

PD9300 LiFePO4 Charge Wizard

Relatively new to the RV industry is the Lithium LiFePO4 battery sometime labeled LFP. Recent years have seen a huge influx of manufacturers. The result is a nonstandard requirement for charging voltages. Although the optimum charging voltage for the LFP battery is 14.6 VDC, many manufacturers are specifying a charge voltage of less than 14.6 volts and setting the high voltage cutoff at 14.6 volts through the Battery Management System (BMS). In general, this is not a user adjustable function. Progressive Dynamics has run numerous tests at 14.4 volts showing that the battery can receive a full charge at the converter rating.

Progressive Dynamics has developed Lithium 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 while providing DC power to the RV. These are automatic functions. The Charge Wizard will properly charge and maintain battery while providing safe operating voltages within the RV.

CHARGE Mode 14.4 VDC - Initial charge to full. Automatically selected at start up. After 1 hour and the current drops off, or 8 hours of charging has elapsed, the charger switches to IDLE MODE.

IDLE Mode 13.6v VDC – This is a nominal voltage for an RV connected to shore power. This mode is continuous but will revert to CHARGE if the power demand is high or AC power is reapplied.

REFRESH Mode 14.4 VDC – Occurring during IDLE mode. Once every three weeks, a charge voltage is applied for 1 hour to refresh the battery.

Caution! This profile is for Lithium(LiFePO4) batteries only.

