

SUBJECT : Impactor Prep

WARNING!!! Over oiling the impactor will render the DustCount inoperative!!

Read this Bulletin to learn how to properly care for your DustCount Impactor!!!

Introduction: The Impactor in the DustCount 8899 shapes the products response curve to meet NIOSH specifications. A key part of this operation is the oiling of the impactor. If not enough oil is used too many large particles will enter the DustCount Sensor. If too much oil is used the oil will be carried through the DustCount sensor and block the passageways and sensor optics, and settle on the sample filter, rendering the product inoperative.

Symptoms of an over oiled DustCount are:

- oil seen in the filter cassette mounts, cassette, or filters
 - excess oil in the impactor assembly (clean impactor and retry)
 - very low real-time dust count readings and high filter weight
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User Manual section 2.3 - NEW

2.3 Prepping the Impactor

1. The DustCount 8899 comes equipped with a particle impactor installed inline at the inlet. This allows the DustCount 8899-05 to measure dust mass concentrations according to the NIOSH respirable exposure guidelines, and DustCount 8899-06 to measure dust mass concentrations according to the EPA PM 2.5 guidelines. The impactor plate comes oiled from the factory, but to operate properly, the impactor plate must be cleaned and have its oil replenished before every test. Experience has shown that this is required about once every 12 hours for average dust concentrations ($>20\mu\text{g}/\text{m}^3$) or every 24 hours of use in concentrations $< 20 \mu\text{g}/\text{m}^3$.

2.3.1 Cleaning the impactor

2. To access the impactor plate, the impactor cap must be removed. Rotate the cap until it is unclipped and pull it away from the DustCount 8899 unit to remove it, see **Figure 1**.

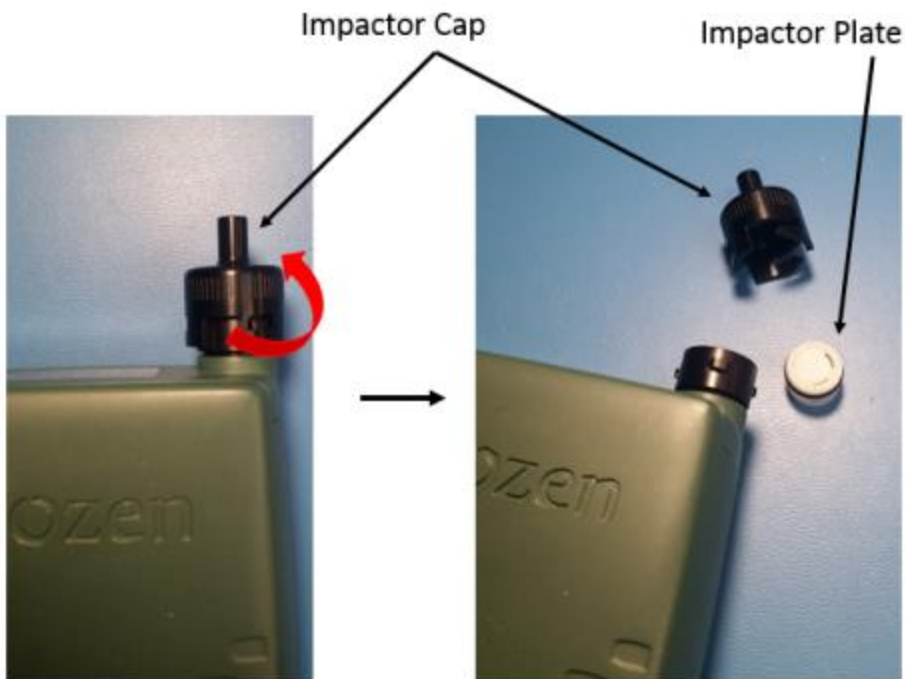


Figure 1 Removal of Impactor plate

3. If the impactor plate is lodged in the cap, use a pen or other long object to pop out the plate.

4. Apply a small amount of rubbing alcohol to a non-fibrous paper (such as a Kimwipe) and wipe off any visible dust or fibers collected on the white porous surface. See **Figure 2**.

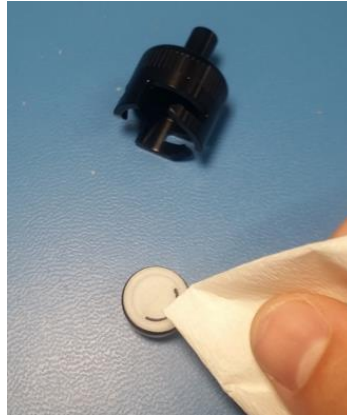


Figure 2 Cleaning Impactor plate

2.3.2 Oiling the Impactor

1. Use the Impactor Oil Applicator to apply one drop of oil to a fiber-free paper pad. (such as a Kimwipe), see **Figure 3**.



Figure 3 Applying oil to fiber-free pad

2. Replenish the Impactor Plate's oil by pressing it on the oiled paper, see **Figure 4**. There should not be any excess oil flowing or pooling on the impactor plate. There should only be a sheen of oil. If there is any excess oil, remove it by pressing the impactor plate on a clean paper pad.

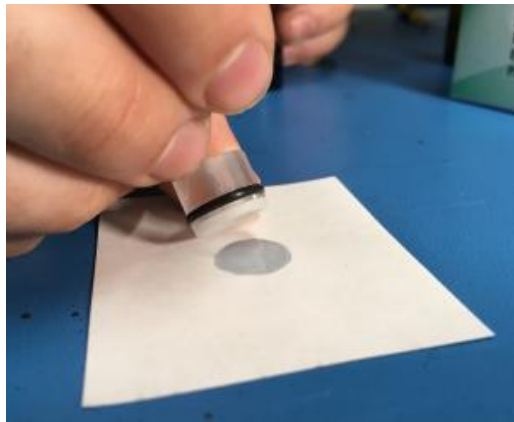


Figure 4 Replenishing the impactor plate

3. Place the impactor back into the holder on the DustCount 8899 ensuring that the oiled white surface is facing away from the DustCount 8899 unit, see **Figure 5**.



Figure 5 Re-installing impactor plate

4. With the impactor plate in place, reconnect the impactor cap by pressing and turning the cap against the holder until it is locked in place.

Conclusions

Replace section 2.3 in your manual with this new Section 2.3.

Follow the instructions provided in this new section 2.3 on Impactor prep carefully to prevent over oiling the DustCount which could lead to an inoperative condition.

If you have over-oiled the impactor and you suspect that the product is not performing to specification, please return it to Nanozen Industries Inc. as follows:

- email support@nanozen.com and request a Return Materials Authorization number (RMA #).
- ship the unit back for maintenance and recalibration. (Sorry, no COD shipments will be accepted)