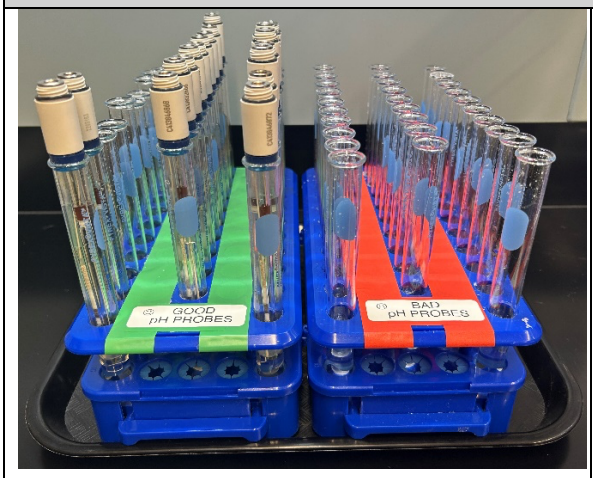
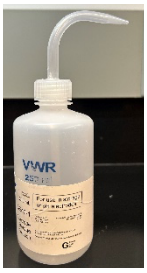
# pH Probe and Meter Guide

## pH Probes



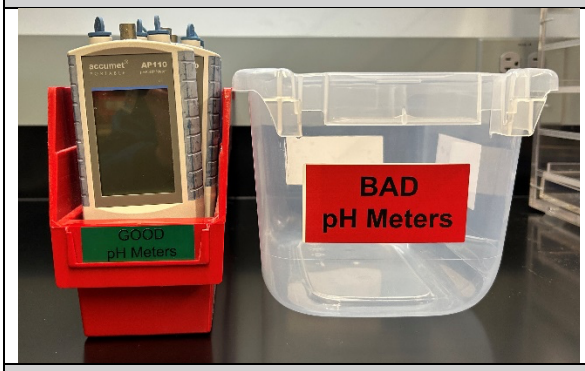

Students needs to **EXCHANGE** their bad pH probe to get a good probe.

1. Grab a new probe from the "GOOD pH Probes" rack
   a. Students should not give you a cable if they are returning a new Mettler Toledo probe.
2. Put the bad probe into any open test tube that is ~1/3 full of storage solution in the "BAD pH Probes" rack.
   a. Make sure the blue twistable band on the Fisherbrand probe is showing a white circle.
      i. Flip page for more information.
   b. If the test tube is empty or is under ~1/3 full, use the squeeze bottle to refill it.
   c. It is okay if the test tube overflows when the probe is inserted. That is why it is on a tray.




**If a probe is stored in a dry test tube it will break!**

## pH Meters

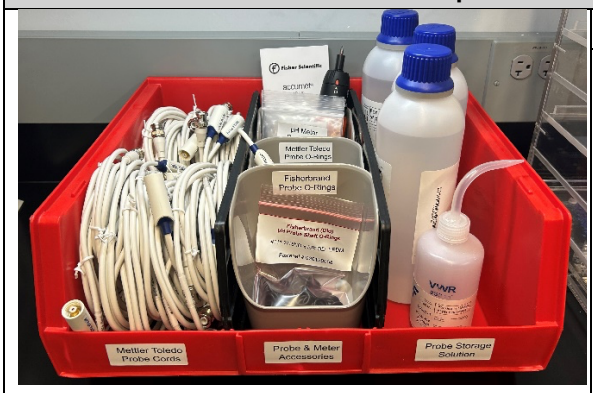



Students need to **EXCHANGE** their bad pH meter to get a good meter.

1. Grab a new meter from the "GOOD pH Meters" bin
2. Fill out a broken equipment sticker , attach it to the meter, & put the bad meter in the "BAD pH Meters" bin
   a. If the reason it was returned to the window was due to a "LobAt" error, replace the battery & put it in the "GOOD pH Meters" bin

If you run out of good pH meters, more are on S 07.4.

## pH Probes & Meter Accessories




| Left Section: | Middle Section: | Right Section: |
|---|---|---|
| New Mettler Toledo pH probe cables. | Front bin: Old Fisherbrand shaft O-rings<br><br>Middle bin: New Mettler Toledo shaft & top O-rings<br><br>Back bin: pH meter screws, back panels, screwdriver, & instruction manual. | pH probe storage solution squeeze bottle & large refill bottles. |

**Flip page for more information about the two types of pH probes, the different types of O-rings, & how to replace the pH meter batteries.**

# pH Probe and Meter Guide

## pH Probes

There are two types of pH probes in rotation. Below are the three key differences.



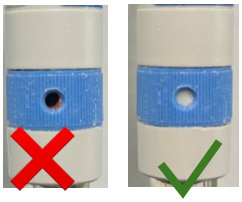

**Mettler Toledo (AKA new probes)**

1. **Cable:** white cable that can be detached from both the meter and probe side.
2. **O-rings:** has two O-rings. One on the top and one on the shaft.
3. **No blue twistable band:** there is no extra step to ensure probe is ready for storage.




**Fisherbrand (AKA old probes)**

1. **Cable:** black cable that can only be detached from the meter side.
2. **O-rings:** has one black O-ring on the probe shaft.
3. **Blue twistable band:** when storing, the blue band (indicated by the red arrow) must be turned so that the circle is white and no red or black is seen.



## pH Meter



We have one type of pH meter, it works with both the Mettler Toledo and Fisherbrand probes.

One of the most common issues is the error code "LobAt." When a student returns a meter with this error code, replace the batteries.

1. Obtain a 9V battery from S 15.2 and remove the protective black plastic cap.




2. Unscrew the three screws at the bottom of the meter and remove the back panel.
    a. Press and hold firmly while unscrewing/screwing to avoid stripping the screws.
3. Carefully remove the old battery and detach the white cap.
    a. Hold the battery while detaching the white cap. Failure to do so may cause the black and red wires to break.



**If a pH meter has any other error code, simply fill out a broken equipment sticker.**