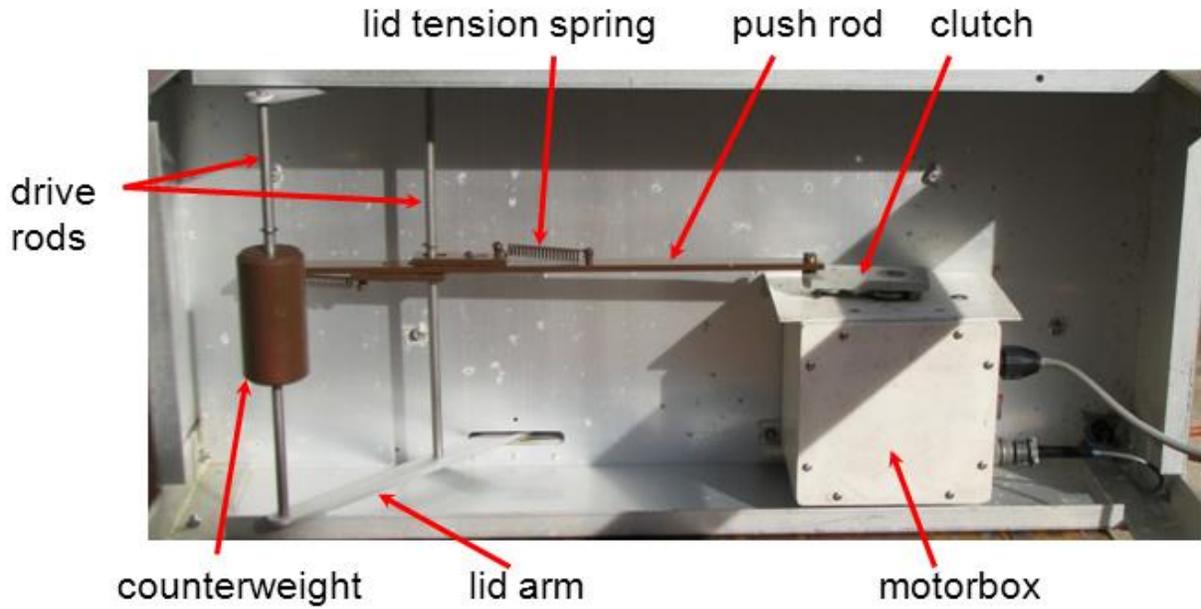
13. Record comment in Block 10 (**Remarks**) of the Field Observer Report Form (FORF).

<p>10. REMARKS <small>For example: equipment malfunction, contamination, farming, burning, logging, leakage before weighing, etc.</small></p> <p>Motorbox replaced on 12/11/2008.</p> 

14. Return the old motorbox to the NADP Network Equipment Depot (NED). Include a note describing the problem with the motorbox.

NADP Network Equipment Depot
Wisconsin State Laboratory of Hygiene
465 Henry Mall
Madison, WI 53706

Appendix



Underside of the ACM collector (top photo), and the ACM motorbox (bottom photo) with parts labeled.