



## Safety Message to Installers of Warning Light Equipment

**⚠ WARNING**

People's lives depend on your proper installation and servicing of Federal Signal products. It is important to read and follow all instructions shipped with this product and the original product. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install the lighting system, you must have a good understanding of automotive systems, along with proficiency in the installation and use of safety warning equipment.
- 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.
- Do not stare into the lights at close range or permanent damage to your eyesight may occur,
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- Refer to the instructions packed with related products for additional precautions and information.
- You should frequently inspect the light system to ensure that it is operating properly 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.
- Do not stare directly into the lights at a close range or permanent damage to your eyesight may occur.

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

## Product Overview

This publication has instructions for using the CNSM-FRD18ND Mounting Kit to mount the 4 head CN SignalMaster™ in the grille of the Ford® F-150.

**IMPORTANT:** This kit is designed for vehicles with the grille shown in Figure 1.

**Figure 1** F-150 grille



**NOTE:** For electrical installation instructions, refer to the Installation and Maintenance Instructions packed with the lighthouse.

## 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 in the Kit Contents List 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** Kit contents

Qty.	Description	Part Number
1	BRKT, DS, CNSM, GRILLE, F-150	865202839A
1	BRKT, PS, CNSM, GRILLE, F-150	865202842A
2	BRKT ASSY, RETAINER, CNSM, GRILLE, F-150	865202843A
4	NUT, EL STOP, THIN, 1/4-20, SS	7058055A
4	WASH, FLT, SS, .266X11/16X.063	7072A024
8	SCR,#10 TYP B,PAN TORX, STL BLK ZINC	7011246A-06

## Mounting the 4 head CN SignalMaster

**IMPORTANT:** Plan all cable routing before the installation.

### **⚠ 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.

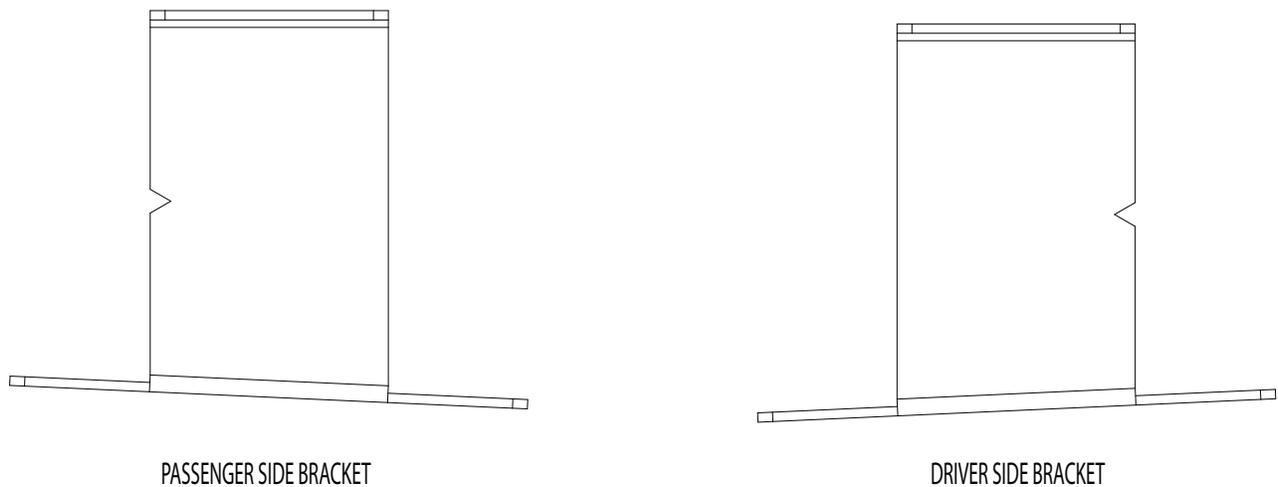
### **NOTICE**

**DRILLING PRECAUTIONS**—Check the area into which you are drilling to be sure you do not damage vehicle components. All drilled holes should be deburred 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.

To mount the lightbar:

1. Remove the grille/shutter assembly from the vehicle according to the vehicle manufacturer's instructions. Place it on flat workbench so that the front and rear of the grille is accessible.
2. If not already open, manually rotate the shutter assembly by hand so that it is in the open position.
3. Use Figure 2 to distinguish between the driver and passenger side brackets.

**Figure 2** Passenger side VS driver side bracket comparison



**Mounting Instructions for the 4 head CN SignalMaster™**

---

4. Place the driver side bracket on the grille in the location shown in Figure 3. It is necessary to insert the bracket through the center opening in the grille to allow the bracket to fit.

