

WalkLAB

DissolvedOxygenmeter

HD9031

Operation Manual

INTRODUCTION

Your purchase of this WalkLAB Dissolved Oxygen meter marks a step forward for you into the field of precision measurement.

Although this meter is a complex and delicate instrument, its ruggedness will allow many years of use, if proper operating techniques are observed and practiced.

Please read the following instructions carefully and always keep this manual within easy reach.

FEATURES

- ☐ Large and easy to read Liquid Crystal Display.
- ☐ Fast in-air calibration provides accurate calibration without complicated procedures.
- ☐ Low battery indicator provides early warning of weak batteries.

Session set atmospheric and salinity compensation

Uses durable long-lasting components including a weather resistant splash proof plastic casing.

CONTENT

The following list of items are included in the all in one package:

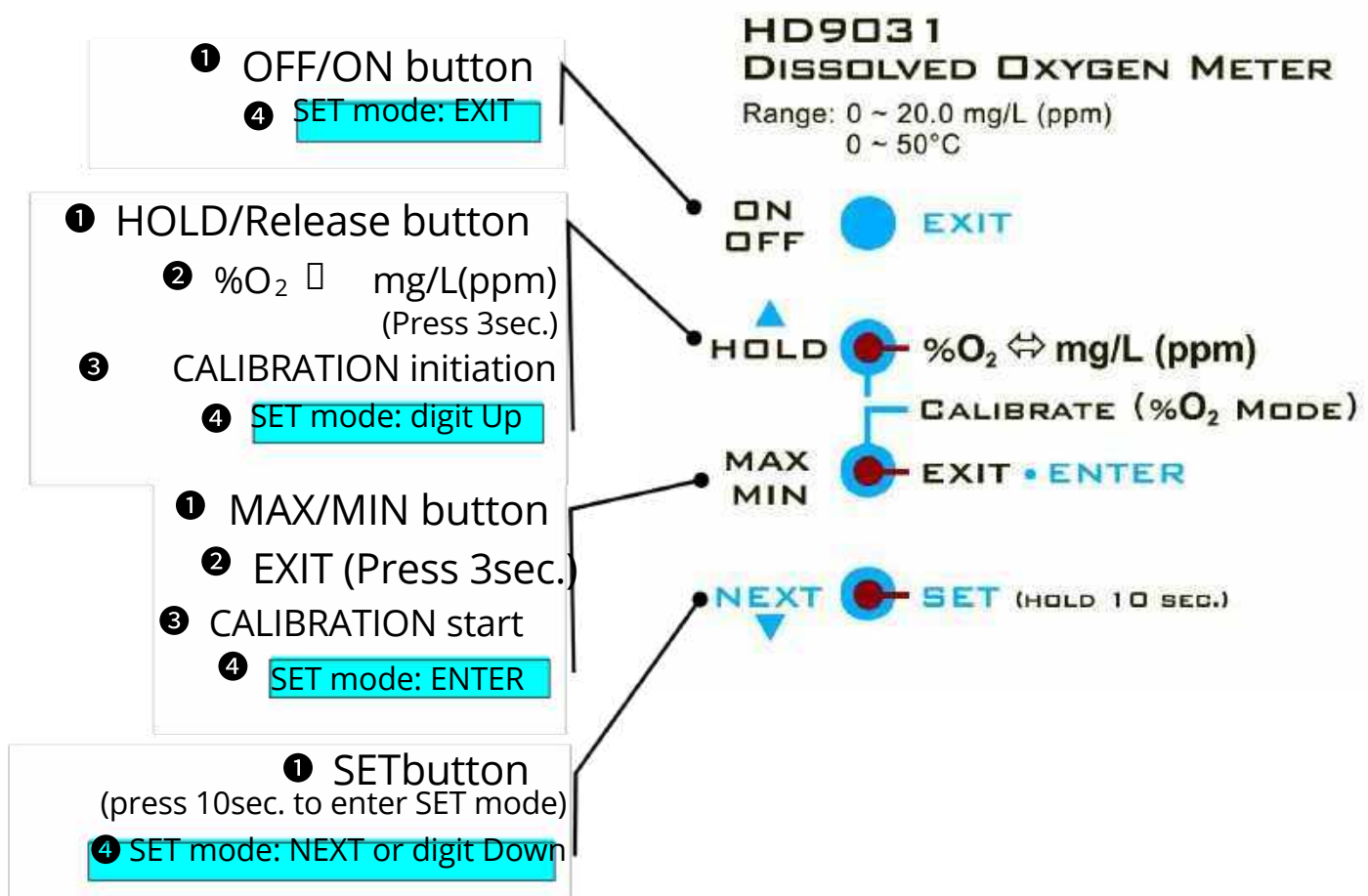
1. Main Unit
2. Dissolved Oxygen Probe with temperature sensor
3. Spare diaphragm membrane Cap, 2x
4. Electrolyte solution, 50ml
5. Operation Manual
6. Hard Carrying Case

