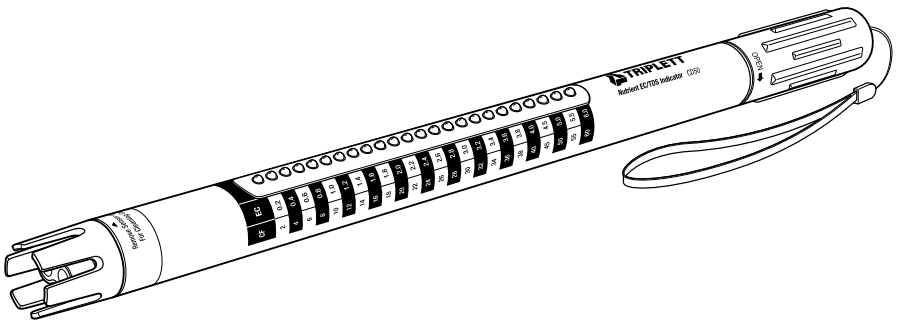


CD50

Nutrient EC/TDS Indicator for Hydroponics and Water Quality Testing



INTRODUCTION

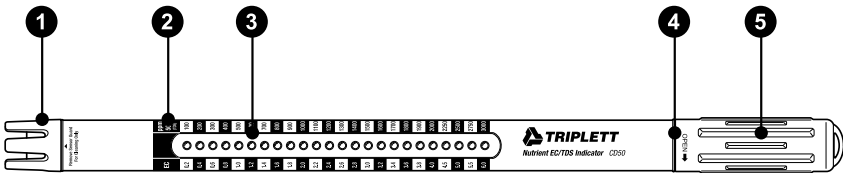
Thank you for choosing the Triplet CD50 Nutrient EC/TDS Indicator for your hydroponics and water quality needs. We appreciate your purchase and are confident this reliable instrument will support accurate monitoring of your nutrient solutions, with precise EC and TDS measurements across a wide range. Designed with a durable graphite sensor, automatic temperature compensation, and a waterproof (IP67) housing, the CD50 is built to deliver consistent performance in both field and laboratory settings. We're glad to be a part of your growing success.

Please read this manual carefully before operation to ensure safe use and optimal performance.

What's in the box: <ul style="list-style-type: none">• CD50 EC/TDS Meter• (3) 1.5V AA Batteries• Wrist Strap• User Manual	Stay updated: <p>For the most recent version of this user manual, visit www.triplett.com and search for "CD50". You can also find the latest specifications, FAQs, and product datasheets on our website.</p>
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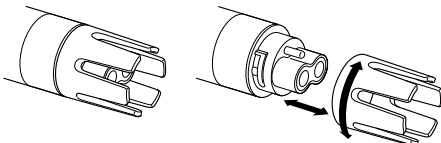
PRODUCT DESCRIPTION

The product supports two power supply methods: Power adapter and PoE.



1. Sensor with Sensor Guard installed
2. Scale
3. LED Indicators
4. O-Ring
5. Battery Cap

SENSOR GUARD INSTALLATION



1. To detach the sensor guard, twist counterclockwise until completely loose and then remove from the sensor.
2. To attach the sensor guard back on, twist clockwise until it is secured in place.

CF/ED/TDS SCALE

When the sensor is immersed in a solution, the LED indicator will light up and move in between scale ranges. Once it stabilizes, it will stop at a range indicating the CF/EC/TDS measurement.

CF	EC	LED Indicator	ppm 500 (TDS)	ppm 700 (EC×700)
2	0.2	○	100	140
4	0.4	○	200	280
6	0.6	○	300	420
8	0.8	○	400	560
10	1.0	○	500	700
12	1.2	○	600	840
14	1.4	○	700	980
16	1.6	○	800	1120
18	1.8	○	900	1260
20	2.0	○	1000	1400
22	2.2	○	1100	1540
24	2.4	○	1200	1680
26	2.6	○	1300	1820
28	2.8	○	1400	1960
30	3.0	○	1500	2100
32	3.2	○	1600	2240
34	3.4	○	1700	2380
36	3.6	○	1800	2520
38	3.8	○	1900	2660
40	4.0	○	2000	2800
45	4.5	○	2250	3150
50	5.0	○	2500	3500
55	5.5	○	2750	3850
60	6.0	○	3000	4200

BATTERY INSTALLATION

1. Open the battery cap following the “OPEN” marking
2. Insert three (3) AA alkaline batteries with the positive (+) end facing down
3. Reinstall the cap, ensuring the O-ring is properly seated to maintain IP67 seal
4. After installation, the LED indicators will briefly illuminate to confirm proper powerup

NOTE:

