

Safety Message to Installers

⚠ WARNING

People's lives depend on your safe installation of our products. It is important to read, understand, and follow all instructions shipped with this product and the related add-on products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install this product you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- When drilling or cutting into a vehicle structure be sure that both sides of the surface are clear of anything that could be damaged.
- Do not install equipment or route wiring in the deployment path of an airbag.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- Refer to the instructions included with related products for additional precautions and information.
- You should frequently inspect the Opticom™ to ensure that it is operating according to the original manufacturer's specifications and that it is securely attached to the vehicle.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

Installation Precautions

⚠ WARNING

READ AND UNDERSTAND INSTRUCTIONS

Included with the Opticom Internal Model 795H-INT is the GTT Wiring and Programming Instructions manual, part number 79-1000-0316 (Federal Signal part number 2562457) for the GTT Opticom Infrared System Model 795H Low Profile LED Emitter. Before installing the equipment, read, understand, and follow all directions in the manual. Failure to follow the instructions may result in property damage, serious injury, or death.

⚠ WARNING

INSTALLATION PRECAUTION

The Opticom Internal Model 795H-INT must be used with the Federal Signal designated mounting bracket and hardware as provided from the factory for proper installation. Failure to follow proper installation as outlined in this manual may result in property damage, serious injury, or death and/or void any associated warranties.

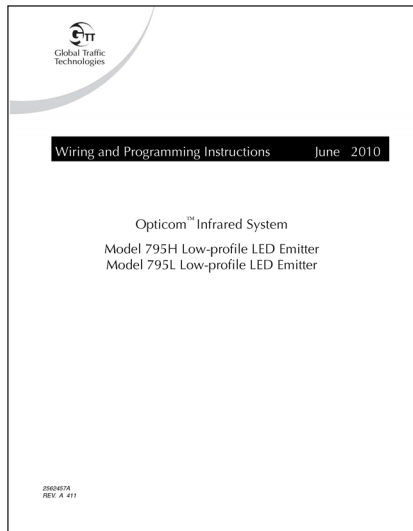
The Model 795H-INT Opticom™ emitter is supplied with mounting hardware for both forward deck and dash mounting. The emitter is intended for mounting only in the interior of a vehicle and in a horizontal position level to the horizon.

The optional Federal Signal Corporation Model 350701-01 Extended Mounting Kit and Model 350701-03 Headliner Mounting Kit are also available for mounting the Model 795H-INT.

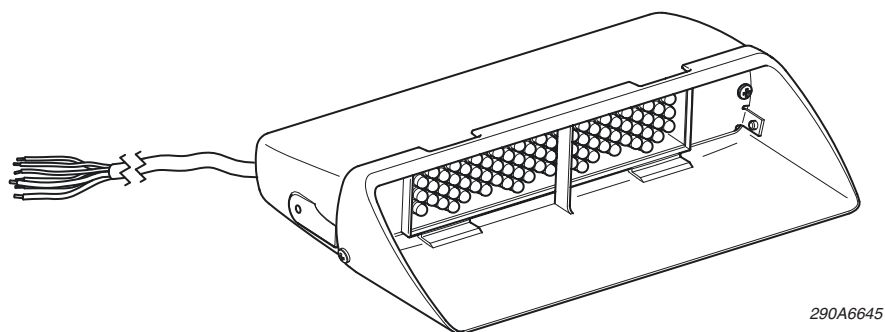
Parts Included with Model 795H-INT

The Model 795H-INT is shipped with the following parts:

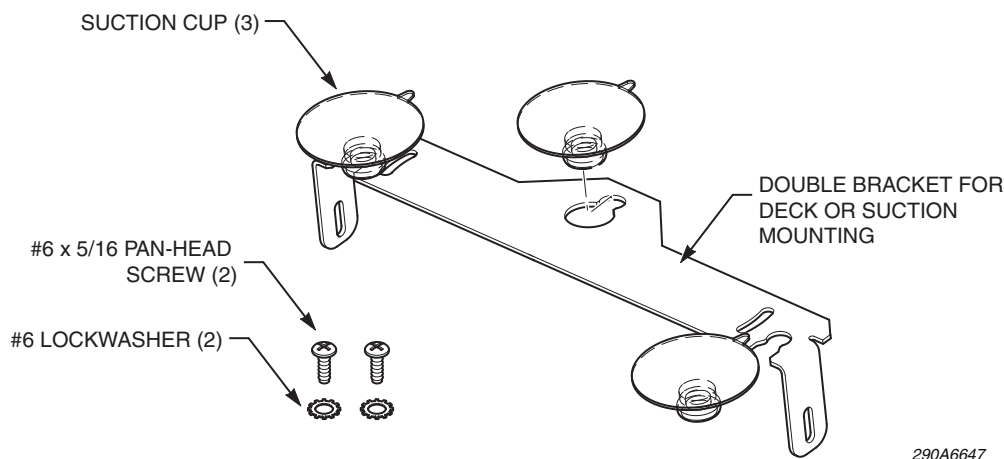
- Wiring and Programming Instructions for the Opticom Infrared System Model 795H Low-Profile LED Emitter, part number 79-1000-0316 (Federal Signal part number 2562457)



