**Equalizing**  
*Flooded batteries only*

**WARNING:** Do not equalize Gel or AGM batteries.

Equalizing is an overcharge performed on flooded lead-acid batteries after they have been fully charged. It helps eliminate stratification and sulfation, two conditions that can reduce the overall performance of a battery.

Trojan recommends equalizing only when low or wide ranging specific gravity (+/-0.015) is detected after fully charging a battery.

**Procedure:**
1. Verify that batteries are the flooded type.
2. Remove all loads from the batteries.
3. Connect battery charger.
4. Set charger to equalizing mode.
5. Start charging batteries.
6. Batteries will begin gassing and bubbling vigorously.
7. Take specific gravity readings every hour.
8. Equalization is complete when specific gravity values no longer rise during the gassing stage.

**NOTE:** Many chargers do not have an equalization setting, so this procedure cannot be used.

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**Watering**  
*Flooded batteries only*

Water should only be added after fully charging the battery. Prior to charging, there should be enough water to cover the plates. If the battery has been discharged (partially or fully), the water level should also be above the plates.

**Important things to remember:**
1. Do not allow plates to be exposed to air.
2. Do not fill the water all the way up to the cap.
3. Do not use water with a high mineral content.
4. Use only distilled or deionized water.

**CAUTION:** The electrolyte is a solution of acid and water, so skin contact should be avoided.

![Electrolyte Level Indicator](image)

**Procedure:**
1. Remove the vent caps and check the electrolyte level; the minimum level is to the top of the plates.
2. If there is no electrolyte visible, add just enough water to cover the plates.
3. Replace and tighten all water vent caps.
4. Put batteries on a complete charge before adding any more water.  
   (See Charging section.)
5. Once charging is completed, remove the vent caps and check the electrolyte level.

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6. Add water until the electrolyte level is 1/8" below the bottom of the fill well.
7. Clean, replace and tighten all vent caps.

**WARNING:** Never add acid to a battery.

**Cleaning**

1. Check that all vent caps are tight.
2. Clean the battery top with a cloth or brush and a solution of baking soda and water.  
   - Do not allow any cleaning solution or other foreign matter to get inside the battery.
3. Rinse with water and dry with a clean cloth.
4. Clean battery terminals and the inside of cable clamps with a post and clamp cleaner.
5. Reconnect the clamps to the terminals and thinly coat them with petroleum jelly.
6. Keep the area around batteries clean and dry.

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**Storage**

**Important things to avoid:**
1. Freezing - Avoid locations where freezing temperatures are expected. Keeping batteries at a high state of charge also prevents freezing. (See table next page.)
2. Heat - Avoid direct exposure to heat sources, such as radiators or space heaters. Temperatures above 80°F accelerate the battery's self-discharge characteristics.

**Procedure:**
1. Completely charge the battery before storing.
2. Store the battery in a cool, dry location, protected from the elements.
3. During storage, monitor the specific gravity (flooded batteries) or voltage.  
   - Stored batteries should be given a boost charge when they show a 70% state of charge or less. (See table previous page.)
4. Completely charge the battery before re-activating.