

# Instruction Manual

# CyberScan DO 1500

## Dissolved Oxygen Meter



**EUTECH**  
**INSTRUMENTS**

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68X292336  
Rev. 1 01/04



**ISO 9001**  
CERTIFIED

## **PREFACE**

Thank you for selecting the Eutech Instruments CyberScan DO 1500 bench meter.

The instruction manual serves to explain the use of the CyberScan DO 1500 bench meter as a step-by-step operational guide to help you familiarise with the meter's features and functions. It is structured sequentially with illustration of diagrams that explains the various functions and setup menus available.

This manual is written to cover as many anticipated applications and uses of the CyberScan DO 1500 bench meter as possible. If there are doubts in the use of the meter, please do not hesitate to contact the nearest Eutech Instruments' Authorised Distributors or call us at (65) 6778-6876 for Eutech Instruments' Customer Service Dept. for assistance.

Kindly remember to complete the warranty card and mail it back to your Authorised Distributors or Eutech Instruments Pte Ltd.

Eutech Instruments reserve the rights to change, make improvement and modify specifications without prior notice and cannot accept any responsibility for damage or malfunction to the instrument caused by improper use.

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## 1. INTRODUCTION

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Thank you for selecting a Eutech Instruments CyberScan Dissolved Oxygen bench-top meter. This instruction manual describes the operation of the meter. The state-of-art meter that you have purchased is easy to operate and will guide you through the various functions by displaying easy to understand prompts.

This meter is designed to provide all the information necessary to guide the user through the process of measuring dissolved oxygen with a series of prompts on the screen.

The CyberScan DO 1500 provides microprocessor precision in a compact benchtop design that's easy to use. Seven function keys control all procedures.

It all adds up to rapid, completely automatic, intuitive operation.



You will find this symbol appearing in this manual; it indicates useful tips that ease your meter operation.

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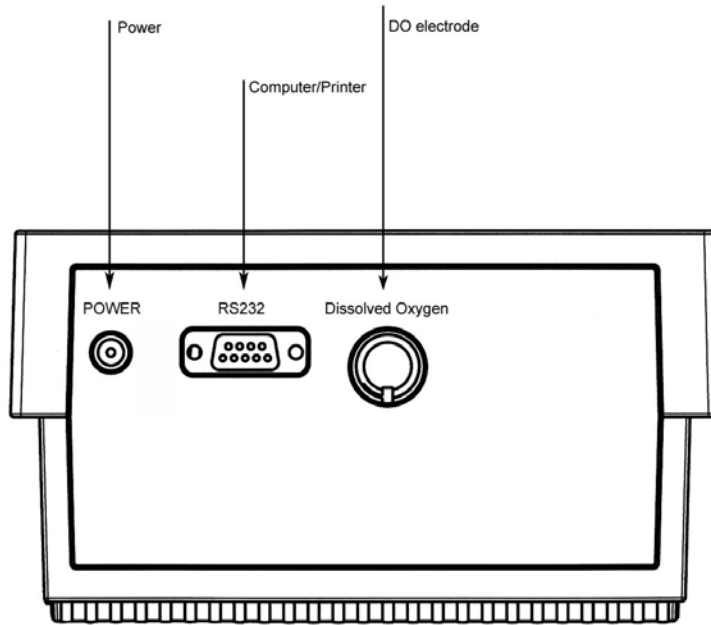
## 2. GETTING STARTED

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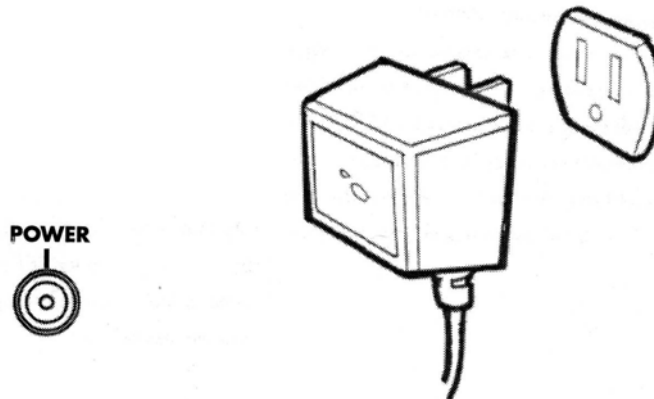
### 2.1. Connectors

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1. Review the layout and arrangement of the rear connector panel.



2. Connect the power adapter's output power jack to the meter's rear panel DC input power socket and plug in the adapter to a power source.



Make sure the power adapter centre is negative.

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### 3. USING THE METER

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#### 3.1. The Electrode

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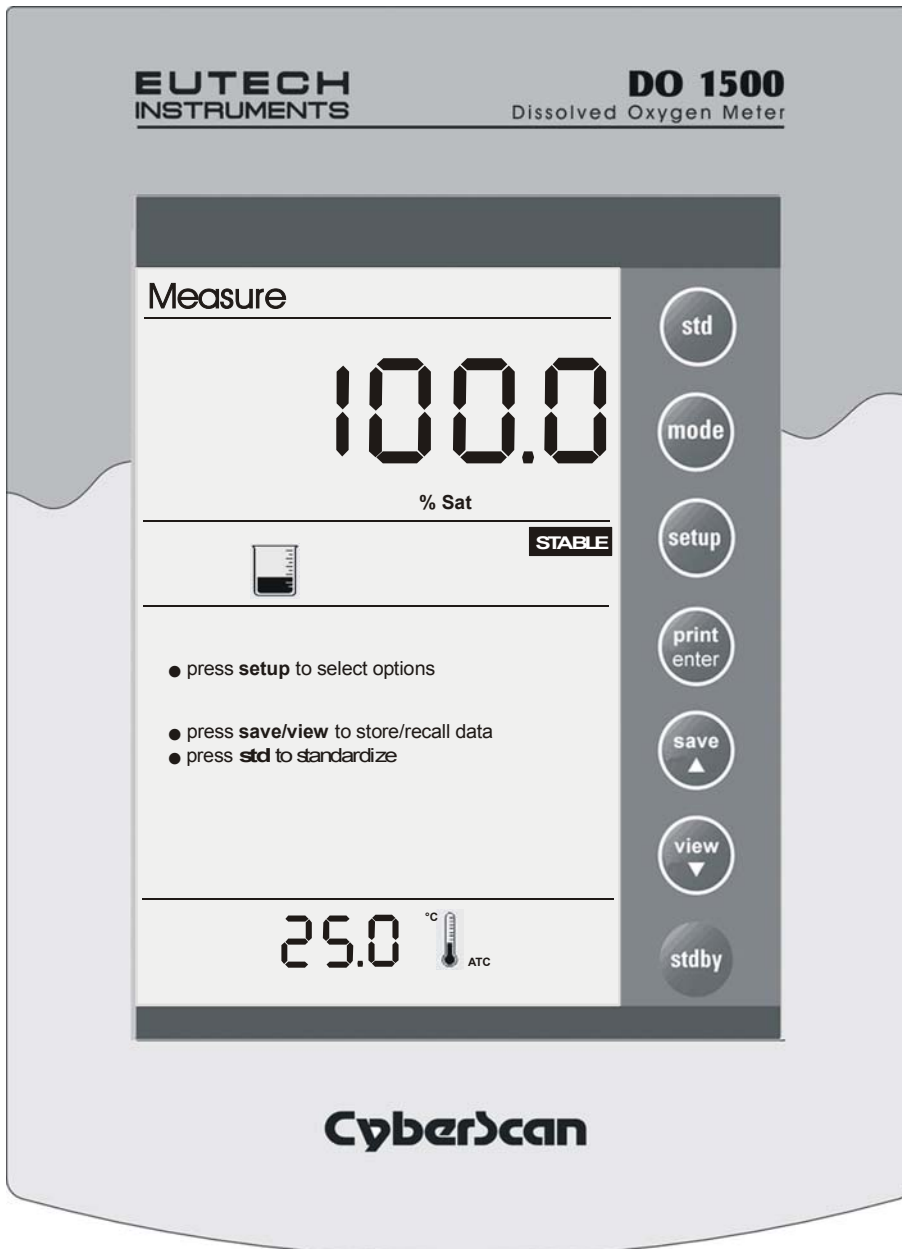
This meter comes equipped with a self-stirring BOD probe, model 5010, from YSI. Read the accompanying manual prior to installation and operation. The 5010 probe need be plugged into the meter only, as the meter supplies both its operation power and stirring power.

1. Prepare the electrode as described in its instruction manual.
2. Plug the electrode into the DO jack on the back meter panel.
3. Place the probe into a BOD bottle filled with at least 1 inch of water. Allow the probe to warm up for 30 minutes before calibration or taking a measurement.



### 3.2. Display/ Keys

Overview of the meter screen display and function key layout.



Meter Display: CyberScan DO 1500

Press **std** key to initiate standardisation from measure mode. Or press **std** key at the 'Standardize' mode to exit to Measurement mode without confirming the calibration OR to exit from Setup mode.

Press **mode** to select operation mode to be mg/L or %sat.

Press **setup** key to access setup for configuration of meter settings.

