SMART Pool checker

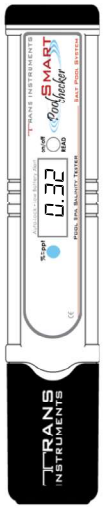
SMART POOL CHECKER

FOR SALT POOL SYSTEM

OPERATION (MANUAL)

PRODUCT SPECIFICATION

OPERATING RANGE	0~1%	0~10PPT
RESOLUTION	0.01%	0.1PPT
ACCURACY	±0.03%	±0.3PPT
BATTERY	4x1.5V BUTTON CELL (ALKALINE LR44 OR EQUIV.)	
BATTERY LIFE	APPROX. 150 HOURS (CONTINUOUS USE)	
AUTO SHUT-OFF	APPROX. 15 MIN.	
OPERATING TEMPERATURE	0° ~50° C	



The maintenance of a balanced salt concentration in saltwater pool and spas are essential for proper sanitation and comfort.

The **SMART poolChecker** is an essential tool for the adjustment of salt levels. It measures salt level easily so salt application can be done without guesswork.

High salt level if not kept in check can also damage the expensive electrolysis cells.

All saltwater pool systems rely on salt to generate chlorine which constantly delivers pure chlorine-based sanitizers. The system delivers chlorine in small amount making it less offensive. This replaces the use of chloramines which can cause irritation. Maintaining salt level at around 0.3%(3ppt) to 0.5% (5ppt) will generate enough streams of chlorine for protection. The softening effect of electrolysis also reduces dissolved alkali minerals in water which are beneficial. While chlorine is generated, pH will rise as a result. Get also the **Senz pH tester** to monitor and to balance pH levels.

ORP or Redox is an alternative indicator on chlorine levels. The **Senz Redox tester** is used to measure the effectiveness of sanitation so as to fine tune the system's settings on dosage levels.

TRANS INSTRUMENTS
www.transinstruments.com
ISO 9001 Certified Firm

Water resistant - floats on water - drop shock - simple to use

SMART Pool checker

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SMART Pool Checker

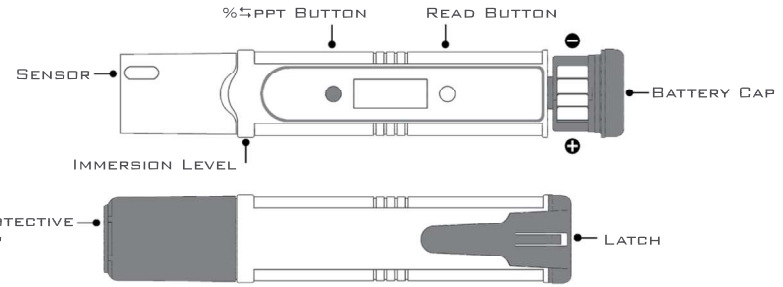
Essential tool for pool & spas saltwater system maintenance

Accurate salinity test in % or ppt with auto-endpoint measurement

ISO 9001 Certified Firm

Water resistant - floats on water - drop shock - simple to use

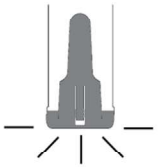
PRODUCT FEATURE



BATTERY CAP INSTALLATION

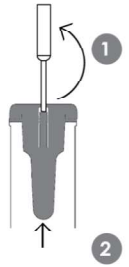
INSTALLING BATTERY CAP

This unit is shipped with the battery cap open. Close the battery cap by pressing Cap on on a hard surface util the latch **clicks**, indicating a secure lock.



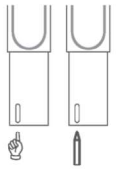
REPLACING BATTERIES

1. Lift latch with a pen or mini screwdriver. **DO NOT PULL** latch out completely.
2. Use the thumb to push Cap forward.
3. Hold the battery cap and seperate it from the meter.
4. Replace all batteries according to polarity.

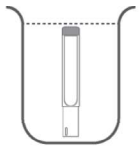


PRECAUTIONS IN HANDLING

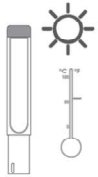
Do not touch, rub or scratch the sensor. It is very delicate and might break or loose its sensitivity.



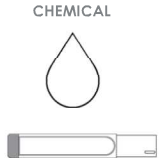
Do not submerge the unit underwater. Though the unit is water resistant, it cannot come under high pressure underwater. If it is dropped into water, retrieve it immediately and wipe dry with a cloth.



Do not store unit without the protective cap or under high temperature and direct sunlight. This will shorten the life span of the meter and cause premature expiry of the sensor.

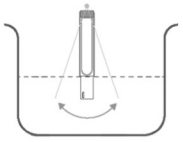


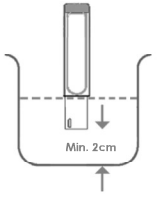
Do not clean unit with thinner or solvents. This will damage the unit. Use only mild detergent on damp cloth to clean and rinse unit if needed.



