



KOIMEDIC
FOR THE KOI PROFESSIONALS
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 the pond is essential for two basic reasons.
 Firstly, osmosis takes place if there is a difference in salinity between the fish tissues and the pond. Osmosis is the movement of water from a less concentrated to a more concentrated solution through a semi-permeable membrane.

Most fish have an internal salt concentration of 1.0% or 10 parts per thousand of salt concentration. This is of a higher salinity than its environment. Thus, water moves from the pond into the fish tissues. This causes the fish to expand its energy trying to get rid of the excess water rather than to fight diseases. However, if the salinity of the water is higher than the fish tissues, then water will be extracted from the fish, causing dehydration.

Secondly, the control of the concentration of salt in the water helps to eliminate harmful parasites that affect the health of your fish. Salt concentration from 0.3% to 0.5% (3 to 5 ppt) upsets the osmotic balance of most parasites. At 0.3% salt concentration is effective in detoxifying nitrites while a 0.25 % or higher salt concentration can control the population of string algae.



*SALT APPLICATION GUIDE INSIDE
TRANS INSTRUMENTS
 www.transinstruments.com
 ISO 9001 Certified Firm

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



TRANS INSTRUMENTS
KoiMedic (healthy Koi always)

for healthy Koi . elimination of parasites . control of algae

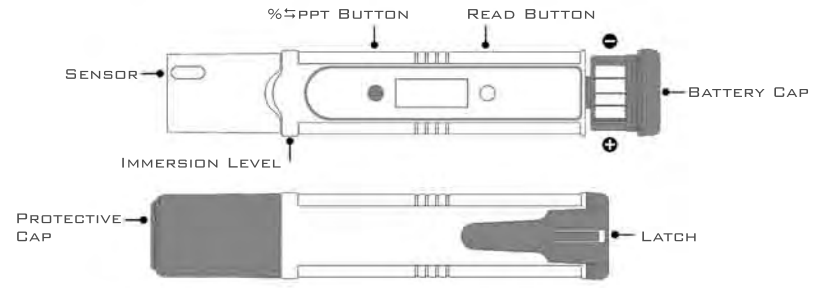
Salinity test in % or ppt - Auto End-point - easy salt application

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

ISO 9001 Certified Firm



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 until 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 separate 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.

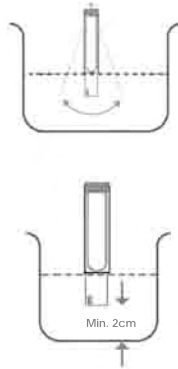
Do not clean unit with thinner or solvents. This will damage the unit. Use only mild detergent on damp cloth to clean and rinse unit if needed.

CHEMICAL



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 established. 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 rinse 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 sensor 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 sometimes be due to electro-magnetic interference 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.

SETTING UNITS & NOTES

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 in %.

IMPORTANT NOTES

- Do not use cooking salt. Use only non-iodised salt.
- For first time salt application, it is important to add salt very gradually in order not to upset the biological balance of your pond. Add salt over a period of several days or even weeks will help give time for healthy bacteria to grow and to restore the biological balance.
- Do not apply salt directly into pond. Any direct contact of crystalline salt with Koi or fish in just a few seconds can cause injuries similar to burns.
- Always dissolve salt in a bucket of pond water first and introduce at the discharge side of the bio-filter for small pond and evenly around the edges for bigger pond.
- In order not to shock the Koi, it is always better to divide application into small partial addition over 3 days rather than all at one time.

SALT APPLICATION GUIDE

This is a reference guide only, please consult koi specialist for more advice.

What is the ideal salt concentration for the pond?

It is recommended to maintain salt concentration in the range of about 0.13% to 0.25% (1.3 to 2.5 ppt) in the pond.

Salt concentrations between 0.3% to 0.5% (3 to 5 ppt) will upset the osmotic balance of some parasites i.e. the parasites' cells will dehydrate and thus killing them. Salt concentration of 0.3% are effective at detoxifying nitrite and has been used to control string algae. Nevertheless, 0.3% salt can also stunt water lilies and floating plants (water hyacinth, water lettuce, etc.) than most bog plants.

For treatment of parasite and quarantine, it is recommended to treat koi in a separate tank or hospital tank. A prolonged higher salt in the whole pond will promote the formation of super parasite that will get immune to higher salt level. It is important not to prolong salt level above 0.25% for more than 2 weeks. Dilute pond to 0.1% to 0.2%.

Keep pond at 0.1% to 0.2% salt level and use parasiticides or antibiotics added concurrently with the treatment. This treatment is for general prevention and consultation is required from your local koi supplier for specific infections.

What is the amount of salt to add into the pond?

For the first time, the addition of 1 to 2 pounds (0.5 to 1kg) of salt per 100 gallons (500 liters) of water should be sufficient.

Control Reading: 0.13% to 0.25% 1.3ppt to 2.5ppt.

To detoxify nitrite and control algae, using 2 to 3 pounds (1 to 1.5kg) per 100 gallons (500 liters) of water is appropriate to reduce nitrite toxicity.

Control Reading: 0.25% to 0.37% 2.5ppt to 3.7ppt

What is the amount of salt to add for a quarantine tank?

The setup of a quarantine tank is important for preventing an outbreak when you introduce new fish or to separate sick fish from your pond. You will need to quarantine new fish for 1 week to ensure it is not carrying any disease or parasites.

Add 2 to 4 pounds (1kg to 2kg) of salt per 100 gallons (500 liters). Add medication as recommended by the supplier for hospital tank.

Control Reading: 0.5% to 0.55% 5ppt to 5.5ppt