

70-053 Professional Battery Tester

Instruction Sheet

Directions: The float is the critical part of any hydrometer. The float has been manufactured to the most exacting standards of quality. Therefore, it warrants your care and use in handling.

To prepare your hydrometer for use, carefully remove instrument from carton. Using care, remove bulb, rubber bumper and float through top of glass barrel. Remove foam, strip from float and discard. Hold instrument with tip pointing downward. Carefully insert float, weighted end first, into glass barrel. Place rubber bumper flush into glass barrel and replace rubber bulb.

Misc: Slightly wetting the barrel will make for easier replacement bulb. Instrument is now ready for use.

TO Test Battery: Squeeze bulb, then insert the tip of the tester into the cell. Release pressure on bulb until enough electrolytes is drawn into the glass barrel to freely float the hydrometer. Be sure float is not touching the top or bottom of the barrel. Keep hydrometer level. The mark on the hydrometer in line with the surface of the electrolyte is the apparent specific gravity reading of the batter. Make a reading at eye level for accuracy.

A temperature error correction must be applied to this reading as follows: To the right side of the thermometer, note the scale reading which coincides with the top of the red liquid column (temperature reading). Add the black figures to the apparent specific gravity and subtract the red figures.

Example

Hydrometer float indicates apparent specific gravity of 1270, the thermometer shows on the scale reading in black the figure 4. Therefore, add 4 to apparent float reading of 1270, which gives specific gravity of 1274 (this is a specific gravity of 1.274 at 80 degrees F in the physical sense.)

Specific gravity readings:

Red	1.100	Battery cell is completely discharged – recharge battery
	1.225	
White	1.225	Battery cell has approximately one-half charge – Recharge battery
	1.260	
Green	1.260	Battery cell is fully charged
	1.300	

Be sure to return electrolyte to same battery cell from which it was taken. NOTE: A proper test cannot be made unless each battery cell has sufficient electrolyte to permit hydrometer float to rise freely. An accurate reading cannot be obtained if water has just recently been added to cells.

WARNING: To avoid serious eye injury, eye protection must be worn when using this tool. Battery acid can cause blindness if put in contact with eyes. CAUTION: Battery acid can also burn skin, damage clothes, and destroy paint and vehicle trim. Take extreme caution in using this tester.