

USA ATVS Does not warranty the battery please make sure you properly know how to maintain your ATV battery!!!

Make sure to perform Monthly Maintenance

A battery only requires a little monthly maintenance to perform perfectly. Keep the battery charged to 100%, recharging when the lights dim, the starter sounds weak, or the battery hasn't been used in more than two weeks. Other than that, follow this simple check list every month:

Check the electrolyte level

Keep the top free of grime

Check cables, clamps, and case for obvious damage or loose connections

Clean terminals and connectors as necessary

Check inside for excessive sediment, sulfating or mossing

Make sure the exhaust tube is free of kinks and clogs

Replace caps firmly

Finish up by testing the battery with either a hydrometer or voltmeter. To extend the service life of your battery, make monthly battery maintenance part of your routine.

Storing Your Battery

If the vehicle is in storage or used infrequently, disconnect the battery cable to eliminate drain from electrical equipment. Charge the battery every two weeks.

For extended storage, remove the battery from the vehicle and charge to 100%. Charge the battery every month if stored at temperatures below 60° F. If stored in a warm area (above 60° F), charge every two weeks. Make sure batteries are stored out of reach of children.

Spring Startup

When it's time to inspect the leisure use vehicles you've stored during the off-season for spring use, you probably inspect the most obvious items that come to mind such as tires, batteries belts, hoses and fluids. Typically you check tire pressure and condition, making sure that you have the necessary fluids, gas, coolant etc. and a charged battery. The battery inspection is often performed through the most fundamental method; you try to start the vehicle with the ignition. If the vehicle starts, you may feel that you are good to go for the upcoming season, but in many cases you may be headed for trouble. Unless you've maintained the battery during the storage period, it may not be able to deliver its peak performance and service life for the upcoming season. To insure that you get the best performance your battery can deliver, it's recommended that you perform a few simple checks. Remember, before performing any inspection on your battery,

insure there are no open flames or possibility of sparks around the battery and absolutely no smoking.
Always wear eye protection, protective gloves and clothing.

For a Conventional style battery (those with the liquid electrolyte) you should visually inspect the battery for any apparent problems. These can include dirty or corroded terminal connections, low fluid levels, physical damage such as broken or missing filler caps or dirt and moisture on the battery. If you need to service the battery, it's best to remove it from the vehicle. First insure that the electrolyte levels are properly adjusted. Using distilled water; fill each cell until the level is above the minimum level line on the battery case and at or below the maximum line. Never overfill the battery or leakage will occur. If you discover that the electrolyte levels have fallen below the minimum level lines, there is a possibility that permanent damage may have been done to the internal lead plates in the battery and a new replacement may be required. After adjusting the levels, make sure the filler plugs are secured and the battery is free of dirt and corrosion. If you need to clean the battery, use a mixture of baking soda and water to neutralize any electrolyte that may be on the outside of the battery. Simply brush this on the battery and terminals using an old paintbrush or tooth brush and rinse it off with clean water. Dry the battery using an old soft rag or paper towel and make sure the terminals are clean and free of corrosion. You can clean the terminals with a small wire brush if the corrosion is significant or just brighten them up using a piece of emery cloth.

Now that your battery is clean, it's time to check the state of charge. When using a voltmeter, the battery terminal voltage should read at least 12.6 volts. If your voltage is below this or you've adjusted the electrolyte levels, a boost charge is required. Charge the battery in a well ventilated area away from kids and pets. The variety of chargers you can use to endless but it is recommended that you use an automatic taper type charger specifically designed for Powersports batteries. Don't use a high current or fast charger for the boost charge unless you are familiar with their operation or permanent damage can occur to the battery?

When servicing a Sealed MF style battery, you obviously don't need to inspect the electrolyte levels since the battery is permanently sealed and must never be opened. The cleaning method and charging methods are the same as for the Conventional style batteries. The one feature to note about the Sealed MF battery is the battery terminal voltage. The full charge voltage should read about 12.8 volts. These batteries have a slightly different electrolyte, which influences the terminal voltage.