- Opticom Infrared LED Internal Emitter with attached visor and 25-foot cord



- Deck/suction-mount bracket with two #6 lockwashers, two #6-5/16" screws, and three suction cups.



Tools Required

- Phillips screwdriver for #6 screws
- Drill (for deck mounting)
- Level

Hardware Required

- Installer-supplied hardware for the option to secure the bracket to the vehicle deck.

Mounting the Opticom

⚠ WARNING

AIRBAG DEPLOYMENT

Do not install equipment or route wiring in the deployment path of a airbag. Failure to observe this warning will reduce the effectiveness of the airbag or potentially dislodge the equipment, causing serious injury or death.

NOTICE

DRILLING PRECAUTIONS

When drilling holes, check the area into which you are drilling to be sure you do not damage vehicle components while drilling. All drilled holes should be de-burred and all sharp edges should be smoothed. All wire routings going through drilled holes should be protected by a grommet or convolute/split loom tubing

The Model 795H-INT can be temporarily mounted to the inside windshield with the bracket and suction cups or permanently mounted to the deck with the bracket and installer-supplied hardware. The included #6 hardware fastens the Opticom to the bracket.

With all mounting arrangements, route the cable from the Opticom control box to the interior Model 795H-INT Opticom emitter. Use a 3/8" drill bit to drill the routing holes to run the 25-foot cable from the emitter to the power, switch, and auxiliary inputs. See the included GTT manual #79-1000-0316 for the electrical connections.

Permanent Mounting on the Deck

To permanently mount the Opticom to the deck:

1. Select a mounting location on the deck for the Opticom that will not interfere with daily operation of the vehicle or impair visual sight lines.
 2. Use the bracket as a template to mark the locations of the two mounting holes.
 3. Drill a hole at each of the marks.
 4. Secure the bracket to the deck with installer supplied hardware (Figure 1 on page 4).
 5. Attach the bracket to the Opticom with the supplied #6 pan head screws and lockwashers.
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⚠ WARNING

