



# THE SPARTAN BATTERY BACK UP SYSTEM

The first in-signal head battery back up system for emergency flash operation

## Traffic Signal Power Outages are Dangerous

Power outages are increasing in regularity leaving drivers, pedestrians, and vulnerable road users to deal with all out intersections more frequently. Intersections in flash are much safer than intersections without power in a dark condition.

## The Spartan System vs Traditional battery back-ups

Traditional battery backup systems rely on the field wiring to operate the signals. However, with increases in wire theft, road work, and increased commercial traffic accidents traditional back up systems are more vulnerable to failure because they rely on the same infrastructure as the normal operation. Traditional systems are also very expensive and only last for 4-6 hours before again going all out and leaving the intersection in a very dangerous condition. According to statistics from the Federal Highway Administration, almost 50% of all reported accidents occur in intersections and nearly 25% of them involve fatalities. Many of these accidents occurred because of drivers treating blacked out intersections as “freebies,” and ignoring traffic rules.

## About the Spartan System

The STS Spartan System is intended to keep intersections safer during all out conditions by initiating an emergency red flash until power can be restored. The system is designed to be installed in under 10 minutes by a typical signal maintenance crew and all components fit inside the signal head. No shutdowns, no heavy tools, just plug and play simplicity to never have an all out condition again.



## Contact us!

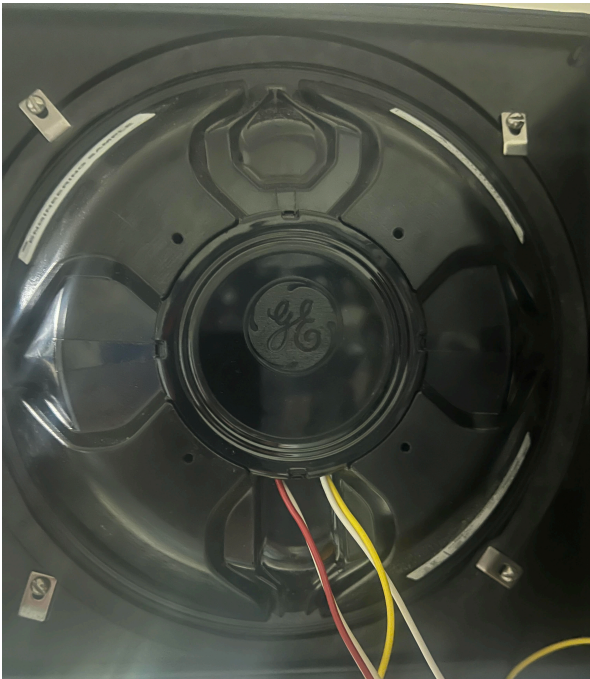
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## To learn more

[www.sentineltransportationsystems.com](http://www.sentineltransportationsystems.com)

## How does the Spartan System Work?

In order to ensure the Emergency red flash we had to completely isolate our system from the normal operation. The Spartan system monitors the AC voltages going to the signal head and a loss of voltage to the signal head for more than 10 seconds initiates our flash operation. The system uses a custom red LED made by Current Lighting Solutions that operates at the exact same ITE standard on both AC and DC voltages. The system utilizes lithium ion battery technology to give our system up to a 24 hr flash life and when coupled with a solar solution an indefinite flash operation is possible.



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## Reliable by design

Our custom LED from Current uses two separate sets of leads for AC and DC operation pictured above. The AC connects like a typical LED while the DC side connects to the Spartan control board. The Spartan system guarantees its power supply for 11 years, nobody else in the industry comes close. It's simple design and efficient components help this small but powerful system protect the intersection for 6 times as long as the typical battery back up system during a power outage.

## Will the Spartan system work with our existing signal equipment?

**Yes**, the STS Spartan System is a cost effective solution that adapts to your existing equipment, making any signal a smart signal with emergency flash operation.

**Compatibility:** side mount, mast arms, wire hanger, post top, pelco mount

**Connectivity:** Our battery system has an option to connect to your TMC via a cellular system to give battery updates and notice of system activation.

**Environmental Data-** operational temps as tested -20 degrees F to 120 degrees F

## Smarter Traffic Signals Save Lives

Today distracted drivers have a hard enough time seeing signals operating normally, when the lights go out at an intersection it can result in high speed fatal accidents as the driver doesn't realize its a highly dangerous condition they are entering. The Spartan System helps keep intersections safer by displaying a bright red light to warn drivers of the dangerous condition at the intersection.



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