After you've performed this maintenance, you still may require additional help with your battery. While the battery may exhibit good terminal voltage, it may not be in the best state of health. Deteriorated from corrosion or sulphation, the battery could be seriously short on capacity. To check this condition you may choose to reinstall the battery in your vehicle and perform a very fundamental start test or you could take the battery to a service center and have a capacity test performed. Most battery dealers will perform a simple electronic or electrical resistance test on the battery and be able to tell you the state of health. By knowing the state of health, you can

determine the useful life expectancy of your battery. With this information you can decide if you should replace the battery with a new one or reinstall the existing one in the vehicle.

To insure maximum performance and service life for your battery, we recommend that you use either the Yuasa 1.5 Amp or 900mA Automatic Battery Charger for battery maintenance. Both chargers deliver Mistake-Proof Technology to properly charge your battery and both are designed to switch to a float mode once the battery has reached a full state of charge and maintain it there. This feature allows you to attach the charger to your battery for an extended period of time without concern of an overcharged or discharged battery. Also, both chargers are supplied with a Quick-Connect ring terminal harness that can be permanently attached to your battery while installed in the vehicle. This allows you to instantly connect or disconnect the charger from the battery without having to access the battery terminals. This can be a great time saver for those hard to reach battery locations.

It's important to remember, even with the proper care and maintenance of your battery, they will eventually wear out. As with any of the parts on your vehicle, it's usually easier and more convenient to replace them before they fail unexpectedly. With this in mind, you may want to simply replace the battery every few years with a new one.

FAQs

*Why should you charge your battery once a month?

* When not in use, a battery discharges on a daily basis sometimes up to 0.5-1%. This rate of discharge increases when the climate is warm. To make up for this loss from disuse, a boosting charge should be given once a month.

*Sometimes a battery does not hold a charge. Why?

* When a battery is in an excessively discharged state, it does not readily accept a high current charge. The battery may appear to be accepting charge, but charging is occurring only at the surface of the plates. In such a case, the battery must be charged at a low current flow for an extended period of time: for example, up to 24 hours on a Yuasa automatic charger or equivalent smart charger.

*What is sulfation?

* Discoloration of plates with white lead sulfate crystalline deposits may occur when the battery has been left for a considerable time in a discharged condition. It can also occur as a result of the plates being exposed to air due to low electrolyte level, or when a new battery is filled with acid and stored without being charged. This phenomenon is called sulfation. Once plates have been sulfated, the activity of the affected area is permanently impaired, and the battery may not be restored to its original capacity.

*Why do the winter months seem to bring more battery problems?

* The main reason is that batteries have to work so much harder in cold weather. Engine oil is thick, so engine cranking effort is much

higher. Also, a battery's charging efficiency decreases in cold temperatures. In addition, gasoline does not vaporize as readily in the cold, which means that even more battery cranking effort is required.

*How do you determine whether a battery has been charged?

* The following characteristics will tell you if a battery has been properly charged:

1. The specific gravity of the acid is over 1.275 (conventional type batteries only).
2. Maximum voltage output across battery terminals can be maintained at constant level for two hours.
3. Open circuit voltage is stabilized @12.7v or higher @ 6.3v or higher for 6 volt batteries.

*What can cause a new battery to fail soon after installation?

*If a new battery becomes unserviceable within a few days or weeks after its installation it may be due one or more of the following reasons:

1. A faulty charging system.
2. A short circuit in the electrical system.
3. Battery terminals are dirty or not properly connected.
4. Excessive ignition off drains or high parasitic drains.
5. Electrical capacity of the battery is insufficient for size of the vehicle.
6. The battery has been inadequately activated, dissipating its strength from the outset.
7. The battery, after being filled with acid has been left too long without initial charging, and has been allowed to become sulfated.

For an excellent manual check out the Yuasa battery manual.

Pay close attention to page 12.

<http://www.yuasabatteries.com/pdfs/TechMan.pdf>

Thanks to our new battery supplier Yuasa for the above info.

I have talked to several dealers and what is happening in many instances is the batteries are not being properly charged during the initial set up.