



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.
- Locate the light control so that the VEHICLE and the CONTROL can be operated safely under all driving conditions.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- To be an effective warning device, an emergency warning system produces bright light that can be hazardous to your eyesight when viewed at close range. Do not stare directly into this light at close range or permanent damage to your eyesight may occur.
- 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 Opticom Model 795H-INT is the Installation Instruction 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 GTT Opticom Internal Model 795H-INT must be used with the Federal Signal designated mounting brackets 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.

Introduction

The Model 350701-04 and Model 350701-05 are kits for mounting the Viper S2 lighthead close to the headliner within the interior of vehicles. Both models have a visor-clip cutout for mounting to the Ford Interceptor Sedan. The models also are designed with the adjustable bracket assembly to conform to sloping headliners. The Model 350701-04 is used for mounting the single-head Viper™ S2 while the Model 350701-05 is used for mounting the dual-head Viper S2 and the GTT Opticom Infrared System Model 795H-INT Low Profile LED Emitter.

Unpacking the Kit

After unpacking the kit, inspect it for damage that may have occurred in transit. If it has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier, stating the extent of damage. Carefully check all envelopes, shipping labels, and tags before removing or destroying them. Ensure that the parts listed in Tables 1 and 2 are included in the package. If you are missing any parts, contact Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT).

Table 1 Model 350701-04 contents

Qty.	Description	Part Number
2	Screw, #10 x 3/4", Thd. Form, Hex Washer	7011A122-12
2	Lockwasher, #6	7075A002
2	Screw, #6, Plastite® 48-2	7011220-05
1	Adjustable Mounting Bracket Assy., Single Viper	861300130-01

Table 2 Model 350701-05 contents

Qty.	Description	Part Number
2	Screw, #10 x 3/4", Thd. Form, Hex Washer	7011A122-12
2	Lockwasher, #6	7075A002
2	Screw, #6, Plastite® 48-2	7011220-05
1	Adjustable Mounting Bracket Assy., Double Viper	861300130-02

Tools Required

- Phillips screwdriver for #6 screws
- Level
- Drill and 9/64" drill bit*
- 5/16" nut driver for #10 hex screws*

* For installation in vehicles other than the Ford Interceptor Sedan.

Mounting the Viper S2 or Model 795H-INT Opticom

For maximum coverage and effectiveness, the light assembly should be mounted in a horizontal orientation.

⚠ WARNING

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

⚠ WARNING

OPTICOM MOUNTING PRECAUTION—The Model 795H-INT Opticom must be mounted in a horizontal position. Failure to do so may cause it to malfunction, resulting in damage, serious injury, or death.

⚠ WARNING

SEAT REMOVAL PRECAUTION—If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.

Mounting the Viper S2 or Opticom to Vehicles Other than the Ford Interceptor Sedan

Mounting on the bracket assembly to vehicles other than the Ford Interceptor Sedan requires that it is permanently affixed to the vehicle headliner. For instructions for mounting the bracket assembly on the Ford Interceptor Sedan, see page 4.

To mount the Viper S2 or Opticom:

1. Select a mounting location along the vehicle header. To assist in determining the mounting position, the lighthead or the Opticom can be attached to the bracket with the two #6 Plastite screws and lockwashers supplied with the lighthead.
2. See Figure 1 or 2 on page 5. Position the mounting bracket at the selected location along the vehicle headliner so that the visor is as close as possible horizontally to the front windshield.
3. Mark the locations of the two #10 x 3/4" hex washer-head mounting screws. Take great care to ensure that the screws are located so that they will be fastened into the roof brace.

NOTICE

DRILLING PRECAUTIONS—When drilling holes, check the area into which you are drilling to be sure you do not damage vehicle components. All drilled holes should be de-burred and all sharp edges should be smoothed. All wiring routings going through drilled holes should be protected with convolute/split-loom tubing. **DRILL ONLY THROUGH THE ROOF BRACE—DO NOT DRILL THROUGH THE ROOF.**

4. Drill through the headliner and into the roof brace using a 9/64" drill.
5. Secure the bracket to the interior roof by securing it with the #10 x 3/4" hex washer-head mounting screws.
6. If you have not done so already, attach the Viper S2 or Opticom to the bracket with the two #6 Plastite screws and lockwashers.

