



Emptying Collection Chamber, OTT PLUVIO Electronic Rain Gauge

Items needed:

- Field form for the current week's sample
- Transfer pump (siphon) with tubing
- Discard container to collect water and/or antifreeze/water mixture for disposal (if needed)
- Antifreeze (if applicable): propylene glycol or ethylene glycol (low toxicity)

Instructions:

Using the Transfer Pump

Complete these steps to empty the collection chamber of the electronic rain gauge. This eliminates both the need to open the rain gauge and the need to lift the collection chamber when it is full.

1. Connect orange tubing to “IN” and “OUT” ports of the transfer pump.

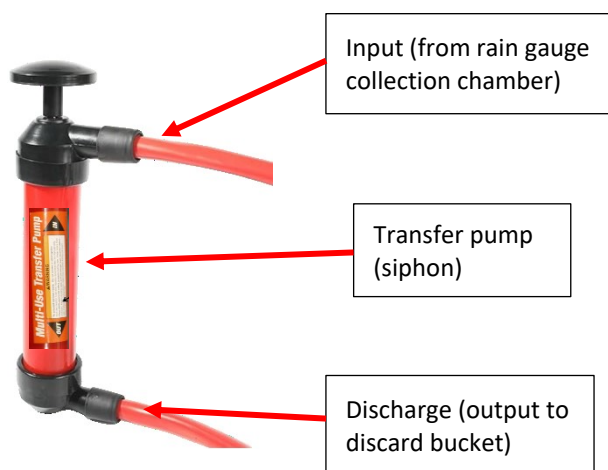


Figure 1. Transfer pump (siphon)

2. Place the end of the “input” tubing in the collection chamber of the rain gauge.
3. If the rain gauge is winterized, place the other end of the “discharge” tubing in a discard bucket or other container to collect the anti-freeze/water mixture. If the rain gauge is not winterized (i.e., does not contain anti-freeze), a discard bucket is not needed, and the contents of the collection chamber may be discharged away from the rain gauge.
4. Pump the transfer pump repeatedly to empty the rain gauge collection chamber. The collection chamber does not need to be emptied completely.



Figure 2. Transfer pump with OTT Pluvio

5. If needed, re-winterize the rain gauge. The gauge should always be charged with antifreeze when the average low ambient temperature is below 40°F (4°C) on a consistent basis. OTT Hydromet recommends using antifreeze medium with low hygroscopy (low moisture absorption from the air). The ratio should be at least 40 % water in the anti-freeze. For example, 5L antifreeze concentrate + 2L water.
6. Dry and store the transfer pump for future use. If the pump was used to empty an anti-freeze/water mixture, rinse the pump with clean water before drying and storing. Tap water is fine for rinsing the pump.
7. Dispose of the antifreeze mixture liquid in the discard bucket (if applicable) according to local guidelines for proper disposal. If the liquid is just water, special disposal is not needed.
8. Indicate on the field form for the current week's sample that the gauge was emptied and anti-freeze recharged (if applicable). Make note in the Remarks block.

Without the Transfer Pump

Complete these steps to empty the collection chamber of the electronic rain gauge. This requires opening the rain gauge and the need to lift the collection chamber out when it is full.

1. Loosen the three knurled knobs that secure the outer shell.
2. Lift the shell straight up and off the base plate.
3. If the rain gauge is winterized, pour the contents in a discard bucket or other container to collect the anti-freeze/water mixture. If the rain gauge is not winterized (i.e., does not contain anti-freeze), a discard bucket is not needed, and the contents of the collection chamber may be emptied away from the rain gauge.
4. Replace the collection bucket on the bucket support, and ensure it is sitting level and is seated correctly.
5. Line up the outer shell with the base plate and ensure the shell is sitting on the three knurled bolts that hold the shell in place. The notched opening on the outer shell should be sitting flush on the knurled bolts.

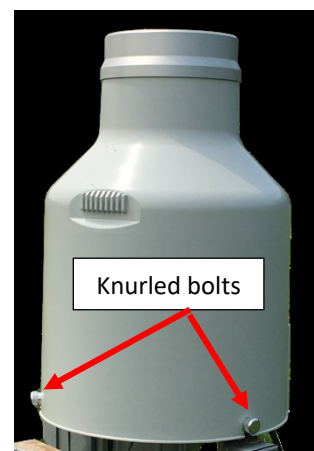


Figure 3. OTT Pluvio2 outer shell

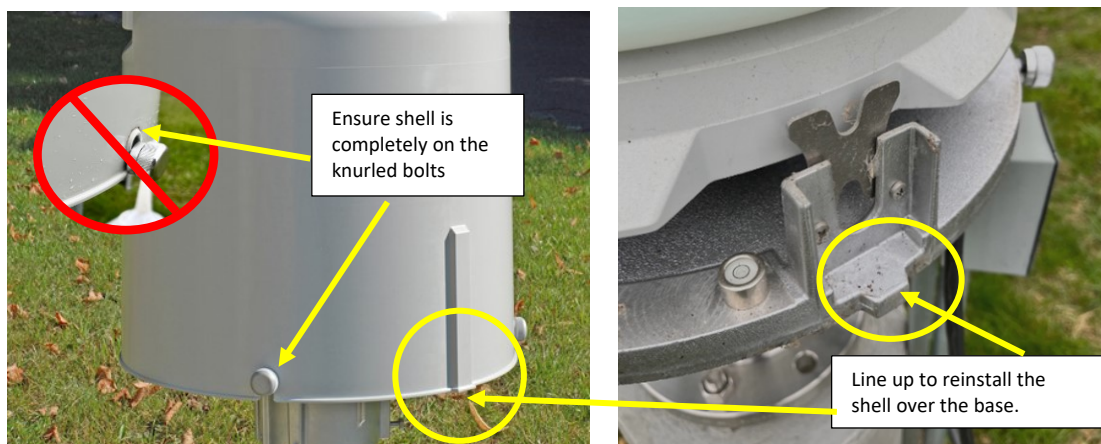


Figure 4. OTT Pluvio2 outer shell alignment