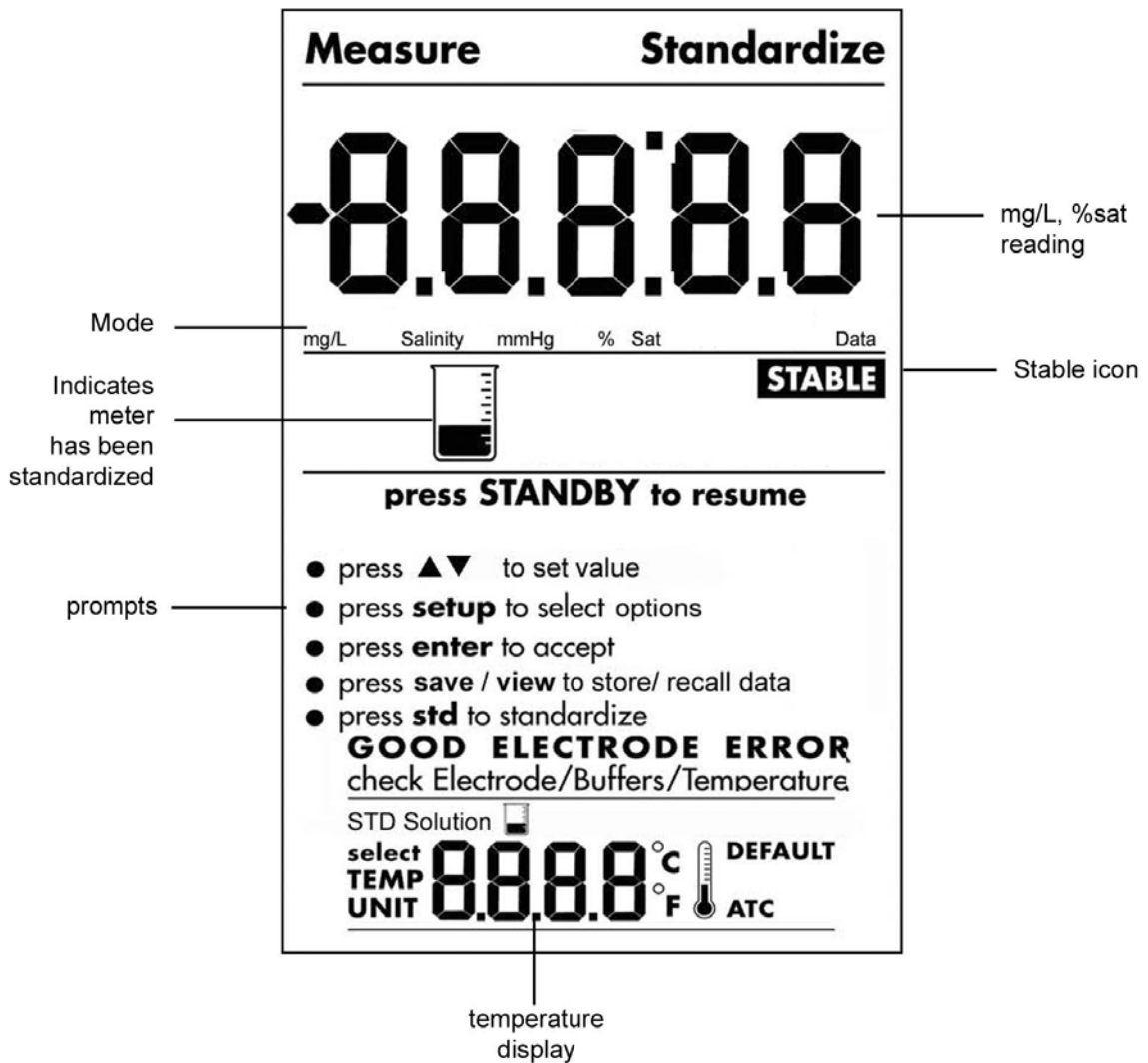
Press **print/ enter** key to print/ confirm selection or change being made.

Press **save/▲** or **view/▼** to adjust setup option values OR save the data into memory and view those data.

Press **stdby** key to start up or put the meter in standby mode.

### 3.3. Screen Display

Familiarise yourself with the layout of the digital screen display.



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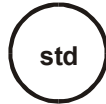
## 4. SETUP PROCEDURE CHECK

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### 4.1. CyberScan DO 1500 Setup Pages

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The **setup** button brings you to the setup menus of the various parameters. Press **setup** while in measurement to access to the setup menus. The **▲/save** or **▼/view** keys allow you to change several operating parameters. While in the setup mode you may:



Press the **std** key at any time to return to the Measure screen without making a change or selection in the setup mode. Note new change will not be effected as no confirmation is done.



Press the **enter** key to accept a change or selection of desired option in the displayed parameter. The meter will then return to the next setup



Press the **▲/save** or **▼/view** keys to scroll through (increment and decrement setup menu respectively) the remaining selection options available.





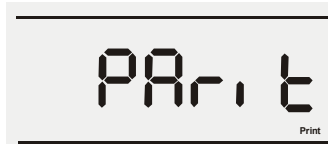
**P 1.0: View calibration data**  
 - View the last calibrated cal factor and 0% offset value if two points are calibrated.



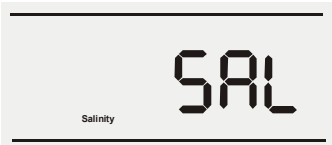
**P 8.0: Set the Baud Rate**  
 - Set baud rate as 4800, 9600, 19200 or 38400 bps.



**P 2.0: Set the pressure (425-850mmHg)**  
 - Adjust and select Pressure value.



**P 9.0: Set the Parity Bit**  
 - Set parity bit as none(0), odd(1) or even(2).



**P 3.0: Set the Salinity (0.0 - 45.0 ppt)**  
 - Adjust and Select salinity value.



**P 10.0: Set the Stop Bit**  
 - Set stop bit as one(1) or two (2).



**P 4.0: Select the %Sat Cal points (1 or 2)**  
 - Select 1 point or 2 point cal for %Sat.



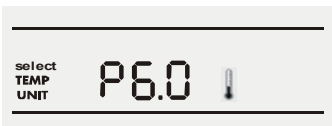
**P 11.0: Select the Print Data Option**  
 - Select to print current or stored data.



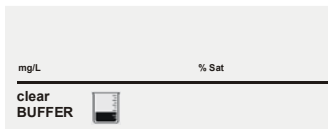
**P 5.0: Select the Auto or Manual cal options.**  
 - Set Auto calibration or Manual calibration for %Sat and mg/L.



**P 12.0: Clear the Memory**  
 - Select to clear memory.



**P 6.0: Select Temperature Unit**  
 - Select unit of measure for Temperature either in °C or °F.



**P 13.0: Clear the user calibration**  
 - Select to clear respective user calibration in the current mode.

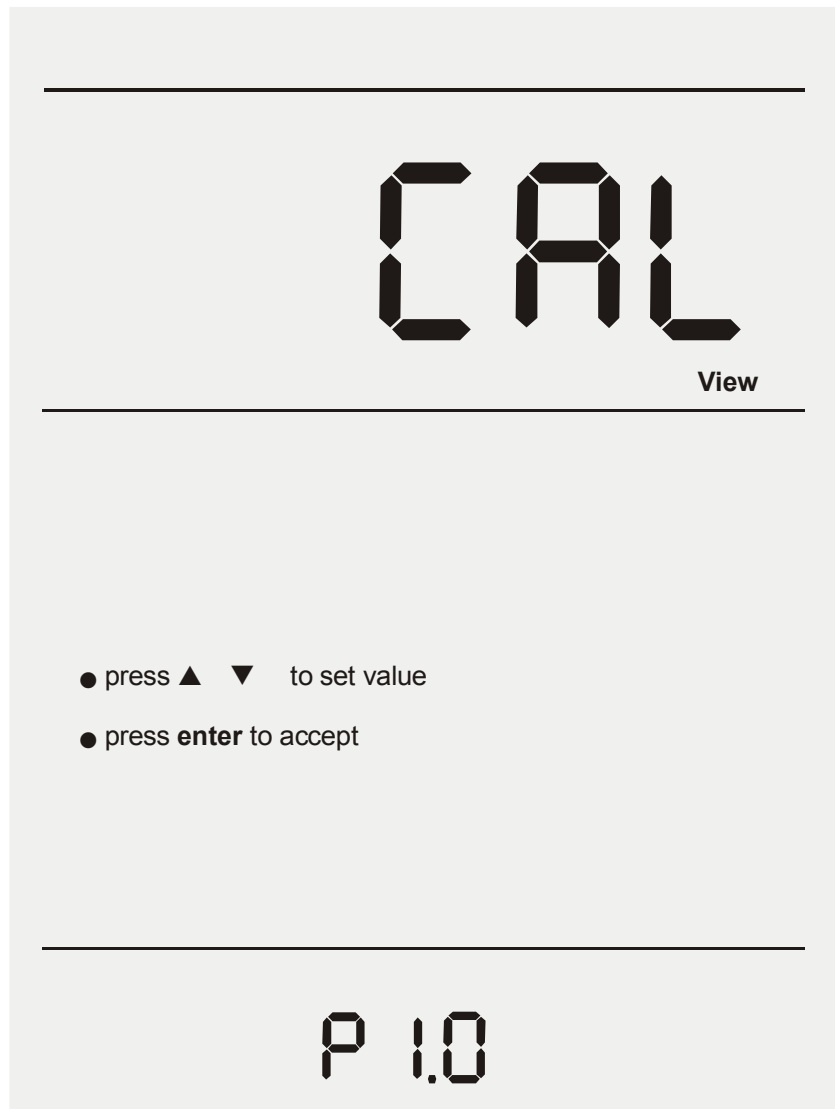


**P 7.0: Enable Stability Indicator**  
 -Set the stability indicator to be displayed on the screen. Select **On** or **OFF**.

**Overview of Setup Menus in CyberScan DO 1500**

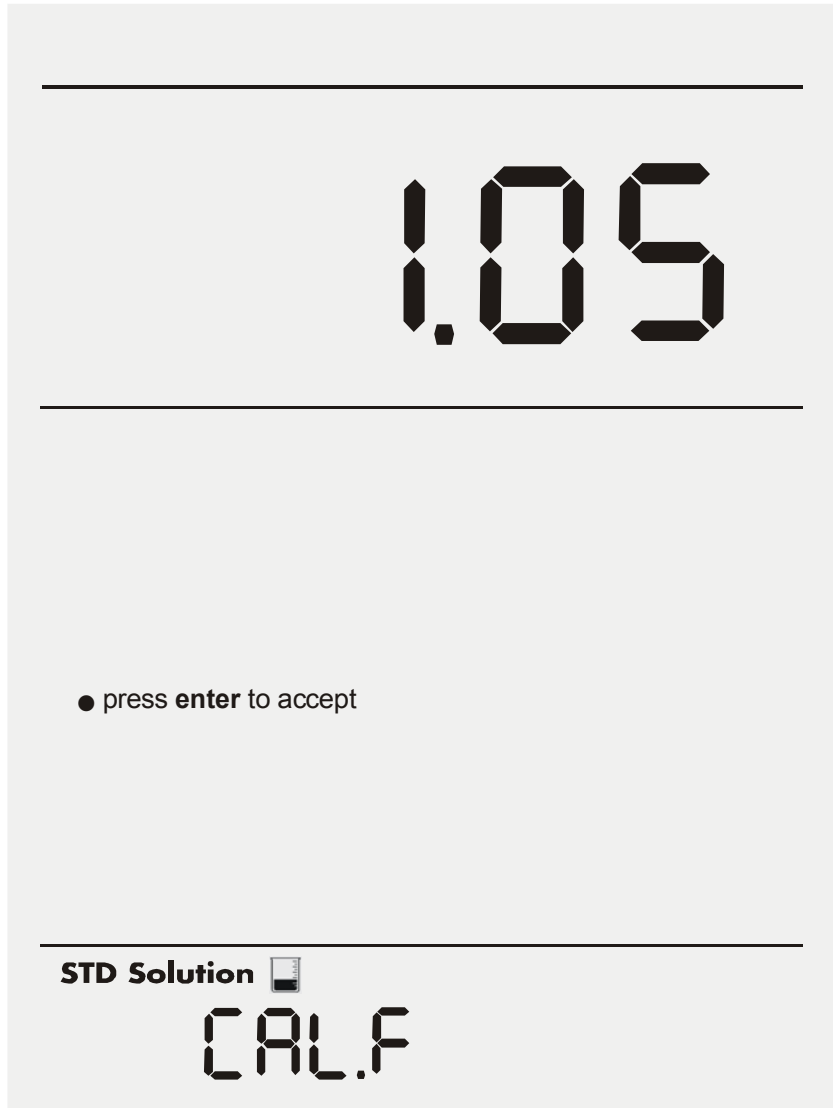
#### 4.1.1. Setup P 1.0: View the Calibration Data

This setup menu allows you to view the last calibrated Cal factor in % Sat and mg/L mode.

