

Bench Top pH, TDS, Conductivity Meter

ABM403



Product Manual / Warranty Card

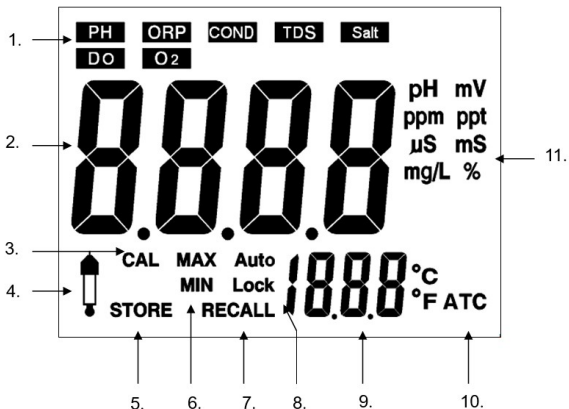
Introduction

We thank you for having purchased bench top meter. Before using the instrument, please note that the operation instructions should be read carefully, which will help you to operate and maintain the instrument.

Specification:






Model	ABM403 - Bench Top pH, TDS, Conductivity Meter		
pH / ORP			
Parameter	pH	ORP*	Temp
Range	(-)2.00 to 16.00	± 1999 mV	0 to 110 Deg C
Accuracy	1%	2%	±0.2
Resolution	0.01 pH	1 mV	0.1 Deg C
Conductivity / TDS			
Parameter	Conductivity	TDS	Salt
Range	0 to 100 mS/cm	0 to 66.0 ppt	0 to 50 ppt
Accuracy	1%	1%	1%
Resolution	1µS	1 PPM	1 PPM
ATC	Yes (100 Deg C)		
Output	USB Connectivity with Windows PC Software		
Sensor*	pH, Conductivity & Temperature sensors included.		
	To measure ORP, order AMEORLG separately.		

Display Details



1. Function Mode
2. Measuring Value
3. Calibration Mode
4. Calibration error indicator
5. Reading stored indicator
6. MAX & MIN Value
7. Recall Mode
8. Auto lock or manually lock current reading
9. Temperature Indicator
10. Auto Temperature Compensation
11. Unit

Keyboard Details

	Single Press Lock the current reading, Press for 3 sec. to enter or exit MAX/MIN mode.
	Single Press to Store the current reading. Press 3 sec. to enter Recall mode.
	In Recall mode, browse records. Press both together 3 sec. to enter Advance Setting
	Single Press to Choose different Function mode. Press 3 sec. to switch °C/°F, or switch pH-mV or ORP-mV or switch mg/L or ppm
	Turn on or off power. Press 3 sec. to enter calibration mode

Meter Preparation

- 1) Connect AC adaptor with power source.
- 2) Connect the pH/ORP , Conductivity and Temperature Electrode
- 3) Clean the Electrodes with DM Water and Power On the Meter

pH Calibration:

pH 7 : Dip the pH electrode and the temperature probe into the pH 7.00 buffer solution and Stir gently until the reading is stable. Press and hold CAL for 3 seconds & the display will appear CAL and flashing 7.00. Then the display indicates "SA", then "End" i.e. calibration is done. Meter will return to Measurement Mode.

pH 4 : Rinse the electrode with clean water and wipe it dry. Dip the electrode into the buffer solution pH 4.01 as previous steps. Once Calibration is done the display will indicate the percentage of slope (PTS) to show the status of the electrode. If the PTS is below 70% or above 130%, the electrode must be replaced.

Note: Calibration error indicator icon will appear, and "Err" instead of "SA", if calibration fails. When doing a calibration, calibrate with buffer pH 7 first, and then follow with other buffers.

ORP Calibration

Calibration is not necessary for ORP. However, it could be tested with specific ORP standard solution to check whether the electrode is good.

Conductivity Calibration:

Switch the Meter to Conductivity Mode. Now Dip the Conductivity electrode

and the temperature probe into the 1413 $\mu\text{S}/\text{cm}$ buffer solution and Stir gently until the reading is stable. Press and hold CAL for 3 seconds & the display will appear CAL and flashing 1413. Then the display indicates "SA", then "End" i.e. calibration is done. Meter will return to Measurement Mode.

Note:

1. Calibrate by 12.88 mS/cm standard solution is recommended for measuring high conductivity solution.
2. Calibration error indicator icon will appear, and "Err" instead of "SA", if calibration fails.
3. If the reading is not 0 $\mu\text{S}/\text{cm}$ while the cell is in the air and not dipped into any solution, calibrate it in the air to make reading becomes 0 $\mu\text{S}/\text{cm}$.
4. The other calibration points are 0, 84 $\mu\text{S}/\text{cm}$, 1413 $\mu\text{S}/\text{cm}$, 12.88 mS/cm and 80.0 mS/cm.

pH / ORP Measurement:

Press **MODE** to choose pH / ORP mode. After calibration, rinse the pH / ORP electrode with clean water and wipe it dry. Dip the electrode and the temperature probe into the sample solution which is going to be measured. Stir gently and wait until a stable reading can be obtained.

