



Instruction and Warranty Information

#1 HOW TO USE: AUTOMATIC ON/OFF AND AUTO CALIBRATION FEATURE.

The EC Dipstick nutrient meters turn on when the electrode end is placed under the surface of the solution you are testing. Shake the tip back and forth while under the surface to get all the trapped air out of the electrode protector. The EC Dipstick will display its reading and shut off. To take another reading simply withdraw the electrode out of the solution and restart the above process. After the batteries are replaced, the EC Dipstick will turn itself ON and proceed through a programmed self-calibration to minimize electronic drift, a feature usually found on only the very finest laboratory meters. NOTE: Other than for cleaning purposes, do not remove the plastic electrode protector. It must be in position for a true reading.

#2 EASY TO READ AND UNDERSTAND.

The EC Dipstick works on the principle that the meter will flash one or two lights to indicate the solution's strength. If the solution's strength is between the scale numbers the lights will blink alternately (back and forth). It is how they alternate that indicates the reading.

NOTE: The CF (Conductivity Factor) scale has grown in popularity over the past decade because it is easy to read, write and remember without errors. This is the scale we suggest you become familiar with and use.

Example of the CF scale:

if the 10 CF light blinks steady the reading is 10 CF .

If the 10 CF light blinks once and the 12 CF light blinks once the reading is 11 CF.

If the 10 CF light blinks twice and the 12 CF light blinks once the reading is 10.5 CF.

If the 10 CF light blinks once and the 12 CF light blinks twice the reading is 11.5 CF.

Add the precise amount of plant food to your water from your plant food recipe and log the EC Dipstick reading as your target. The next time you make up a batch of plant food use the EC DIPSTICK to check if you added the proper amount to the water or as time goes along, add proportional amounts of the plant food to the tank and bring the growing solution back to its original target strength.

Special Note: It is important to remember that equal amounts of plant foods from different manufactures, after being dissolved in the same amount of distilled water, **will not** give the same reading on Electrical Conductivity meters. This is true for all electronic meters, and it has nothing to do with the meter and everything to do with the elements and compounds that make up each plant food formulation. Different formulations and their corresponding recipes from the same manufacture will also give different readings when comparing the weights of fertilizer to a specific volume of distilled water. Also, different readings will occur when the water source changes. The more dissolved solids in the water the more electrical conductivity. Well water, generally speaking, will conduct more electricity than spring water. The point is, all liquid Electrical Conductivity meters are personal tools displaying the readings from **your** water supply and the plant food manufactures formula and recipe that you are using.

#3 AUTOMATIC TEMPERATURE COMPENSATION.

Your EC Dipstick features a temperature compensated sensor. The most accurate reading will be obtained when the electrode has been submersed into the solution for at least 30 seconds. Then, pull the EC Dipstick out of the solution and re-test. This will help to adjust the probe's temperature to the solution's temperature. The most accurate reading will occur when the water or plant food that you are testing is between 60 and 80 degrees Fahrenheit.

#4 WATER PROOF PROTECTION.

The EC Dipstick is waterproof to 1 meter. The battery compartment is sealed against accidental splashing or brief submersion under one meter of water or plant food but is not sealed against deep, long or term submersion. When changing batteries make sure that the cap has been securely locked onto the meter. If you drop the EC Dipstick into water or plant food deeper than 1 meter or the EC Dipstick has submersed for an extended period of time, wipe the meter dry and check the battery compartment for moisture. If you detect moisture in the battery compartment simply remove the batteries and shake out as much moisture as possible. Let the battery compartment dry completely. Replace the batteries with new before resuming operation. **Always** test a cup of solution and **test the contents away from large bodies of water or nutrient solution.**

#5 NEVER NEEDS CALIBRATION.

