Global Traffic Technologies

Opticom™ Infrared System

Opticom™ Model 9592 Optical Emitter

An Opticom™ Infrared System Matched Component Product **October 2007**

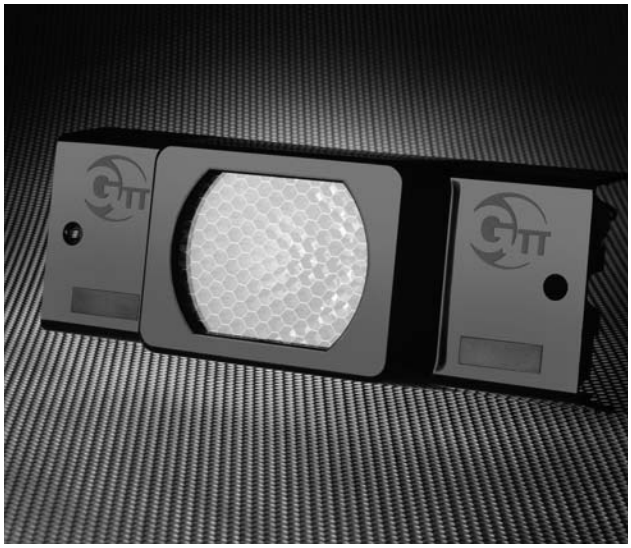
Description

Opticom™ Model 9592 Optical Emitter is a compact, lightweight, weather-resistant device for priority vehicle use. The Opticom model 9592 is a self-contained electrical and optical assembly custom designed for insertion into the center of Whelen® Edge® and Freedom™ Series Lightbar Units. Accessory switches are also available.

The Opticom model 9592 produces precisely timed pulses of high-intensity light in visible and infrared wavelengths as well as encoded pulses that carry vehicle class and ID number information. These light pulses are sensed and processed by other Opticom™ Infrared System components to validate the signal and activate the system.

The Opticom model 9592 converts 12 VDC vehicle battery power to the high voltage required for operation. The unit may be installed as a high priority (14 Hz) or as a low priority (10 Hz) emitter. During installation, internal switches determine the encoded signal pattern to provide vehicle class and identification number.

When installed on authorized service vehicles, the Opticom model 9592 may also be configured to use the automated range-setting feature of the Opticom™ Model 562 Phase Selector. This feature simplifies the setup and maintenance of individual intersections.



Opticom™ Model 9592 Optical Emitter

Features

- Line-of-sight infrared communication to the intersection
  - —Establishes priority only along response route
  - —Does not disrupt parallel street traffic
  - —Provides temporary priority control of immediate intersection(s)
- Single light source with controlled beam spread
- Disable function—activated by an external switch (e.g., seat switch, parking brake switch or door switch)

Opticom™ Infrared System Matched Component Product

Opticom™ Model 9592 Optical Emitter

Whelen® Freedom™ Series Lightbar Unit with Opticom™ Model 9592 Optical Emitter Module

- Encoded signal operation
  - —High priority
    10,000 discrete vehicle IDs (10 classes of vehicles with 1,000 individual codes available per class)
  - —Low priority
    10,000 discrete vehicle IDs (10 classes of vehicles with 1,000 individual codes available per class)
- Automated range setting
- Low power consumption
- Easy installation
- Self-diagnostic, with visual feedback through the switch's indicator light
- Meets FCC Part 15, subpart J, Class A regulations for electromagnetic interference
- Molded plastic construction
- Directional honeycomb lens assembly

Accessories

Opticom™ Model 793B Switch (bottom left), Opticom™ Model 793S Switch (bottom right) and Opticom™ Model 793R Switch (top right)

- Switches
  - —Rocker-type switch for knockout/panel mounting with simple mounting bracket (Model 793B)
  - —Two versions of fully enclosed push-button switches with dashboard mounting bracket
    - On/Off only (Model 793S)
    - On/Off with automated range-setting control (Model 793R)
- Visible light filter

Operating Parameters

- High or low priority operation selected by the configuration of installation wiring
- Range-setting feature implementable through the configuration of the installation wiring
- Isolated power supply and emitter for positive or negative ground vehicle power system
- Less than 5 amps peak current draw
- Self-diagnostic
  - —Steady on normal operation
  - —0.5 Hz disabled indicator flash
  - —2 Hz failure indicator flash
- Precisely controlled high-priority frequency rate of 14 Hz
- Precisely controlled low-priority frequency rate of 10 Hz
- Optical transmission range: up to 2,500 ft. (762 m)
- Electrical
  - —Input voltage: 10 to 16 VDC
  - —Current: less than 5 amps
- Environmental
  - —Temperature: -30° F (-34° C) to +140° F (60° C)
  - —Relative humidity: 5% to 95%

Installation

- Front center lightbar mounted
- Integral power supply
- Meets or exceeds Opticom™ Model 9592 Optical Emitter specifications

Physical Dimensions

Opticom™ Model 9592 Optical Emitter

Length: 10.0 in. (25.6 cm)

Width: 3.88 in. (9.9 cm)

Depth: 3.0 in. (7.7 cm)

Shipping Weight: 4.25 lbs. (1.93 kg)

Switch Enclosure

Length: 4.00 in. (10.16 cm)

Width: 4.45 in. (11.30 cm)

Depth: 1.10 in. (2.79 cm)

Shipping Weight: 0.69 lbs. (313 g)

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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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