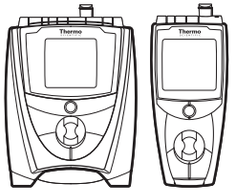


English

Thermo Scientific
Orion Star™ Series Conductivity Meter

Cond Quick Start Guide

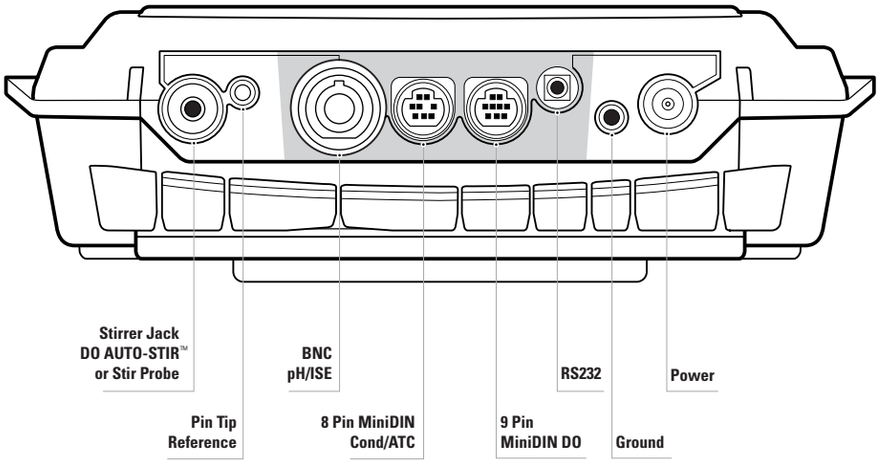
Key Description

	power		**up arrow**		**line select**		**view log**
	calibrate		**down arrow**		**setup**		**stir**
	measure		**digits**				

All connectors on the 5-Star benchtop meter are depicted below. All connectors on the 5-Star portable meter are highlighted in gray.

The 3-Star and 4-Star meters will have fewer connectors. For example, the 3-Star portable conductivity meter will only have 8 pin miniDIN and RS232 connectors.

Meter Connections



For the complete Orion Star™ Series User's Guide visit www.thermo.com/water

Preparation

1. Power adapter (benchtop models only) - Select the appropriate wall socket plug and slide the plug plate into the groove on the back of the adapter. **See A**.

   Batteries - Select four AA Alkaline batteries. Confirm that the meter is off and remove the battery cover. Orient and insert the batteries as depicted in the battery compartment housing. Replace the cover. **See B & C**.

2. Prepare the conductivity probe according to the directions in the probe instruction manual. In general, this includes rinsing the probe with deionized water. **See D**.

3. Meter connections - Connect the power adapter to the meter and then to the wall socket (benchtop meters only). **See E**. Connect the conductivity probe to the 8 pin miniDIN input on the meter. **See F**. Connect the stir probe to the stir jack input on the meter (benchtop meters only). **See G**.

   NOTE: *Make sure that all unused inputs on the meter are covered with the black caps.* ▲

Meter Overview

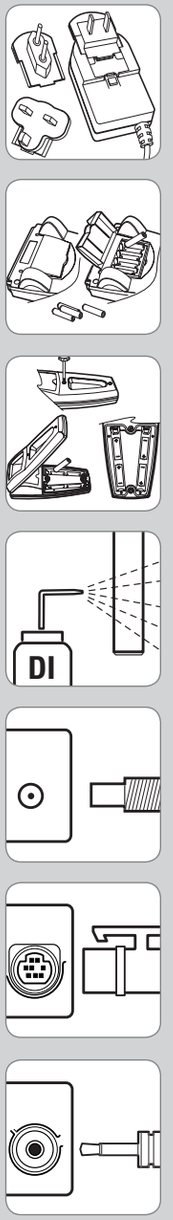
1. To power on the meter press the **power** key.

2. Press the **line select** key to choose the top, middle, or bottom display line. The ▶ icon will point to the selected line.

3. In the measurement screen press the **up arrow** key to change the value on the middle display line to µS/cm or mS/cm, mg/L, ppt, MΩ-cm, or a blank line.

4. To escape out of any meter function, press and hold the **measure** key until the meter returns to the measurement mode.

