

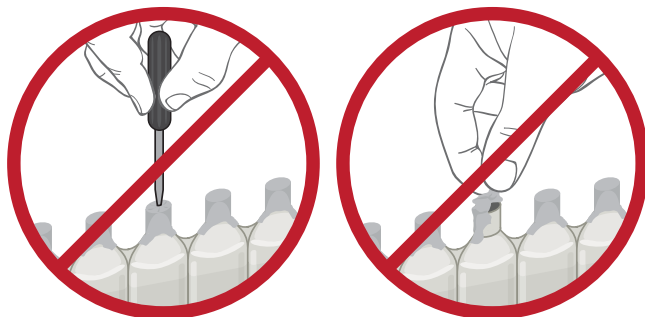
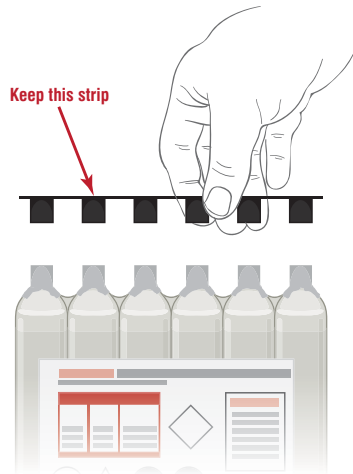


The electrolyte container that is shipped with a dry AGM battery contains the correct amount of battery acid and is more concentrated than the electrolyte used in a conventional battery.

All AGM battery electrolyte containers are not the same. Each contains the proper amount of electrolyte for its specific battery.

Before filling, read the electrolyte handling instructions and precautions on the label. Do not smoke when activating a battery or handling battery acid. Always wear plastic gloves and protective eyewear and be sure to read the Battery Safety section in this manual. The following seven steps should be used to activate an AGM battery:

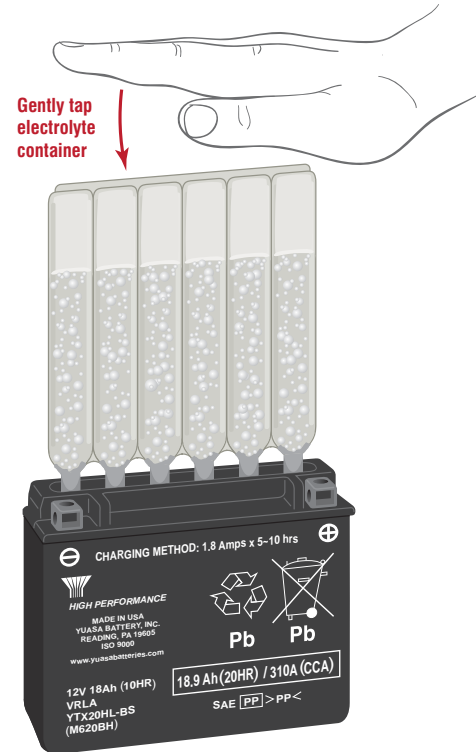
1. The battery must be out of the vehicle and placed on a level surface.
2. Remove electrolyte container from the plastic storage bag. Remove the strip of caps. **Put the strip aside as you will use it later to seal the battery cells.** For battery filling use only the dedicated acid container that comes with the battery as it contains the proper amount of electrolyte for that specific battery. This is important to service life and battery performance. **Do not pierce, or otherwise open the foil seals on the electrolyte container. Do not attempt to separate the individual electrolyte containers.**



Do not puncture the foil seal or remove it prior to filling a dry AGM battery.

3. Place the electrolyte container with the foil seals facing down into the cell filler ports on the battery. Hold the container level and push down to break the foil seals. Electrolyte will start to flow into the battery and air bubbles will be seen inside the container. **Do not tilt the electrolyte container.**
4. Check the electrolyte flow. **Keep the container in place for 20 minutes or longer until it empties completely.** If no air bubbles are coming up from the filler ports, or if container cells haven't emptied completely after 20 minutes, tap the container and/or battery case a few times to cause the electrolyte to flow into the battery. Do not remove the acid container from the battery until it is completely empty. The battery requires all of the electrolyte from the container for proper operation.