NOTE: The Viper S2 lighthead can be flipped to switch the left/right color locations (if present in the model).

Mounting the Viper S2 or Opticom to the Ford Interceptor Sedan

Mounting on the bracket assembly the Ford Interceptor Sedan requires that it is attached through the back of the visor clip. For instructions for mounting the bracket assembly to the vehicles other than the Ford Interceptor Sedan, see page 3.

To mount the Viper S2 or Opticom to the Ford Interceptor Sedan:

1. Select either the passenger-side or driver-side visor clip for the mounting location of the bracket.
2. To get access to the screw that mounts the visor clip to the interior roof, pull the visor from the clip restraint.
3. See Figure 1 or 2 on page 5. Attach the Viper S2 or Opticom to the bracket with the two #6 Plastite screws and lockwashers.
4. See Figure 3 on page 6. Remove the clip holder and position the cutout in mounting bracket assembly over the headliner mount.
5. Start reinstalling the visor clip by loosely tightening the screw that secures it to the headliner mount. Adjust the rear of the bracket so that Viper S2 or Opticom faces directly forward.
6. Snap the visor into the clip holder.
7. Route the power cable back to the source so that it does not interfere with the operation of the vehicle, visors, or any peripheral equipment.

Completing the Viper S2 and Opticom Installation

To complete the installation:

1. Wire the Viper S2 or Opticom as described in the instructions included with it.
2. Use a level to ensure that the unit is parallel to the road surface.

To adjust the horizontal aim, slightly loosen the two #6 screws on the back of the bracket assembly. (See Figure 1 or 2 on page 5.) Rotate the Viper S2 or Opticom so that it is level with the horizon. To fix the position, tighten the #6 screws.

To adjust the vertical aim, slightly loosen the #6 screws on the sides of the bracket and tilt the unit to the selected position. (See Figure 1 or 2 on page 5.) To fix the position, tighten the #6 screws. To avoid damage to the Viper S2 or Opticom, DO NOT overtighten the screws.

⚠ 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.*

IMPORTANT: Be sure to check regularly that the Opticom is properly aligned.