The EC Dipstick never needs calibration. Therefore, no expensive calibration solutions are needed. EC Dipstick nutrient meters have the latest Micro Chip Memories and are programmed at the factory to give true and accurate readings for plant food solutions. After replacing the batteries you will notice the EC Dipstick turn itself ON and precede through a auto-programmed calibration to minimize electronic drift, a feature usually found on only the very finest laboratory meters. The EC Dipstick has been calibrated to 4 international standards for your convenience: 1. The 500:1 PPM scale measured in parts per million. 2. The 700:1 PPM scale measured in parts per million. 3. The EC (electro-conductivity) scale. 4. The CF (conductivity factor) scale, which is simply the EC scale multiplied by 10 for an easy decimal free reading. Whichever scale you choose please remember that the EC Dipstick has been designed to simply keep you ON TARGET with the plant food formula and corresponding recipe you have chosen to use.

#6 BATTERIES.

To open the battery compartment: Press down on the end cap and gently turn clockwise. The cap should pull off easily.

The EC Dipstick uses common Alkaline AA batteries found in most department stores. Regular AA batteries are great but may not have the energy to power the EC Dipstick for long periods. Replace the batteries if you notice inconsistent readings or replace the batteries every 2-3 months as batteries can discharge where high humidity or extreme temperatures of the atmosphere exists. Pay attention to the batteries polarity before installation. Each battery is placed with the positive (+) end first into the battery compartment. Never mix brands of batteries. Remove the batteries when storing the unit as batteries can discharge, corrode and ruin the EC Dipstick. Battery corrosion is not covered under the EC Dipstick warranty.

#7 HOW TO CLEAN THE EC DIPSTICK ELECTRODE.

DO NOT USE ALCOHOL, ALCOHOL BASED CLEANERS OR MINERAL SPIRITS The EC Dipstick electrode has a protective film applied at the factory. It is necessary to wash this off using simple detergent. If you don't it will affect the readings. After that, if the tip of the electrode gets dirty that also will affect the readings. It is important that you rinse and dry the electrode tip or flat surface of the electrode every time you are finished testing. This will help prevent the build-up of elements on the electrode.

Monthly maintenance: The EC Dipstick nutrient meter's electrode is cleaned by first gently removing the electrode tip protector. Grasp the electrode protector and pull while gently rocking it from side to side. Now place some general-purpose cleaner/polish like Comet or Bon Ami onto the flat surface of the electrode and **gently rub in a circular motion for a few seconds** until it is free of any elemental buildup. Rinse and wipe the electrode clean. Replace the electrode tip protector.

#8 LIMITED TWO YEAR WARRANTY.

EC Dipstick nutrient meters are sold into the professional lawn, garden, aquarium and hydroponic market as well as the home hobbyist. The EC Dipstick is a proven product with a full 2-year limited warranty from date of manufacture against defects in the material and or workmanship. The EC Dipstick is not warranted against misuse or neglect. The EC Dipstick is waterproof to 1 meter. The battery compartment is sealed against accidental splashing of water or plant food but is not sealed against deep liquid submersion. If you drop the unit into water or plant food wipe the body dry and check the battery compartment for moisture / water. If you detect moisture in the battery compartment simply remove the batteries and shake out as much moisture / water as possible. Let the battery compartment dry completely. Replace the old batteries with new batteries before resuming operation. Pay attention to the batteries' polarity. **Always** dip a cup or more of solution out of the tank and **test the plant food strength away from large bodies of water.** Replace the batteries if you notice inconsistent readings or replace the batteries every 2 to 3 months as batteries can discharge where high humidity or extreme temperatures of the atmosphere exists. Remove the batteries when storing the meter as batteries will corrode and ruin the EC Dipstick. Battery corrosion is not covered under the EC Dipstick warranty.

Control Wizard Products is solely responsible for determining if the EC Dipstick is under warranty. Place your receipt in a safe place where you know where it is. **Your original receipt with the EC Dipstick's serial number is required for warranty replacement or repair.** A return authorization number must accompany all returns. Call 1-888-433-6867 for a return authorization number. The EC Dipstick will be either repaired or replaced under warranty and will be shipped by ground carrier back to the customer free of charge providing a complete name and address for return shipment has been provided. An EC Dipstick not under warranty will not be repaired without the owner's permission and prepayment.

