REED
INSTRUMENTS

Conductivity/ TDS/Salinity Meter

REED R3530

Conductivity / TDS / Salinity

1 YEAR WARRANTY

Instruction Manual

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Introduction

Thank you for purchasing your REED R3530 Conductivity/TDS/Salinity Meter. Please read the following instructions carefully before using your instrument. By following the steps outlined in this manual your meter will provide years of reliable service.

Product Quality

This product has been calibrated during the manufacturing process to meet stated product specifications. If a certificate of calibration is required please contact the nearest authorized REED distributor or authorized Service Center. Please note an additional fee for this service will apply.

Safety

Never attempt to repair or modify your instrument. Dismantling your product, other than for the purpose of replacing batteries, may cause damage that will not be covered under the manufacturer's warranty. Servicing should only be provided by an authorized service center.

Features

- Measures conductivity, total dissolved solids (TDS) and salt levels in a liquid
- Automatic temperature compensation
- Data hold and Min/Max functions
- User selectable °F or °C
- Waterproof housing meets IP57 standard
- Replaceable electrode module
- Low battery indicator and auto shut off

Included

- Conductivity Standard Solution, 1413µs
- Protective Cap
- Lanyard
- Allen Key & 2 replacement screws
- Hard Carrying Case
- Batteries

Specifications

Conductivity

Measuring Range:	0 to 2000µS
	2.00 to 20.00mS
Accuracy:	±2% FS
Resolution:	1µS, 0.01mS

TDS (Total Dissolved Solids)

Measuring Range:	0 to 1300ppm
	1.30 to 13.00ppt
Accuracy:	±2% FS
Resolution:	1ppm/0.01ppt

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Salinity

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Measuring Range:	0 to 1000ppm
	1.00 to 12.00ppt
Accuracy:	±2% FS
Resolution:	1ppm/0.01ppt

Temperature

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Measuring Range:	32 to 194°F (0 to 90°C)
Accuracy:	±0.4°F (0.2°C) + 1 dgt
Resolution:	±0.1°F (±0.1°C)

General Specifications

Display:	Dual Display, LCD
Data Hold:	Yes
Min/Max:	Yes
Auto Shut-off:	Yes (after 10 minutes/off)
Low Battery Indicator:	Yes
Power Supply:	4 x AAA Batteries
Product Certifications:	CE, IP57
Operating Temperature:	32 to 122°F (0 to 50°C)
Storage Temperature:	14 to 140°F (-10 to 60°C)
Operating Humidity Range:	10 to 80%
Dimensions:	7.7 x 1.6 x 1.4" (195 x 40 x 36mm)
Weight:	0.3lb (135g)

Instrument Description
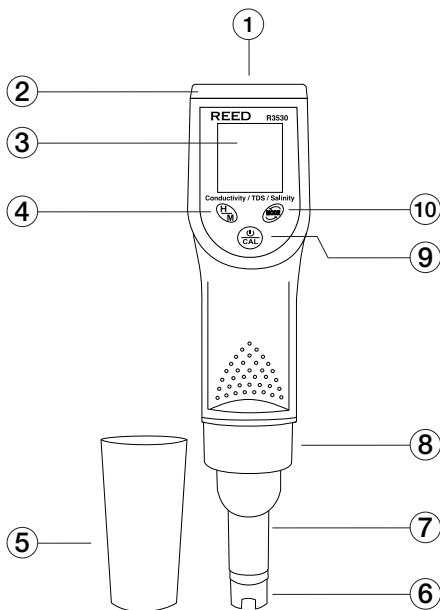
1. Wrist Strap Anchoring Point
2. Battery Compartment
3. LCD Display
4. Hold/Max & Min Button
5. Protective Cap
6. Electrode Tip
7. Electrode Module
8. Electrode Collar
9. Power/Calibration Button
10. MODE Button

Display Description
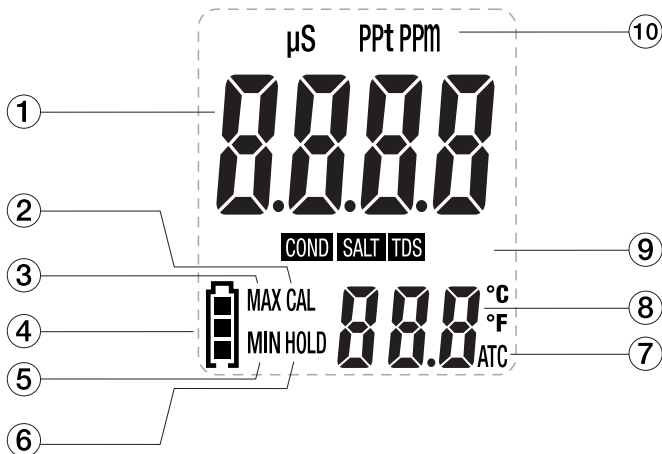
1. Measurement Reading Indicator
2. Calibration Mode Indicator
3. Maximum Reading Indicator
4. Battery Status Indicator
5. Minimum Reading Indicator
6. Data Hold Indicator
7. Automatic Temperature Compensation (ATC) indicator
8. Temperature Unit of Measure
9. Function Mode Indicator
10. Unit of Measure Indicator

Operating Instructions

Power ON/OFF

Turn the meter on or off by pressing the **Power** button.

Measurement Modes

The R3530 offers 3 measurement modes:

• Conductivity

• Total Dissolved Solids

• Salinity (Salt)

When the meter is on, press the **MODE** button to toggle between "COND" for conductivity measurements, "TDS" for total dissolved solids measurements & "SALT" for salinity measurements.

