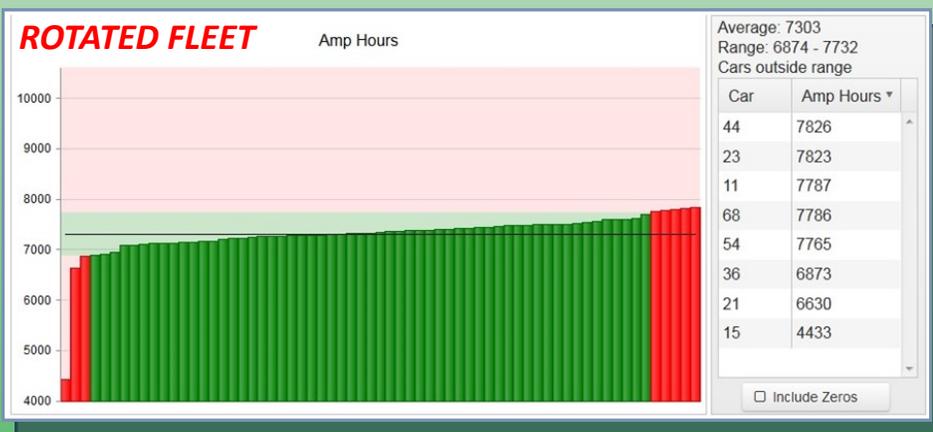
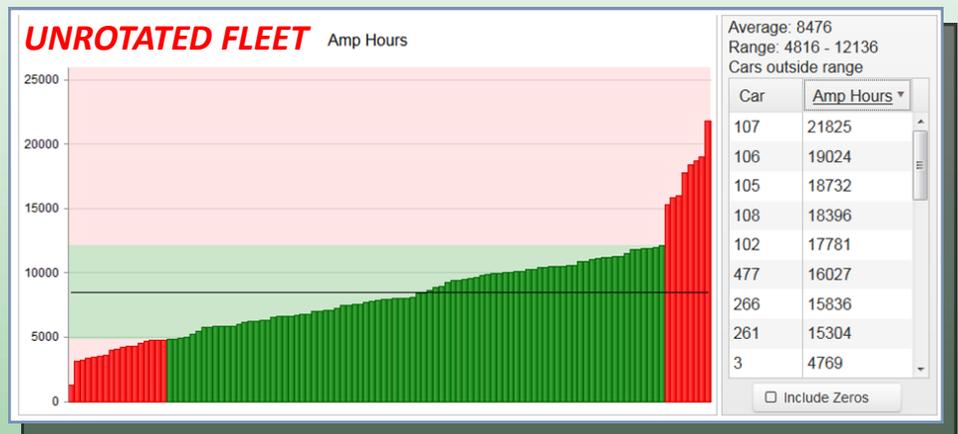


One of the most important components and costs to your fleet is managing the usage and energy costs with your batteries. Failure to manage your fleet could result in high costs to replace batteries and customer service issues for your players, members and guests. The following information has been prepared to help you be proactive in managing your fleet by utilizing the technology of the Visage system and best practices from ClubCar.

The Amp Hour Usage\* reports below show the cars in red that are under or over utilized. The horizontal line shows the median use for the entire fleet. The chart to the right of the bar chart shows cars in the Fleet that fall outside of range. The first chart below shows a fleet that has not been properly rotated and the second shows a fleet that has been managed on a consistent basis for years. The deviations on the far left were cars that had a motor control replaced, or a replacement fleet car; these conditions reset the amp hours used. You can access the Amp Hour Bar Chart from the VCC by clicking on the "Fleet" menu on the main screen and then clicking the "Usage" tab. On the same tab you will also see additional information including an odometer chart that tracks the number of miles on each individual car. Click [HERE](#) for a Fleet Usage tutorial.