MAKING MEASUREMENT

1. Remove protective cap.
2. Press the Read button once to switch on. Display will appear blinking.
3. Dip tester into sample solution up to the immersion level, shake to remove bubbles. Tiny bubbles on sensor will affect accuracy.
4. Keep still and wait for a stable reading. When the display stops blinking and beeps, a stable reading has been establish. You can now take the reading.
5. To take another reading, press the Read button again. Whenever the display is blinking, it means that the unit is sensing for a stable reading and waiting for a complete temperature compensation to take place.
6. If measurement is made in a cup, be sure to leave a 1/2 inch or 2cm gap between the bottom.
7. Always rinses the sensor area with clean tap water before and after each test. Soak it in a cup of clean tap water for at least 30 minutes before storing.
8. To Switch off, press and hold the Read button for 3 seconds.
9. Replace with the protective cap before storing away.





In the presence of certain radio transmitters, this product may produce erroneous readings. If this occurs then measurements should be repeated at another location.

MAINTENANCE

Always soak the sensor in clean tap water after each test. This will maintain the sensor's accuracy and prevent salt from depositing on it. If salt is deposited on the sensor, it will degrade the accuracy of the unit.

If readings are in doubt, you should ask your dealer to perform a calibration or you can do it yourself.

NOTE: NEVER PERFORM CALIBRATION IF YOU DO NOT HAVE SS0005 STANDARD SOLUTION. WRONG CALIBRATION WILL SEVERELY AFFECT THE ACCURACY

1. Make sure you have the correct standard solution with a 0.5% or 5.0ppt standard solution.

   Order Code: SS0005 0.5% / 5ppt Standard solution.

2. Dip the sensor into the solution while keeping a gap between the bottom.
3. Switch on the unit, then press and hold both Read button and %-ppt button until the display shows CAL and release. Then 0.50% or 5.0ppt appears in a blinking mode.
5. Keep still and wait until it beeps and the display stops blinking.
6. Calibration completed. Rinse the senor area with distilled water thoroughly before proceeding with further tests.

ERROR CODES:

1. If Erb is displayed during calibration, it means you probably have used the wrong standard solutions. Otherwise, it could be due to a very dirty sensor or the unit could be defective.
2. If ErC is displayed during calibration, it means the unit cannot get a stable reading. This could sometime due to eletro-magnetic inteference if you use the unit near a high power equipment or area with strong magnetic field. To prevent this, move to another location farther away. Other reasons could be due to a defective sensor. Unit with a defective sensor cannot be repaired.
3. At any time, pressing the Read button once will exit calibration mode.

LOW BATTERY ALERT

When the battery symbol appear on the display, this indicates a low battery and only 2 hours of continuous use remain. Though the unit may continue to function, the accuracy of the unit will be affected beyond 2 hours.

Change the batteries according to instructions overleaf.

UNITS OF MEASUREMENT SETTINGS

SWITCHING UNITS OF MEASUREMENT TO PPT

1. This unit is factory preset to measure in percentage (%). You can set it to measure in parts-per-thousand (ppt).
2. Depress and hold the %-ppt button till it beeps. The right side of the display will show ppt, indicating measurement in ppt. Press and hold the button again will switch the measured units back to %. The ppt sign will disappear, indicating measurement is in %.

UNITS CONVERSION FOR SALINITY

1 % = 10 ppt (parts per thousand)
0.1 % = 1ppt (parts per thousand)
1ppt = 1,000 ppm (parts per milliion)
0.1ppt = 100 ppm (parts per million)

SALT APPLICATION GUIDE

This is a reference guide only, please consult your chlorine generator specialist for more advice especially the ideal value to maintain salt level on specific system.

What is the ideal salt concentration for the swimming pool?

It is generally recommended to maintain salt concentration in the range of about 0.3% to 0.5% (3 to 5 ppt) in the pool to allow constant stream of chlorine generation.

What is the amount of salt to add into the pool after a reading is recorded?

Here is an example if the target value of salt level in your pool water is to be 0.45% or 4.5ppt, below are the steps for adjustements:

1. Take a measurement of the pool water with the **SMART PoolChecker**, say an example reading of 0.25% or 2.5ppt shows on the meter, then you need to subtract the target value from the displayed value on the meter:

   0.45 % - 0.25 % = 0.2 % (4.5ppt - 2.5ppt = 2ppt)

2. The result shows that an additional of 2 grams of salt is required for every litre of water (**2ppt**).
3. Calculate and find out the total volume of the pool water.

   Example: 1,500 **litre** or 396 **US gallons** or 495 **imperial gallons**.

4. Multiply the total volume by 2 ppt then divide by the factor in bracket() will give the required salt to add in kilograms.

   1,500 **litre x 2.0 ppt / (1,000)** = 3 Kg

   396 **US gallons x 2.0 ppt / (264)** = 3 Kg

   495 **imperial gallons x 2.0 ppt / (330)** = 3 Kg

5. Dissolve 3 kilograms of salt in a bucket and pour around the pool. Wait for several hours before making another measurement as it will take some time for salt to circulate evenly throughout the pool.
6. Repeat step 1 to 5 if further adjustment is needed.