SPECIFICATION

Display	Dual Liquid Crystal Display
Measuring Range	0 to 20.0 mg/L (ppm)
Resolution	0.1 mg/L (ppm)
Accuracy	±0.4 mg/L(ppm)
Probe Compensation	Automatic 0 – 50°C (32°F - 122°F)
Temperature	Manual set 0 to 3,900 meter
Atmospheric	Manual set 0 to 39% (% weight)
Salinity	0 – 50°C (32°F – 122°F)
Operating temperature	Below 80% R.H.
Operating Humidity	10 min. (can be disabled)
Auto Power off	4 x AAA Alkaline battery
Battery	Approximately 50 hours continuous use
Battery life	160 x 80 x 35mm
Size (L x W x H)	Approximately 150 gm
Weight	

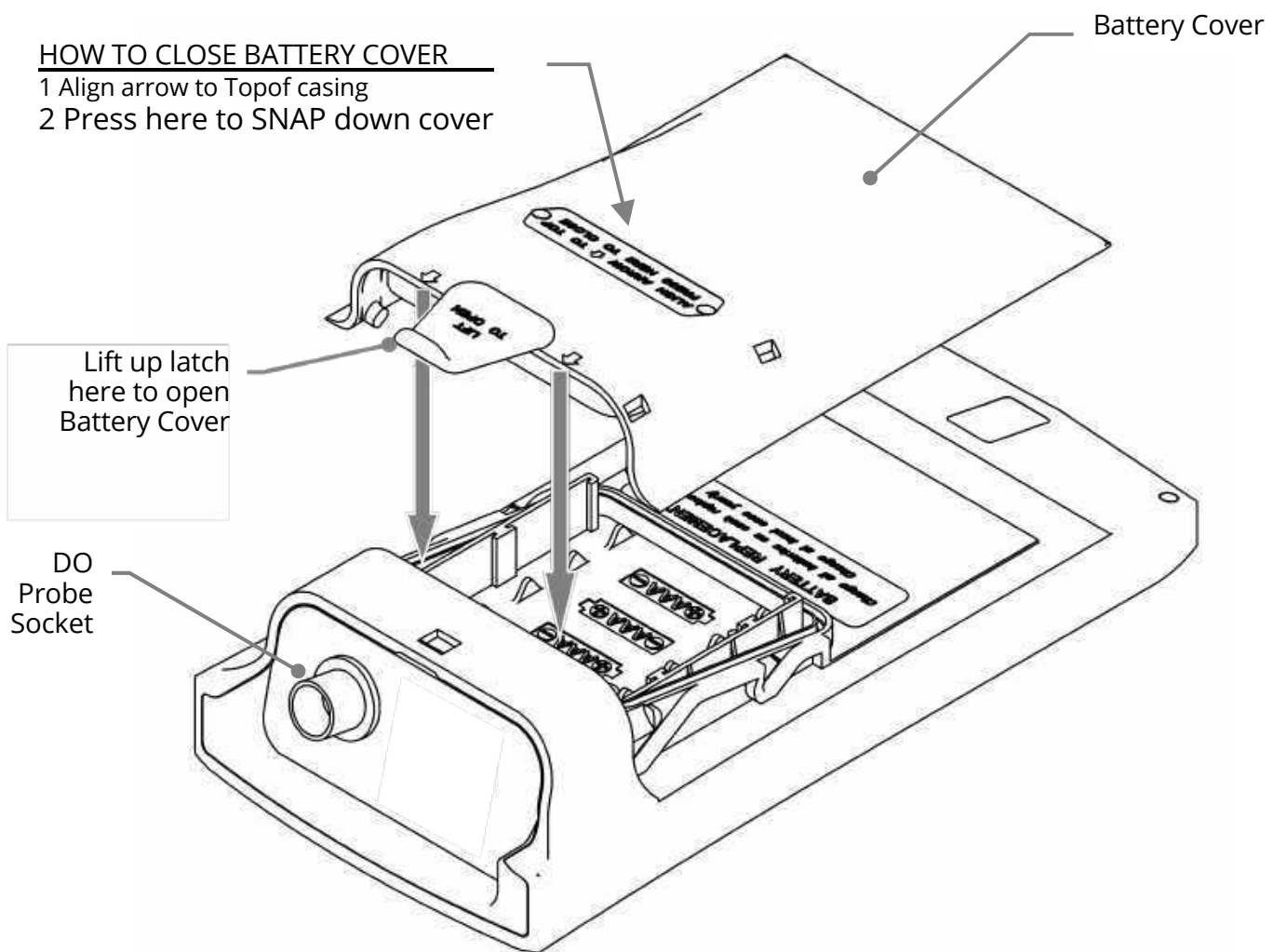
PRODCUT LAYOUT

KEY PAD LEGEND: ❶❷ Basic Key ❸ Calibration Key ❹ Set Mode Key



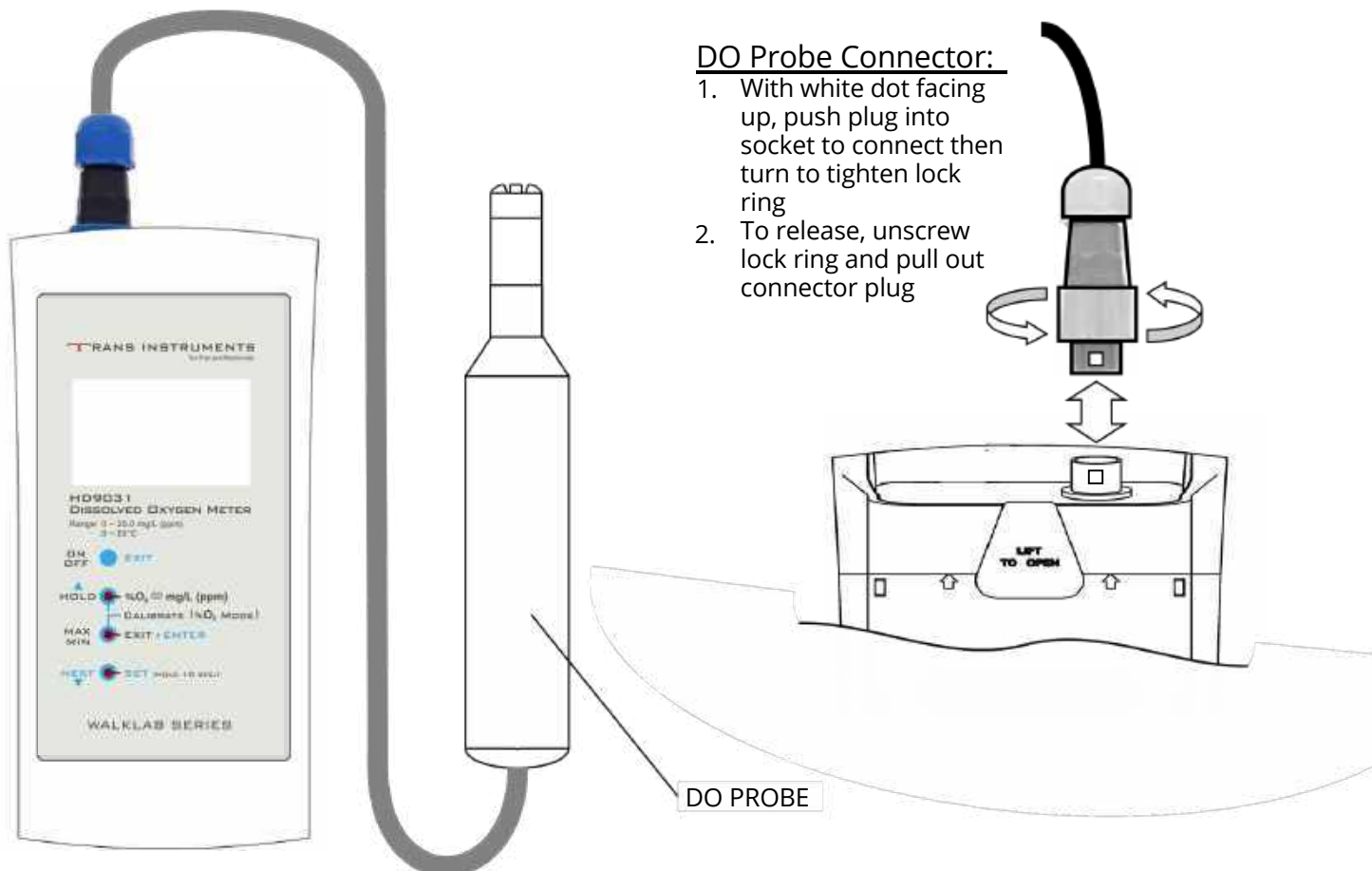
HOW TO CLOSE BATTERY COVER

- 1 Align arrow to Top of casing
- 2 Press here to SNAP down cover



DO Probe Connector:

1. With white dot facing up, push plug into socket to connect then turn to tighten lock ring
2. To release, unscrew lock ring and pull out connector plug