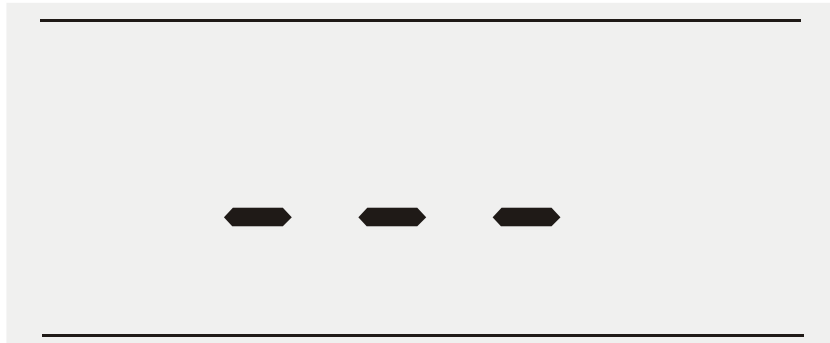


1. Access the Setup pages while in measurement mode by pressing the **setup** key.

2. Press **enter** to access *View Last calibrated Cal factor setup* page.



3. If the unit has not been standardised, a series of dashes will appear on the display rather than a number.



4. Press **enter** key to confirm selection and to go to next setup page, OR press **std** to exit from this page without confirming the change mode.



*If you access the setup page from %Sat mode and if you have calibrated one point (100% Sat) then you can view the last calibrated Cal Factor. Should you have calibrated 2 points (100% and 0%sat) then you can view last calibrated Cal Factor and 0% offset.*

*If you access the setup page from mg/L mode, and you have calibrated mg/L then you can view the last calibrated value in mg/L.*

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#### 4.1.2. Setup P 2.0: Set Pressure

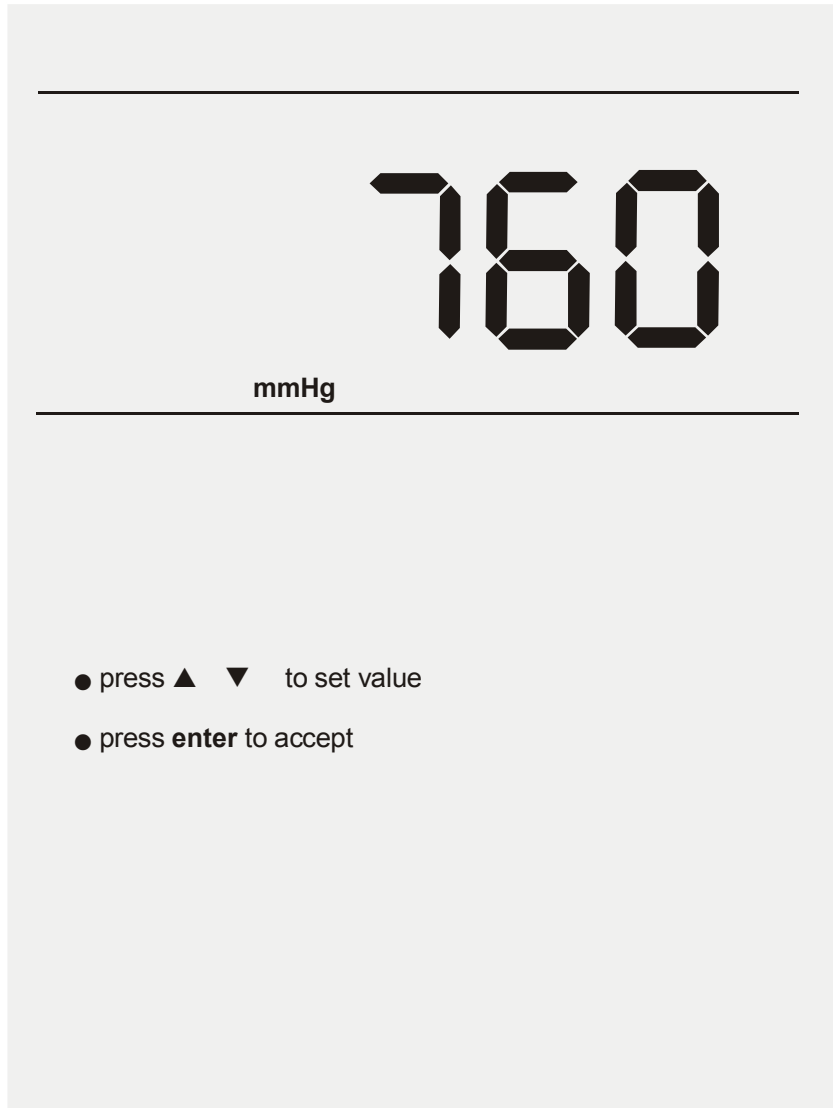
The setup option allows you to set the atmospheric pressure (mmHg) value. You are able to set the salinity value in the range of (450mmHg to 825 mmHg).



#### To set Pressure

1. Access the Setup pages while in measurement mode by pressing the **setup** key.
2. Press ▲ or ▼ to access *Set the Pressure* setup page.

3. Press **enter** to go to the 'Pressure adjustment' setup page as shown below.
4. Adjust the pressure value using the ▲ and ▼ keys.
5. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



*You can escape setup mode at any time by pressing **std**. Pressing **enter** will always return the display to the measurement mode after accepting the setup option.*

#### 4.1.3. Setup P3.0: Set the Salinity Value

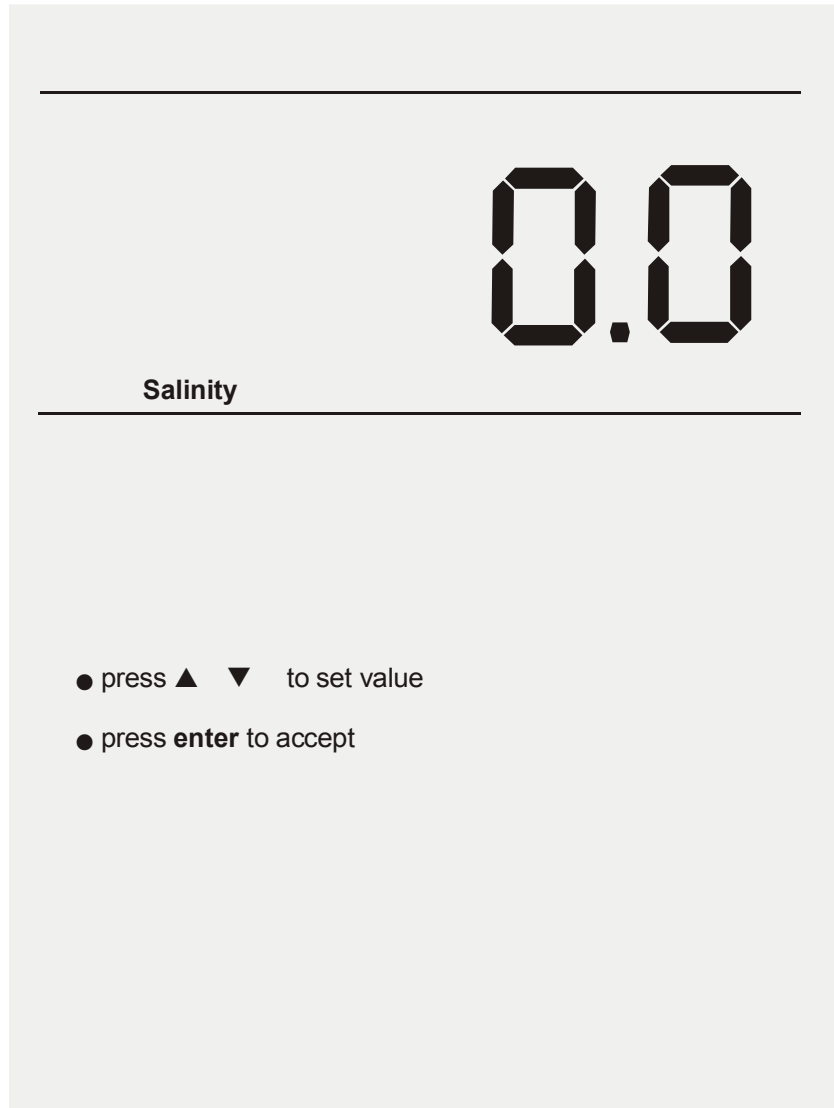
The setup option allows you to set the Salinity (as ppt) value. You are able to set the salinity value in the range of 0.0- 45.0 ppt.



#### To set Salinity

1. Access the Setup pages while in measurement mode by pressing the **setup** key.
2. Press ▲ or ▼ to access *Set the Salinity Value* setup page.

3. Press **enter** to go to the 'Salinity adjustment' setup page as shown below.
4. Adjust the salinity value using the ▲ and ▼ keys.
5. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.4. Setup P4.0: Select Number of User Cal Points for %Sat calibration

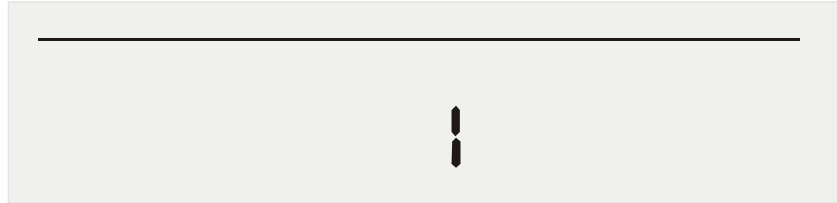
This setup option allows you to select the number of user cal points for % Sat calibration to be either 1 or 2.



