

SUPERB Industries Collaborates with A.R.E. to Introduce the Industry's only Solar-Powered Wireless Keyless Entry System

SUPERB Industries, Inc., developer and manufacturer of a patented solar-powered system, partners with A.R.E. Accessories, LLC., a major manufacturer of truck caps and fiberglass tonneau covers, to introduce a completely wireless, solar-powered keyless entry system.

The Problem

Truck owners wanted the convenience of remote keyless entry on their tonneau covers, but installation of such a system presented a challenge to A.R.E.'s dealers. Since each truck model has a different wiring diagram, existing remote keyless entry systems were too much trouble to install. LSX and LSII model tonneau covers are equipped with a palm handle lock—fully integrated with an electromechanical mechanism (e-lock)—but running the wires to add the keyless feature continued to present a problem in the field. A.R.E. needed an inexpensive, easy-to-install solution beyond the capabilities of existing keyless entry systems. SUPERB designed and currently manufactures the palm handle lock, so A.R.E. again looked to SUPERB for the solution.

The Solution

SUPERB's Product Design Engineering team and A.R.E.'s Marketing and Product Development group, worked together to develop an affordable and effective solution to the complex challenges of current installation methods. After a review of several different alternative energy source technologies, SUPERB identified solar power as the best overall choice in providing the portable, renewable energy source needed.

A solar-powered system could provide the energy necessary, but it also needed to appeal to consumers. Traditional silicon solar panels are bulky, fragile and unattractive. This unique application required 'automotive-grade' appeal – sleek, high-tech and dependable. Numerous designs and prototypes were developed, built and tested. Solar power provided the needed energy source but posed several design challenges.



Complete Sol-A-Ray System for A.R.E.

SUPERB experimented with a range of panel sizes and configurations. The challenge was to make the resultant panel functional, yet aesthetically pleasing. Ultra-thin, flexible and high-tech were some of the adjectives dealers and consumers used to describe what they would like to see in the finished product.

Sol-A-Ray consists of three components: a low profile, solar power cell (less than .078 inch thick), a stylish, molded console and an ergonomic key fob.

The solar power cell is a self-adhesive decal backed with an automotive grade adhesive. The solar power cell mounts on the exterior surface of the tonneau cover. Extremely efficient, Sol-A-Ray is adept at capturing the sun's energy at both off-angles and in low-sunlight conditions. This reduces the amount of full-sun exposure needed to fully recharge the energy storage device. The rugged polyurethane outer layer holds up to extreme weather conditions—it won't crack, split or peel and is UV stable.



Sol-A-Ray Console with LED Lighting

+The console serves as an enclosure for the wireless electronics and rechargeable battery pack. The robust battery allows the system to operate for a full month on a single charge without requiring any sunlight. In full sunlight, the battery can be completely recharged in approximately one day. The console also houses an LED lighting system that fully illuminates the truck bed when the tonneau cover is raised. The built-in light sensor automatically prevents the LEDs from turning on during the day to prolong battery life. The console connects to the palm handle via a proprietary activation plug.

The stylish key fob maintains the aesthetically pleasing profile of the Sol-A-Ray system. Two rubber buttons provide excellent tactile feedback when locking or unlocking the system. Up to nine key fobs can be taught to a single console. All wireless communication is fully encrypted and additionally secured via rolling code to prevent unauthorized access. Typical range exceeds 100' for convenient, hands-free access to the truck bed.

John Miller, president of SUPERB Industries, noted, "Sol-A-Ray not only provides convenience for the truck owner, it also eliminates the costly and time-consuming task of running wire from the truck's power source for the aftermarket retailer. ... Now, having keyless entry is an affordable option."



Sol-A-Ray Keyless Entry

About A.R.E. Accessories, LLC

The Sol-A-Ray system is available factory-installed with the purchase of an A.R.E. tonneau cover, or separately as an aftermarket item purchased at an authorized A.R.E. dealer. Based in Massillon, Ohio, A.R.E. has been a leading manufacturer of fiberglass truck caps and hard tonneau covers for the past 38 years. A.R.E. distributes its products through a network of more than 600 independent authorized dealers. Visit www.4are.com

About SUPERB Industries, Inc.

SUPERB Industries, Inc. (est. 1986) offers this patented solar technology, as well as engineered metal and plastic components, for the automotive, appliance, medical, security, and communications industries. SUPERB currently serves Chrysler, Ford, GM, Honda, Toyota, Jaguar, Mercedes, Frigidaire, GE, Whirlpool and other major vehicle and appliance manufacturers. SUPERB is globally competitive, supplying millions of parts to China, Canada, Mexico, and Europe.

The company holds ISO9000 certification to the TS16949 standard and is focused on high –volume production—regularly holding tolerances of +/- 0.001” in precision metal stamping and plastic injection molding. SUPERB also offers its customers design and engineering expertise to see products through from napkin-sketch, to finished product. All this is accomplished utilizing the latest technologies to ensure efficiency, repeatability and the best overall product value.

Contact our Product Design Engineering team to discuss your project. Sol-A-Ray technology may be able to provide the power source you are looking for, with a contemporary look that cannot be matched by traditional solar panels.

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