

Calibration Procedure

MetOne Model 380 Tipping Buckets

- 1-Calibration should be performed on a one-year cycle(unless damage to the gauge is discovered)
2. clean gauge to remove any obstruction, inside and out. Examine tipping bucket for free movement
- 3- if bucket tipping seams impaired
Remove and inspect the pivots for wear, relace or repair as needed
- 4- check the gauge is level
- 5- use a multimeter to test the resistance of the hall effect swi tch . For every tip you should see a change in resistance repeat and verify. If no change is shown, then the magnet needs to be moved closer to the hall effect switch . If this fails to fix the issue, replace and retest
- 6-LAB TEST-using 25ml glass pipette, valve controlled
 - a. fill pipette with exactly 25ml of tap water (room Temperature)
 - b.Drip water into left bucket (left when facing terminals) from the pipette until the bucket tips from the weight. As soon as the bucket tips, stop water flow
 - c. carefully read the water level and deturmine how much was used to tip the bucket log this amount and repeat several times.
 - d. Bucket tips should idealy be 18.53 mL
 - e. if the bucket does not tip with in 5% (17.61mL- 19.45mL), loosen the nut on the bucket post on the opposite side of the bucket being tested Adjust the nylon crown nut as follows
 - i- If the bucket tip heavy or more than 19mL twist the nut Counter clockwise or UP one turn
 - ii- If the bucket test is "LIGHT" or less than18mL twist the nut clockwise or DOWN one turn
- 7- calculate the avaerage and log.
- 8- Repeat this procedere for the right bucket

Field or Quick Calibration

Repeat steps 1-5

- 6- carefully fill the test container with 180mL of water.
- 7- slowly but steadily pour the water into the gage.
- 8- Count the number of tips
- 9- if tips exceed 11 the gage is "Light" if less than 9 the gauge is heavy
- 10- adjust the nylon nut as above if needed.

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GSFC-21-610W-020 CALIBRATION PROCEDURE

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|-------|-----------------|-------------------|--|-------------------|--------------|--------------|------|
| SIZE; | DRWN BY; CRS | DATE; 02/14/22 | | DRAWING NO; 20 | SCALE; NA | SHEET; 20 | REV; |
|-------|-----------------|-------------------|--|-------------------|--------------|--------------|------|