Figure 1 Model 350701-04 mounting kit

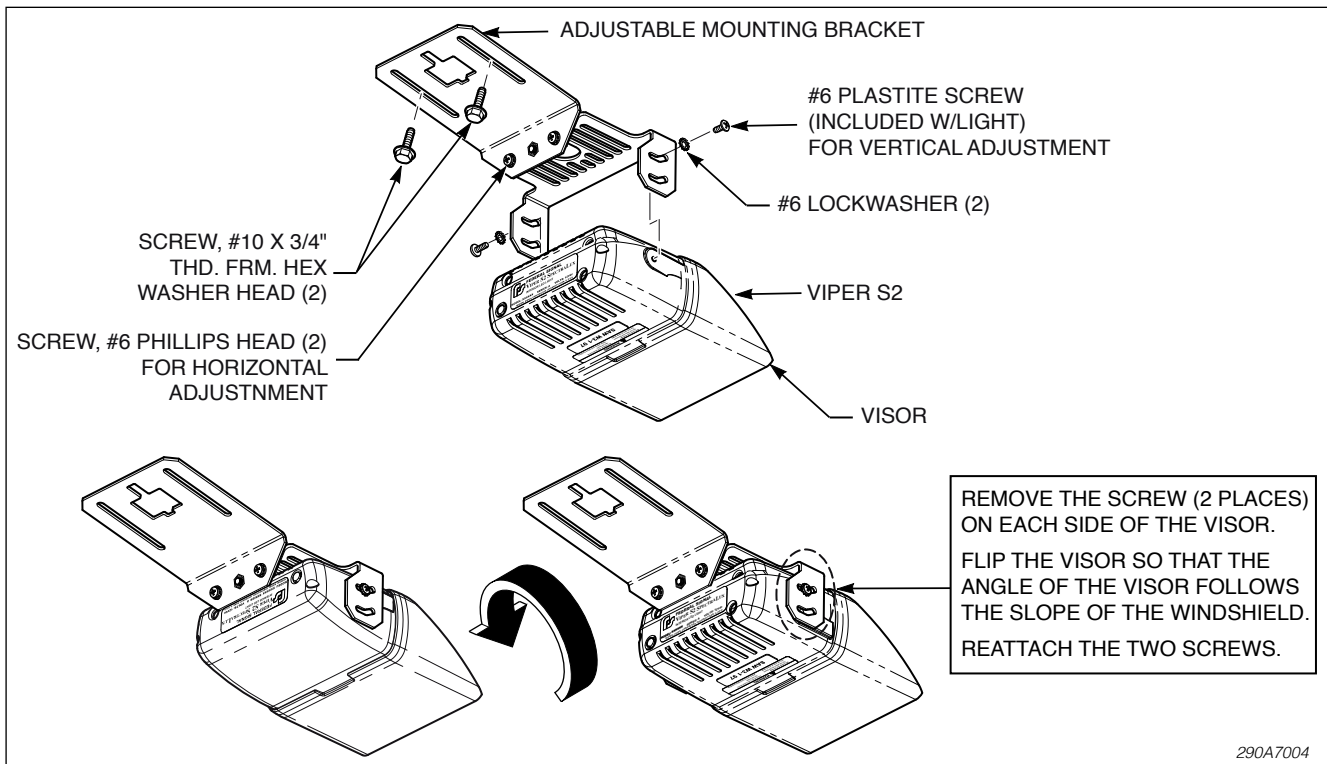


Figure 2 Model 350701-05 mounting kit

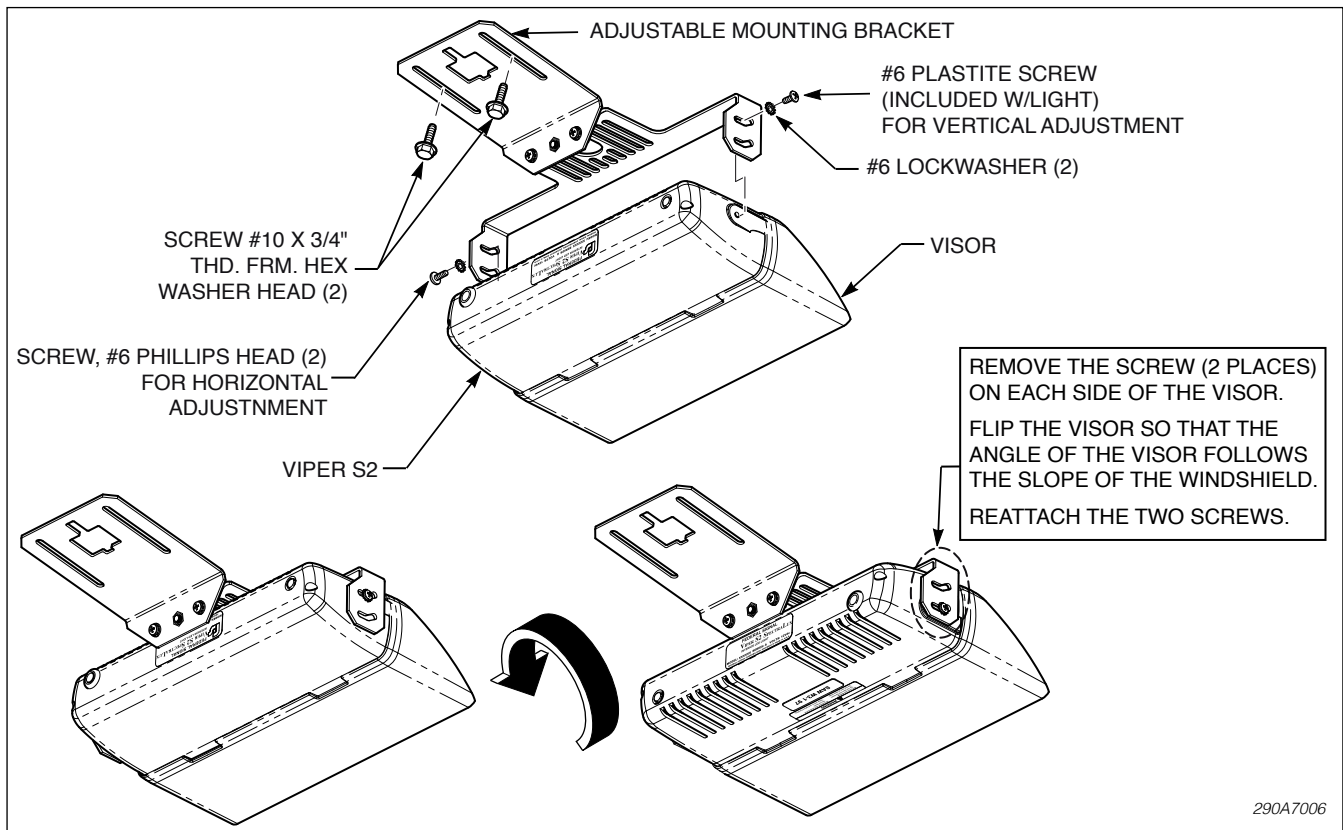
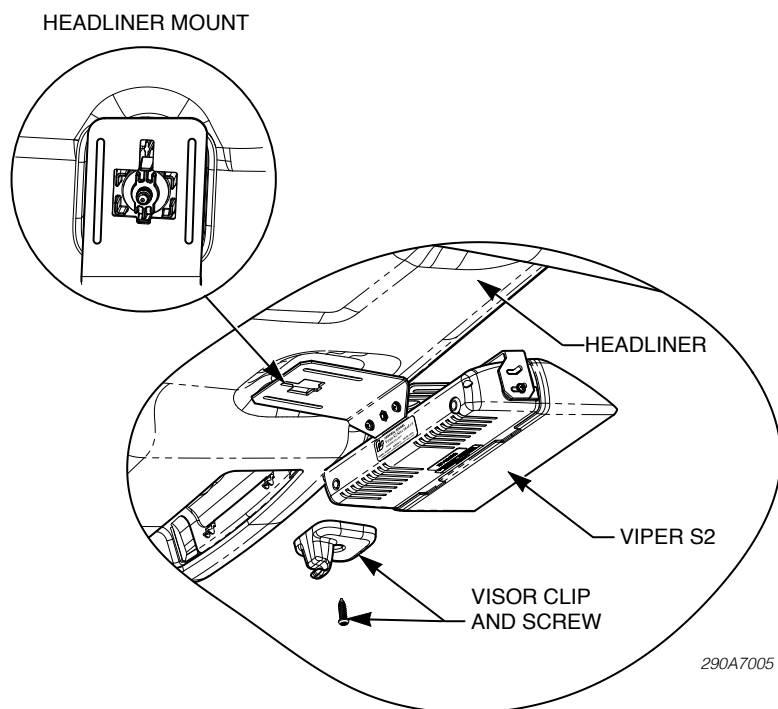


