

EXPERTISE YOU CAN TRUST



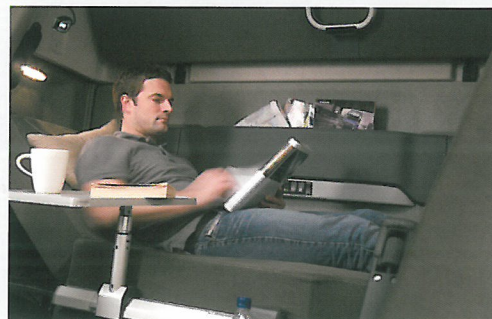
The Right Battery, the Right Application

WHEN IT COMES TO HEAVY DUTY TRUCKING AND COMMERCIAL VEHICLE APPLICATIONS DOES CHOOSING THE RIGHT BATTERY REALLY MAKE A DIFFERENCE? AFTER ALL, AREN'T ALL HEAVY DUTY TRUCK BATTERIES THE SAME?

TECHNOLOGICAL ADVANCES IN OEM MANUFACTURED PRODUCTS, INCREASED ANTI-IDLING REGULATIONS AND THE NEED FOR TIGHTER COST MANAGEMENT MEANS GETTING THE MOST OUT OF YOUR BATTERY IS EVEN MORE IMPORTANT THAN EVER. AT TROJAN BATTERY COMPANY WE BELIEVE THAT SELECTING THE RIGHT BATTERY DOES MAKE A DIFFERENCE TO THE PERFORMANCE OF YOUR APPLICATION AND TO YOUR BOTTOM LINE. WE UNDERSTAND THE IMPORTANCE OF GETTING THE MOST OUT OF YOUR BATTERY WHICH IS WHY WE HAVE DEDICATED OVER 85 YEARS TO NOT ONLY MANUFACTURING THE HIGHEST QUALITY, LEAD ACID BATTERIES BUT ALSO TO ENGINEERING THE RIGHT BATTERY FOR THE RIGHT APPLICATION.

APU and HVAC Systems

State and local emissions legislation has stimulated the need for idle elimination technologies that allow drivers to meet their heating and air conditioning (HVAC) needs without truck idling. Battery-based auxiliary power unit (APU) systems are quickly becoming the preferred technology. The energy requirements and extended time to power these systems during key off periods require a battery with the deep cycling capabilities not found in conventional starting or dual-purpose type batteries. The Trojan OverDrive™ AGM 31 is the only deep cycle battery exclusively engineered for these APU technologies.



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BATTERY COMPANY
Clean energy for life.™

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OverDrive™ AGM 31

Heavy Duty Cycling, Deep Cycle Endurance

The Trojan OverDrive™ AGM 31 battery is a true deep cycling battery. Engineered exclusively to withstand the rigors and abuse of deep discharge applications, the OverDrive incorporates a series of design features essential to deliver the long duration energy storage required for heavy duty APU and liftgate applications.



1 Robust Plate Construction

Trojan's OverDrive™ AGM 31 is designed with a thick plate construction. The plate used in the OverDrive is more robust and more resistant to the stresses encountered during deep discharge cycling. During repeated discharge and recharge active materials can expand and contract causing erosion of the active material. The robust plate structure prevents the active material from being eroded away resulting in longer cycle life.

2 Heavy Duty Corrosion Resistant Grid

The OverDrive™ AGM 31 features a thick grid framework formulated for use with the OverDrive's high density paste. The conductive framework of the grid is designed with large cross sectional areas to securely support the active material and to reduce the overall corrosion that can occur in batteries. The overall grid configuration is optimized to enhance current flow through the grid providing exceptional battery performance.

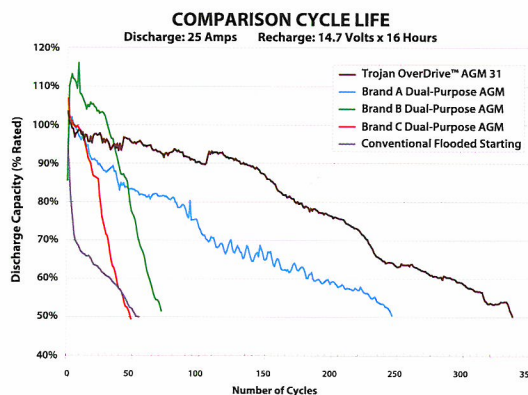
3 High Density Paste

The OverDrive™ AGM 31 is constructed with a high density paste formulation precisely engineered to deliver outstanding performance. The active material structure features larger crystals with smaller pores. Long, needle-shaped alpha lead dioxide crystals incorporated into the paste structure act like rebar in concrete, interlocking and strengthening the active material structure. This high density paste formulation optimizes porosity development utilizing the active material more effectively resulting in longer life.

4 Rugged Polypropylene Case

In heavy-duty truck applications increased battery protection is key. Trojan's OverDrive™ AGM 31 battery is packaged in a thick-walled, durable polypropylene case. Rigid enough to keep the internal components of the battery compressed, the rugged polypropylene case effectively protects the plates from damage caused by shock and vibration. Resistant to oil, gasoline and other road chemicals, Trojan's polypropylene case is durable enough to withstand the rigorous abuse over-the-road truck applications can cause.

Selecting the wrong type of battery will cause disappointing performance, shortened lifetime and wasted money. Flooded starting, dual-purpose and multi-purpose batteries are best suited for intermittent use and not deep cycle applications. The Trojan OverDrive™ AGM 31 delivers high power cycling for extended periods of time.



* As tested in Trojan's state-of-the-art R&D centers and in accordance with BCI test procedures

BCI GROUP SIZE	TYPE	VOLTAGE	CAPACITY ^A Minutes	CRANKING Performance		CAPACITY ^B Amp-Hours (AH)		TERMINAL Type	DIMENSIONS ^C Inches (mm)			WEIGHT lbs. (kg)	WARRANTY ^G
			@25 Amps	C.C.A. ^D @0°F	C.A. ^E @32°F	5-Hr Rate	20-Hr Rate		Length	Width	Height ^F		
31	OverDrive™ AGM 31	12 VOLT	180	600	720	84	102	3/8 Stud	13-7/16 (341)	6-13/16 (174)	9-1/4 (234)	69 (31)	30 Months



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A. The number of minutes a battery can deliver when discharged at a constant rate at 80°F (27°C) and maintain a voltage above 1.75 V/cell. Capacities are based on nominal performance.

B. The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 80°F (27°C) for the 20-Hour and 86°F (30°C) for the 5-Hour rate and maintain a voltage above 1.75 V/cell. Capacities are based on nominal performance.

C. Dimensions are based on nominal size. Dimensions may vary depending on type of handle or terminal. Batteries to be mounted with .5 inches (12.7mm) spacing minimum.

D. C.C.A. (Cold Cranking Amps) - the discharge load in amperes which a new, fully charged battery can maintain for 30 seconds at 0°F at a voltage above 1.2 V/cell.

E. C.A. (Cranking Amps) - the discharge load in amperes which a new, fully charged battery can maintain for 30 seconds at 32°F at a voltage above 1.2 V/cell. This is sometimes referred to as marine cranking amps @ 32°F or M.C.A. @ 32°F.

F. Dimensions taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.

G. Visit www.trojanbattery.com for full details on limited warranty.