

RAILROAD

ADVANCED WARNING SYSTEM

K&K Systems' Sign Alert™ Advanced Warning System for Rail utilizes the CrossTalk, an advanced lighting controller, and low-power radar sensor triggering, MPPT solar, and easy field configuration with simple on-board rotary switches to activate the RR Sign Alert. The Crosstalk is an efficient and cost saving solution for expensive wired traffic signs. It allows communication between the radar trigger and the warning signs wirelessly with quick and simple setup. It also easily retrofits to any existing system.





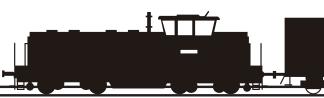
CrossTalk Advanced Lighting Controller

- Programmable rotary switches for simplified field configuration
- Built-in solar controller with Maximum Power-Point Tracking (MPPT) and 3-stage battery charging
- ▶ Low-voltage disconnect (LVD) battery management
- Dptional GPS: concurrent reception of up to (3) GNSS services (GPS, Galileo, GLONASS, BeiDou)
- Real-Time Clock / Calendar (RTCC).
- ▶ Digital / PWM LED outputs (x4)
- RS-232 serial port
- Dry-contact / switch input radar, rain sensor, etc.
- Digital inputs (x2) radar, rain sensor, optical sensor, etc.
- ► Extended temperature operation: -40 to +85 deg C

RATEROAD WARNING SYSTEM WITH RADAR SENSOR ACTIVATION



The **Radar** detects the train and triggers the **Sign Alerts** to flash to warn drivers.



SOLAR POWERED TECHNOLOGY allows this system to operate virtually anywhere. K&K solar panels utilize the most up to date solar technology and electronics to maintain power levels through rain, sleet, heavy snow or strong winds. Built-in blocking diode prevents the reverse flow of electricity. Equipped with a heavy-duty aluminum frame for weather-resistant performance. The Control Box is constructed of aluminum and designed to securely hold the solar panel and protect its contents from the elements.



RADAR SENSOR detects moving objects in a wide area. Heavy duty built in a waterproof enclosure. Solar power and simple installation allows this system to be used virtually anywhere.

REFLECTIVE SIGN MATERIAL High intensity signage and MUTCD compliant. Can be upgraded to Diamond Grade

ULTRA BRIGHT LED LIGHTING are the brightest in the industry and are completely weather proof. The LEDs will adjust brightness according to available light in order to conserve energy and battery life and maximize brightness. Adjust the flash rate from 50/50 to 90/10 duty cycle.

CROSSTALK CONTROLLER device is a compact, all-inone solar controller, flasher, auto-dimmer and scheduler that is programmed using CrossLink from a central office or via cellular service using a mobile device. The CrossTalk is located inside the control cabinet under the solar panel. CrossTalk can be used to control a single sign or multiple signs at multiple locations by programming through the web-based software.



BENEFITS:

- All controls are enclosed in a protective aluminum control box located under the solar panel.
- ▶ All wiring is concealed inside the sign to ensure protection.
- ▶ Wireless, radar trigger activation
- LED lighting for low energy consumption, but maximum light output.
- CrossTalk provides for control of multiple sign alerts in multiple locations from a desktop and/or mobile device.
- ▶ Replacement battery can be purchased "off the shelf."
- Multi-stage battery charger included.
- Lightweight design
- ▶ Easy Installation and setup
- Easily retrofits to existing system