***Using the under used cars more and resting the over-used cars will restore a more equal balance to help reduce the repair costs and reduce the risk of charges at the end of the car lease.***



***The chart to the left represents a balanced fleet that has been rotated properly. Rotation balance will extend fleet life as a whole, reduce costs, and prevent customer service issues.***

### **PRO TIP: Fleet Rotation**

Your fleet needs to be managed so that the cars are evenly used on a daily basis. Think about it this way: if you had multiple pairs of shoes and you wore them on an even rotation you would not need to buy a new pair for some time. The same philosophy should be applied to your cars to extend the life of your batteries. We recommend having a chart to show your employees which cars to use on a daily basis, based upon daily usage. You should use apply a first in / last out approach.

Don't forget, rotating your Service, Marshall, and Course Maintenance vehicles is another way to reduce costs and increase longevity!

\*Amp Hour Usage reports are only available with a Club Car® Precedent Fleet.

## *Pro Tip: Battery Water Levels*

Lead-acid batteries are the lifeblood of today's sophisticated electric fleets. They're also the most expensive vehicle components to replace. Like most things, batteries need clean water to survive. Improper fluid levels can cause batteries to fail prematurely. While insufficient water can adversely affect battery life and performance, overfilling can be just as harmful. Proper battery watering is always performed after the batteries are charged, not before the charging. To maintain proper fluid levels, a single-point watering system is essential and it is a standard feature on new electric vehicles. These systems eliminate the time-consuming process of removing battery caps to add water. After the proper amount of water is dispensed through a valve system, the flow of water to individual cells shuts off automatically. Make sure to use a deionizer water purifier and replace the filter cartridges regularly. This will ensure your batteries are getting the best quality water. Have a trained technician wash battery tops and clean terminals with baking soda/water solution monthly. Also apply authorized battery terminal protector spray to battery terminals.

## *Pro Tip: Tire Pressure*

Maintaining proper tire pressure in your fleet golf cars is as important as it is with your family car. If tire pressure is too low, your car will use more gas or electrical energy. Check your tire pressure monthly, because dramatic fluctuations in daytime and nighttime temperatures can cause tire pressure to fluctuate. Tire pressure varies from electric to gas vehicles.

- Electric vehicles: 18-20 psi
- Gas vehicles: 12-14 psi

Maintain tire pressure within 1-2 psi of the recommended pressure at all times. A car that is below the recommended psi will require more energy and reduce the life of the batteries.

## *Pro Tip: Charging*

Properly charged batteries are one of the most important factors in the performance of your golf cars. By the same token, improperly charged batteries can shorten the lifespan and adversely affect your fleet's performance. Batteries should be fully charged before a new vehicle is first used; after vehicles have been stored; and before vehicles are released for use each day. All cars should be plugged into chargers overnight for storage, even if the car has only been used for a short time during the day.

- Since lead-acid batteries contain explosive gases, always keep sparks and flames away from vehicles and service areas.
- Never allow staff to smoke while batteries are charging.
- Everyone who works around batteries should wear protective clothing, including rubber gloves, safety glasses and a face shield.

Some people might not realize it, but new batteries require a break-in period. They must be significantly recharged at least 50 times before they can deliver their full capabilities. To be significantly recharged, batteries must be discharged, and not merely unplugged and plugged back in to perform one cycle.

## *Pro Tip: Alignment*

There are several reasons that your cars' front end can lose alignment. The most common reasons are curb impact and use in restricted areas over rough terrain. Alignment problems can lead to uneven tire wear, which will require you to buy tires sooner than planned or budgeted for. Cars that operate with improper alignment also require more energy to operate; 10 to 20 percent more than those with correct alignments. Alignments should be one of those things you're checking at least semiannually, or after 100 rounds.

## *Pro Tip: Receiver Lubrication*

Over time the car receiver / charger connection can weaken due to water and dirt build up. In order to have a stronger connection between the car and charger, we recommend spraying a small amount of WD-40 into the charger receptacle. This will allow for a more consistent charge that could extend battery life.