5. The 3, 4 and 5-Star conductivity meters can perform a one point manual calibration, up to a three point autocalibration, or up to a five point direct calibration.



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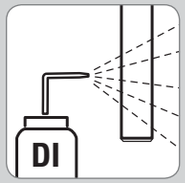

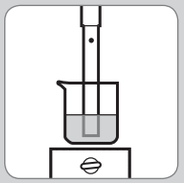

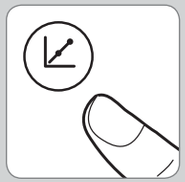

Conductivity Autocalibration with One Standard

1. Press the **power** key to turn on the meter. **See 1a**. Use the **line select** key to move the ▶ icon to the conductivity measurement line. **See 1b**.
2. Select the Thermo Scientific Orion conductivity standard (100 µS/cm, 1413 µS/cm, or 12.9 mS/cm) that has the closest conductivity to your expected sample value. **See 2**.
3. In the setup mode enter the nominal cell constant value for the conductivity probe. **See 3**. The meter will use the nominal cell constant value to recognize the conductivity standard during autocalibration. See **Nominal Cell Constant Selection** section.
4. Rinse the conductivity probe with deionized water and blot dry with a lint-free tissue. **See 4**.
5. Insert the conductivity probe into the conductivity standard and gently stir – if a stir probe is being used press the **stir** key to start and stop stirring (benchtop models only). **See 5**.
6. Press the **calibrate** key. **See 6a**. The meter will show the manual calibration display for about five seconds. **See 6b**. Do not press any keys.
7. After about five seconds the meter will proceed to the direct and autocalibration display. Wait for the **µS/cm** or **mS/cm** icon to stop flashing and the ▶ icon to start flashing. The meter should display the conductivity standard value at 25 °C. **See 7**.
8. Press the **measure** key to save and end the calibration. **See 8**. The calculated cell constant will be displayed and then the meter will proceed to the measurement mode.

Nominal Cell Constant Selection

1. Press the **setup** key.
2. Press the **up arrow** key until COnd is displayed on the top line.
3. Press the **line select** key to move the ▶ icon to the middle line. Press the **up arrow** key until CELL is displayed.
4. Press the **line select** key to move the ▶ icon to the bottom line. Enter the nominal cell constant by pressing the **up/down arrow** keys to adjust each digit and the **digits** key to move to the next digit. 0.475 cm^{-1} is default setting.
5. Press the **line select** key to move the ▶ icon to the top line. Press the **measure** key to return to the measurement mode.

Reference Temperature Selection

1. Press the **setup** key.
2. Press the **up arrow** key until COnd is displayed on the top line.
3. Press the **line select** key to move the ▶ icon to the middle line. Press the **up arrow** key until trEF is displayed.
4. Press the **line select** key to move the ▶ icon to the bottom line. Press the **up arrow** key to select 15 °C, 20 °C, or 25 °C as the reference temperature. 25 °C is default setting.
5. Press the **line select** key to move the ▶ icon to the top line. Press the **measure** key to return to the measurement mode.

Conductivity Measurements

1. Rinse the conductivity probe with deionized water, blot dry with a lint-free tissue, and insert the probe into the sample.
2. If the meter is in AUTO-READ™ mode, press the **measure** key to take a measurement. Once the reading stabilizes the **AR** icon will stop flashing and the display will freeze. Press the **measure** key again to take a new measurement.

   If a stir probe is connected it will start stirring when the **measure** key is pressed and stop stirring when the **AR** icon stops flashing (benchtop meters only).
3. If the meter is in the continuous or timed measurement modes, the meter will continuously take measurements and update the display. Once the reading stabilizes the **µS/cm** or **mS/cm** icon will stop flashing.

   If a stir probe is connected press the **stir** key to start stirring and press the **stir** key again to stop stirring (benchtop meters only).

Printing Data

In the AUTO-READ and continuous measurement modes, every time the **measure** key is pressed the meter logs the data on the display. In the timed measurement mode, the meter logs the data at the predetermined time interval.

1. Press the **view log** key.
2. Use the **up arrow** key to scroll between CAL0 (print the calibration log) and SEnd (print the measurement log).
3. Press the **line select** key to print the data.

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