Figure 3 Location of visor pivot and headliner mount



Testing the Opticom Installation

Following the directions provided with the installation instructions for the GTT Model 795H (part number 2562457), test the Opticom while driving to insure the emitter works with the detectors in your municipality per the standards of GTT and the 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 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.

Safety Message to Operators

People's lives depend on your safe use of our products. Listed below are some important safety instructions and precautions you should follow:

- Because vehicle driving conditions vary and the possibility of emergency vehicle accidents always exists, Federal Signal does not recommend driving a vehicle with a suction cup mounted light installed. Under certain violent circumstances, the light could detach from the glass mounting surface causing injury or damage.

- Although your warning system is operating properly, it may not be completely effective. People may not see or heed your warning signal. You must recognize this fact and continue driving cautiously.
- Also, situations may occur which obstruct your warning signal when natural or man-made objects are between your vehicle and others, such as a raised hood or trunk lid. If these situations occur, be especially careful.
- This product contains high intensity LED devices. To prevent permanent eye damage, DO NOT stare into the light beam at close range.
- At the start of your shift, you should ensure that the light and/or Opticom is securely attached and operating properly.

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

Testing the Opticom Installation

Following the directions provided with the installation instructions for the GTT Model 795H (part number 2562457), test the Opticom while driving to insure the emitter works with the detectors in your municipality per the standards of GTT and the municipality.

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Testing the Warning System

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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 siren sound 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.

Getting Assistance with the Installation

If you need further assistance with installing the GTT Opticom 795H-INT or the Viper S2 with the Model 250701-04 or 250701-05 Mounting Kit, 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>



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