#### To Select Number of User Cal Points.

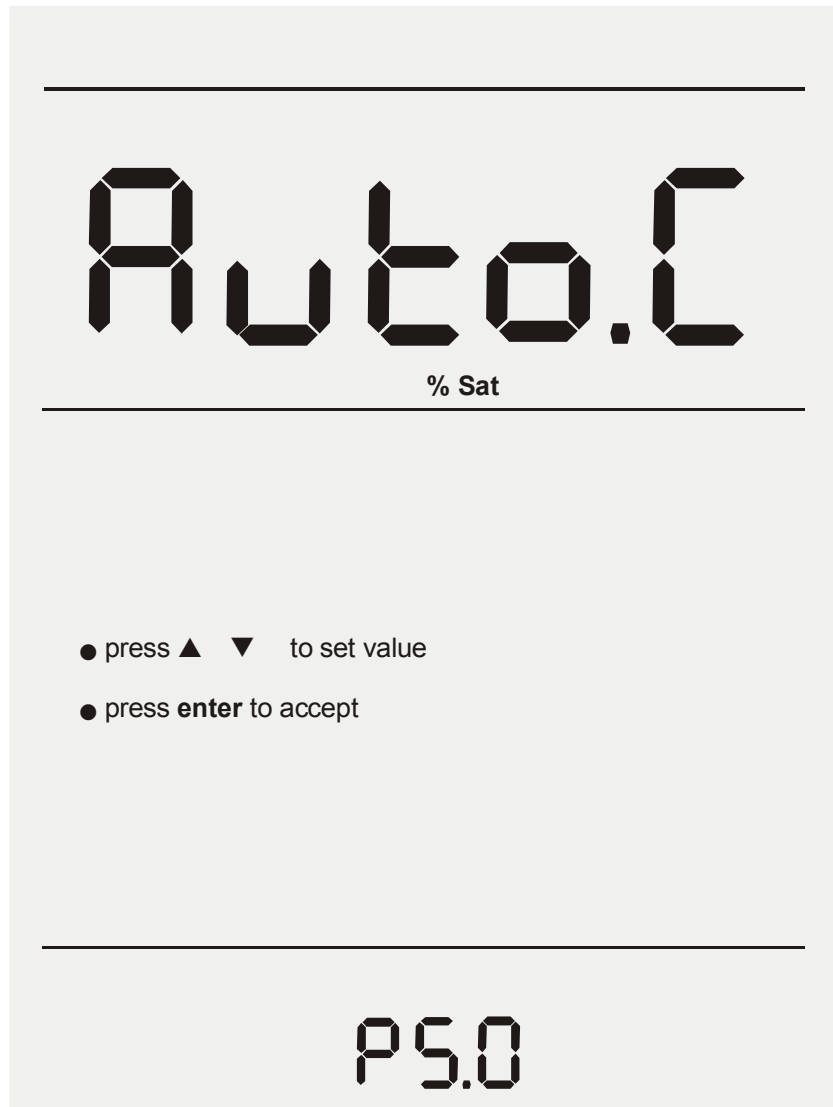
1. Access the Setup pages by pressing **setup** while in measurement mode
2. Press the ▲ or ▼ key in setup mode to access the *Select Number of User Cal Points* setup page. Press **enter** to access the setup page.

3. Press **enter** to accept the current value or press ▲ or ▼ to adjust and set the value to be **1** or **2**.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.5. Setup P5.0: Enable/ Disable Auto Cal

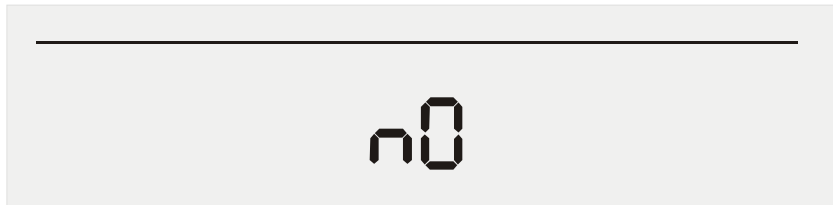
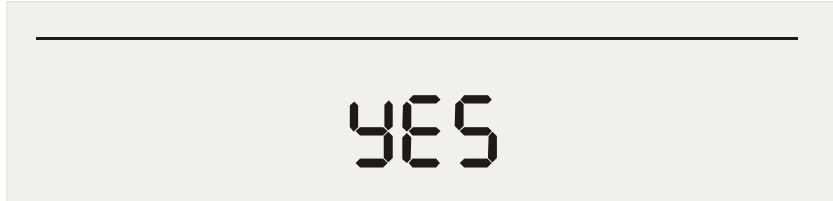
This setup option allows you to enable the auto calibration for % Sat and mg/L modes.



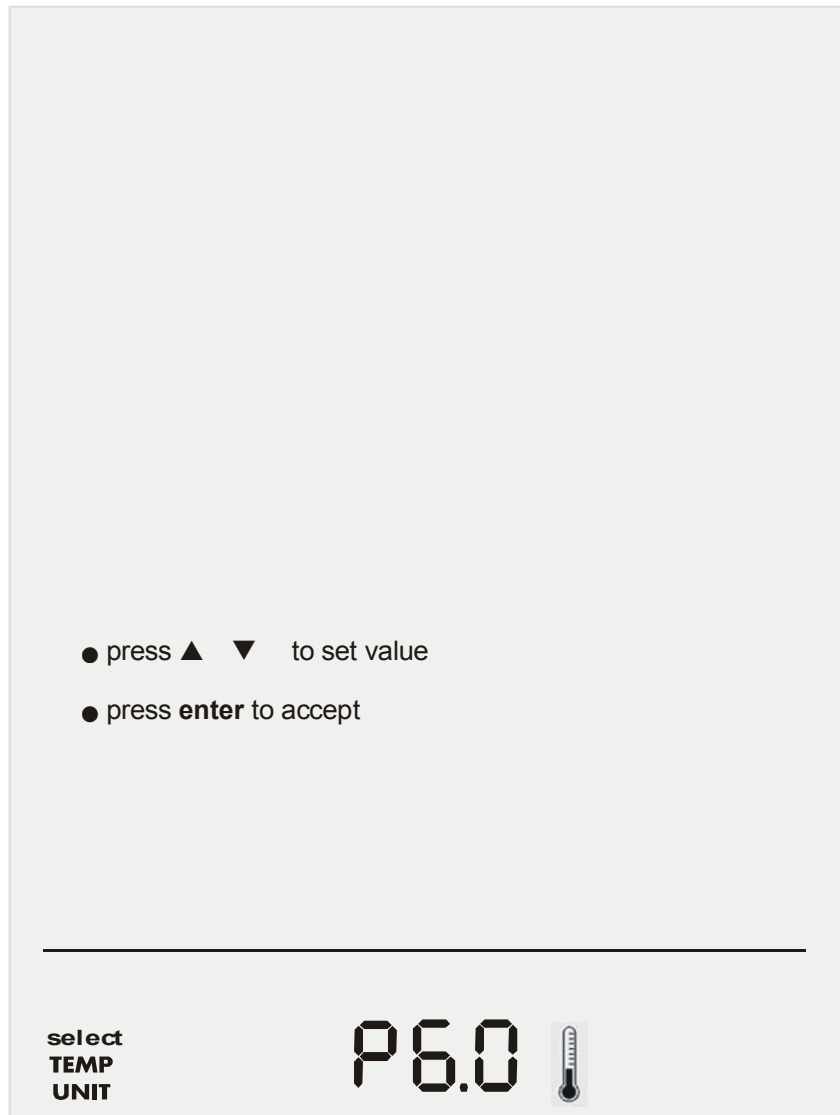
#### To Enable/ Disable Auto Cal

1. Access the Setup pages by pressing **setup** while in measurement mode
2. Press the ▲ or ▼ key in setup mode to access the *Auto Cal* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ to select **YES** or **NO**.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.6. Setup P6.0: Select the Temperature Unit



This setup option allows you to select unit of measure for Temperature either in °C or °F.

#### To Select Temperature Unit

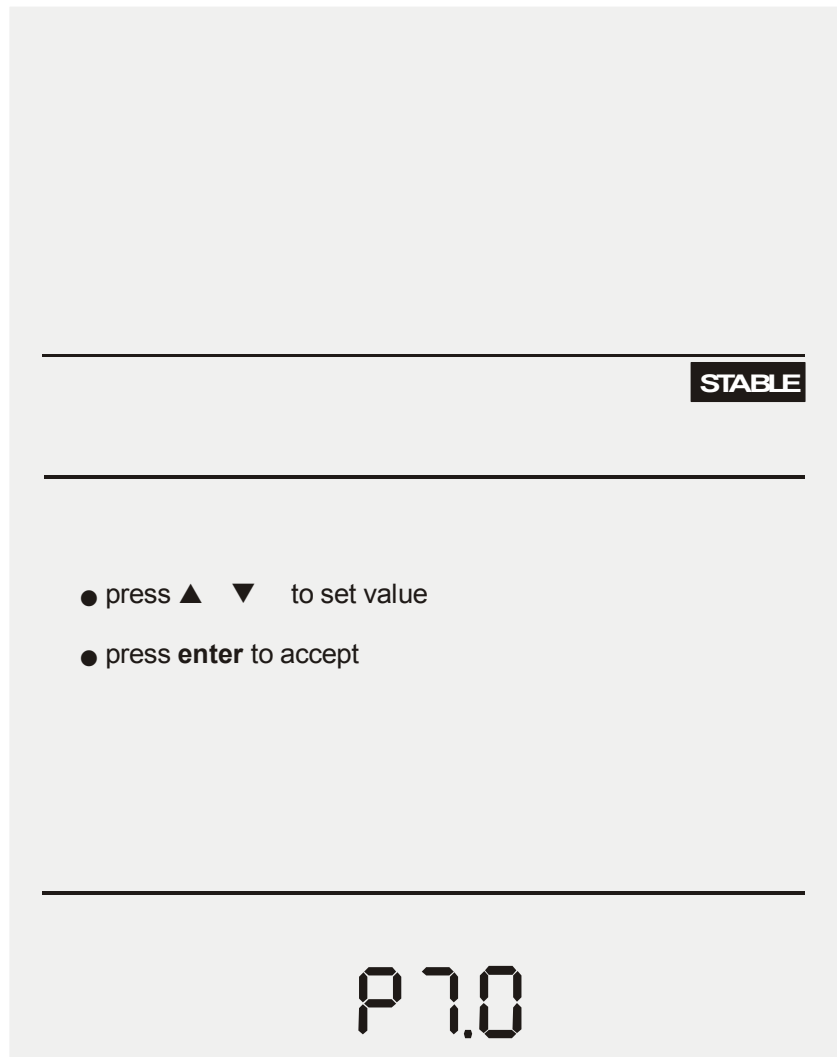
1. Access the Setup pages menu from the measurement mode by pressing the **setup** key.
2. Press the ▲ or ▼ key in setup mode to access the *Select Temperature Unit* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ key to select °C or °F.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.7. Setup P7.0: Enable/ Disable Stability Indicator

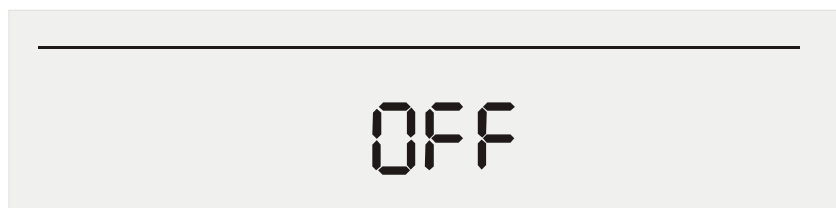
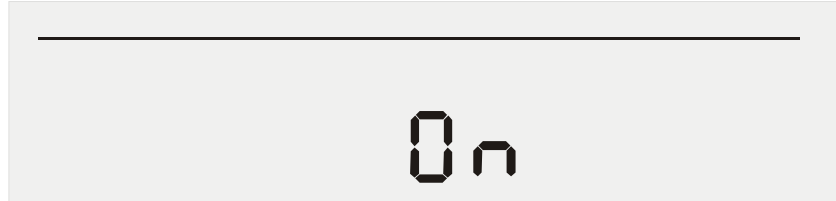
This setup option allows you to set the stability indicator to be displayed on the screen whenever reading has stabilised, thus minimises guesswork.



