

# CONDUCTIVITY METER KIT COMPLETE



## DESCRIPTION

The Conductivity Meter Kit Complete is sturdy, affordable and ideal for field use. The Conductivity Meter Kit Complete (PCN 0173062) includes the Conductivity Meter with 4 alkaline AAA batteries, Conductivity Electrode-ATC with protective guard, stand, rubber armor, 4 spare alkaline AAA batteries, 100 ml beaker, Gallic Acid, brass scoop, case and manual.

The meter has a large custom LCD (Liquid Crystal Display) for clear and easy reading. It measures conductivity in microSiemens per cm m ( $\mu\text{S}/\text{cm}$ ) and temperature in  $^{\circ}\text{C}$ . Automatic calibration of the meter is quick and easy using the recommended calibration solutions.

The Conductivity Electrode-ATC is also available separately (PCN 0173070) and is temperature compensated.

## APPLICATION & USE

It is recommended that neutralized conductivity be measured on boiler water samples on a daily basis. Conductivity may also be performed on other types of water. The Conductivity Meter Kit Complete is well suited for confirming the calibration of online monitoring units.

## PROCEDURE AND USE

Please refer to the manual for more detailed instructions.

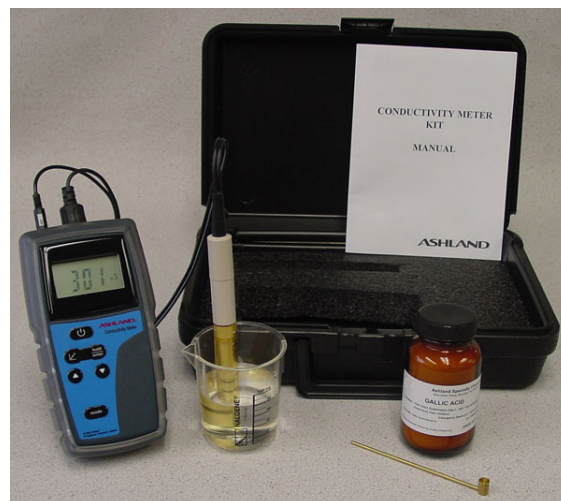
### Setup

1. Connect the Conductivity Electrode-ATC to the meter by aligning the connector slots with the posts of the meter's socket and rotate the connector clockwise until it locks. Insert the mini phono jack of the temperature sensor into the socket on the meter. Unplug the phono jack when not in use.
2. Press the power button. The meter will go through a series of displays, showing the various setup parameters. All LCD segments will light up for 2 seconds, and change into measurement mode. The conductivity measurement mode will display " $\mu\text{S}$ " on the LCD. If the LCD displays " $^{\circ}\text{C}$ ", press the mode button until it displays " $\mu\text{S}$ ". The meter is now ready for

## AUTOMATIC CALIBRATION

The meter will need to be calibrated before initial use and when a new electrode is being used for the first time.

1. Rinse the Conductivity Electrode-ATC with distilled water to remove any impurities adhering to the body of the electrode and then rinse with a small amount of calibration standard. If the electrode is dry, soak it for at



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least 5 to 10 minutes in distilled water before calibration. Select a standard value close to the sample value you are measuring. Automatic calibration is performed using the  $84 \mu\text{S}/\text{cm}$  or  $1413 \mu\text{S}/\text{cm}$  calibration standards. Note: Do not place the electrode into the bottle of calibration standard. Always pour an aliquot of standard solution from the bottle into a beaker and discard after calibration is complete. To keep the bottle of calibration standard from becoming contaminated, do not pour the aliquot of solution back into the bottle of calibration standard.

2. Immerse the electrode tip into the calibration standard beyond the upper steel band. Stir the electrode gently to create a homogeneous sample and allow time for the reading to stabilize.
3. Press the conductivity calibration button. The calibration indicator will appear for 1.5 seconds and a value will appear flashing. Wait for the value to stabilize and press the hold/enter button. The calibration standard value will appear for 3 seconds. If the calibration is successfully performed, a (donE) will be displayed for about 3 seconds, and the meter will return to the measurement mode.

## SAMPLE MEASUREMENT

1. Rinse the electrode with distilled water before use to remove any impurities adhering to the body of the electrode.
2. If measuring the conductivity of a boiler water sample, add 2 drops of phenolphthalein to a cooled boiler water sample and stir. If measuring the conductivity of another type of water proceed to step 4.
3. If the sample turns pink, add Gallic Acid while stirring until the pink color disappears.

4. Place the electrode into the sample and take care to ensure that the liquid level is above its upper steel band. Stir the electrode gently in the sample to create a homogeneous sample. Allow time for the reading to stabilize. Note the reading on the display.
5. To hold a measurement, press the hold/enter button while in the measurement mode. (HO) will appear on the display. To release the held value, press the hold/enter button again. Continue to take measurements.

## ELECTRODE INFORMATION

**NOTE:** DO NOT remove the protective guard during measurement and calibration as it may affect the readings.

DO NOT submerge the electrode above the protective guard.

ALWAYS immerse the electrode beyond the upper steel band.

RINSE the electrode with distilled water before storing.

## CONDUCTIVITY METER COMPLETE KIT CONTENTS

1 Conductivity Meter with 4 x AAA alkaline batteries  
1 Stand  
1 Rubber Armor  
1 Conductivity Electrode-ATC with protective guard  
4 x Alkaline AAA batteries – spare  
1 x 100 gram Gallic Acid  
1 x 0.2 gram Brass Scoop  
1 x 100 ml Plastic Beaker  
Manual  
Case

## ITEMS AVAILABLE SEPARATELY

1 x 30 gram Gallic Acid PCN 0309170  
1 x 0.2 gram Brass Scoop PCN 0224014  
1 X 120 ml Phenolphthalein PCN 0311191  
1 x 100 ml Plastic Beaker PCN 0247016  
1 x 500 ml Conductivity Standard (84  $\mu$ S) PCN 6968038  
1 x 500 ml Conductivity Standard (1413  $\mu$ S) PCN 6968020  
1 x Conductivity Electrode – ATC PCN 0173070  
Conductivity Meter Kit PCN 0173054  
Includes all of the items in the Conductivity Meter Complete Kit except the Gallic Acid, Brass Scoop and Plastic Beaker



400 Captain Neville Drive  
Waterbury, CT 06705 USA  
1-973-526-5700  
Drew-Marine.com