



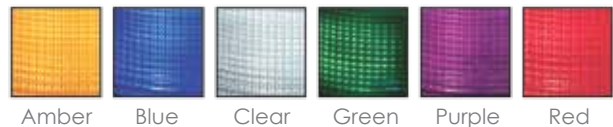
## 804 MAXI I™ STROBE

### Medium Profile - Single Flash Warning Light

- universal mounting
- built-in RFI filters
- solid state power supply
- 10,000 hour strobe lamp
- five year warranty on power supply
- one year warranty on lamp
- available in six lens colors
- UL listed (AC models only)
- NEMA 4X
- 480 ECP

The model 804 family is a medium profile, single flash strobe light featuring universal mounting, full size 360° Lexan® lens, high efficiency regulated solid state power supply, and heavy duty xenon strobe lamp. All units are polarity protected and have built-in filters to protect against radio interference and spike voltages. The model 804 features a fully potted Lexan®, multi-purpose mounting base which is vibration and water resistant. The 804 also features a field replaceable plug-in strobe lamp and state of the art energy storage capacitor for increased intensity.

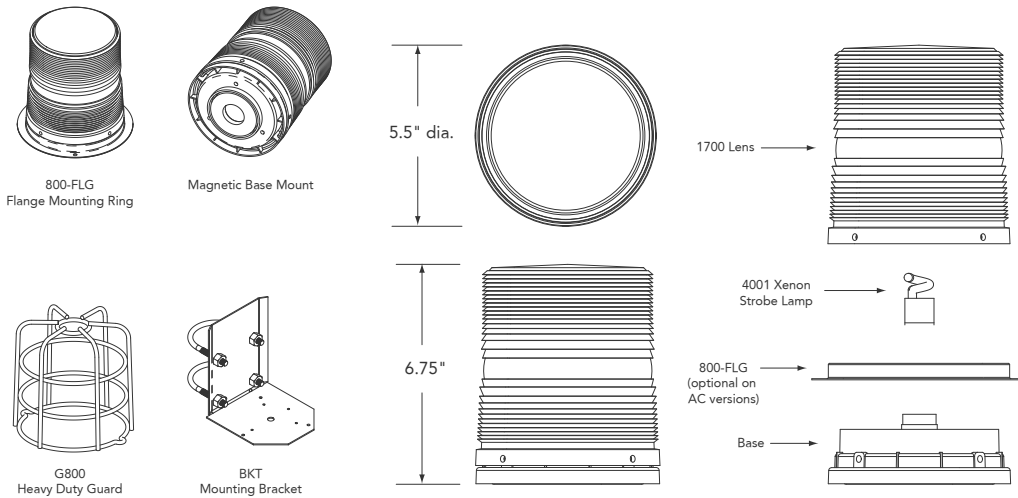
Lens Colors



#### Ordering Information

Please specify lens colors and model number when ordering. Available colors are Amber, Blue, Clear, Green, Purple and Red.

Model No.	Description	Voltage, Frequency
804-110	AC strobe with 10" leads, UL listed	120VAC, 50/60Hz
804LC-110	AC strobe with AC cord set, UL listed	120VAC, 50/60Hz
804-240	AC strobe with 10" leads, UL listed	240VAC, 50/60Hz
804-1274	DC strobe with 10" leads	12 - 74VDC
804MB-1274	DC strobe, magnetic mount and 10' coil cord	12 - 74VDC
804MBSC-1274	DC strobe, magnetic mount and 10' straight cord	12 - 74VDC



## Specifications

Item	Description
Flash Rate	80 to 95 flashes per minute
Light Output	480 effective candlepower (ECP)*
Voltage and Amperage	12-74VDC draws 1.25A @ 12V tapering to 0.2A average @ 74V 120VAC draws 0.3A average 240VAC draws 0.3A average
Power Supply Output 11 Watts	8 joules per flash. 800,000 Peak Candlepower**
Operating Temperature	-40 C to 65 C
Size and Weight	6.75" tall x 5.5" dia. x 2.2 lbs ( 171mm x 140mm x 1.0kg )
Encapsulation	Fully potted in urethane material with no exposure to High Voltage possible

## Available Options

NOTE: All "/" options are factory installed only.