#### To Set Stability Indicator

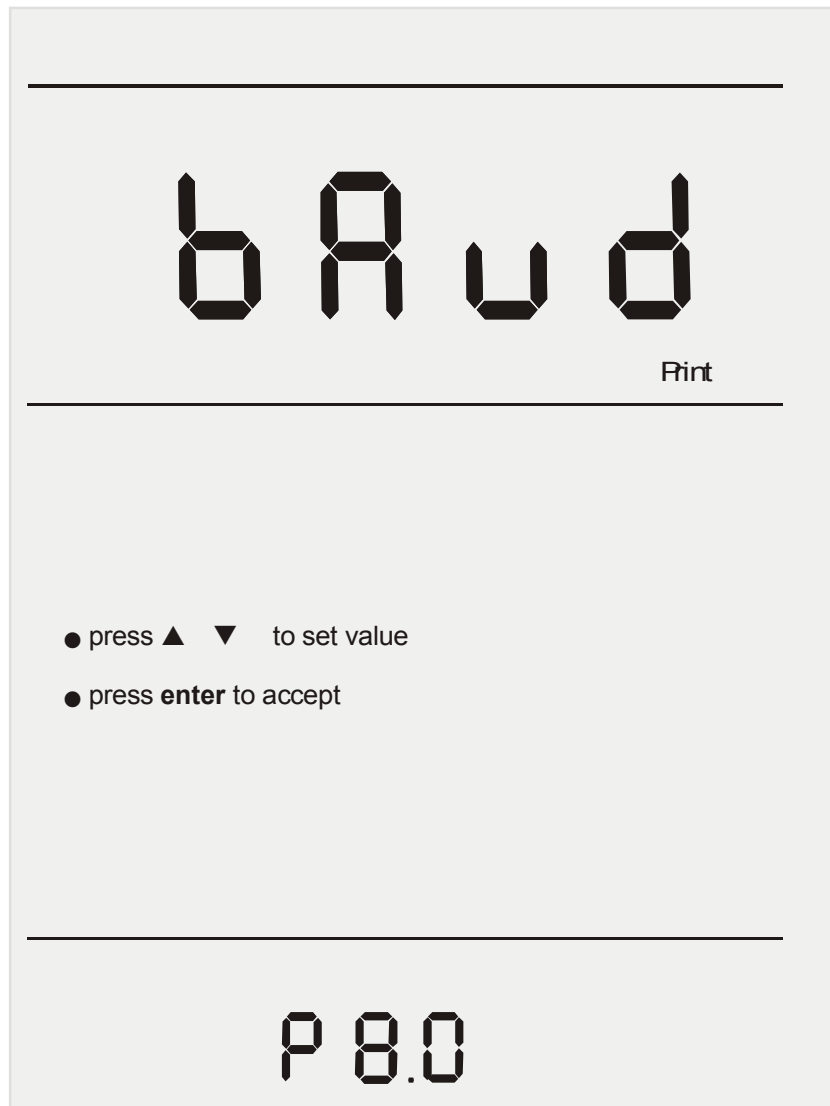
1. Access the Setup pages menu from the measurement mode by pressing the **setup** key.
2. Press the **▲** or **▼** key in setup mode to access the *Set Stability Indicator* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ key to select **ON** or **OFF**.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.8. Setup P8.0: Baud Rate

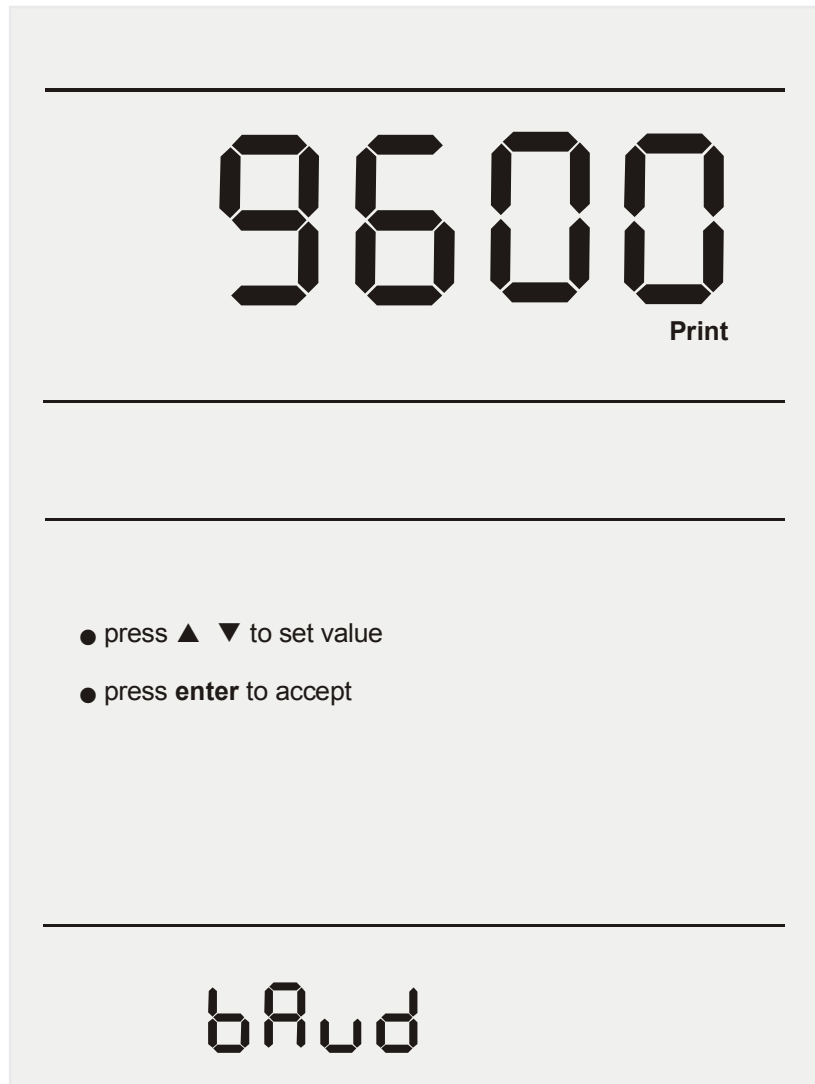
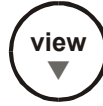
This setup option allows you to set the baud rate (bits per second) of the communication protocol interface.



#### To Set Baud Rate

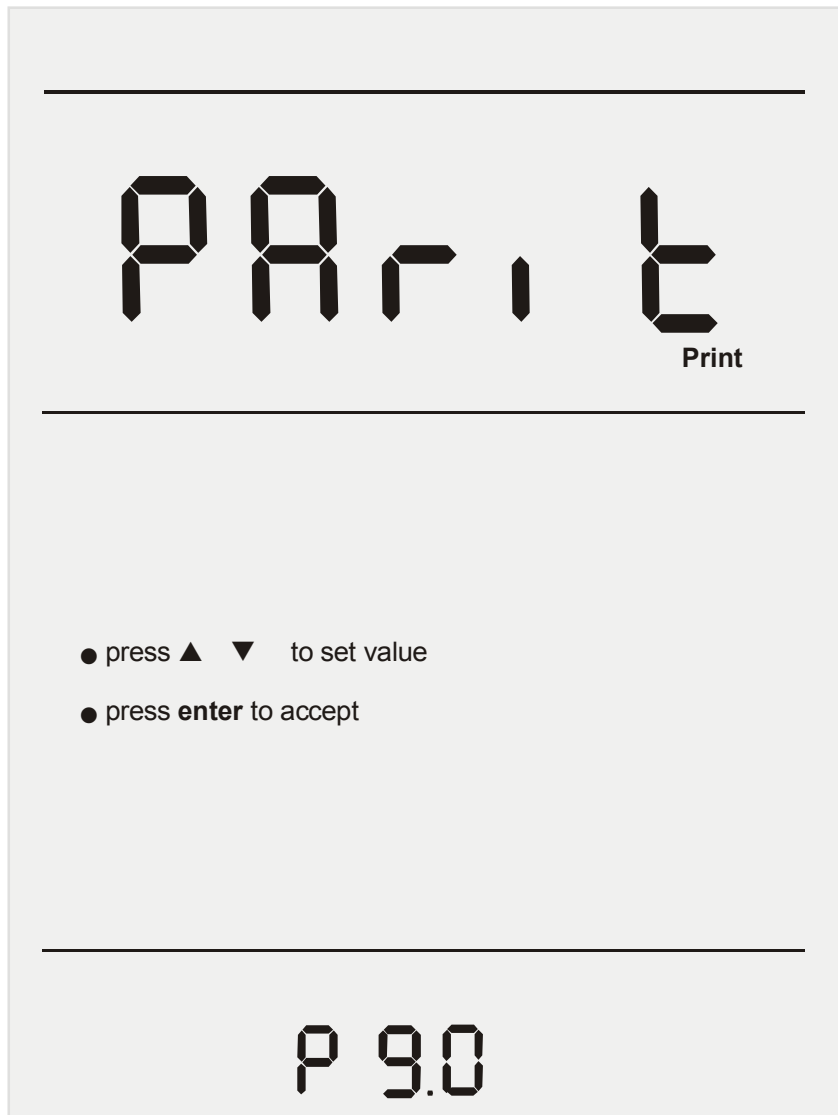
1. Access the Setup pages menu from the measurement mode by pressing the **setup** key.
2. Press the ▲ or ▼ key in setup mode to access the *Set Baud Rate* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ key to toggle between **4800**, **9600**, **19200** or **38400**.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.9. Setup P9.0: Parity Bit

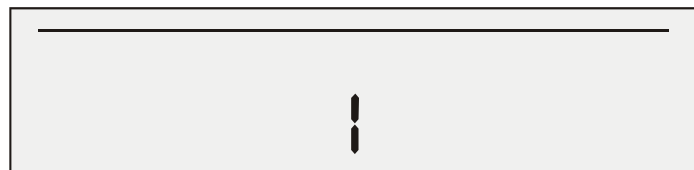
This setup option allows you to set the parity bit of the communication protocol interface.



#### To Set Parity Bit

1. Access the Setup pages menu from the measurement mode by pressing the **setup** key.
2. Press the ▲ or ▼ key in setup mode to access the *Set Parity Bit* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ key to toggle between toggle between **0** (none), **1** (odd) or **2** (even).
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.10. Setup P10.0: Stop Bit

This setup option allows you to set the stop bit of the communication protocol interface.



