


1 BEFORE YOU START

The following Safety and Equipment sections are provided to ensure safe and successful battery installation and maintenance:

1.1 SAFETY

Batteries can deliver an enormous amount of power that can result in injury and/or death, observing the following precautions is the difference between successful battery maintenance/installation and a night in the emergency room:

- **Batteries must be charged in a well ventilated area.**
- **Use all necessary protective equipment:** Acid Resistant gloves, safety goggles, and protective clothing.
- **Use insulated tools:** Small 6 inch wrench with rubber or taped handle.
- **Keep ignition sources away** from batteries: sparks, cigarettes, etc.
- **Remove all metal jewelry** or other objects when working on the batteries.
- **Clean all electrolyte spills** with baking soda and water.
- **Skin contact with electrolyte must be immediately flushed** with plenty of water.
- **Never place objects on top of batteries.** A short circuit can occur.
- **Always secure vent caps** after maintenance and before charging.
- **Never add anything besides distilled/deionized water to the battery, doing so will void the warranty.**

 **WARNING!** Do not disassemble, heat above 158°F (70°C) or incinerate batteries! Risk of fire, explosion, and/or burns.

1.2 EQUIPMENT NEEDED

The following equipment is recommended to safely maintain/install your batteries:

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| ● Personal Protective Equipment | ● Terminal Protector Spray |
| ● Hydrometer and Thermometer | ● Voltmeter |
| ● Distilled or deionized water | ● Torque Wrench |
| ● Baking Soda, water, and microfiber rag | ● Wire Brush |
| ● Insulated Tools | ● Battery Charger |

1.3 SAFETY DATA SHEETS (MSDS)

U.S. Battery has safety data sheets available for all product lines:

[Flooded Deep-Cycle Lead Acid Safety Data Sheet](#)

[AGM Deep-Cycle Lead Acid Safety Data Sheet](#)