Model No.	Description
BKT	Mounting bracket
/LBO-MAXI	Lens blackout segment 180°
800/1250-DC	Clear lens dust cover
G800	Heavy duty guard
TBO-MAXI	Top lens blackout
800-FLG	Chrome flange mounting ring ( standard on DC versions, optional on AC versions )

## Replacement Parts

Model No.	Description
4001	Xenon strobe lamp
1700	Color lens ( please specify color )
801-110-BASE	120VAC power supply
801LC-BASE	120VAC power supply with AC cord set
801MBSC-BASE	120VAC power supply with magnetic mount and straight cord
801-240-BASE	240VAC power supply
801-1274-BASE	12-74VDC power supply
801MB-BASE	12-74VDC power supply with magnetic mount and coil cord

## Architect and Engineer Specifications

The visual signaling beacon shall be Tomar model 804 or approved equal. The light source shall be a plug-in field replaceable single-flash xenon strobe lamp. The warning beacon shall have a Lexan® lens and universal mount base. The warning signal must have built-in RFI filters to protect against radio interference and spike voltages. It shall be polarity protected, and have a power supply fully potted in polyurethane. The beacon shall have an 11 watt power supply, and generate 8 joules per flash at 80 to 95 flashes per minute. Light intensity is to be 480 effective candlepower. Voltage ranges shall be 12-74VDC, 120 VAC, and 240VAC. Strobe light shall be designed to accept a dome guard and mounting bracket.

\*ECP (Effective Candlepower) is the intensity that would appear to an observer if the light were burning steadily.

\*\*Peak Candlepower is the maximum light intensity generated by a flashing light during its light pulse.



STROBECOM II

# DETOC1

1-Head, 1- Direction, 1-Channel, Standard Detector with TOMAR OSPOC Automatic Test

TOMAR's DETOC1 Strobecom II single direction preemption detector with automatic detector test includes one detector head and one output channel.

The DETOC1 senses the optical pulses emitted by properly equipped emergency & transit vehicles. Mounted to observe an approach to an intersection, the DETOC1 is used with TOMAR OSPOCV2 Series optical signal processors to inform the traffic control system.



- Tool-less swivel of detector head makes aiming easy
- Sensor technology for sunlight rejection unmatched by any other system
- Fully encapsulated electronics for complete resistance to water, heat, and vibration
- Protected from mis-wiring and electrical transients
- Simple advance detector installation for detection around corners and over hills





**Specifications**

Item	Description
Maximum Detection Range	2500 feet minimum when used with OSPOCV2 series optical signal processor in clear atmospheric conditions
Maximum Cable Length	Up to 900 feet of TOMAR M913 preemption cable between optical signal processor and DETOC1
Field of View	13 degrees conical centered around viewport normal axis (typical)
Cable Type	TOMAR model M913 preemption detector cable 20 AWG 3-conductor shielded cable & bare
Operating Temperature	-40 to +75 degrees C
Physical Construction	The DETOC1 enclosure is black, glass filled, UV stabilized polyamide suitable for all weather use. All electronics circuitry is completely encapsulated in polyurethane for protection from shock, vibration, and moisture.
Mounting	The DETOC1 is easily mounted using standard hardware on either span wire or mast arm. The unit has a 3/4" female pipe mount hub and internal terminal block for connection to a 3/C shielded detector cable (TOMAR M913)

**Ordering Info**

Catalog Number	Description
DETOC1	One head, one direction, one channel with automatic test

**TRUE 10 YEAR WARRANTY!**

10 year warranty covers the DETOC Series and all STROBECOM II components. Unlike other manufacturers, TOMAR's ten year warranty has NO fees or charges for warranty repairs after five years.

NOTICE: The sale of these items are restricted to state and local governments and to be authorized distributors only.



STROBECOM II

# DETOC1-IC-X

1-Head, 1- Direction, 1-Channel, 1-LED, Standard Detector with Integrated Confirmation and TOMAR OSPOC Automatic Test



- INTEGRATED CONFIRMATION technology provides low-cost, easily installed visual feedback of preemption to vehicle drivers and citizens.
- Tool-less swivel of detector head makes aiming easy
- Five colors of LED confirmation light available (Blue and White)
- Sensor technology for sunlight rejection unmatched by any other system
- Fully encapsulated electronics for complete resistance to water, heat, and vibration
- Protected from mis-wiring and electrical transients
- Simple advance detector installation for detection around corners and over hills

TOMAR's DETOC1-IC-X Strobecom II single direction preemption detector with automatic detector test and Integrated Confirmation includes one detector head, one output channel, and one LED confirmation light.

