

## 2301T-F Conductivity/Temp. Electrode User Manual

### Brief Introduction

Apera Instruments 2301T-F Conductivity Electrode is featured with a proprietary platinum black sensor for accurate readings in a wide conductivity range up to 200 mS/cm, along with a built-in temperature sensor for automatic temperature compensation.

### Technical Specifications

<b>Range</b>	0 to 200 mS/cm, 32 to 122°F (0 to 50°C)
<b>Housing</b>	POM
<b>Constant</b>	K=1.0
<b>Connector</b>	BNC/RCA
<b>Cable length</b>	3 Ft
<b>Dimension</b>	ø12*155 mm
<b>Temperature sensor</b>	30KΩ thermistor
<b>Operating temperature</b>	32 to 176°F (0 - 80°C)



### How to Install the Electrode

1. Find the conductivity BNC socket (where it shows Cond) on the conductivity meter; Open the rubber cap; Insert the BNC connector of the electrode to the BNC socket while twisting clockwise until it's locked.
2. Find the RCA socket (where it shows temp.) on the pH meter; Open the rubber cap; Insert the black RCA connector of the electrode to the RCA socket directly.
3. After connecting the new electrode to your meter, adjust the meter's constant K to 1.0 according to the instruction of your meter's manual. Then perform a 2 to 3-point calibration to ensure the accuracy.

### How to Use the Electrode

1. There is a proper amount of deionized water in the cap on top of the electrode. The conductivity sensor is soaked in it to keep its sensitivity.

2. Before measuring, loosen the bottle cap, then pull out the electrode while twisting counterclockwise. Place the storage bottle at a safe position.
3. Rinse the electrode with distilled or deionized water and blot-dry it with clean tissue or filter paper. Rinse the electrode again with your test solution if possible for the best result. Never rub the sensor.
4. Insert the electrode into your sample solution and stir it for a few seconds in the solution to remove potential air bubbles. Then wait for the stable reading and take the measurement.
5. After measurement, insert the electrode back into the storage cap and twist it on. If the water in the cap is contaminated, rinse out the storage cap and fill in new deionized or distilled water.

### **How to Maintain the Electrode**

1. Always rinse the electrode with distilled or deionized water before and after each test and calibration.
2. For organic residues, rinse the electrode with warm detergent water and clean with alcohol using a soft brush; For calcium and magnesium sediments, use 10% lemon acid to clean them off.
3. Store the electrode in the storage cap filled with distilled or deionized water when not in use.
4. Keep the electrode connector clean and dry. Use cotton balls with isopropyl alcohol to clean if it gets dirty and then blow-dry it. This is to prevent a potential short circuit, which will undermine the electrode's performance.

### **Limited Warranty**

We warrant this electrode to be free from defects in material and workmanship and agree to repair or replace free of charge, at the option of APERA INSTRUMENTS, any malfunctioned or damaged product attributable to responsibility of APERA INSTRUMENTS for a period of SIX MONTHS from the delivery.

This warranty does not cover any damages due to:

Accidental damage, transportation, storage, improper use, failure to follow the product instructions, unauthorized repair, normal wear and tear, or any other actions or events beyond our reasonable control.