Selecting the Temperature Unit of Measure

When the meter is first powered ON, the default scale setting is set to Celsius (°C).
Press and hold the **MODE** button to toggle between °C and °F.
Note: The meter will automatically save the selected unit of measure as the new default when powered off.

Taking Measurements

Submerge the electrode in the solution to be tested while stirring gently. Wait for the measurements to stabilize. The applicable measurement value automatically compensated for temperature is shown at the top of the LCD Display whereas the secondary value below indicates the temperature of the sample.
Note: When the applicable measurement value is over the measurement range, the LCD display will indicate "---".
Note 2: The meter will auto-range to the proper range (µS/cm or mS/cm, ppm or ppt) and then display the reading.

Data Hold

1.   Press the hold button to freeze the current reading on the display.

2.   While in this mode "Hold" will appear on the LCD display.

3.   Press the hold button again to resume normal operation.

MAX/MIN Function

1. Press and hold the Max/Min button to access the Maximum/Minimum modes.

2. The MAX and MIN indicators will blink continuously. The Maximum & Minimum values will automatically update in the Max/Min memory while the current applicable measurements are displayed.

3. To view the Max/Min measurements during this mode press the Max/Min button at any time to toggle through stored measurements.

4. To exit Max/Min mode and resume normal operation, press and hold the Max/Min button for approx. 3 seconds.

Auto Power Off

To preserve battery life, the meter is programmed to turn off after approximately 10 minutes of inactivity.

Calibration

Meter accuracy should be performed on a periodic basis. If calibration is required, a conductivity standard solution is required. The meter can be calibrated in any of the three ranges. Standard solutions of 84μS/cm, 1413μS/cm (included) or 12.88mS/cm (12,880μS/cm) are used for the automatic calibration recognition procedure.

Note: Calibration is always done in conductivity mode. Since salinity and TDS values are calculated from conductivity values, this procedure also calibrates the salinity and TDS ranges.

1. Fill a sample cup with the conductivity standard solution.

2. Turn the meter ON and insert the electrode into the solution so that the tip of the electrode is fully immersed and stir at a moderate, uniform rate. Tap or move the electrode in the sample to dislodge any air bubbles.

3. Press and hold the **CAL** button (approximately 2 seconds) until "CAL" appears in the lower display. The main display will start flashing.

4. The meter will automatically recognize and calibrate to the conductivity standard solution.

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5. The display will indicate "SA" followed by "End" and resume normal operation when calibration is complete.

Note: "SA" will not appear if the meter fails calibration.

Battery Replacement

When the low battery icon appears on the LCD, the batteries must be replaced.

1. Loosen both screws using the included Allen Key from the battery compartment cap.
2. Remove the battery compartment cap.
3. Replace the four (4) "AAA" batteries.
4. Secure the battery compartment cap back using the two (2) screws.

Electrode Replacement

1. To remove the electrode, unscrew (Counter-Clockwise) and completely remove the electrode collar.
2. Gently pull the electrode module to disconnect it from the meter rock the electrode from side to side, pulling it downwards, until it disconnects from the meter.
3. Carefully plug the replacement electrode into the meter socket, ensuring proper connection.
4. Tighten the electrode collar back into place.

Applications

- Water conditioning
- General purpose conductivity and salinity measurement
- Aquariums
- Wastewater monitoring
- Beverage production

Accessories and Replacement Parts

- **R3530-ELECTRODE** Replacement Conductivity/TDS/Salinity Electrode
- **R1430** Conductivity Standard Solution, 1413µs, 500ml
- **R3530-AK** Replacement Allen Key and Screws
- **CA-05A** Soft Carrying Case

Don't see your part listed here? For a complete list of all accessories and replacement parts visit your product page on www.REEDInstruments.com.

Product Care

To keep your instrument in good working order we recommend the following:

- Store your product in a clean, dry place.
- Change the battery as needed.
- If your instrument isn't being used for a period of one month or longer please remove the battery.
- Clean your product and accessories with biodegradable cleaner. Do not spray the cleaner directly on the instrument. Use on external parts only.

Product Warranty

REED Instruments guarantees this instrument to be free of defects in material or workmanship for a period of one (1) year from date of shipment. During the warranty period, REED Instruments will repair or replace, at no charge, products or parts of a product that proves to be defective because of improper material or workmanship, under normal use and maintenance. REED Instruments total liability is limited to repair or replacement of the product. REED Instruments shall not be liable for damages to goods, property, or persons due to improper use or through attempts to utilize the instrument under conditions which exceed the designed capabilities. In order to begin the warranty service process, please contact us by phone at 1-877-849-2127 or by email at info@reedinstruments.com to discuss the claim and determine the appropriate steps to process the warranty.

Product Disposal and Recycling

Please follow local laws and regulations when disposing or recycling your instrument. Your product contains electronic components and must be disposed of separately from standard waste products.

Product Support

If you have any questions on your product, please contact your authorized REED distributor or REED Instruments Customer Service by phone at 1-877-849-2127 or by email at info@reedinstruments.com.

Please visit **www.REEDInstruments.com** for the most up-to-date manuals, datasheets, product guides and software.

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TEST & MEASURE
WITH CONFIDENCE

REED
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TEMPERATURE & HUMIDITY

SOUND

MOISTURE

AIR VELOCITY

ELECTRICAL