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## SPECIFICATION

SPECIFICATIONS	8351	8361	8371
Accuracy ±	1% Full Scale ± 1 digit or 2% Full Scale ± 1 digit (10.1-70.0ppt of 8371)		
Calibration	One point per range		
Auto Power Off	●	●	●
Measurement range	0-1999µS/cm or 0-19.99mS	0-1999µS/cm or 0-19.99mS/ppt ±1	0-100.0ppt (NaCl) 0-10.0ppt (NaCl)
Temp. Accuracy	+0.5°C	+0.5°C	+0.5°C
Temp. Resolution	0.1°C/°F	0.1°C/°F	0.1°C/°F
Resolution	0.01mS 0.01mS	0.01mS/0.0ppt 0.01ppt	0.01ppt 0.01ppt
Hold Data	●	●	●
Unit C/F switchable	●	●	●
ATC (0-50°C)	●	●	●
View Call. Information	●	●	●
Waterproof (IP65)	●	●	●
Size	165mm(L)x35mm(W)x32mm(T)		
TDS Factor	0.4-1.00		
Temp. Coefficient	0-4.0%/°C	0-4.0%/°C	Built-in NaCl Temp. Coefficient
Normalization Temp.	20 or 25°C	20 or 25°C	Fixed at 25°C

\*\*1: This value is based on TDS  
factor = 1.00.

- ✓ Operating Temp.: 0°~50°C (32~122°F)
- ✓ Battery Life: >80 hrs continuous use

## WARRANTY

The meter is warranted to be free from defects in material and workmanship for a period of one year from the date of purchase. This warranty covers normal operation but does not cover battery, misuse, abuse, alteration, tampering, neglect, improper maintenance, or damage resulting from leaking batteries. Proof of purchase is required for warranty repairs. Warranty is void if the meter used to be taken apart.

resetting this value, the calibration standard value of that normalized temp. must be known. You could refer to the datasheet enclosed with your solution.

### **When should you do the calibration?**

Calibration is necessary and should be done regularly.

-If you are measuring the mid-ranges, calibrate the meter at least once a month. Soak the probe for 15 mins before calibration or measurement can saturate the probe surface and minimize drift.

-If measure at the extreme temperatures or in below concentration, calibrate the meter at least once a week to get specified accuracy.

Model	Concentration	
8351	<100uS	>2mS
8361	<100uS or TDS factor ppm	>2mS or TDS factor ppm
8371	<0.10ppt	>5.0ppt

### **CONDUCTIVITY CALIBRATION**

Please follow up below steps to proceed the conductivity calibration:

1. Insert the probe into demineralized water or distilled water for about 30 minutes to rinse the probe.
2. Select the conductivity standard for calibration. ( See page 13)
3. Pour 3 cm height of the solution into two separate clean containers.
4. Power on the meter. Select the mode as conductivity measurement mode.
5. Rinse the probe into one of above containers. Gently stir the probe.

6. Dip the rinsed probe into the other container. Tap probe on the bottom of container to remove air bubbles. Let the probe stabilize to the solution temperature ( wait about 15 mins)

7. Press " $\nabla$ " more than 2 seconds to begin calibration. The conductivity value of solution will blink on LCD.

8. Press " $\blacktriangle$ " or " $\blacktriangle$ " and " $\nabla$ " to change the value in order to match the value to the standard which is referred to normalization temp. 25°C You can adjust the conductivity reading up to  $\pm 30\%$  from the detected value. However, if your detected value and standard value differs by more than  $\pm 30\%$ , it means cleaning or replacing meter is needed.

#### ***For example:***

Standard: 10uS; Detected value: 19uS  
Adjustable range:  $\pm 5.7us$  ( $19 \times 30\%$ )  
However, under above situation, the values already differed over 30%.

#### **NOTE:**

If the standard buffer is over the measuring limit or less than 10% of measuring limit, the displayed value will equal to the range limit or 10% of range limit.

#### **For example 1:**

Standard: 22uS; Detected value: 19uS  
Adjustable range:  $\pm 5.7us$  ( $19 \times 30\%$ )  
The values differ less than 30% but the 22uS is already over range limit. So, the maximum value could be input is 19.99uS only.

For example 2:

Standard: 1.6mS; Detected :2.1mS  
Adjustable range:  $\pm 0.63\text{ms}$  ( $2.1 \times 30\%$ )  
The values differ less than 30% but  
the 1.6mS is already less than  
10% range limit (1.99). So, the max.  
value could be input is 1.99mS only

- 9 When the "CAL" stop flashing, you I  
can press"  $\text{O}_{\text{BET}}$  " less than 1 second  
to confirm the value. The meter then  
return to conductivity measurement  
mode.

If the "CAL" always blinks, please  
check the calibration solutions and  
make sure it is stable and your input  
value in step 8 is correct.

10. Repeat 1~9 for other ranges if needed.

#### NOTE:

When switch the meter from measure-  
ment to calibration mode, the meter  
will display the factory default value.  
So, if the meter was previously  
calibrated, the display may seem to  
jump to the factory default value when  
entering calibration.

#### NOTE:

To exit conductivity calibration mode  
without confirming calibration, you can  
press"  $\text{O}_{\text{BET}}$  " ( in step9) more than 2  
seconds. This lets you retain the meter's  
previous calibration data for the current  
range which you proceed.

### TDS CALIBRATION (MODEL:8361)

There are two options for you to do the  
TDS calibration.

#### Option1: Using TDS standards

Please follow up below steps to proceed  
the calibration:

1. Insert the probe into demineralized  
or distilled water for about 30 minutes  
to rinse the probe.
2. Select the TDS standard for calibration  
The factory default setting of the TDS  
conversion factor is 0.50. If your  
solution has a different TDS factor,  
you can improve the calibration  
accuracy by setting the TDS factor  
before starting the calibration.  
To converse the TDS factors to the  
correct value, please see Appendix  
B or refer to the value provided by  
standard solution manufacturer.
3. Pour 3 cm height of the solution into  
two separate & clean containers.
4. Turn on the meter. Press the " $\text{MODE}$ "  
to select TDS mode.
5. Rinse the probe into one of the  
containers. Gently stir the probe.
6. Dip the rinsed probe into the other  
container. Tap the probe on the bottom  
of container to remove air bubbles.  
Let the probe stabilize to the solution  
temperature.
7. Press " $\text{HOLD/CAL}$ " more than 2 seconds  
to begin the calibration. The TDS  
value will blink on the LCD.
8. Press the " $\text{MODE}$ " or " $\text{HOLD/CAL}$ " to adjust  
the value to match the value to the  
standard solution which is referred  
to normalization temperature.  
The meter is defaulted at 25°C