#### To Set Stop Bit

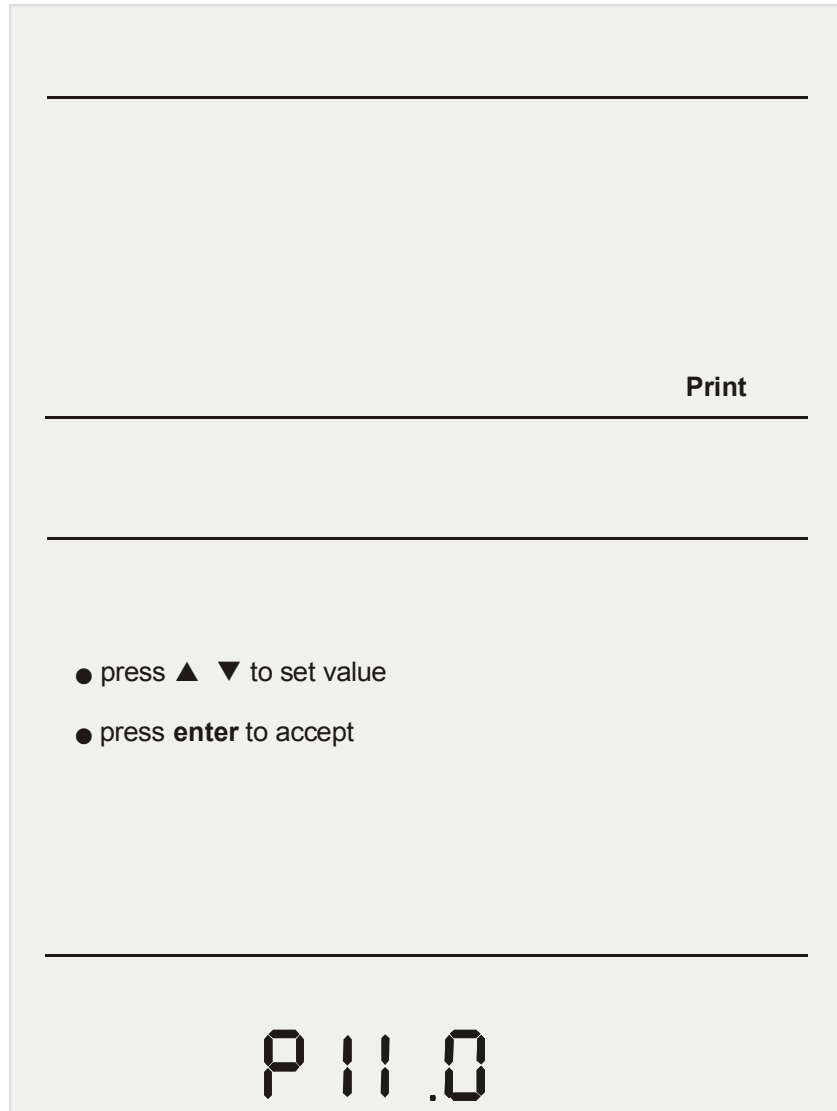
1. Access the Setup pages menu from the measurement mode by pressing the **setup** key.
2. Press the ▲ or ▼ key in setup mode to access the *Set Stop Bit* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ key to toggle between 1 or 2.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.11. Setup P11.0: Print Data

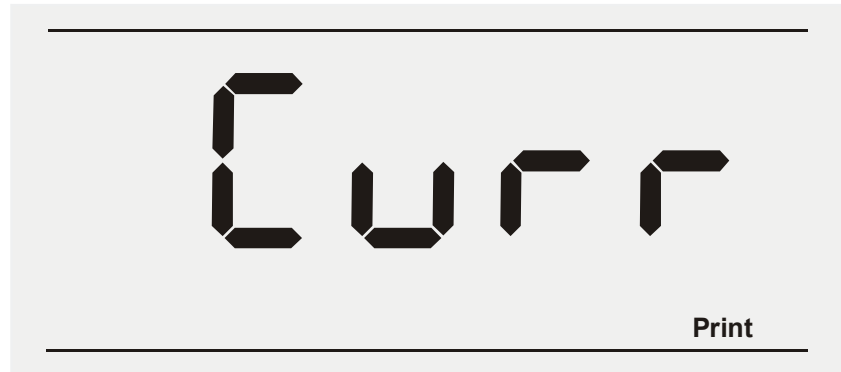
This setup option allows you to print current displayed data or data stored in the meter's memory to a computer or printer via its RS232 interface port. Note all the communication protocol for both the meter and computer/printer must match before successful printing can be performed.



#### To Select Print Data Option (Current / Memory)

1. Access the Setup pages menu from the measurement mode by pressing the **setup** key.
2. Press the ▲ or ▼ key in setup mode to access the *Print Data* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ key to toggle between **Curr** or **Store**.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.



#### 4.1.12. P12.0: Clear Stored Data

This setup option allows you to clear all stored data sets (from previous measurements) in the meter's memory for new data to be stored. Note old data sets will be overwritten by any new data sets in the event when the stored locations have exceeded.



#### To Clear Stored Data

1. Access the Setup pages menu from the measurement mode by pressing the **setup** key.
2. Press the ▲ or ▼ key in setup mode to access the *Clear Stored Data* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ key to toggle between **YES** or **NO**.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.

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A digital display showing the word "YES" in a seven-segment font. The display is centered within a light gray rectangular frame that has a horizontal line at the top.

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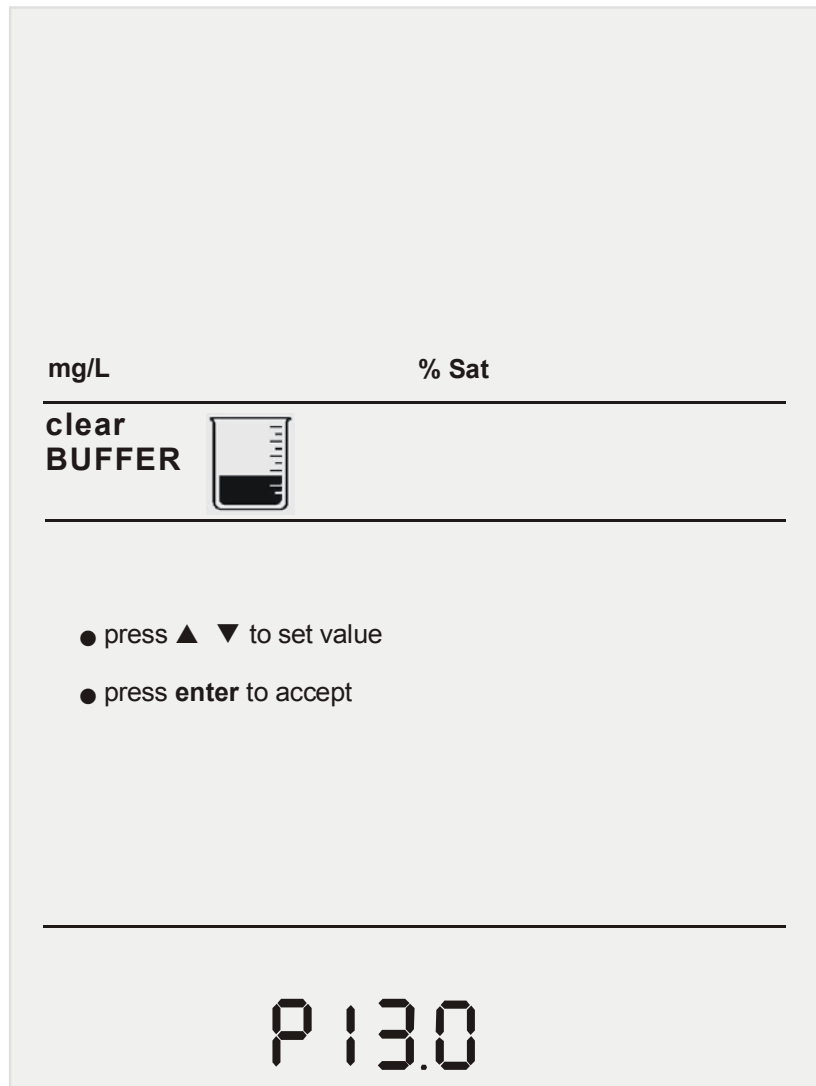
A digital display showing the word "NO" in a seven-segment font. The display is centered within a light gray rectangular frame that has a horizontal line at the top.

*When you press enter key to confirm the clearing of memory, meter displays blinking "clear" wait until meter display stop blinking to proceed with next button press.*

---

#### 4.1.13. P13.0: Clear Buffer Values

This setup option allows you to clear the standardised buffer values.



#### To Clear Buffer Values

1. Access the Setup pages menu from the measurement mode by pressing the **setup** key.
2. Press the **▲** or **▼** key in setup mode to access the *Clear Buffer Values* setup page. Press **enter** to access the setup page.

3. Press ▲ or ▼ key to toggle between **YES** or **NO**.
4. Press **enter** key to confirm selection and to go to next setup page OR press **std** to exit from this page without confirming the change mode.

---

A rectangular LCD display showing the word "YES" in a large, black, seven-segment digital font. A horizontal line is positioned above the text.

---

A rectangular LCD display showing the word "NO" in a large, black, seven-segment digital font. A horizontal line is positioned above the text.

*If you are doing user reset from %sat setup page, it will clear both % sat and mg/L calibration.*

*If you are doing user reset from mg/L setup page, meter will clear mg/L calibration only.*

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## 5. USER CALIBRATION

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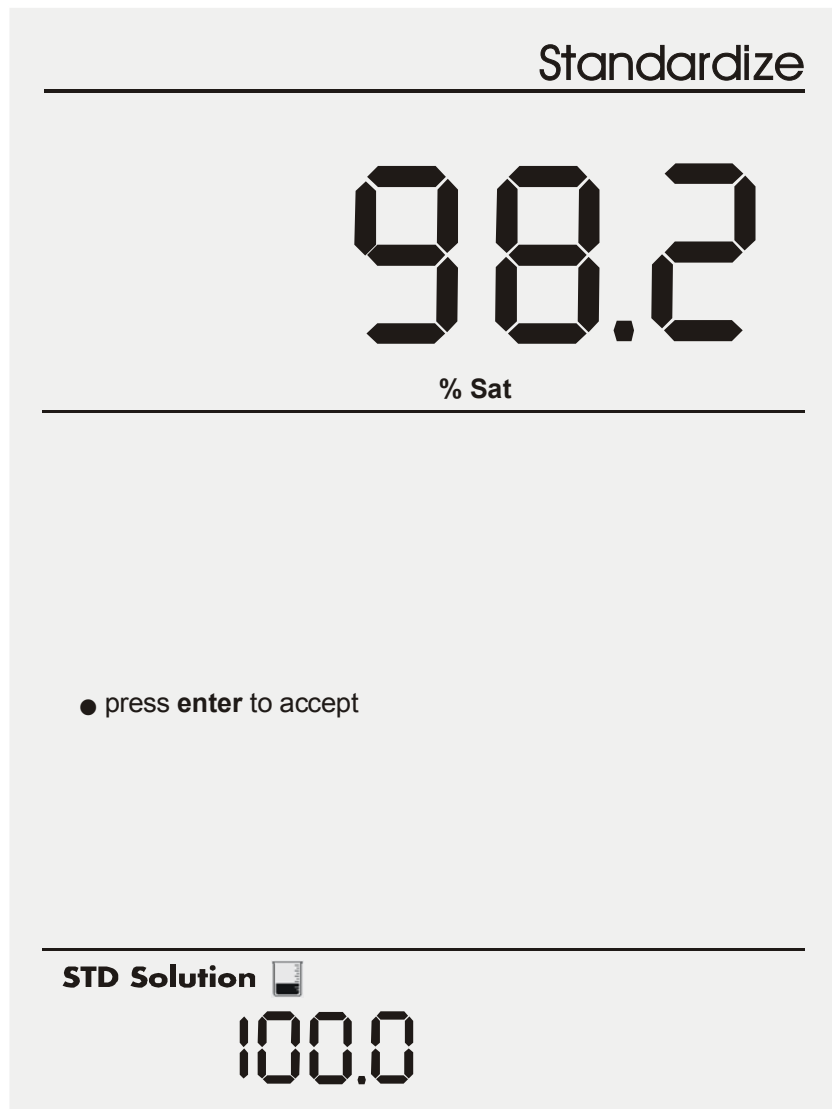
### 5.1. %Sat – One Point calibration (Auto)

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User can do the 100%Sat calibration. The pressure that has been set in the setup will be applied only during the calibration.