The DETOC1-IC-X senses the optical pulses emitted by properly equipped emergency & transit vehicles. Mounted to observe an approach to an intersection, the DETOC1-IC-X is used with TOMAR OSPOCV2 Series optical signal processors to inform the traffic control system and provide visual confirmation of the presence of designated vehicles that may affect normal traffic signal behavior.

TOMAR's Integrated Confirmation technology (US patent 8,742,946) allows powering and operation of the built-in LED confirmation light using only the standard preemption detector cable. No additional mounting, power source, programming, or wiring are required.





**Specifications**

Item	Description
Maximum Detection Range	2500 feet minimum when used with OSPOC series optical signal processor in clear atmospheric conditions
Maximum Cable Length	Up to 600 feet of TOMAR M913 preemption cable between optical signal processor and DETOC1-IC-X
Field of View	13 degrees conical centered around viewport normal axis (typical)
Cable Type	TOMAR model M913 preemption detector cable
Operating Temperature	-40 to +75 degrees C
Physical Construction	The DETOC1-IC-X enclosure is black, glass filled, UV stabilized polyamide suitable for all weather use. All electronics circuitry is completely encapsulated in polyurethane for protection from shock, vibration, and moisture.
Mounting	The DETOC1-IC-X is easily mounted using standard hardware on either span wire or mast arm. The unit has a 3/4" female pipe mount hub and internal terminal block for connection to a 3/C shielded detector cable (TOMAR M913)

**Ordering Info**

Catalog Number	Description
DETOC1-IC-X	One head, one direction, one channel, one LED optical signal detector with automatic test (x = confirmation light color B or W)

**TRUE 10 YEAR WARRANTY!**

10 year warranty covers the DETOC Series and all STROBECOM II components. Unlike other manufacturers, TOMAR's ten year warranty has NO fees or charges for warranty repairs after five years.

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# DETOC21

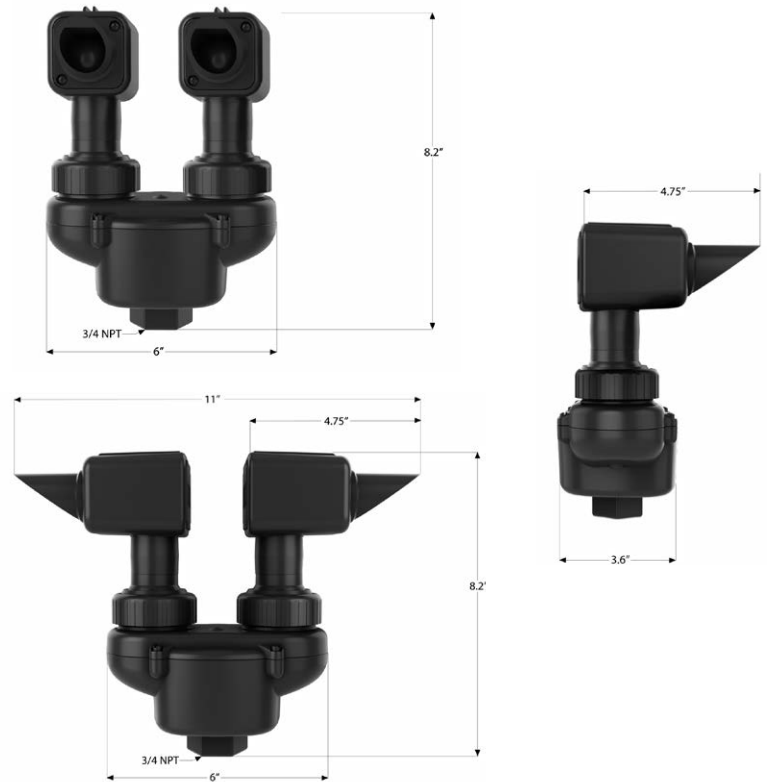
2 Head, 1-Direction or 2- Direction, 1- Channel,  
Standard OSPOC Style Detector

TOMAR's DETOC21 Strobecom II single or dual direction preemption detector with automatic detector test includes two detector heads and one output channel.

The DETOC21 senses the optical pulses emitted by properly equipped emergency & transit vehicles. Mounted to observe an approach to an intersection, the DETOC21 is used with TOMAR OSPOCV2 Series optical signal processors to inform the traffic control system.



