



Digital Chemistry Reader

Operating Instructions

Important:

Before first use, open unit and remove probe sleeve. Add tap water to sample cup, fill to the line. Submerge probes into cup and let soak for 2 hours. Always soak probes if device has not been used for an extended period of time.

SafeDip Introduction & Safety Information

INTRODUCTION

SAFEDIP is an accurate, affordable, and easy to use electronic tester for pool and spa water. With this device you will be able to ensure your chemicals are in balance to maintain optimal safety!

SafeDip Readings:

- Free Chlorine Effectiveness (Reads Lo, Good, or Hi based on ORP)
- pH level
- Salinity (Salt Level in PPM)
- TDS (Total Dissolved Solids in PPM)
- ORP (Oxidation Reduction Potential in mV)
- Temperature (C/F)

Meter Description



1. LCD Display – Shows 6 Readings
2. POWER Button - Turn unit on/off
3. START Button – Begin new test
4. CAL button – Calibration button
5. °C/°F Button – Toggle temperature between Celsius and Fahrenheit
6. LED Indicator
7. Sample Cup with Fill Line
8. Battery Compartment Cap
9. Replaceable pH probe
10. Conductivity + Temperature Sensor
11. Sleeve Holder
12. Probe Sleeve with sponge

Replacement Probes and Calibration Buffer tabs @ shop.solaxx.com

Getting Started

IMPORTANT:
SafeDip must be kept standing vertically when there is water in the sample cup.
METER IS NOT WATER RESISTANT. ONLY PROBES CAN GET WET.

Adding and Replacing Batteries:

1. Use a coin or flat head screwdriver to remove battery compartment cap
2. Insert 2x AAA Batteries (Not Included) and tighten cap

Before first use:

1. Remove sample cup and probe sleeve from meter.
2. Inspect pH probe for air inside the glass filament, if bubbles present, shake meter firmly until bubbles are no longer visible.
3. Fill Sample cup with tap water to WATER LEVEL line
4. Submerge probes into sample cup and securely attach meter. Leave probes to soak for 2 hours before calibrating.

REMEMBER, THE SAFEDIP MUST BE KEPT STANDING VERTICALLY WHENEVER THERE IS WATER IN THE SAMPLE CUP. WATER DAMAGE IS NOT COVERED UNDER WARRANTY.

pH Calibration Procedure:

Calibrate before first use and between prolonged periods of inactivity thereafter, for highest accuracy

1. Create calibration solution by mixing 1 pH 7.0 buffer packet (2 included) with 8oz tap water, mix until all the powder has dissolved.
2. Remove soaking probes from sample cup. Discard the tap water, rinse out the cup and fill cup to WATER LEVEL line with buffer solution.
3. Immerse the probes back into sample cup, let soak for 5-10 minutes.
4. Press to turn unit on, then press *CAL* for 3 seconds. pH 7.0 will flash on the display. Press *CAL* again to begin calibration. Once calibration is complete, unit will beep and the will display. pH has now been calibrated to spec.

Measurement

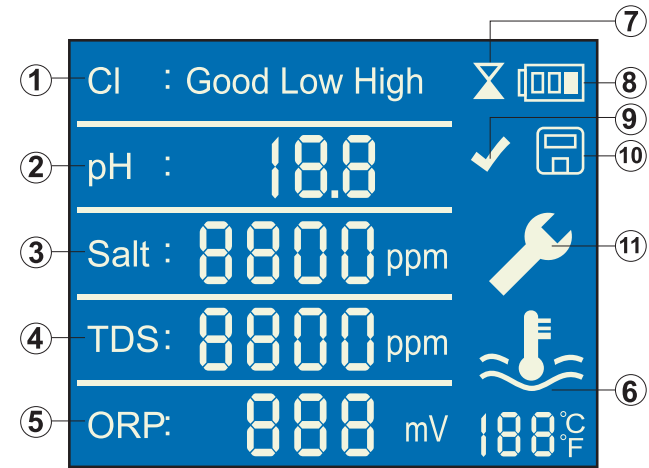
1. Remove the sample cup and fill to WATER LEVEL line with sample from pool or spa. (For greatest accuracy sample should be collected 6" from surface)
2. Remove Probe sleeve and attach to the holder then submerge probes into sample, secure meter and cup together

Readings are most accurate when probes are soaked in sample for 1-2 minutes prior to running a test

3. Press the Button to Power ON. (Last saved reading will be shown on display)
4. Press START button to begin new reading. will flash until readings stabilize. Once complete, meter will beep and results will be displayed. Measurement will be saved until a new reading is taken or the batteries are removed.
5. Press to power off or unit will shut down automatically after 1 minute of no activity.
6. Discard test sample and rinse probes with fresh water when finished.
7. There is a small sponge inside the protective sleeve to keep the probe moist between uses. Rinse out and dampen sponge periodically to keep from drying out and getting moldy.

IMPORTANT: SAFEDIP MUST BE KEPT STANDING VERTICALLY WHEN THERE IS LIQUID IN THE SAMPLE CUP. METER IS NOT WATER RESISTANT, ONLY PROBES CAN GET WET!

Display Area



6 Readings – 1 meter

1. Free Chlorine – Reads Low, Good, or High based on ORP

Measure of chlorine effectiveness determined by ORP reading:

- High (>800mV) Too much sanitizer
- Good (650~800mV) Ideal
- Low (<650mV) Not enough sanitizer

2. pH Level

Range from 0.0-12.0 pH. Ideal range for swimming and optimal chlorine disinfection is between 7.2 – 7.6.

