

Bren-Tronics: 47 years old and still an expert in smart and reliable power solutions for the dismounted soldier

E VOLUTION OF TECHNOLOGIES

Operational improvements must address the challenge of evolving needs, threats and technologies. Recent war theatres have shown the increasing need for reduced weight and greater modularity, along with renewed requirement for protection and appropriate information for soldiers. Energy systems also must consider this need for improvements. Modern communication and optronics systems tend to always need more energy whereas soldiers are longing for more autonomy.

Capitalizing on feedback from operations, innovation and experience since 1973, Bren-Tronics has always managed to offer the highest specific energy (> 200Wh/Kg) coupled with the highest **safety and reliability** of power solutions to soldiers on the field.

Today, our unique 10.8V SMP® and 14.4V NETT+® rechargeable batteries offer the highest possible energy density (+212Wh/kg) to provide true wearable soldier power systems. Especially designed to support soldiers in their mission, thousands of these batteries have been successfully field tested and used by NATO countries such as Germany and the Netherlands (IDZ and VOSS programs) since 2005.

Energy is a key aspect in operational superiority

Bren-Tronics has developed a standard family of rechargeable battery packs offering various form factors and voltages but limited to about 15 different types. Standardization is the key for the logistic deployment of consumable products such as battery packs within the armed forces, but it is also the key to **interoperability**.





Autonomy is an operational advantage, and light-weight Li-ion rechargeable batteries are the only available and mature technology that can maximize **autonomy**, not just for the warfighter, but also for armored vehicles during silent watch missions.

Also, **distributing the right energy when necessary** is key when using highly capacitive rechargeable batteries. Therefore, most of the major smart power data hub manufacturers such as Glenair™, UltraLynx™, BlackDiamond™, Thales™, Techaya™, etc. have worked with Bren-Tronics to make their soldier management system compatible with our batteries.

Finally, enabling and maintaining high performance in harsh environments is also Bren-Tronics' expertise. The warfighter needs maximum energy performances at -40°C just like at 60°C and the challenge is to meet these requirements, while always guaranteeing safety and **reliability**. Even after years of experience, Bren-Tronics is always working to continuously improve protection circuitry, Li-Ion chemistry selection and mechanical integration focusing on lighter weight, colder temperature operation and/or higher discharge rate.

As a conclusion, managed and safe energy solutions are an operational advantage if key factors such as standardization are considered for greater interoperability,

higher autonomy and maximum performances in harsh environments.

Military power solutions must operate to the limits (or beyond). All Bren-Tronics products are designed, tested and manufactured to meet the most severe climate environment applications.

Bren-Tronics' expertise remains focused where no one can compromise: safety, reliability and performance. ■

**Please discover our video on
Bren-Tronics website: www.bren-tronics.com**