Accepted window for 100% sat= 50% - 200%Sat

1. Press **std** to enter to 'Standardize' screen. Upper display shows the present measured value, while lower display shows the pressure compensated 100% sat.
2. Hold probe in air.
3. Wait for the upper display value to stabilise. Press **enter** key to confirm calibration. Meter blinks the cal values for few seconds before exiting to measure screen.



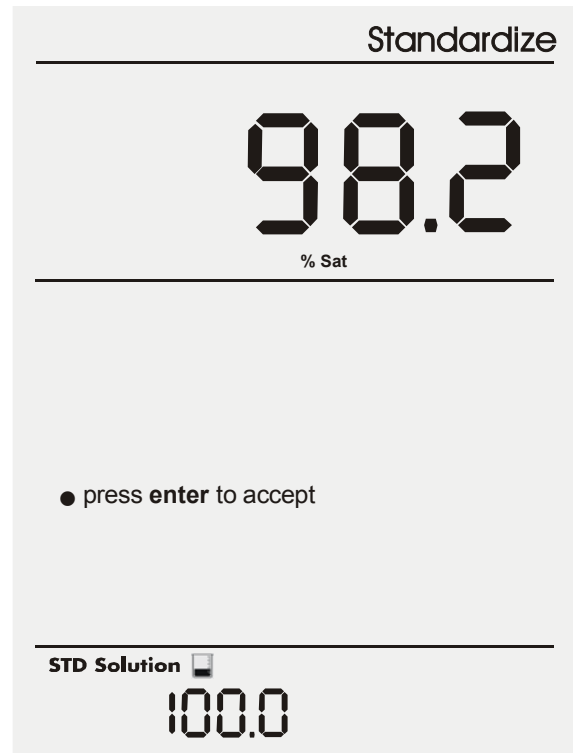
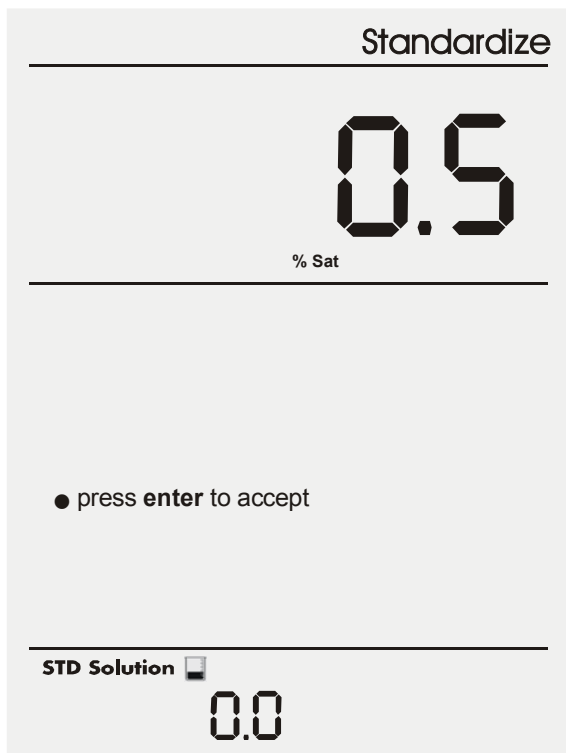
## 5.2. %Sat – Two Point calibration (Auto)

User must do the 0.0%Sat cal first. This point will be considered as offset. After successful 0%Sat calibration, meter will prompt for the 100% Sat calibration. User must do the two points. Otherwise meter displays the error message. Press **enter** if meter displays the error message.

Accepted window for 0% Sat= below 5% Sat.

Accepted window for 100% Sat= 50% - 200%Sat

1. Press **std** to enter to 'Standardize' screen. Upper display shows the present measured value, while lower display shows the 0.0%Sat.
2. Dip the DO electrode into 0%Sat solution.
3. Wait for the upper display value to stabilise. Press **enter** key to confirm calibration. Meter blinks the cal values for few seconds and prompts for the 100%Sat calibration.
4. Upper display shows the present %Sat value and lower display shows the pressure compensated 100%Sat value.
5. Remove the probe from the zero solution and wash it well in clean water. Remove excess water from the probe using a soft towel.
6. Hold the DO probe in air.
7. After the upper display reading stabilised, press **enter** to confirm the reading. Meter blinks the calibrated value for few seconds before it exit to measurement mode.



### 5.3. %Sat – One Point calibration (Manual)

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User can calibrate to the know value.

Accepted window is 70% of the default value. Lowest value that can be calibrated is 20.0 %Sat.

1. Press **std** to enter to 'Standardize' screen. Both Upper and lower display shows the present measured value.
2. Dip the electrode into the standard solution. Wait for the upper display value is stabilised. Use ▲/ ▼ keys to adjust the lower display to the known cal value.
3. Press **enter** to confirm the reading. Meter blinks the cal values for few seconds before exit to measurement mode.

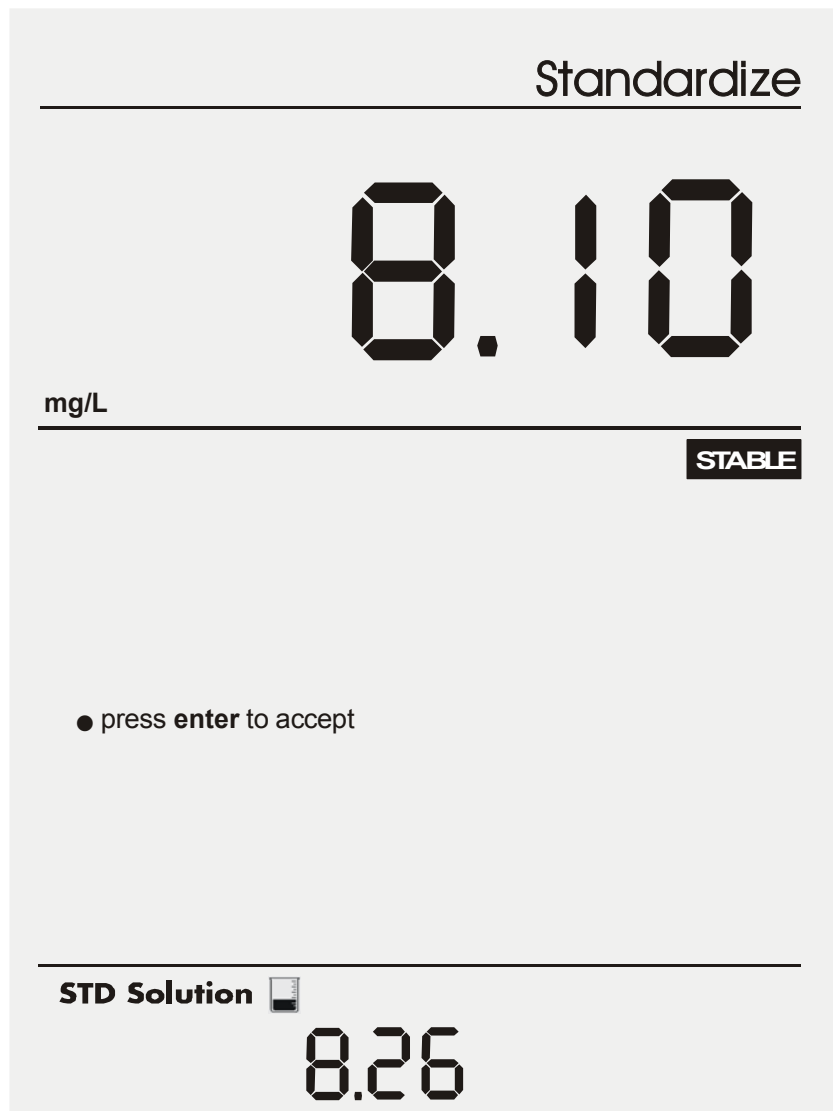


#### 5.4. mg/L– One Point calibration (Auto)

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User can do calibration in mg/L.

1. Press **std** to enter to 'Standardize' screen. Upper display shows the present measured value while lower display shows theoretical value. [Based on pressure and salinity setting]
2. User can just confirm the theoretical reading.
3. Acceptance window is 70% of the theoretical value.
4. Press **enter** key to confirm calibration. Meter blinks the cal values for few seconds before exiting to measurement mode.



### 5.5. mg/L– One Point calibration (Manual)

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User can do calibration in mg/L.

1. Press **std** to enter to 'Standardize' screen. Both upper and lower display shows the present measured value.
2. Use the ▲/ ▼ keys to adjust the known standard value.
3. Window provided for the adjustment is 70% of the present reading. Lowest value that can be set is 2.00mg/L; highest value is 60.00 mg/L.
4. After set the value, press **enter** key to confirm calibration. Meter blinks the cal values for few seconds before exit to measurement mode.

