



All About Batteries

ICON AGM



BATTERY BREAK IN

New batteries are initially about 75% of their full strength. The following procedure will ensure they reach their full potential. The first 10 to 20 complete charge/discharge cycles are critical to ensure they reach 100%.

New batteries should be charged before use and thereafter as follows:

1. Plug the vehicle in and leave until the charger shuts off by itself.
2. Drive to discharge the batteries to at least 75% of battery pack capacity (see chart for voltage readings or use 9 holes of golf as a reference point) Do not go lower than 50%.
3. Plug the vehicle back in and repeat the charge cycle. It is very important you let it charge until it is completely done.
4. Repeat this for the first 10 – 20 cycles. By the 12th cycle you will notice an increase in power, speed, and run-time.

Most importantly:

- NEVER run the battery pack down below 50% of capacity throughout their entire life.
- Never leave the batteries in a state of discharge for extended periods of time. – Recharge the pack every 2 weeks if the car is sitting idle or in storage, and when in doubt, recharge it.

HOW DO I CHARGE MY BATTERIES?

Park your car within the length of the supplied charging cable to an outlet.

Try to utilize an outlet that is on its own circuit or has extremely limited draw from other items on the same circuit. Do not use GFCI outlets, it often trips. (These outlets generally have a reset button, like what you may find in your bathroom.) For instance, you will not be able to charge your car on the same circuit as your refrigerator or other high amp appliances.

Once the cord is plugged into your outlet, you may now plug into your cars charge receptacle. You will notice that you have a charge indicator on the body. That charge indicator will always light up red once the charger kicks on. The charge indicator will go from red to yellow to green depending on the state of charge.

Do not interrupt the charge cycle until the charge indicator is green.

You can leave the charge cord plugged in at all times as the charger has a built-in shut-off feature once it achieves a full state of charge. However, the charger does not act as a trickle charger and once it is off it will not turn back on unless it is unplugged from the car and plugged back into the car.

Batteries will naturally put out heat when charging, tie the seat up to allow heat to escape.

AGM BATTERIES VS LEAD ACID

AGM batteries offer high currents and are also spill-proof. You don't have to worry about the buildup of sulfation, and you also do not have to worry about watering the batteries. For most people, watering lead acid batteries monthly is a hated task. In addition, so many individuals improperly maintain their water level in the batteries and destroy them.

A few of the advantages include:

- The AGM battery is capable of charging slightly faster.
- It provides a depth-of-discharge of 80%
- The batteries are spill-proof thanks to its acid encapsulation.
- They are less likely to have sulfation build up.
- It has fewer electrolytes.
- This battery works well in cold temperatures.

A few of the disadvantages are:

- AGM batteries manufacturing cost is more than flooded lead-acid batteries.
- They are sensitive to overcharging.
- It must be stored in a fully charged condition.