3. Salt Level

Range 200-8000ppm Accuracy: ± 5% or +/-100ppm

Reading based on conductivity with automatic temperature compensation, allow probes to soak briefly when changing samples so meter can adjust.

4. TDS Level

Range 200-8000ppm Accuracy: ± 5% or +/-100ppm

5. ORP Reading

Platinum disc sensor. Range 150~999mV

Oxidation Reduction Potential (ORP) is a measurement of how effective chlorine is at disinfecting. Higher ORP indicates the chlorine has an increased ability to oxidize the contaminants in the water.

6. Temperature C°/F°

Range: 5-50°C / 41-122°F

Symbols/Icons

7. Hourglass Symbol - Icon will flash while readings are stabilizing. Allow up to 30 seconds for testing to complete.

8. Battery Indicator - Will display when batteries are low, indicating batteries need replacement

9. Check Mark - Test complete

10. Save Disk - Displays last saved reading

11. Wrench Icon - Error: One of the measurements is not within the parameters of the meter. Refer to Troubleshooting section for more information.

Maintenance

Probe Care and Storage

1. To clean probes rinse with fresh tap WATER. If necessary, wipe with soft cloth. Be careful not scratch or damage the probes.
2. DO NOT USE ANY CHEMICALS TO CLEAN PROBES. Doing so may result in a reference potential shift which causes a degradation in performance. Use water only!
3. Clean probes between each use for highest accuracy.
4. Keep sponge moist inside of probe sleeve to prevent pH probe from drying out and prevent mold.
5. Store SafeDip in a cool dry area when not in use.
6. NEVER allow SafeDip meter to become immersed in water. Unit is not waterproof!

pH Probe Replacement

1. Carefully remove pH probe by firmly twisting counterclockwise and unthreading from unit. Use needle-nose pliers if necessary, be careful not to damage probe.
2. Without touching or scratching glass pH probe, gently insert new probe into the opening.
3. Thread in clockwise and tighten to create a water tight seal with rubber gasket attached to the new probe.
4. Remove protective water seal on replacement probe and calibrate before use to ensure highest accuracy.

Probe Cleaning Recommendations

Do not soak the probe in any cleaning solution. To do so may cause a reference potential shift which will cause degradation in performance. When cleaning the probe, use tap water and be careful not to scratch or damage the glass sensing surface.

Battery Replacement

1. Use a coin to twist off the battery compartment cap.
2. Replace the two AAA batteries. Observe polarity.
3. Replace the battery compartment cap and make sure it is tightly secured to avoid water intrusion.

Specifications / Features

- Operating range: 5~50°C, 0~12pH, 0 ~ 999mV (ORP), 1~80mS (Conductivity)
- Replaceable pH sensor. Resolution: 0.1 pH
- 1 point pH calibration using 7.00pH standard buffer
- Automatic temperature compensation for pH and conductivity
- Temperature sensor. Resolution: 1°C; Accuracy: ±5% (~±1°C), Selectable °C/°F system
- ORP sensor. Resolution: 1mV; Accuracy: ±20mV (500~800mV)
- TDS and SALT. Resolution: 100ppm; Accuracy: ±20% (200~5000ppm)
- LED Indicator (Red/Green)
 - Green:** ORP >= 650mV" and pH between 7.0-8.0 (Free Chlorine: Good)
 - Red:** ORP < 650mV and/or pH not in range

SAFE-DIP™ Meter Includes:

2 Packs of pH 7.0 Buffer solution.
Mix with 8oz tap water for calibrating



PARTS & ACCESSORIES

Replacement pH probe
pH Buffer Tabs (10 pack)

Check out www.safedip.com for complete user guide and chemical dosage calculator

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
pH will not calibrate	Probe area is blocked or contaminated Probe sensor is worn or damaged Expired or contaminated calibration solution pH probe is dried out Batteries are low or dead Batteries in wrong direction	Inspect and clean probe area of any debris Replace pH probe Use new buffer for calibration Soak probes in tap water for 2 hrs and recalibrate Replace with 2x AAA batteries See back of meter for correct battery polarity
Meter will not turn on.		

Icon	Description	Range	Action
	pH offset out of range	-20 - 20mV	Calibrate or replace pH probe
	Temperature out of range	5-50° / 41-122°F	Bring sample temperature to within range
	pH out of range	0 ~ 12pH	Try a new sample or replace pH probe
	ORP out of range	0 ~ 999mV	Try a new sample
	TDS or SALT out of range	200 ~ 8000ppm	Try a new sample
	Low Battery	N/A	Replace 2x AAA Batteries

Check out www.safedip.com for complete user guide and chemical dosage calculator

WARRANTY

The SafeDip is guaranteed to be free from defects in material and workmanship, under normal use and conditions for a period of 90 Days from date of original purchase. Damages brought on by user negligence, abuse, accident, misapplication, mishandling, or acts of God will void this warranty.

Warranty is limited to the repair or replacement of the product at the discretion of the manufacturer and does not include shipping costs.

This product cannot be returned without a Return Merchandise Authorization (RMA) number from Solaxx.

For warranty support visit www.solaxx.com
or contact support@solaxx.com