- Tool-less swivel of detector head makes aiming easy
- Sensor technology for sunlight rejection unmatched by any other system
- Fully encapsulated electronics for complete resistance to water, heat, and vibration
- Protected from mis-wiring and electrical transients
- Simple advance detector installation for detection around corners and over hills





**Specifications**

Item	Description
Maximum Detection Range	2500 feet minimum when used with OSPOCV2 series optical signal processor in clear atmospheric conditions
Maximum Cable Length	Up to 900 feet of TOMAR M913 preemption cable between optical signal processor and DETOC21
Field of View	13 degrees conical centered around viewport normal axis (typical)
Cable Type	TOMAR model M913 preemption detector cable 20 AWG 3-conductor shielded cable & bare
Operating Temperature	-40 to +75 degrees C
Physical Construction	The DETOC21 enclosure is black, glass filled, UV stabilized polyamide suitable for all weather use. All electronics circuitry is completely encapsulated in polyurethane for protection from shock, vibration, and moisture.
Mounting	The DETOC21 is easily mounted using standard hardware on either span wire or mast arm. The unit has a 3/4" female pipe mount hub and internal terminal block for connection to a 3/C shielded detector cable (TOMAR M913)

**Ordering Info**

Catalog Number	Description
DETOC21	Two head, single or dual direction, one channel, optical signal detector with automatic test

**TRUE 10 YEAR WARRANTY!**

10 year warranty covers the DETOC Series and all STROBECOM II components. Unlike other manufacturers, TOMAR's ten year warranty has NO fees or charges for warranty repairs after five years.

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STROBECOM II

## DETOC22

2-Head, 2- Direction, 2-Channel, Standard Detector with TOMAR OSPOC Automatic Test

TOMAR's DETOC22 Strobecom II dual direction preemption detector with automatic detector testn includes two detector heads and two output channels.

The DETOC22 senses the optical pulses emitted by properly equipped emergency & transit vehicles. Mounted to observe an approach to an intersection, the DETOC22 is used with TOMAR OSPOCV2 Series optical signal processors to inform the traffic control system.



- Tool-less swivel of detector head makes aiming easy
- Sensor technology for sunlight rejection unmatched by any other system
- Fully encapsulated electronics for complete resistance to water, heat, and vibration
- Protected from mis-wiring and electrical transients
- Simple advance detector installation for detection around corners and over hills





**Specifications**

Item	Description
Maximum Detection Range	2500 feet minimum when used with OSPOCV2 series optical signal processor in clear atmospheric conditions
Maximum Cable Length	Up to 900 feet of TOMAR M913 preemption cable between optical signal processor and DETOC22
Field of View	13 degrees conical centered around viewport normal axis (typical)
Cable Type	TOMAR model M913 preemption detector cable 20 AWG 3-conductor shielded cable & bare
Operating Temperature	-40 to +75 degrees C
Physical Construction	The DETOC22 enclosure is black, glass filled, UV stabilized polyamide suitable for all weather use. All electronics circuitry is completely encapsulated in polyurethane for protection from shock, vibration, and moisture.
Mounting	The DETOC22 is easily mounted using standard hardware on either span wire or mast arm. The unit has a 3/4" female pipe mount hub and internal terminal block for connection to a 3/C shielded detector cable (TOMAR M913)

**Ordering Info**

Catalog Number	Description
DETOC22	Two head, two direction, two channel,with automatic test

**TRUE 10 YEAR WARRANTY!**

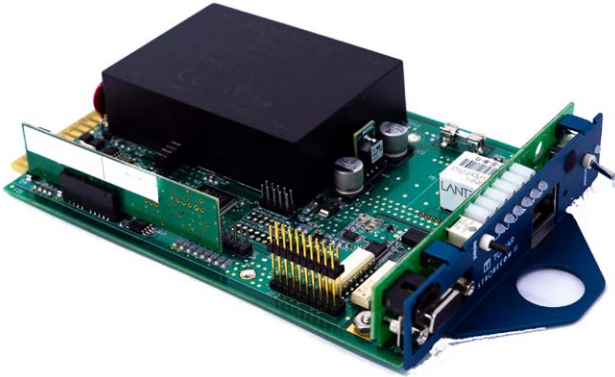
10 year warranty covers the DETOC Series and all STROBECOM II components. Unlike other manufacturers, TOMAR's ten year warranty has NO fees or charges for warranty repairs after five years.

