

## Lamotte 2020 Cheat Sheet

- 1) **Unit must be turned off before replacing batteries.** If meter is not shut down properly before replacing battery, cal constants revert to 0.00 NTU and the meter needs to be sent back to factory to reset constants.
- 2) **Keypad and Display:**
  - a) When unit is off, push the **READ** button to turn unit on. The software version will be briefly displayed then a walking dash will display while a measurement is taking place.
  - b) The **CAL** button needs to be held down to activate the calibration procedure. Once calibration is activated, the display will flash. The **CAL** button is also used to enter a calibration value after an adjustment is made.
  - c) The **Up** and **Down** arrows are used to adjust the value during calibration mode.
  - d) The **READ** button when pushed once will prompt the unit to take a measurement. Holding the **READ** button down will display **OFF**, then release to turn unit off.
- 3) **Calibration Procedure:**
  - a) Select a standard solution in the range that is to be tested, clean the tube with the standard and wipe clean with a lint free cloth.
  - b) Open the lid of the meter and align the arrow mark on the tube with the arrow mark on the meter and insert the tube.
  - c) **CLOSE THE LID** of the unit and press **READ**. If the value displayed is not matching (with in + or – 3%) the standard solution calibration must be done.
  - d) Press and hold the **CAL** button until the display is flashing.
  - e) Adjust the reading on the display using the **UP** and **DOWN** arrows to standard solution value.
  - f) Press the **CAL** button to enter and save the calibration value.
  - g) The unit **cannot** perform a two-point calibration. The unit must be **turned off** before a second reference point of calibration is done.
  - h) Calibration should be done at least once a week or as necessary.
- 4) **EPA mode**
  - a) The 2020 has two operating modes, **Standard operating mode** and **EPA Mode**. A shaded triangle will be displayed in the top left when in **EPA**.
  - b) The meter can only be switched from one mode to another while turning the unit on.
  - c) The **standard operation mode** displays the measured turbidity to full resolution of the meter. **EPA** mode displays the measurements rounded to the reporting requirements of the **EPA and Standard Methods compliance monitoring programs**.
  - d) To change mode, turn off the unit and hold the **CAL** button while pressing the **READ** button to turn the unit on. The meter will then turn on in the opposite mode it was previously in.

## 5) Testing Tips

- a) Samples should be collected in a clean container.
- b) Discard tubes that are scratched.
- c) Turbidity readings will be affected by electric fields around motors.
- d) Carbon in a sample will absorb light and cause low readings.
- e) Readings should be taken on surface free of vibration.
- f) Excessive color in a sample will absorb light and cause high readings.

## 6) Trouble shooting

- a) Display error codes
  - ER 1** very low battery = Change battery
  - ER 2** over range = Dilute sample
  - ER 3** burnt out tube or misaligned tube = Return for service
- b) Meter won't turn on:
  - 1. Low battery = Replace
  - 2. Battery connection broke = Repair
- c) Suspect Calibration
  - 1. Solution = Use new solution
  - 2. Unit or tubes wet = Dry tubes/chamber
  - 3. Low battery voltage = Replace battery
- d) Unit will not adjust to desired calibration reading using **UP** and **DOWN** arrows. = Turn off unit. Hold down the down arrow and press the read button to turn on and rest the unit. Calibrate again.
- e) Unit reads zero
  - 1. Calibration error = Turn off unit, Recalibrate
  - 2. Lamp out or not connected = Check lamp
  - 3. No solution = Check for solution