Conductivity / TDS / Salt Measurement:

Press **MODE** to choose respective modes. After calibration, rinse the Conductivity electrode with clean water and wipe it dry. Dip the electrode and the temperature probe into the sample solution which is going to be measured. Stir gently and wait until a stable reading can be obtained.

Note:

- 1.The display will appear “----” when it is over measuring range.
- 2.The unit will auto-range to $\mu\text{S}/\text{cm}$ or mS/cm , or ppm or ppt.
- 3.Don't touch or wipe the surface of the inner black plate of the Sensor
- 4.After measurement, rinse the electrode with clean water. Replace the soaking bottle. The soaking bottle should be always filled with soaking solution

MAX/MIN mode:

Press and hold **MAX/MIN** button until the display appears flashing MAX and MIN icons to enter MAX/MIN. Press **MAX/MIN** lightly to browse MAX and MIN value during this mode. To exit this mode, press and hold **MAX/MIN** button again until the flashing MAX and MIN icons disappear and return to measuring mode.

Store and Recall mode:

In measuring mode, press **STO** to store the current reading. The Store icon and

the ordinal of this record will appear on the display.

Press and hold **RCL** for 3 sec. to enter Recall mode. In this mode, use ▲ or ▼ to browse records. Press and hold **STO** to exit this mode and return to measuring mode.

In Recall mode, press ▲▼ together for 3 sec. to clean all the records in the memory.

Advanced Setting:

In pH or TDS measuring mode, press ▲▼ together for 3 sec. will enter advanced setting.

pH Mode

Press **STO** to set pH calibration type and use ▲▼ to choose “USA” or “NIST”. Then press **MODE** to confirm and return to measuring mode.

Conductivity Mode

Press **STO** to the ratio between Conductivity and TDS.

Use ▲▼ to adjust ratio (Range 0.5 to 1.0)

Then press **MODE** to confirm and return to measuring mode.

Note:

Press **LOCK** to turn on or off “Auto Lock” function. Use ▲▼ to choose. Then press **MODE** to confirm and return to measuring mode.

In advanced settings, press **CAL** to reset all settings to factory setting.

Connect to PC:

OS: Windows7 or Above. Connect Cable to USB Port.

Software Installation

Download the Software from - bit.ly/4rfVXQ3

Unzip the File Driver folder. Install Drivers and then install "ADB400_APP.exe"

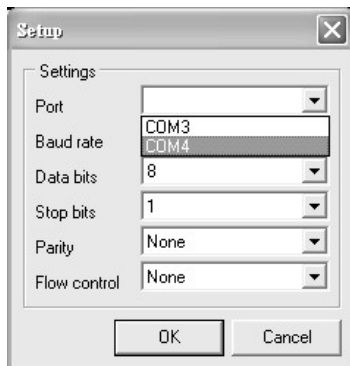
Software Operation

Double-click "ADB400_APP.exe" to start the program.

Click **Setting** button to set COM port in the Setup window.

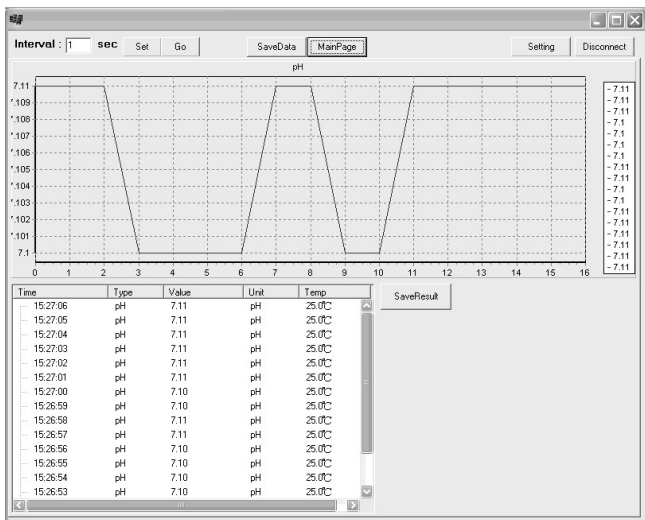


Choose the responding Port and then click **OK**.



Click the small graphs of each mode in the main window can enter a big window with detail reading information. Click **MainPage** to back to the main window.

In each big window, click **SaveResult** will export the readings to .txt file.



Click **SaveData** and then press and hold **RCL** to enter Recall mode.

Press **MODE** to export all the records to the program.

The records can also be saved as a .txt file by clicking **Save Result**

Note:

Please click **Disconnect** or close the program before turn off power or remove the USB cable.

WARRANTY CARD

Customer Details:

Name: _____

Address: _____

Email Id: _____

Contact No: _____

Dealer Details:

Name: _____

Stamp & Signature

Product Details:

Bill No: _____ Bill Date: _____

Product Serial No: _____

Manufactured By



Rakiro Biotech Systems Pvt Ltd

www.rakiro.net