Bubbles will appear as the electrolyte container fills the battery indicating the flow of battery acid. Tap the container periodically to keep the electrolyte flowing until the container is completely empty. **Never puncture the top of the acid container to speed up the filling process.**



5. Remove the empty electrolyte container from the battery. Fully insert the strip of sealing caps (previously removed from the electrolyte container) into the battery filling ports. Make sure the strip of caps is fully inserted and flush with the top of the battery. Insert the caps by hand, do not use

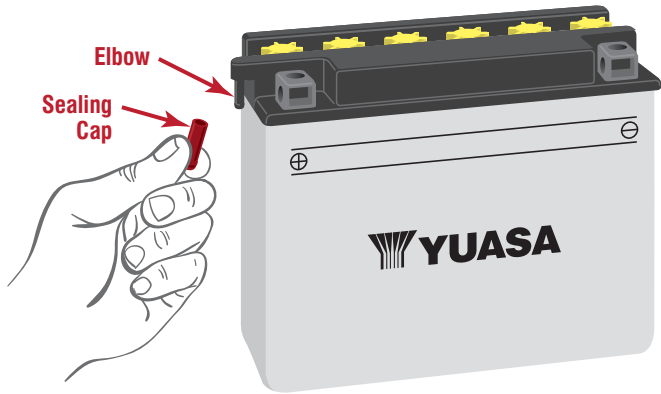


After filling, the sealing caps should be installed using hand pressure only. The sealing cap should never be removed once the battery is activated.

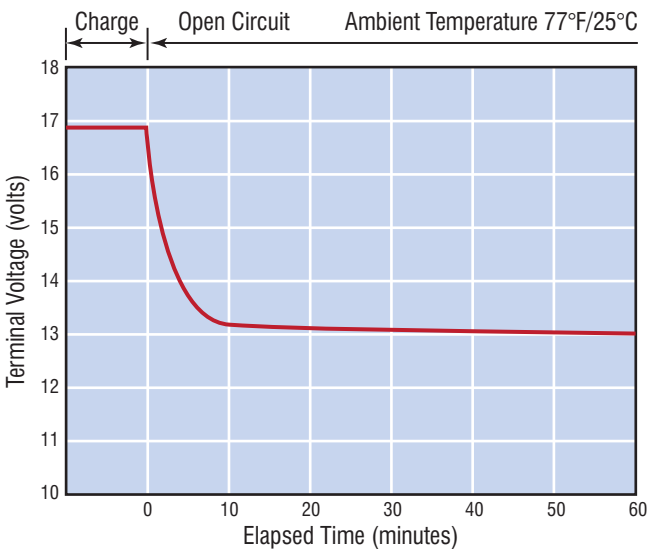
a hammer or excessive force. **Never remove the strip of caps or add water or electrolyte to the battery during its service life.**

- For batteries with ratings of less than 18 AH, let the battery stand for 20 to 60 minutes. For batteries with higher AH ratings, and/or having the **High Performance rating (designated by an "H" in the part number/name) allow the battery to stand for 1 to 2 hours.** Yuasa AGM batteries have the amp hour (AH) printed on the front of the battery case. The stand, or rest period, allows the electrolyte to permeate into the plates for optimum performance.
- Newly activated AGM batteries require an initial charge.** After adding electrolyte, a new battery is approximately 75-80% charged. After the "stand" period (step 6), charge the battery to bring it to a full state-of-charge. The battery charger used for initial charging should be able to charge at 12.8+-volts for an AGM battery. All Yuasa battery chargers are capable of reaching this minimum voltage and initializing/activating an AGM battery.

- The battery must be out of the vehicle and placed on a level surface. Remove filling caps (red, yellow or green colored battery caps).
- REMOVE THE RED SEALING CAP FROM THE VENT ELBOW.** If the battery has a red cap on the vent elbow remove it and throw it away. Never put this cap back on the battery after it is filled with acid as the buildup of internal gas pressure can cause the battery case to rupture.



Always remove the red sealing cap from the vent elbow before filling and activating the battery.

