

ASSEMBLY INSTRUCTIONS

FORM 22233

SAFETY

WARNING

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ALWAYS WEAR PROTECTIVE EYEWARE AND GLOVES DURING THE USE AND ASSEMBLY OF THIS INSTRUMENT.

1. Lubricate the rubber stopper and the top of the glass barrel with water. Insert the narrow end of the rubber stopper snugly into the top of the glass barrel.
2. Lubricate the top end of the glass barrel and the opening of the rubber bulb with water. While holding the rubber bulb in one hand and the glass barrel in the other, place the edge of the glass barrel into the opening of the rubber bulb. Rotate and push the glass barrel into the rubber bulb until it seats securely into the groove of the rubber bulb.
3. Gently insert the glass hydrometer float into the glass barrel as shown in figure #1.
4. Lubricate the bottom end of the glass barrel and the opening of the large end of the rubber tip with water. Holding the glass barrel in one hand and the rubber tip in the other, rotate and push the rubber tip onto the glass barrel until it snaps securely in place.
5. Once these steps have been completed, you are ready to use the instrument.
IMPORTANT!! Batteries contain sulfuric acid which is very dangerous and can cause severe harm. It is important that you understand how to access the cells of the battery that is being tested safely. Batteries typically have caps on the top of the battery which allow the user to access the acid. Refer to the battery manufacturer for the instruction on removing these caps.
6. Once the caps have been safely removed, hold the instrument vertically (rubber bulb at the top) and squeeze the bulb to expel air. Gently insert the tip of the unit into the battery cell and release the bulb. The barrel should begin filling with acid. It is very important at this point to make sure the unit is held as vertical as possible. Once the hydrometer float begins to “float” in the barrel, very gently squeeze the bulb to stop the flow of acid into or out of the barrel. At this point, you can take a reading of the hydrometer. The reading is taken by matching the level of the hydrometer scale with the level of the liquid. The scale of the hydrometer is measured in *specific gravity*. It is important to take the time to understand how the scale of the hydrometer is printed. Most scales are printed in .005 graduations. This means that each space represents .005 specific gravity. *For example, if the reading is 1.240, the line above it is 1.235 and the line beneath it is 1.245.*
7. It’s important to understand the charging capabilities of the battery being tested. Batteries differ with regard to the specific gravity which is needed to obtain a “full charge”. Refer to the battery manufacturer to understand your battery’s needs. Once a reading has been taken, carefully squeeze the bulb to expel the acid back into the battery cell. Remove the rubber tip before releasing the bulb. Carefully replace the battery caps. Flush the hydrometer with water to clean the unit.

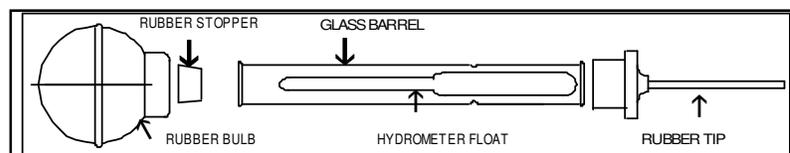


Figure 1