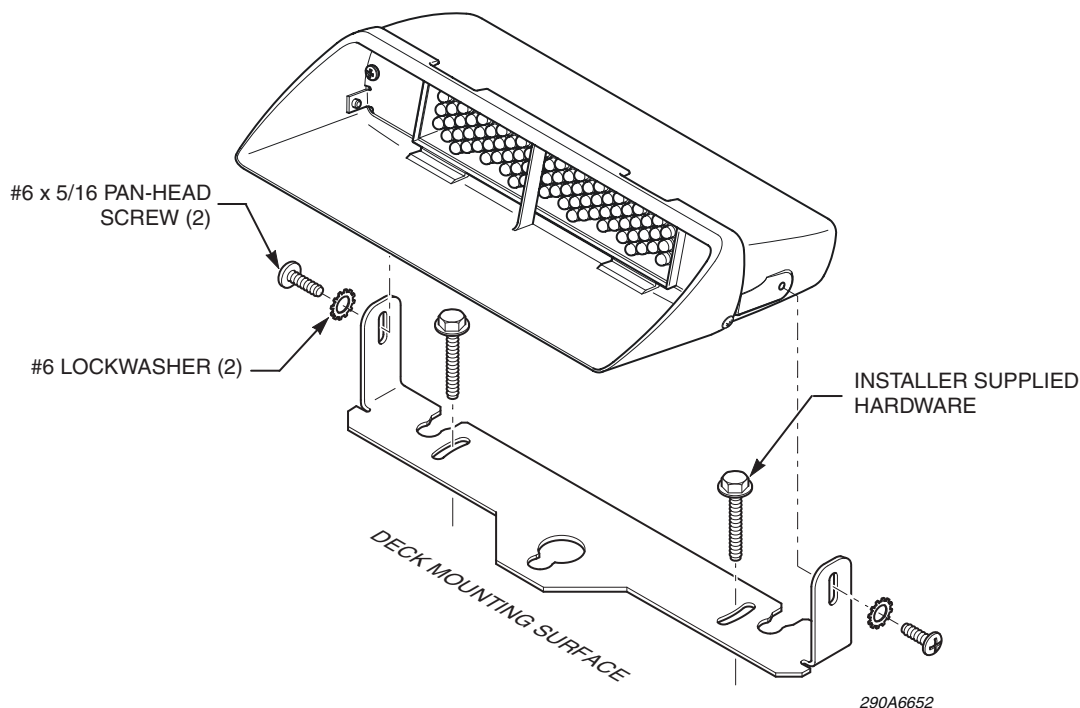
MAINTAIN PROPER OPTICOM ALIGNMENT

Failure to maintain the proper alignment of the Opticom may cause it to malfunction, resulting in property damage, serious injury, or death.

Installation Instructions for Deck or Inside Windshield Mounting

6. Use a level to ensure that the Opticom does not tilt up or down and is parallel to the road surface. To adjust the aim, loosen the #6 screws and level the Opticom, then tighten the screws. Be sure to check on a regular basis that the Opticom is properly aligned.

Figure 1 Bracket with Opticom secured to deck



Temporary Mounting with Suction Cups

⚠ WARNING

SUCTION CUPS ARE FOR TEMPORARY USE ONLY

Suction-cup mounting is for temporary applications only. The Opticom should be removed from the vehicle and stored securely when not in use. Temperature changes and sunlight can cause suction cups to lose holding power. Periodically check the Opticom to be sure the suction cups have a firm grip on the mounting surface. An improperly secured emitter could fall off the mounting surface causing injury and damage.

To temporarily mount the Opticom to the windshield:

1. Select a mounting location on the windshield for the Opticom that will not interfere with daily operation of the vehicle or impair visual sight lines.
2. Clean the mounting surface with isopropyl alcohol and a soft cloth.
3. Attach the three suction cups to the bracket in the positions shown in Figure 2 on page 5.
4. Attach the bracket to the Opticom with the supplied #6 pan head screws and lockwashers.
5. Press the suction cups against the inner windshield until the bracket assembly is secured to the glass.

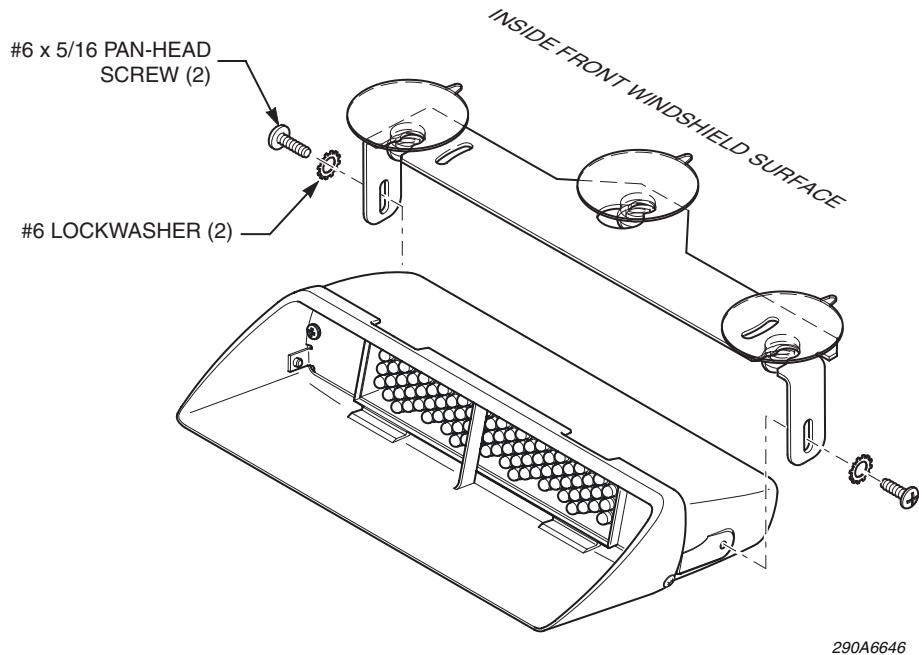
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6. Use a level to ensure that the Opticom does not tilt up or down and is parallel to the road surface. To adjust the aim, loosen the #6 screws and level the Opticom, then tighten the screws. Be sure to check on a regular basis that the Opticom is properly aligned.