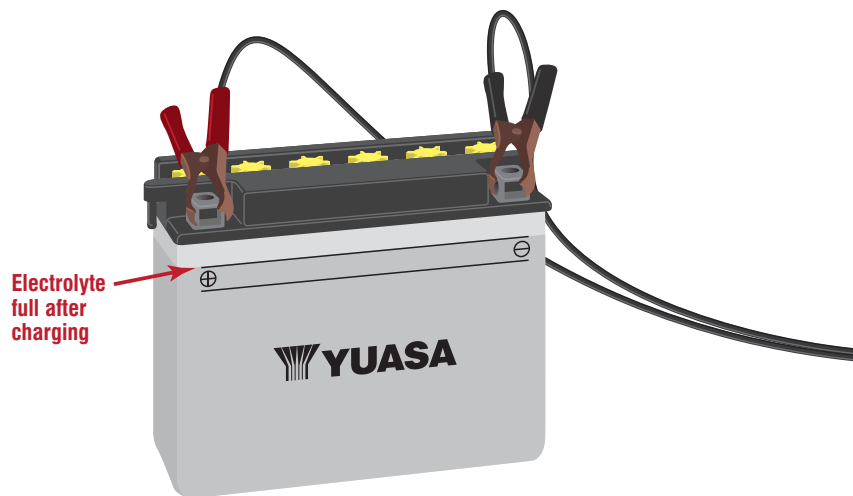


During the initial charging period, battery voltage may reach over 16-volts. Open circuit voltage should be checked after the battery is allowed to stand between 1 and 2 hours.

Activating Conventional Batteries

Sealed at the factory, a new Yuasa Conventional battery has an indefinite shelf life as long as it remains sealed (filler caps and red vent cap installed) and is stored at room temperature. Once the battery is unsealed, it should be activated and put into service. The cell plates on an unsealed, uncharged battery will oxidize making charging difficult and reducing the service life of the battery. The following eight steps explain the process of activating Yuasa's Conventional, YuMicron and YuMicron CX batteries:

- If using the acid bottle supplied with the battery, place the container upright on a flat surface. Carefully cut off the tip of the bottle's spout and attach the short tube provided. **Caution, Do not squeeze the bottle when cutting the fill tip.**
- Fill the battery with electrolyte supplied with the battery or from a bulk container. Do not use water or any other liquid to activate a battery. Electrolyte should be between 60° F and 86° F before filling. If electrolyte is stored in a cold area, it should be warmed to room temperature before



Make sure that the acid level is to the upper mark after the battery is initially charged. If the level is low fill with electrolyte.

filling. Fill to the UPPER LEVEL as indicated on the battery.
NOTE: Never fill/activate a battery installed in a vehicle as electrolyte spillage can cause damage.

5. Fill each battery cell slowly and carefully to the highest level line.
6. Let the battery stand for at least 30 minutes after filling. Move or gently tap the battery so that any air bubbles between the plates will be expelled. If the acid level has fallen, refill with acid to upper level.

Post-Fill Stand Time	
Amp-Hour	Stand Time
<18	30-60 minutes
>18	1-2 hours
High Performance	1-2 hours

7. Filling a Conventional battery with electrolyte will bring it to 75-80% of a full charge. **A battery must be charged to 100% before putting it into service.** To find recommended charging current requirements in amps for a specific battery, divide battery ampere-hour capacity rating by 10. For example a 14 AH battery should be charged at 1.4 amps (14 AH / 10 = 1.4 amps). The specific gravity of the electrolyte should rise to at least 1.260 on 12N series batteries. On all High Performance batteries (YB Series) a minimal reading of 1.270 should be observed.

During initial charging check to see if the electrolyte level has fallen, and if so, fill with acid to the UPPER LEVEL. After adding acid, charge for another hour at same rate as above to mix the water and acid together. Note: This is the last time electrolyte should be added to the battery. If the level is low during use, distilled water should be added as required.

8. When charging is complete, replace filler cap plugs and tighten by hand—do not use a screwdriver or pliers. Wash off spilled acid with a water and baking soda solution, paying particular attention that any acid is washed off the terminals. Dry the battery case and install the battery.

POINTS TO REMEMBER

- Newly activated AGM and Conventional batteries require an initial charge before being placed into service
- Yuasa Smart Battery Chargers use constant current and pulse technology and can activate, charge and maintain all Yuasa batteries
- High-rate, automotive types of chargers can cause damage to powersports batteries
- High performance batteries (designated by an "H" in the part number) must stand 1 to 2 hours after initial charging
- Never remove the strip of caps on an AGM battery to add water or electrolyte during its service life
- Before activation of Conventional batteries remove the red sealing cap from the vent elbow and discard it