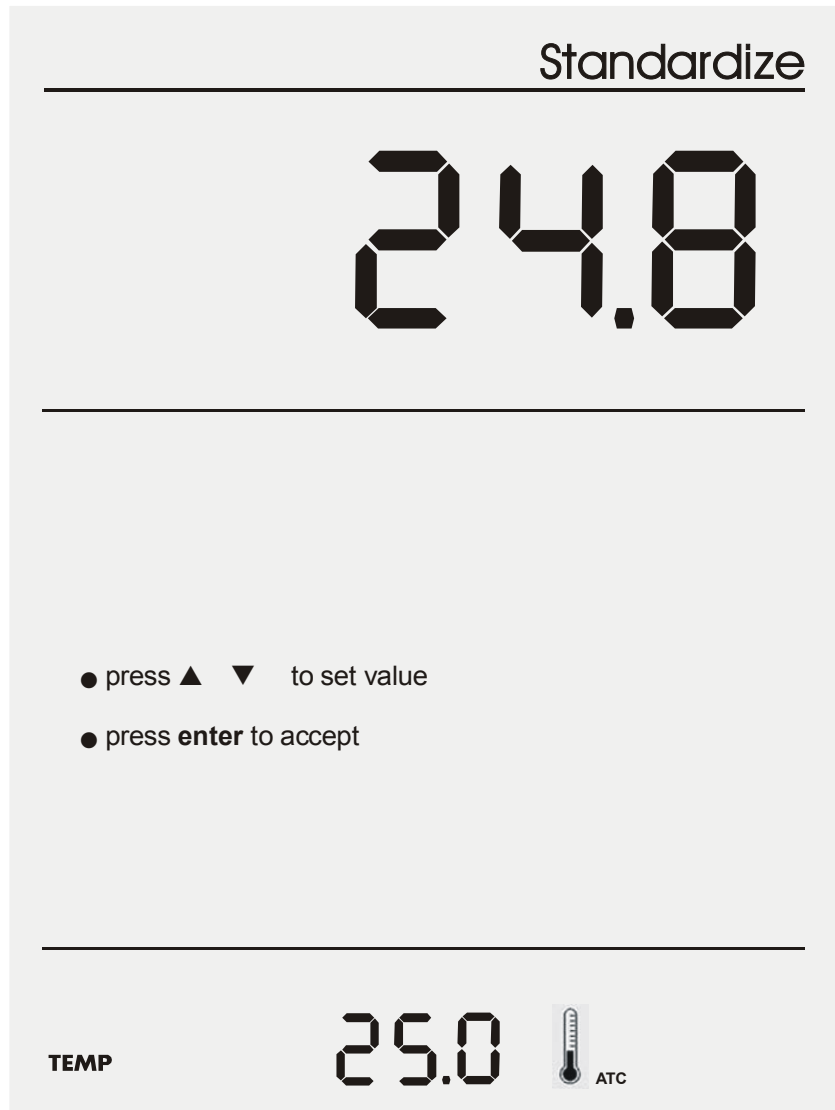


## 5.6. ATC Calibration

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User can adjust the ATC temperature offset.

1. From the measurement mode, press **std** and followed by **mode** key to go into the temperature calibration mode.
2. Use the ▲/ ▼ keys to adjust the offset.
3. After set the value, press **enter** to confirm calibration.



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## 6. MEMORY

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### 6.1. Store Value into Memory

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In any measurement mode, press **▲/save** key to store the displayed reading into the meter's non-volatile memory. A memory location is shown momentarily and the meter returns to measurement mode.

### 6.2. Recall Value from Memory

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In any measurement mode, pressing **▼/view** key retrieves data from the meter's memory on the Last-In-First-Out (LIFO) basis. The screen displays the last stored memory location. To view stored data in that particular memory location, press **enter** key. If you wish to view data at specific memory location, use **▲/save** or **▼/view** keys to scroll and select. Press **enter** key to view data contents.



Pressing **enter** key repeatedly allows you to view data contents until a series of dashes appear on the display which indicates an empty data location.



Pressing **std** key allows you to return to the measurement mode in any sequence of memory recall.

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## 7. PRINT DATA

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### 7.1. Printing Data

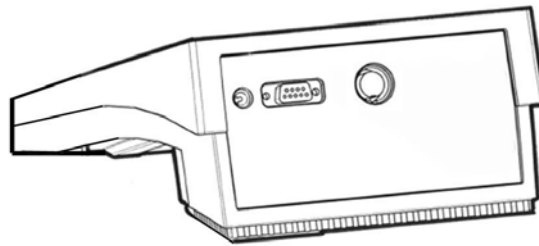
---

**print**  
enter

**std**

Depending on the print option in the meter setup, pressing **print** key allows you to print either current displayed reading or stored data from meter to a PC or printing device via a RS232 communication cable. Ensure that both meter and peripheral have the same configuration in terms of baud rate, parity bit and stop bit. Please check with the printer's or peripheral's manufacturers for details of any specific settings of the device in use.

If there is an error message during operation, the screen displays Err1. This indicates a communication error due to incorrect baud rate, parity or stop bit being selected. Press **std** key to return to the measurement mode.



Please refer to the CyberComm Pro Data Acquisition Software Instruction Manual for details on installation use for communication to the CyberScan DO 1500.

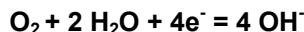
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## 8. DO THEORY

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The polarographic type Oxygen probe used with the CyberScan DO 1500 meter responds to the partial pressure exerted by oxygen in a given sample. As Oxygen reaches the probe's cathode, it is reduced according to the following equation:



When oxygen is reduced at the cathode (along with concurrent oxidation of silver at the anode) current flows through the cell. The more oxygen that is reduced, the more current is generated. The relationship is linear, and by measuring the current generated in a sample, and comparing it to that of a standard, one can compute the amount of oxygen in the sample.

The primary influence on how much oxygen reaches the anode is the partial pressure exerted by oxygen on the probes' membrane. More partial pressure brings more oxygen, and therefore more current. The partial pressure that oxygen exerts is fixed for a given temperature and atmospheric pressure. This fixed level corresponds to the saturation level for a given temperature and pressure. The CyberScan DO1500 meter uses the known relationship between these parameters to permit simple, automatic standardisation.

In sample measurements, however, another factor influences the relationship among partial pressure, temperature, and dissolved oxygen. This is the factor of how much salt is contained or dissolved in the sample. The presence of dissolved salt lowers the sample's ability to dissolve oxygen. Therefore a sample with a high level of dissolved salt will contain less oxygen than a sample with less or no salt at the same temperature and pressure. Fortunately, the relationship between dissolved salt or salinity and dissolved oxygen is well defined. The CyberScan DO 1500 uses this fact to provide accurate dissolved oxygen measurements in samples whose salinity range from 0 to 45 ppt.

## 9. METER SPECIFICATIONS

Description	CyberScan DO 1500
DO range	0.00 to 60.00 mg/L
Resolution	0.01 mg/L
DO range (% saturation)	0.01% to 600.0%Sat
Resolution (% saturation)	0.1%
Accuracy	±0.5% Full Scale + 1 LSD
Temperature range	0.0 to 45.0°C (32.0 to 113.0°F)
Barometric pressure compensation	450 to 825 mmHg
Salinity Correction	0 to 45 ppt
Memory	100 data sets
Display	105 x 75 MM (SCREEN SIZE) Custom LCD with contrasted background
Power Requirement	12VDC, centre negative (110VAC/220VAC)
Input & Output	DIN (DO) & bi-directional RS232
Dimension/ Weight	23 X 18 X 6 cm; 950 g (meter only) 40 X 26 X 9 cm; 1.7kg (boxed)

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**10. CLEANING**

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This meter requires no regular maintenance, but it is recommended to occasionally wipe down the front with a damp cloth from time to time.

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**11. TROUBLESHOOTING**

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The CyberScan DO 1500 displays pertinent error messages to guide you should an error occur with a measurement or meter operation.

Message	Description
Error Icon	Error message for %Sat Cal error.
“---“	DO reading is out of range
Or	Over range condition for temp
Ur	Under range condition for temp
Err1	Communication error

## 12. ACCESSORIES

Consult your Authorised Distributors for these items.

### 12.1. Replacement Meters and Accessories

CODE NO.	DESCRIPTION
EC-DO1500/12	<b>CyberScan DO 1500 Bench DO/BOD Meter</b> with self stirring BOD probe (EC-620-SSP), Data Acquisition Software and 110VAC power adapter, 2-flat pin US type (center negative)
EC-DO1500/22	<b>CyberScan DO 1500 Bench DO/BOD Meter</b> with self stirring BOD probe (EC-620-SSP), Data Acquisition Software and 220VAC power adapter, 2-round pin EURO type (center negative)
EC-637-DOM	6 membrane caps, polishing disk and electrolyte solution.
60X030115	110/120 VAC power adapter (50/60 Hz) 2-flat pin type center negative, US
60X030117	220/230 VAC power adapter (50/60 Hz) 3-flat pin type center negative, UK
60X030118	220/230 VAC power adapter (50/60 Hz) 2-round pin type center negative, Euro
EC-CA01M09F09	RS232 Communication cable: 9-pin male to 9-pin female connector (1m cable)

### 12.2. Dissolved Oxygen / BOD Electrode

CODE NO.	DESCRIPTION
EC-620-SSP	Dissolved Oxygen electrode with self-stirring mechanism

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## **13. WARRANTY**

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Eutech Instruments supplies this bench meter with a 3-year warranty and 6-month warranty for electrode against manufacturing defects from the date of purchase. If repair or adjustment is necessary and has not been the result of abuse or misuse within the warranty period, please return, freight prepaid, and correction will be made without charge. Out of warranty items will be repaired on a charge basis.

### **Exclusions to the Warranty**

The warranty shall not apply to defects resulting from:

- Improper or inadequate maintenance by customer;
- Unauthorised modification or misuse;
- Operation outside of the environmental specifications of the products.

### **Return of Items**

Authorisation must be obtained from your Eutech Instruments' Authorised Distributor or Eutech Instruments' Customer Service Dept. before returning items for any reason. When applying for authorisation, please include data regarding reason the items are to be returned.

Packing the item for repair should be done using the original packaging or material, with information about any fault identified.

Shipment damage as a result of inadequate packaging is your or your distributor's responsibility, whoever applicable.

### **Note:**

**Eutech Instruments reserves the rights to make improvements in design, construction, and appearance of products without notice.**

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## 14. NOTICE OF COMPLIANCE

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### **Warning**

This meter generates, uses, and can radiate radio frequency energy. If not installed and used properly, that is in strict accordance with the manufacturer's instructions, it may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

This product is to be used only as described in the manual. This product is for indoor use only, and must be used in a well ventilated area.

### **Warning!**

To meet or exceed FCC regulations and comply with CE requirements, the Eutech Instruments supplied power supply must be used. Use of a power supply that is not approved by Eutech Instruments may cause safety hazards and/or cause unit to exceed EMC limits and/or damage unit. When using his meter with a computer or printer, a shielded RS232 cable must be used to meet or exceed FCC regulations, and comply with CE Mark requirements.

For more information on Eutech Instruments products, contact your nearest Eutech Instruments distributor or visit our website listed below:

<p><b><i>Manufactured by:</i></b></p> <p><b>Eutech Instruments Pte Ltd.</b> Blk 55, Ayer Rajah Crescent, #04-16/24 Singapore 139949 Tel: (65) 6778 6876 Fax: (65) 6773 0836 E-mail: <a href="mailto:marketing@eutechinst.com">marketing@eutechinst.com</a> Web-site: <a href="http://www.eutechinst.com">www.eutechinst.com</a></p>	<p><b><i>Distributed by:</i></b></p>
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