

## Preparing IRROMETERS for Installation

When instruments are received, it is necessary to prepare them for installation as outlined in steps 1 through 6 below.

**1** Take the plastic wrappers off the tips and fill IRROMETERS with clean water. ***Do not handle the ceramic tip.*** Leave the instrument cap OFF and place the tip of the IRROMETER in clean water overnight (use clean non-rusting glass jar, plastic bucket or basin). Water in the instrument will drain through the tip and this operation may be repeated as often as time permits. After soaking and you are ready to install, protect the tip from air drying with wet paper towels, the plastic tip bag or insert into a bucket of wet sand while transporting to the installation site



**2** Prepare IRROMETER Solution as directed on the bottle label — (a capful of concentrated IRROMETER Fluid to 4 litres of clean, de-aired water, such as distilled, rainwater, boiled water that has cooled or tap water that has been allowed to sit).

**3** Remove the filler cap and fill the instrument, including reservoir, with IRROMETER Solution or distilled water. If the tube does not completely fill, it may be due to an “air lock” which has formed at the tube filler hole at the bottom of the reservoir. Tap the top of the reservoir with the palm of your hand to break this “air lock” and facilitate complete filling of the tube. *See picture.* Using a plastic squeeze bottle makes filling easier as you can aim the flow of water into the body tube of the instrument. *See Picture*



**4** Apply a strong vacuum to the IRROMETER with the hand vacuum pump. With the filler cap removed and the tip submerged in water or the bucket of wet sand, place the suction cup over the reservoir and pump vigorously until a reading of 60 - 70 cbs shows on the gauge, usually 4 quick pulls. Release the vacuum slowly, using the finger release valve on the suction cup, to avoid gauge damage. Repeat the above procedure to remove all air from the gauge, usually 2-3 times is sufficient. Replace filler cap by tightening until the rubber stopper makes contact with reservoir bottom, then turn the cap 1/4 turn. Do NOT over tighten, this can damage the IRROMETER gauge or stopper.

**5** Remove the plastic tip cover on the instrument, or remove from the bucket of sand, and install the IRROMETER in the prepared hole. *See below*

**6** Pump the IRROMETER as illustrated for a few days after installation or until no further air bubbles appear. Tapping the side of the instrument with cap assembly will facilitate air release. Refill the reservoir as necessary and replace filler cap. A well de-aired instrument increases sensitivity and reduces water use in maintaining reading.

*NOTE: Small champagne type bubbles of air which appear during de-airing are not of concern.*



## Installation

A good contact between the buried portion of the IRROMETER and the soil is essential in order to obtain accurate readings.

Drive a hole in the ground with an IRROMETER Installing Tool or with a standard piece of 1/2in pipe, which will make a hole the exact fit. Make a loose muddy "slurry" and pour down the hole prior to inserting the Irrometer.

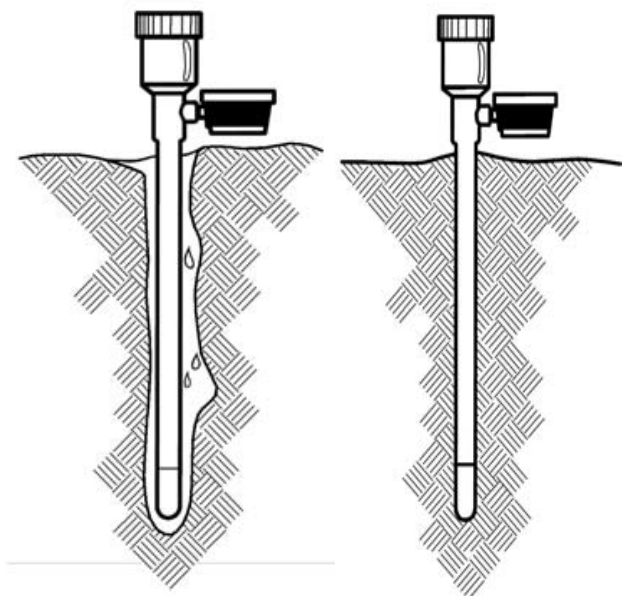
***Install in the root zone of the crop.***

Insert IRROMETERS in the hole, leaving at least 20cm of space between the bottom of the gauge and ground surface. Be sure instrument is "seated" firmly in the bottom of the hole.

If air is permitted to follow down the plastic tube, due to an oversize hole and reach the ceramic tip, false readings on the "high" side will occur. If free water falls/follows down the tube, false readings on the "low" side will occur.

***Poor Installation***

***Proper Installation***



## FIELD SERVICING

It is periodically necessary to check the level of the water in the tube. Remove the cap after an irrigation cycle and allow water to flow down the tube from the reservoir. To ensure there is no air-lock use the vacuum pump to extract all air. Fill the reservoir again and reseal with the cap. This may be necessary to do every 30-60days.