Figure 2 Bracket with Opticom secured to deck



Programming the Opticom Emitter

The Vehicle ID code can be programmed into the Opticom emitter through the GTT Interface Cable Assembly (not included) and the downloadable GTT Opticom software. For programming instructions, see Section 5.5 in the Wiring and Programming Instructions manual included with the Opticom, part number 79-1000-0316 (Federal Signal part number 2562457). The Model 795H-INT has an inline connector with male/female halves that mate with the Interface Cable. The connector is accessed by removing four screws on the emitter housing (Figure 3 on page 6).

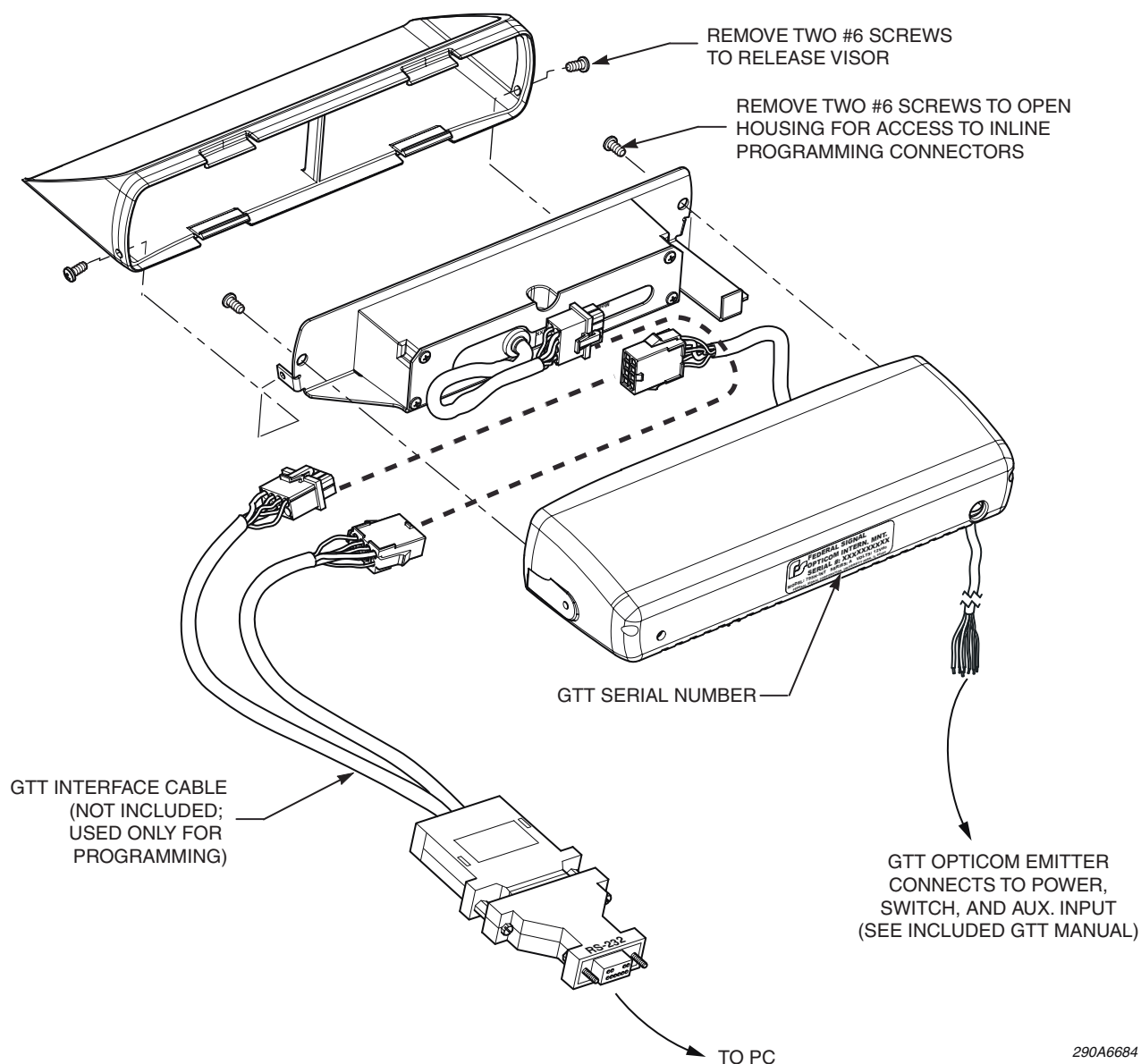
To connect the Opticom emitter for programming:

1. Remove the two outside screws on the sides of the visor, and remove the visor from the assembly.
2. Remove the two front #6 screws from the faceplate.
3. Remove the faceplate/emitter assembly from the rear housing by feeding the cable through the bottom slot of the housing. Be sure to leave enough slack in the cable to access the two mated white connectors.
4. Disconnect the white connectors and mate them with the corresponding connectors on the GTT Interface Cable assembly.

