

PD9300 AGM Charge Wizard

The Absorbed Glass Material-AGM battery is the newest form of the LEAD ACID battery. It has been available on the market since the 1980's and has gained in popularity in recent years. The flooded cell was developed in 1859 and the gel cell in 1934. The only additional changes in the lead acid market have been from the development of new materials and improved manufacturing processes.

The AGM battery brought significant changes to the lead acid market with faster charging capabilities and lower self-discharge rates. Valve regulated seals allow for variable mounting positions and eliminating the need to replace water. They also have increased vibration resistance and longer life when compared to the conventional Flooded Lead Acid battery.

According to AGM battery manufacturers, the biggest reasons for reduced battery life are, poor maintenance, over discharging, undercharging, and overcharging. It is the customer's responsibility to clean and maintain the battery connections as well as avoiding discharges below 50% Depth of Discharge (DoD). AGM chargers are available through most battery manufacturers; however, they are only effective when the battery is taken out of service during the charging period. (Not operating the 12-volt accessories and appliances while charging.) This is not practical for RV living as the RV's converter/charger supplies power to the 12-volt system and charges the battery simultaneously. RV converter/chargers operate with higher current capabilities and lower voltages than the "optimal" AGM battery charger.

Progressive Dynamics has developed an AGM multi-stage charging profile with the ability to monitor the voltage and current. This allows the Charge Wizard to select the correct charging voltage as needed. These are automatic functions. The Charge Wizard will improve AGM charging and increase battery life when compared to standard RV chargers while still maintaining safe operating voltages within the RV.

BULK Mode 14.0 Volts – Initial charge to 70% State of Charge. Occurring at startup, this procedure will last for 2 hours.

ABSORPTION Mode 14.7 Volts – Finish charge to 100% State of Charge. Running for a minimum of 1 hour, after which the converter switches to "FLOAT" mode when either the current drops below a preset limit or times out at 4 hours.

FLOAT Mode 13.6 Volts – Maintains charge. The converter will stay in this mode indefinitely as long as the converter has AC power. Once a week "DESULFATION" mode will activate for 1 hour then revert back to "FLOAT" mode.

DESULFATION Mode 14.7 Volts – Once a week for 1 hour to prevent sulfation and refresh the battery charge. This occurs as part of the "FLOAT" mode operation.

CAUTION! This profile is for AGM batteries only.

