

Adams Industries Air Ground Warrior Battery Pack for Aviation Night Vision Goggles Deployed in Ground Operations

Operators from the U. S. Army Special Forces and others have been conducting multiple recon and surveillance operations as well as direct action missions and engaging targets utilizing Army aviation night vision systems such as the AN/AVS-6 (or AN/PVS-23s) and ancillary hardware, helmet mounts and battery packs. These ANVIS systems represent the best of the best in terms of optical performance of any night vision system available however they are designed for air operations and may sacrifice ruggedness and durability in conducting ground operations.

In particular, the current low profile battery packs for aviation night vision goggles (NVGs) and helmet mounts in supply will not hold up to the nightly pounding in the battlefield environment that is encountered by the SOF warfighter in training and/or actual ground operations. The current thin-shell low profile battery packs break and ANVIS helmet mounts break leaving the operator in the dark and even briefly may compromise the success of the mission or the safety of the warfighter.

Air Ground Warrior Battery Pack (AGWBP) -

Adams Industries designed and manufactures a superior battery pack that provides a robust solution to this problem. The Adams Industries Air Ground Warrior Battery Pack (AGWBP) provides a stronger enclosure, improved cable management and a more streamlined profile to ensure the battery pack will provide a rugged source of auxiliary power to the ANVIS night vision goggle (NVG) with less snag and drag and withstand the pounding impacts of the battlefield environment.

The standard battery pack issued by Army Aviation supplies has several weaknesses that result in breakage and lack of service. Feedback from operators, the ALSE community and the service and repair depots from both the military and commercial aviation have identified specific issues which require service repair or replacement.

The Adams Industries Air Ground Warrior Battery Pack (AGWBP) was designed to overcome those weaknesses and provide a more rugged and reliable source of



Figure 1. Adams Industries Air Ground Warrior Battery Pack (AI-AGWBP-B) in black



primary power for the ANIVS NVGs for both tactical ground operations as well as conventional aviation operations. The battery compartment itself is machined from a single block of high density material that provides superior strength to weight to withstand extreme crushing forces while maintaining the weight of the standard battery pack. The battery pack is designed with a smoother profile to conform to the curvature of the helmet and has rounded ends to prevent snags.

The AGWBP battery compartment is designed and machined to fit and receive either two (2) AA batteries or one (1) lithium CR123 3Vdc battery per side. There are no paired battery carrier cells to break or lose as with the standard battery pack to prevent operation. The battery compartment is stamped on the outside with a “+” and “-” as polarity indicators.

The battery compartment covers are secured in place with a tactile knob that rotates 90° to open and close. The cover uses an o-ring seal to prevent moisture or leakage. The covers are tethered to the battery compartment using a spring-loaded cable to prevent accidental dropping or loss during battery change-out.

The Air Ground Warrior Battery Pack (AGWBP) uses a more rugged knurled rotating ON/OFF switch replacing the thin toggle switch that tends to break more easily in ground ops. The knob is larger in diameter and facilitates ease of use with gloves. The knob rotates from left side to OFF to right side to control which compartment side provides power to the NVG.

The Adams Industries AGWBP is designed with better cable management and uses a more rugged shielded cable to provide power from the battery pack to the helmet mount and uses standard connectors that are compatible with standard ANVIS helmet mounts. The cable extends approximately 16” from the battery compartment to the tip of the connector and can be routed on top of the helmet or along the side or the inside of the helmet and secured with Velcro or tape. The cable is reinforced at the battery pack interface and securely routed through a grip-pin to prevent accidental pullout.

The AGWBP battery pack can be attached to the ground helmet using Velcro as is typical in the SOF community or can be mounted via the standard wedge on the back of the helmet as used with the standard AN-PVS-23 binocular NVG or the similar wedge as utilized on the back of Army aviation flight helmets.



Figure 2. Adams Industries Air Ground Warrior Battery Pack (AGWBP) in black on soft shell training helmet.



In addition, standard counter-weights can be used with the AGWBP. The battery pack maintains the contact points for the standard aviation counter-weights in the standard bolt pattern located on the bottom of the battery compartment.

The Adams Industries AGWBP battery packs are available in black (-B) or tan (-T) as part numbers AI-AGWBP-B (for black) or AI-AGWBP-T (for tan).



Adams Industries, Inc.

P.O. Box 641413

Los Angeles, CA 90064

Contact Chris Adams in CA at (310) 472-3017 or cbadams@adamsindustries.com or
Les Hodges in VA at (540) 815-1421 or les.hodges@adamsindustries.com
www.adamsindustries.com

