



INSTRUCTIONS FOR THE AMCO RATIO TURBIDITY KIT HACH 2100/AN

EPA regulations require that if you are using Sealed Secondary Standards, they must be checked against a Primary Standard **at least** every four months.

EPA 570 Manual for the Certification of Laboratories Analyzing Drinking Water

BEFORE STARTING CALIBRATION:

- Always use clean glassware and handle cuvettes so there are no fingerprints in the area where light is passing through the sample. GFS recommends using alcohol to clean the outside of the cuvettes.
- Make sure that the index marks on the cuvettes and turbidimeter are aligned before reading. (See attached Indexing Procedure.)
- Insure that the turbidimeter has been turned on for at least one-half to one hour before performing measurements.
- Do not pour used Primary Standard back into the bottle. This contaminates the contents, since the used standard has been in contact with impurities in the cuvette.
- Allow the standard to reach room temperature before use to alleviate fogging of the cuvette.
- If you encounter difficulties with calibrations, allow the sample to sit, loosely capped with clean cap, until all air bubbles have settled out, or gently tap sides of cuvette to release the air bubbles, then take another reading.
- When placing any standards in the well, always close hatch on the on the well in order to keep out ambient light.



CALIBRATION WITH THE AMCO PRIMARY STANDARD:

- Select a clean scratch-free cuvette.
- Index the cuvette following the Indexing Procedure Included.
- Insert the EPA filter module.
- Press the **CAL Zero** (or **CAL** for 2100N model) button and the small green lights (red lights for 2100N) in the mode display should show **00**.
- Fill a clean cuvette with **0.0 NTU** primary water, place into sample holder, close cover, and press **ENTER**. This display counts down from 60 to 0 and makes a measurement which is stored and used to calculate a correction factor for the measurement of all NTU standards.
Please Note: Newer models Hach 2100/AN do not require calibration with turbidity free water. This calibration point is memorized within the system. In such cases, 20 NTU will be the first calibration point.
- The instrument automatically increments to the next standard and displays the expected NTU value, ie. 20.00 NTU. The number **01** is shown in the mode display.
- Remove the 0.0 NTU standard. Rinse and fill the same clean cuvette with **20 NTU** AMCO CLEAR™ Primary Standard, place into sample holder, close cover, and press **ENTER**.
- The instrument automatically increments to the next standard, the display shows 200.0 NTU, and the standard number **02** is displayed.
- Remove the 20 NTU standard. Rinse and fill the same clean cuvette with **200 NTU** AMCO CLEAR™ Primary Standard, place into sample holder, close cover, and press **ENTER**.
- When the number **03** is displayed, repeat the procedure for the **1000 NTU** Primary Standard. After the countdown is complete, continue calibrating with the **4000 NTU** Primary Standard and the **7500 NTU** Primary Standard in the same respective manner.
- After the 7500 NTU primary countdown is complete, the display will show **00** again. The calibration is now complete. Press **CAL Zero** (or **CAL**) to store the new calibration and return the instrument to measurement mode.