CALIBRATION

1. The probe is supplied without electrolyte for long-term storage. See MAINTENANCE section to add electrolyte on first use.
2. Calibration is performed in air in a well-ventilated area.
3. With the Probe connected to meter and sensor pointing down, press the ON/OFF button ❶ to switch unit on.
4. Wait for 5 minutes, then switch display unit to %O₂.
Note: Calibration can only be performed in %O₂ read mode.
5. Press the HOLD button ❸ once to initiate calibration, then press the MAX/MIN button ❸ once to start calibration.
6. Display will count down from 30 seconds and display will show *End* then *20.9*
7. If readings do not deviate, indicating calibration is finished. Otherwise, repeat step 5.
8. Press the HOLD button ❷ for 3 seconds to switch reading back to mg/L (ppm) for the correct unit in measuring D.O.

MAKING MEASUREMENT

1. It is advised to perform calibration every time before a series of measurement as in CALIBRATION section.
2. Dip the probe into the test solution at least 10cm below water line. Wait for about 2-3 minutes for full temperature compensation to take place. is required to prevent
3. Continually stirring or jiggling the probe
4. ~~Take the reading~~ For the temperature is stabilized or does not decline. Press the HOLD button to freeze display or to release it.
5. This DO meter by default measures fresh water and at zero altitude of sea level. As DO readings are affected by altitude and salinity, per session compensation can be set in the SET MODE section as required.

REVIEW MAXIMUM AND MINIMUM READING

1. Press the Max/Min button once to enter recording mode.
2. Toggle the button to see Max. reading or Min. reading.
3. To exit, press hold Max/Min button for 3 seconds .

SET MODE(Altitude/Salinity compensation, Temp. unit, Auto-Off)

1. Press the SET button ❶ for 10 seconds to enter set mode with the following set sequence (in Blue Lettering) as below: (At any time, press ON/OFF button ❷ to exit SET mode)