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## OSPOCV2-4

OSPOC Version 2, four channel, optical signal processor with Integrated Confirmation, event logging, and Ethernet port



- INTEGRATED CONFIRMATION technology powers IC enabled DETOC series TOMAR Strobecom II detectors to be powered and controlled over the standard preemption detector cable. No additional power supplies, mounting, programming, or wiring required.
- TRUE CONFIRMATION, when combined with INTEGRATED CONFIRMATION is the only preemption system that provides real, closed-loop, visual feedback to vehicle drivers that the intersection is in preempt
- Active Reflection Suppression prevents cross street preemption due to reflected emitter energy. TOMAR's advanced digital signal processing eliminates this troublesome side effect making detector installation and setup far less critical.
- PLUG-and-PLAY firmware allows the addition of detectors and other accessories to the system without manual configuration. Buy only the equipment needed today and add more capability later saving precious funds.
- Expansion Port provides easy connection of the OSPOCV2-4 to other accessory modules

The model OSPOCV2-4 optical signal processor receives and decodes \*GTT OPTICOM-brand coded emitter signals. Installed inside the traffic cabinet, the OSPOCV2-4 optical signal processor provides power for OSPOC series optical detectors, receives, decodes, and prioritizes emitter signals from the detectors, powers and activates Integrated Confirmation lights, logs preemption and priority control activity, and communicates with other traffic control devices.

Equipped with TOMAR's patented (US patent 8,742,946) INTEGRATED CONFIRMATION technology, the OSPOCV2-4 powers and controls the high intensity LED confirmation lights integrated into up to four DETOC series IC enabled detectors over standard preemption detector cable with no additional power supply, mounting, programming, or wiring. Integrated Confirmation equipped intersections provide visual feedback of intersection preemption to vehicle drivers and citizens for enhanced safety. When combined with TOMAR's True Confirmation feature the integrated LED confirmation lights provide real closed-loop visual feedback that the traffic controller is actually in preemption providing enhanced right-of-way.

The OSPOCV2-4 is delivered default programmed to respond on a first-come first-served basis to optical signals from vehicles within two signal bands. Emergency Band signals are typically emitted by emergency vehicles to effect a preemption of normal traffic control timing and are given the highest priority to allow rapid emergency vehicle response with enhanced safety. Transit Band signals are generally emitted by transit or other non-emergency municipal vehicles to effect a priority change for the vehicle's approach direction without necessarily interrupting traffic control timing. Up to 9,999 vehicles in each signal band can be individually identified and responded to.

Using a simple configuration program, the user can define up to 10 additional classes within each signal band with different priorities, detection ranges, and choices of actions, from simple vehicle logging to full traffic preemption and enhanced communication.

The onboard Ethernet port, and the ability to classify and announce multiple vehicles in real-time makes the OSPOCV2-4 an excellent intelligent vehicle sensor for ITS applications.

The OSPOCV2-4 OSP is compatible with NEMA TS-1, TS-2, and CA/NY 170 and 2070 controllers, and meets all NEMA and Caltrans environmental requirements. The OSPOCV2-4 plugs directly into standard preemption card slots and does not use internal 24VDC cabinet power. For controllers without a preemption card slot the TOMAR 1881 rack provides the necessary hardware and harnessing to allow simple connection to detectors and controller inputs.



**Specifications**

Item	Description
Signal	The OSPOCV2-4 shall be capable of receiving, decoding, and prioritizing OPTICOM-brand formatted Emergency and Transit priority signals transmitted by all TOMAR and competitive emitters. The OSPOCV2-4 shall be software configurable to accept or reject older non-identifying optical signals. Classes 0-9 and codes 0-999 in each signal band shall be individually identifiable.
Signal Acquisition Time	Typical signal acquisition time shall be approximately 2.5 seconds. Acquisition time will vary depending on the number of signals present simultaneously and on the density of optical noise.
Range	2500 feet maximum adjustable down to 200 feet in 255 steps for each signal band and each approach.
Priority Determination	The OSPOCV2-4 shall be delivered with default priority grouping, responding on a first-come, first-served basis to signals within each signal band. Signals in the Emergency signal band shall be given priority over signals in the transit signal band.  The user shall be able to, optionally, define additional priority classes within each signal band. Up to 10 priority groups within each signal band shall be definable.
Event Logging	The OSPOCV2-4 shall log all valid and invalid preemption events including the time, date, and duration of the event. The logging capacity of the OSPOCV2-4 shall be 14,000 events minimum. When at capacity, the oldest events shall be discarded when newer events are received. The stored logs shall be downloadable via Ethernet port.
Output Signals	The OSPOCV2-4 shall provide four optically-isolated output channels for placing NEMA standard signal level calls on traffic controller preempt inputs.
Input Signals	The OSPOCV2-4 shall have four optically-isolated inputs for connecting to traffic controller preempt status outputs.
Control Timers	Each output channel shall be equipped with three control timers described as: MAX CALL: Sets the maximum time a preempt call is allowed to be active CALL EXTENTION: Sets the time a call remains placed after a valid optical signal terminates CALL DELAY: Sets the time a valid optical signal must be pending before the assertion of a preempt call to the controller.
Confirmation Lights	The OSPOCV2-4 shall be capable of powering and operating up to four TOMAR DETOC series Integrated Confirmation enabled detectors over up to 600' of preemption detector cable per IC enabled detector.
Maximum Detectors	Up to four DETOC series IC enabled detectors (maximum of four LED confirmation lights total) plus four additional non-IC enabled detectors
Electrical Requirements	120/240VAC 50/60Hz
Temperature Range	-40 to +75 degrees C
Transient Protection	Input power shall be MOV protected from AC mains transients. Detector inputs shall be TVS protected from electrical transients.
Fusing	A ½ amp fuse shall be included in the input power connection to protect cabinet wiring

