

Portable Turbidity Meter

Operation Manual

Please read and adhere to all recommendations in this manual to ensure the best experience and to maintain your Turbidity Meter in good working order. The manual is for the following models: **PT-2000S, PT-2000H**

Features

- 4.3 inch colored TFT screen with friendly UI.
- Contain 200 curves and customize high precision test curve according to measurement ranges. Users can set up different piecewise curve and coefficient subject to different concentrations which will literally improve measurement precision.
- ARM9 main control chip makes operations easy, response quick and big storage up to 500M.
- Adopt special and high precision light filter system to ensure the instruments' stability and accuracy.
- Cold light source, narrowband interference, with long lifetime up to 100,000 hours.
- Advanced power management system can show the battery status in real time and be charged via USB port on PC or vehicle.

Technical Parameters

Model	PT-2000S	PT-2000H
Description	Smart Turbidity	High-precision Turbidity
Minimum readout (NTU)	0.01	0.001
Measuring range (NTU)	5-10, 10-100, 100-1000	
Basic error	±5%FS	±3%FS
Repeatability	≤0.5%	
Zero Drift	±0.5%FS	±0.5%FS
Power	Charging Voltage: DC 5V, Lithium Battery: 3.7V/5200mA	
Output	Micro USB	
Dimensions/N.W.	210×105×65mm/500g	
Standard Accessories	Cuvette cup x 2 pcs, Charger, Suitcase, Manual	

Operation Procedure

The Meter has been calibrated before leaving the factory with built-in curve. The user can directly determine the turbidity value of the sample according to the following methods.

1. Press START to turn it on.
2. Pour the reference solution into a random colorimetric bottle, no more than two-thirds of the volume of the colorimetric bottle. (Wipe off the residual liquid on the surface of the bottle with a mirror cleaning paper.) Then cover the lid of the colorimetric bottle, screw it down and put it into the sample tank. Pls note that there is a clip in the middle. The measurement can only be started after the clip is fixed well.
3. Press "UP" button to adjust zero, then take out the colorimetric bottle.
4. According to the above method, pour the sample solution into the colorimetric bottle and put it into the sample tank.
5. The meter displays the turbidity value (NTU) of the sample, Press **【ENTER】** to store the value in the meter.
6. Long press **【ESC】** key to turn off the machine.

Operation Panel

- 【ESC】** Return, cancel, test stop key
- 【ENTER】** Enter, function, menu selection key
- 【▲】 【▼】** Up and down key
- 【SET】** Menu view and settings key
- 【START】** Boot key

Operation Menu

1. Check curve
2. Select curve
 - a. A curve is built into the meter before leaving factory. when you establish another curves for your own needs, you can select the curve needed for measurement here.
 - b. Press**【SET】**, then press Select Curve, open curves list, press**【▲】/【▼】** to select the desired curve name, support the self-built fitting curve, press **【ENTER】** to confirm and open.
 - c. Press **【ENTER】** again to confirm the selection and automatically return to the measuring interface.
3. New curve
 - a. When the built-in self built fitting curve of the meter can not meet the measurement requirements, press **【SET】** key and select new curve.
 - b. The meter can create new single point curve, sectional curve, self-built fitting curve and single point correction curve. User can choose the corresponding operation according to needs.
 - c. The newly created single point curve does not support for user.
 - d. New preset segmented curves do not support for user.
 - e. Self built fitting curve refers to the function of selecting new single point curve or segmented curve and making

standard sample according to own needs, reading the values of different concentration samples with the meter, and then calculating the curve.

f. Single point calibration curve refers to the function that the user prepares a sample with known concentration to carry out single point calibration on the existing curve, so as to modify the parameters of the original curve.

4. Delete curves

5. Data record

The measured data stored in the meter is automatically saved as a file on a daily basis and named automatically by date.

6. System setup

Setting time, check battery information & overall storage, switch buzzers, adjust screen brightness, set hibernation & power down times, restore factory setting.

7. If enter a number, press **【▲】** **【▼】** key.

Considerations

1. Before placing sample bottle, wipe off the residual liquid on the surface of the colorimetric bottle with a mirror-cleaning paper, avoid splashing the liquid sample into the sample chamber. If it is splashed, it should be sucked with filter paper immediately, otherwise it will cause digital drift and jump.

2. The light transmission position of the colorimetric bottle is at the bottom of the bottle, so the solution need not be added too much, and the upper part of the rough surface is held in hand as far as possible, so as not to affect the measurement data.

3. When the water sample temperature is too low than room temperature, it will cause the sample bottle glass atomization. At this time, the water sample can be stored for a period of time, and then measure when it returns to room temperature.

4. Water samples should be slowly injected into sample bottle to avoid bubbles. If there are too many bubbles in the sample, it can be measured later, otherwise, bubbles will affect the stability of the measured value.