Installation Instructions for Deck or Inside Windshield Mounting

5. Attach the Interface Cable assembly to a PC installed with the downloaded Opticom software described in the GTT Wiring and Programming Instructions manual.
6. Ensure that the seven colored leads at the end of the emitter cable are connected to the proper junctions per the GTT Wiring and Programming Instructions manual. Follow the programming instructions in the manual to program the emitter.
7. When programming is completed, disconnect the Interface Cable from the PC and the white connectors. Tuck the white connectors into the rear housing.
8. Secure the faceplate assembly to the rear housing with two #6 screws.
9. Secure the visor to the rear housing with two #6 screws.

Figure 3 Connections for programming cable and Opticom emitter



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Testing the Opticom Installation

Following the installation and final wiring instructions provided with the GTT Model 795H -INT Opticom, test the Opticom while driving to insure the emitter works with the detectors in your municipality per the standards of GTT and your municipality.

⚠ WARNING

VEHICLE FACTORS MAY AFFECT PRODUCT PERFORMANCE

Communication between the internally-mounted Federal Signal Opticom Model 795H-INT and an intersection signaling detector may be adversely affected by factors that vary by vehicle, resulting in a communication range that may be below the municipal requirement. These factors include the downward slope, thickness, and overall curvature of the windshield, applied window tint or polarized films, the cleanliness of the windshield, sunlight reflected off the front hood, and other factors unique to the vehicle. The performance of the Opticom Model 795H-INT MUST first be validated by the municipality/installer with an actual trial in all varying types of first-responder vehicles within the municipality before it is deployed for general use. Failure to validate this product within the internal environment in which it is to be used may result in serious injury or death.

Testing the Warning System

⚠ WARNING

LIGHT HAZARD

To be an effective warning device, an emergency warning system produces bright light that can be hazardous to your eyesight when viewed at a close range. Do not stare directly into this lighting product at a close range or permanent damage to your eyesight may occur.

⚠ WARNING

SOUND HAZARD

All effective sirens and horns produce loud sounds (120 dB) that may cause permanent hearing loss. Always minimize your exposure to the sound of the siren or horn, and wear hearing protection. Do not sound the siren or horn indoors or in enclosed areas where you and others will be exposed to the sound.

After the installation, test the emergency warning system to ensure that it is operating properly. Also test all vehicle functions, including horn operation, vehicle safety functions, and vehicle lighting systems to ensure proper operation. Ensure that the installation has not affected the vehicle operation or changed any vehicle safety functions or circuits. After testing is complete, provide a copy of these instructions to the instructional staff and all operating personnel.

Do not test the sound and light system of the vehicle while driving. Operating the vehicle warning systems may pose a hazard to the operator and other drivers if the systems do not function as expected. Test the vehicle only in a controlled environment.

Limited Warranty

Global Traffic Technologies, LLC (GTT) provides a limited warranty from the date of purchase for components within the housing of the GTT Opticom Model 795H-INT. For details, see the Model 795H Wiring and Programming Instructions manual, part number 79-1000-0316 (Federal Signal part number 2562457) supplied with the Opticom. Please provide GTT with the purchase date and the serial number of the Model 795H-INT when calling for technical support. The serial number is printed on the label on the rear of the Opticom.

Getting Technical Support and Service

If the Opticom Model 795H-INT is:

- ✓ within the GTT limited warranty and powers up, but does not operate properly, or
- ✓ if you need technical support for the operation of the Opticom,

contact the GTT Service Department at:

Global Traffic Technologies, LLC
7800 Third Street North
St. Paul, Minnesota 55128-5441
1-800-258-4610
<http://www.gtt.com>

If the Opticom Model 795H-INT is within the GTT limited warranty and:

- ✓ does not power up, or
- ✓ after you have contacted GTT Technical Support and the Opticom does not operate per the instructions provided by GTT Technical Support, or
- ✓ you need assistance when installing the Opticom,

contact the Federal Signal Service Department at:

Federal Signal Corporation
Public Safety Systems
2645 Federal Signal Drive
University Park, Illinois 60484-3167
1-800-433-9132
<http://www.fedsig.com>