**Ordering Info**

Catalog Number	Description
OSPOCV2-4	Four channel Optical Signal Processor with INTEGRATED CONFIRMATION, event logging, and Ethernet port.

**TRUE 10 YEAR WARRANTY!**

10 year warranty covers the OSPOC Series and all STROBECOM II components. Unlike other manufacturers, TOMAR's ten year warranty has NO fees or charges for warranty repairs after five years.

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\*OPTICOM® and GTT are trademarks of Global Traffic Technologies, LLC and are not affiliated with Tomar Electronics, Inc. or its products.



STROBECOM II

T792HL



Optional RECT-37-VLF

### Features & Benefits

- 2,500 +/- Feet of detection range
- Power cable, control cable, and 2 position on/off switch
- 12 to 24 VDC
- Hermetically-sealed IP69K waterproof lamp
- Potted IP69K waterproof control module
- Waterproof connectors
- Disable / park-kill feature can be latching/non-latching, GND or +BAT polarity
- SAE J1708/J1587 interface allows on/off control, disable override, and code programming from onboard vehicle computer
- An optional visible light filter (VLF) can be added to make emitter operation invisible (sold separately)

## T792HL & T792HL-R

GTT® OPTICOM®\*\* Compatible Preemption Emitter

The TOMAR model T792HL and T792HL-R preemption emitters are used on authorized vehicles to activate GTT® OPTICOM® optical preemption and priority control systems. On average, the Infrared (IR) peak-output from TOMAR strobes has 100 times more energy than competing LED emitters, giving TOMAR emitters their incredible range and off-axis performance. The T792HL is weather resistant and operates at 12 to 24 VDC. The T792HL-R differentiates itself via a remote power supply system designed for box-body ambulance installations or where available mounting space is limited. Configured via optional software, the T792HL can emit any of the 10,000 OPTICOM® compatible vehicle ID's in 10 classes of either command (high) or advantage (low) priorities. The T792HL is equipped with continuous self-diagnostics with visual feedback. An optional visible light filter can be added to make emitter operation invisible, such as use on unmarked vehicles.

T792HL-R



Optional RECT-37-VLF



### Specifications

Item	Description
Maximum Range	2500 +/- feet for Emergency Band 1000 +/- feet for Transit Band
Output Device	Xenon flash compatible with GTT Opticom products and competitive, non-coded, preemption equipment.
Power Requirements	Input voltage: 9 to 30VDC Input current: 2.8A average @ 12.8V, 1.4A average @ 25.6V
Construction	T792HL Black UV stabilized glass filled Lexan® polycarbonate, polyurethane encapsulated electronics T792HL-CHROME Automotive chrome plated ABS housing, polyurethane encapsulated electronics
Size	7.5" (191mm) x 4.5" (114mm) x 4.5" (114mm)
Weight	2.5 lbs. (1.14kg)

### Ordering Information

Model Number	Description
T792HL	Preemption emitter with black Lexan® housing
T792HL-CHROME	Preemption emitter with chrome plated ABS housing
T792HL-R	Remote emitter preemption system includes 3" x 7" lamp, power supply, cables and on/off switch

### Additional Items

Model Number	Description
T792HL-PROGCAB	Programming Cable
ECMPS-X	Programming software. X= USB
T792HL-HOUSING	Replacement black housing and power supply
T792HL-CHR-HOUSING	Replacement chrome housing and power supply
RECT-37-VLF	Visible Light Filter

## 10 YEAR WARRANTY!

10 year warranty is included for the power supply and a 2 year warranty for the strobe.

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