- Use alkaline batteries only (do not use rechargeable batteries)
- Do not mix old and new batteries or different brands
- Remove batteries if the unit is not used for more than one month
- Check for corrosion when replacing batteries

OPERATION

Measurement

1. Immerse the probe into the test solution for a few seconds
2. The LED indicator will light up and move in between the ranges until it stabilizes
3. Once stabilized, the LED indicator stops at the measurement value

LED Reading Fluctuation

1. If the LED fluctuates between two readings, the actual reading is between the two values (example: LED fluctuates between 8 and 10 = approximately 9).
2. To take another reading, remove the probe from the solution for a few seconds and reinsert back into the solution

Temperature Response

1. For very hot or cold solutions, allow 1–2 minutes for the sensor to reach temperature equilibrium. The meter will automatically power off while the temperature will continue to reach equilibrium.
2. To reduce stabilization time, stir the solution with the sensor probe or place it in a moving solution
3. If the meter powers off, remove the sensor from the solution and reinsert it back to activate the measurement mode.
4. The LED indicator will light up and move between ranges. Once stabilized the LED indicator stops at the measurement value.

CLEANING INSTRUCTIONS

Regular cleaning is recommended every two weeks (depending on frequency use).

1. Prepare cleaning solution:
 - a. Mix 40mL of lemon juice (~5% citric acid)
 - b. Add distilled/deionized water to a total of 100mL
2. Clean the sensor:
 - a. Remove the sensor guard
 - b. Soak the sensor for 10 to 15 minutes to remove mineral buildup
3. To remove tough debris on the sensor:
 - a. Gently wipe with a soft, lint-free cloth
 - b. Do not use abrasive cleaning materials
4. Rinse and dry:
 - a. Rinse thoroughly with distilled/deionized water
 - b. Blot dry
 - c. Reinstall the sensor guard after cleaning to protect the sensor

TROUBLESHOOTING

1. Meter turns off before reading is taken:
 - a. Remove from solution for 3 to 5 seconds
 - b. Reinsert and measure again
2. Meter does not light up:
 - a. Verify solution is within measurement range
 - b. Clean the probe (see Cleaning Instructions above)
 - c. Replace batteries
3. Low readings:
 - a. Clean the sensor per Cleaning Instructions above

SPECIFICATIONS

Measurement Specifications

Parameter	Range	Resolution	Accuracy
Electrical Conductivity (EC)	0.2 to 6.0mS/cm	0.1mS/cm (0.2 to 4.0) 0.25mS/cm (4.0 to 6.0)	±4% rdg ±1 digit
TDS (500ppm Scale)	100 to 3000ppm	50 ppm (100 to 2000) 125 ppm (2000 to 3000)	±4% rdg ±1 digit
TDS (700ppm Scale)	140 to 4200ppm	70 ppm (140 to 2800) 175 ppm (2800 to 4200)	±4% rdg ±1 digit

General Specifications

Feature	Description
Display	24 LED indicator scale (bright blue LED light)
Measurement Modes	EC, CF, and TDS (ppm)
Sensor Type	Graphite electrode
Calibration	Factory calibrated (no user calibration required)
ATC	Automatic Temperature Compensation
ATC Range	32 to 122°F (0 to 50°C)
Ingress Protection	IP67 (completely dust-tight and waterproof)
Operating Temperature	32 to 122°F (0 to 50°C)
Storage Temperature	32 to 140°F (0 to 60°C)
Operating Humidity	<90% RH
Sensor Life	>5 years (with proper maintenance)
Power Supply	3 × 1.5V AA alkaline batteries
Battery Life	Approx. 3 years (10 measurements/day)
Dimensions	17.8" (453mm) length × 1.2" (30mm) diameter
Weight	8.1oz (230g)
Housing Material	ABS + PC

Note:

- The accuracy specification is stated at 77°F (25°C) unless otherwise specified.
- Automatic Temperature Compensation (ATC) applies within specified range.
- ppm values based on selectable 500 and 700 scales.

CERTIFICATIONS



This product complies with applicable CE requirements, is RoHS compliant, and has been tested to applicable IEC standards and IP67 rating (completely dust-tight and waterproof).

WARRANTY

Triplett offers warranty to the original purchaser of its products. We guarantee that our products will be free from defects in workmanship and materials for one (1) year from the purchase date.

This warranty does not cover:

- Products purchased from unauthorized distributors.
- Items that have been repaired or altered by unauthorized individuals.
- Damage from misuse, abuse, misapplication, negligence, or accidents.
- Products with altered, defaced, or removed serial numbers.
- Accessories, including batteries.

Imagery is for reference and may be enhanced for clarity. Actual product appearance and screen content may vary slightly. Specifications are subject to change without notice. For the latest information, visit www.triplett.com.

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