

ENGLISH	ECTest1 1	ECTest11+	TDStest11	TDStest11+	Salttest
Range	0-2000 $\mu$ S / 0-20.00 mS		0-200.0 ppm / 0-2000 ppm		0-10.00 ppt
	-	2.0-200.0 $\mu$ S	-	0-10.00 ppt	-
Auto Calibration	Yes		No		

**Before you begin:** Soak the sensor for a few minutes in alcohol to remove oil stains. Rinse with de-ionized water and shake off dry.

### Range Selection (ECTest11 / 11+, TDStest11 / 11+)

With above models, a particular measuring range can be set. Default is AUTO. Setting a range other than AUTO, the tester can be calibrated for that range only. To select a range:

1. Switch off the tester.
2. Press and hold °C/°F, switch on the tester with ON/OFF.
3. Release °C/°F. Range selection mode is active. Lower display shows the current range (PU/ LO/ HI/ AUTO, upper display shows the maximum reading for that range.
4. Press HOLD repeatedly for the required range. After 5 seconds of no key press the range is confirmed, display shows [CO]. Meter will return to measurement mode.

### Auto (AC) or Manual (MC), One (1PC) or Multi (MPC) Point Calibration

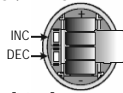
ECTest11 & 11+ have automatic (AC) & manual (MC) calibration, all other models have MC. In AC, the conductivity buffers are automatically detected (84,1413 $\mu$ S & 12.88mS). In MC, other buffers can be used (f.e. 3.0mS). For higher accuracy in measuring multiple ranges, calibrate multiple ranges. Selecting MPC has no use if a specific measuring range is selected. Default is AC on and 1PC Calibration.

### Selecting Auto (AC) or Manual (MC) Calibration (ECTest 11 / 11+ only)

Note: Press °C/°F to skip / leave without confirming changes.

Note: AC is available for ECTest11 & 11+. For other models, go to 1PC / MPC selection below.

1. Switch off the tester.
2. Press and hold INC and switch on the tester with ON/OFF.
3. Lower display shows [A.CAL], upper display blinks the current choice [Yes] or [No]. Release ON/OFF and INC
4. Press INC or DEC to select [Yes] (enable AC) or [No] (disable AC).
5. Press HOLD/ENT to confirm. Display shows [CO]. Tester goes to 1PC / MPC selection mode.



### Selecting One (1PC) or Multi Point Calibration (MPC):

1. For ECTest11/11+ repeat steps 1 to 5, for other models repeat step 1 to 3 from above.
2. Tester goes to 1PC / MPC selection. Lower display shows [1.Pnt], upper blinks [Yes] or [No].
3. Press INC or DEC to select [Yes], enable 1PC or [No], enable multi-point calibration.
4. Press HOLD/ENT to confirm. Display shows [CO] for few a seconds and powers-up.

Note: Press °C/°F to skip / leave without confirming changes.

### Calibration

1. Twist off the battery compartment lid. Press ON/OFF to switch on.
2. Rinse the sensor in de-ionized water followed by the buffer. Dip the sensor in the buffer, swirl gently, wait for the reading to stabilize.
3. Press INC or DEC for calibration mode. Display shows [CAL] and number of calibration points.
  - For AC mode (ECTest11/11+) the standard buffer is shown (84,1413 $\mu$ S or 12.88mS). Press HOLD/ENT to confirm the calibration value. Display shows [CO] as confirmation. For MPC the tester will prompt for the next buffer. Put the tester in the next solution and press HOLD/ENT to confirm.
  - For MC mode, press INC or DEC to adjust the value in the upper display to the value on the buffer bottle. Wait 5 seconds. Display shows [CO] as confirmation. For MPC: dip the tester in an other buffer and proceed with step 2.

Note: During calibration resolutions are as those of the + series. After [CO] the reading goes back to its original resolution.

Note: Press HOLD/ENT before confirmation to exit without confirming.

Note: If no key is pressed for 5 seconds in MC mode, [CO] is shown but the meter is NOT calibrated!

Note: [Er.1] appears if the buffer is outside the range, calibration window is  $\pm$ 50% from the default of the standard

Note: If a specific measuring range was selected, only the standard of this range will be shown in AC mode.

### Measurement

1. Press ON/OFF to switch on.
2. Dip the sensor in the sample or fill the cup (plus serie), stir gently, let the reading stabilize.

### HOLD Function

1. Press HOLD to freeze the measurement. 'HOLD' will be displayed.
2. Press HOLD again to release.

### TDS Factor Setting (TDS Models only)

- adjustable from 0.4 to 1.0. Default is 0.71
1. Press ON/OFF to switch on. Twist off the battery compartment lid
  2. Press HOLD/ENT, to bring the tester in hold mode.
  3. Press INC or DEC to enter TDS factor setting mode.
  4. Press INC or DEC repeatedly to set the TDS factor. Upper display shows the adjustable TDS factor, lower display shows the previous TDS Factor.
  5. Wait 5 seconds. Display shows "CO" as confirmation.

### Temperature Calibration

Note: Press °C/°F or HOLD/ENT before step 5 to exit without confirming.

1. Twist off the battery compartment lid. Press ON/OFF to switch on.
2. Dip the tester in a solution of known temperature, wait for the reading to stabilize.
3. Press INC or DEC for calibration mode. Display shows [CAL] and number of calibration points.
4. Press °C/°F. Upper display shows the adjustable temperature, lower the previous set temperature.
5. Press INC or DEC to adjust the temperature in the upper display.
6. Wait 5 seconds. Display shows [CO] as confirmation

Note: Temperature adjustment window is  $\pm$ 5°C/  $\pm$ 9°F from the default reading in the range or 0 to 50°C.

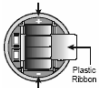
Note: After calibration, Conductivity / TDS / Salt calibration is necessary.

### Reset to factory default

1. Switch off the tester.
2. Press and hold HOLD/ENT, switch on the tester with ON/OFF.
3. Release HOLD/ENT, lower display shows [rSt], upper blinks [nO].
4. Press INC or DEC to select [Yes] to reset or [No] to cancel reset.
5. Press HOLD/ENT to confirm. Display shows [CO].

### Sensor Maintenance

1. Rinse the sensor with de-ionized water, wipe dry with a clean cloth before storing. For plus models remove plastic cup. Never clean with a hard substance.
2. For better performance, soak the sensor in alcohol for 10 to 15 minutes, rinse with de-ionized water before measuring.



### Changing Batteries

1. Open the battery compartment.
2. Remove old batteries; replace with new ones. Note the polarity.

**Sensor Replacement:** is needed when calibration fails or gives fluctuating readings in calibration standards.

1. Grip the ribbed collar with sensor facing you. Twist the collar counter clockwise (fig A). Save the ribbed tester collar and O-ring.
  2. Pull the sensor off the tester.
  3. Align the 4 tabs on the new module with the 4 slots on the tester (fig B).
  4. Gently push the new module onto the slots.
  5. Push the smaller O-ring fully onto the sensor.
  6. Push the collar over the module and twist it clockwise.
- Note: Recalibrate your tester after sensor replacement.

