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Batteries

RV batteries provide energy needed to run assorted electrical components throughout the motor home. How long an RV battery will last is dependent upon how well the battery has been maintained.

Class A motor homes contain two separate battery systems – chassis and house. The chassis battery, also known as the 'starting battery,' is designed to provide the power necessary to start the motor home engine. The alternator on the engine will work to recharge the starting battery to a full state of charge while the engine is running.

Chassis batteries require routine maintenance. Carefully inspect each cell, and add distilled water as needed. Clean the battery case and cables to remove dirt and corrosion. Do not use tap or well water as this will add chemicals that will reduce the life of the battery.

House batteries, also known as deep cycle batteries, provide power necessary to operate the motor home 12-Volt electrical system. Check the battery monitor panel to track current state of charge of the house batteries. A reading of 12.6 Volts is considered full state of charge. It is recommended that the battery state of charge not be allowed to fall below 40% state of charge, or 11.9 Volts.

Most RVs have a built-in charging unit to recharge the house batteries. To replenish the house batteries, plug the motor home into shore power or engage the generator. It is important to remember that electrical items currently running inside the RV, such as lights, will compete with the batteries for this electrical power, and when multiple systems are operating, the batteries may take longer to recharge. Solar panels that are kept clean and exposed to sunlight will also provide a charge to the house batteries. With the RV disconnected from shore power or the generator then check the monitor panel to get an accurate reading on current battery state of charge.

Three main types of batteries are used in recreational vehicles today – Liquid Lead Acid, Absorbed Glass Matte (AGM) and Gel Cell. Liquid Lead Acid batteries require routine inspection to monitor and refill the individual battery cells with distilled water. Maintenance requirements of Liquid Lead Acid batteries will depend upon how often the batteries are used, the amount of battery discharge, and outdoor temperature conditions. AGM and Gel Cell batteries are designed using a closed case, eliminating the need for individual cell inspection. All battery type cases should be regularly cleaned to remove dirt and corrosion.

On occasion, the motor home engine may fail to engage due to low charge of the chassis battery. Units that include a Batt Boost (Battery Boost) switch provide the convenience of tying the house batteries into the chassis battery to provide additional charge for the purpose of starting the engine. Simply hold down the switch for ten seconds, and with the switch still

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depressed, engage the ignition. If the engine fails to start, there may be insufficient voltage in the house batteries to provide the needed boost to the chassis battery.

Batteries contain acid and should be handled with extreme caution. Prior to performing maintenance and repair to batteries, park the motor home in a well ventilated location, remove all metal jewelry, avoid wearing loose fitting clothing and don protective eyewear. If the battery charge appears to diminish at an accelerated pace, it may be time to replace the batteries. A weak battery can damage the rest of the bank. When replacing batteries, change the complete bank rather than on an individual basis to prevent a weak battery from draining charge off batteries that are new.

When removing battery cables, mark the cable location. Disconnect the Negative cable followed by the Positive cable. Reverse the order when connecting cables by first connecting the Positive, followed by the Negative. Routinely inspect battery cables for condition and cleanliness, and immediately replace battery cables that appear worn or damaged. Small round pads are available at local automotive stores that provide some protection against corrosion at the battery terminals. These pads contain chemicals that slow the corrosion process and help to keep the battery posts clean.

Store chassis and house batteries with a full charge. A separate cut off switch may be installed in the motor home to disconnect all electrical components from the batteries during periods of storage. Batteries will self-discharge over time, even when using the cut off switches. During periods of cold weather, consider the use of a battery heater to guard against freezing. The battery heater is designed to plug into an outside power source and rest under the batteries to keep the cases warm. During periods of hot weather, position the motor home so batteries are away from direct sunlight and open the battery compartment door to promote airflow.

A battery maintainer can be used to keep a fully charged battery fully charged. The maintainer is not a charger but a low amperage power source to keep the battery from losing its charge. The maintainer requires a 120 volt power source to operate.