⬇ LCD sub-display “flashing” after ENTER key ❸ is press

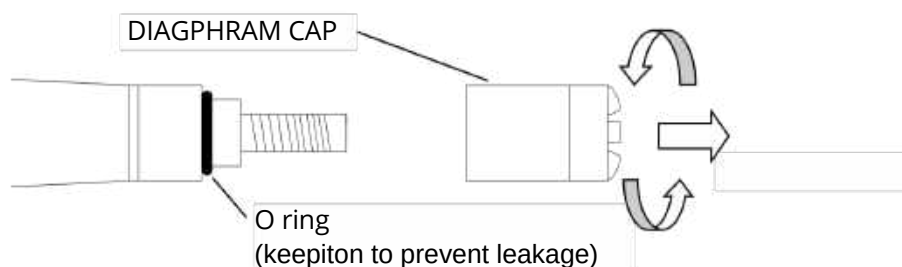
ALTITUDE	<i>H.9h</i>	❶ Press NEXT button to skip or ENTER button to set value while <i>H.9h</i> blinks. ❷ Adjust or button in hundred meters. ❸ Press ENTER to save
SALINITY	<i>SALt</i>	❶ Press NEXT button to skip or ENTER button to set value while <i>SALt</i> blinks. ❷ Adjust or button in Salinity 0 to 39%. ❸ Press ENTER to save
°C / °F	°C	❶ Press NEXT button to skip or button to set the temperature unit. ❷ Press ENTER to save
AUTO OFF	<i>OFF</i>	❶ Press NEXT to exit SET mode or to set Auto-Off to <i>YES</i> or <i>no</i> . ❷ Press ENTER to save and exit

2. Altitude and Salinity Settings will be reset to default (0) every time after meter is switched off.

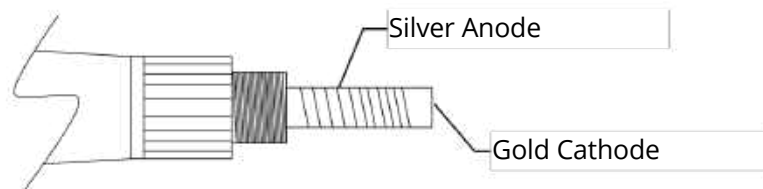
MAINTENANCE The oxygen probe consists of a diaphragm cap housed over the probe head. This diaphragm is delicate and flimsy and is easily damaged if comes into contact with solid objects or subjected to blows.

An erratic reading can be an indication that the electrolyte has dried up or the diaphragm is punctured or damaged. Refill or replace as follow:

1. Unscrew and remove the DIAGPHRAM CAP.



2. Half fill with new electrolyte into the (new) DIAGPHRAM CAP. Lightly tap the container to remove bubbles inside. Then replace Cap and O ring to the probe
3. Diaphragm is installed. Wait 10-15min. before calibration
4. After the probe has been used for several months, the silver anode and gold cathode inside the electrolyte container may get tarnished because of polarization.



5. To clean the silver anode, use an extra-fine sand paper to refresh silvery look.
6. To clean the gold cathode, use a silver polishing cloth and polish with circular motion until the gold appears like mirror.
7. After cleaning, rinse sensor with de-ionized water and blot it dry. Fill with electrolyte and leave it overnight before calibration and measurement.

The probe should be cleaned only when erratic reading occurs or after about 500 hours of use. Each cleaning removes material and reduces the life of the probe, excessive cleaning should be avoided.

Replacement of Battery

2. ~~When battery level symbol of LCD display shows the~~ When battery level symbol of LCD display shows the battery output of less than 4 volts. It is necessary to replace the battery. 
3. Open the battery cover at the rear bottom of the instrument away from the unit.
4. Replace all four batteries with new 1.5 volts AAA alkaline battery in the correct polarity indicated.
5. Close the cover.

WARRANTY:

TTBH Pte Ltd, warrants this product for a period of 12 months for main unit and 3 months for probe or sensors from date of purchase; against all defects in material and workmanship. This warranty does not apply to the abuse or misuse of the Instrument. If repairs or adjustments are required, please

against possible damage or loss in shipment.

instrument. return the defective product freight prepaid. within warranty will be repaired at no charge.

Make sure that the product is properly packed and insured. Purchase

invoice MUST be accompanied in returned product or else warranty is considered void.

Please obtain authorization directly or through your local sales representatives prior to returning the product. We can be contacted at the following email address or through our web-page contacts:

sales@caresourceglobal.com

TTBH Pte Ltd

email:

sales@caresourceglobal.com

Website: www.caresourceglobal.com

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