## **Lead Acid Battery Charging Best Practices**



- ✓ Start the day fully charged. Lead acid batteries should be charged every day after 15 minutes or more of use. Before usage the following day, the machine must be plugged in and charged until the charger indicates the batteries are FULLY charged. Failure to allow the batteries to fully charge before the next use will diminish the life of the batteries.
- Maximize battery life. Do not fully charge lead acid batteries more than once per 24-hour period to maximize your battery's life.
- ✓ Store batteries properly. Lead acid batteries should never be stored in a discharged state. Some of today's machines place parasitic loads on the batteries. Even when the machine's key is in the "OFF" position, there are electrical components drawing upon the battery's energy.
- ✓ **Set it and forget it.** New charger technology allows the batteries and charger to be plugged in over a weekend or longer. The charger will shut off once the full charge on a batteries is reached. Some newer chargers can monitor the batteries and turn back on as the batteries requires a charge.
- ✓ Focus on service life. Service life is the total number of hours the battery is used in its lifetime. Because batteries are only capable of storing and dispersing a limited amount of energy over their life, how it's used is up to the user and their specific application.
- ✓ Check the fluid. Flooded (wet) lead-acid batteries require routine watering (unless equipped with Smartfill™ Automatic Battery Watering technology). Check the battery electrolyte level weekly. The electrolyte level should be slightly above the battery plates as shown before charging. Add distilled water if low. DO NOT OVERFILL. The electrolyte will expand and may overflow when charging. After charging, distilled water can be added up to about 3 mm (0.12 in) below the sight tubes.
- ✓ Breathe easy. Charge the batteries in a well ventilated area of no more than 80 degrees Fahrenheit to prevent possible gas buildup.
- ✓ Use the correct battery charger. The battery charger is set to charge the battery type supplied with your machine. If you choose to change to a different battery type or capacity, the charger's charging profile must be changed to prevent battery damage.

Best practices shared apply to all Tennant machines. Please note that equipment older than 5 years may not have all functionality mentioned.







