



Global Traffic  
Technologies

# Opticom™ Infrared System

## Opticom™ Model 492 Emitter

An Opticom™ Infrared System Matched Component Product

October 2007

### Description

The Opticom™ Model 492 Emitter is a compact, lightweight, weather-resistant encoded signal device intended for use on priority vehicles. The Opticom model 492 is comprised of a flash-tube/reflector and housing assembly with an integral power supply and the required cables. The Opticom model 492 converts 12 VDC vehicle battery power to the high voltage required for operation of the unit. Accessory switch devices are also available.

The encoded signal pattern (composed of the individual vehicle class code) generated by the Opticom model 492 is established prior to ordering the emitter and is specified at the time of procurement. Vehicle class selection is customized during the manufacturing process.

The Opticom model 492 generates precisely timed pulses of high intensity light in the infrared and visible wavelengths at the base flash rate of approximately 14 Hz. It also interleaves programmed encoded pulses that carry the vehicle class information. These energy pulses are sensed and processed by other Opticom infrared system components to cause activation of the system.



Opticom™ Model 492 Emitter

### Description of Models

**Opticom™ Model 492H Emitter:** a high-priority emitter

**Opticom™ Model 492HF Emitter:** a high-priority emitter with filter

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### Opticom™ Model 492 Emitter

#### Features

- Discrete, penetrating infrared communication
  - Directional
  - Consistent, day and night transmission
  - All-weather performance
- Compact, single source system
- High-priority operation
- Encoded signal transmission
  - High priority (10 classes of vehicles)
- Low power consumption
- Improved installation flexibility
  - Mounts directly on vehicle
  - Incorporates into many lightbars
- Automatic emitter disable, indicated by slow flashing of the emitter switch indicator light
- Self-diagnostic with visual feedback through the switch's indicator light
- Configured with a grating for precise directionality control
- Available with an optional light-blocking filter

#### Accessories



Opticom™ Model 793B Switch (left)  
and Opticom™ Model 793S Switch (right)

- Switches
  - Rocker-type switch for knockout/panel mounting (with simple mounting bracket) (model 793B)
  - Fully enclosed push-button switch (with dashboard mounting bracket) for on/off operation (model 793S)

|                              | Model 793S Switch | Model 793B Switch | Customer-Supplied Switch |
|------------------------------|-------------------|-------------------|--------------------------|
| Opticom™ Model 492H Emitter  | High Priority/Off | High Priority/Off | High Priority/Off        |
| Opticom™ Model 492HF Emitter | High Priority/Off | High Priority/Off | High Priority/Off        |

### Operating Parameters

- High-priority operation selected by model
- Isolated power supply and emitter for positive or negative ground vehicle power system
- Less than 5 amps peak current drawn
- Self-diagnostic
- Precisely controlled high-priority flash rate of 14 Hz
- Transmission range up to 2,500 feet (762 m) with clear lens and up to 1,800 feet (549 m) with visible light filter
- Electrical
  - Input voltage: 10 to 16 VDC
  - Current: less than 5 amps
- Environmental
  - Temperature: -30° F (-34° C) to +165° F (+74° C)
  - Relative humidity: 5% to 95%

### Physical Dimensions

#### Opticom™ Model 492 Emitter

- **Depth:** 3.5 in. (8 cm)
- **Width:** 5.8 in. (14 cm)
- **Height:** 3.7 in. (9 cm)
- **Weight:** 1.9 lb. (.8 kg)

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GTT warrants future system operability coverage as described herein. The warranties set forth in this document shall not apply to (A) incandescent lamps (confirmation lights) or (B) any Opticom infrared system components which have been (1) repaired or modified by persons not authorized by GTT; (2) subjected to incorrect installation, misuse, neglect or accident; (3) damaged by extreme atmospheric or weather-related conditions; or (4) subjected to events or use outside the normal or anticipated course.

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