**Figure 3** Completed installation



5. Secure the bracket to the grille using a retainer bracket assembly, 2 washers, and 2 elastic stop nuts. Do not tighten hardware.
6. Repeat steps 4 and 5 for the passenger side.

7. Insert the CN SignalMaster into the grille from the rear. It will be necessary to deflect the shutters slightly to allow it to fit. Secure the CN SignalMaster to the two brackets using the 8 supplied #10 screws. See Figure 4.

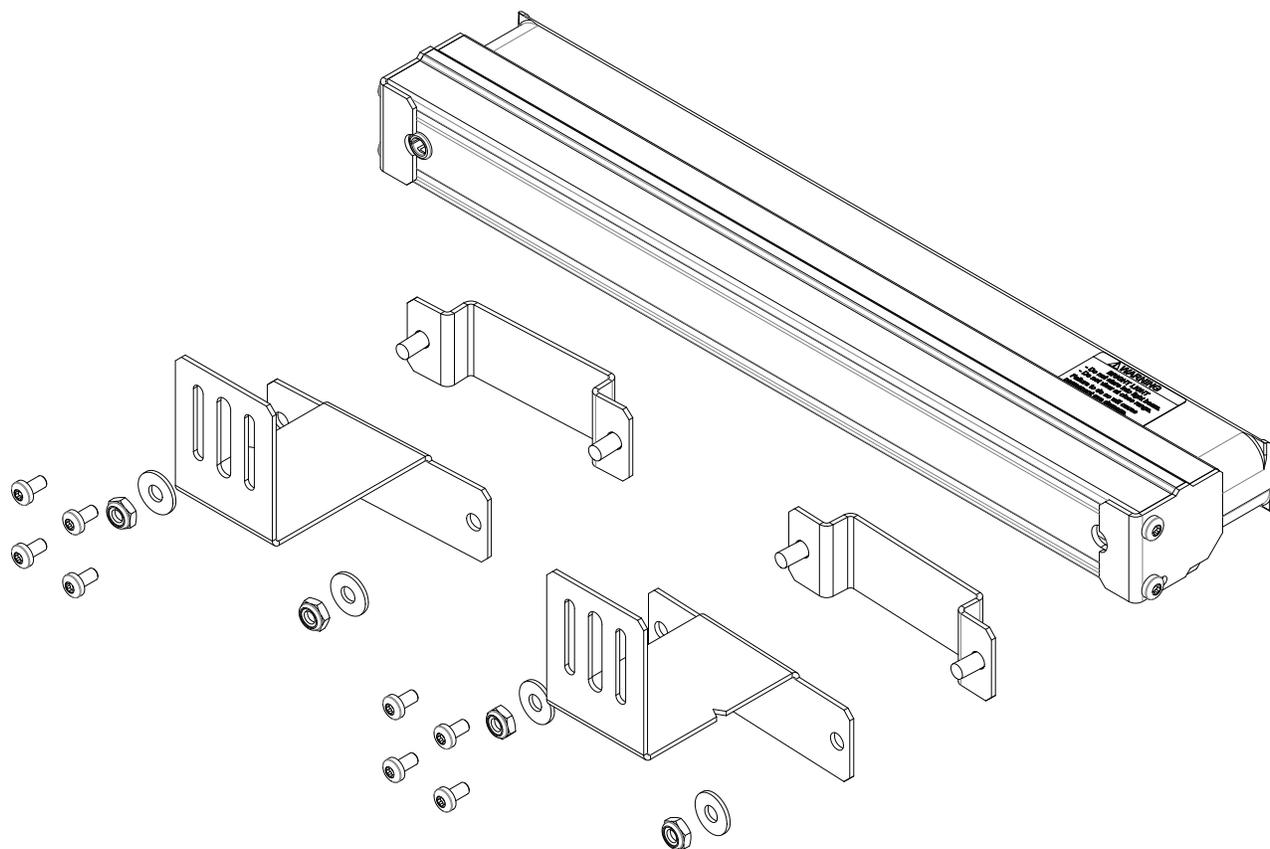
**Figure 4** Secure the CN SignalMaster to the brackets using the supplied #10 screws



8. Adjust the CN SignalMaster so that it is in the desired position and tighten all hardware. Do not over-tighten.
9. Complete the wiring in a way that the wires exiting the CN SignalMaster do not interfere with the shutter system. If this is not achievable, notch out the shutter in the location of interference. See Figure 5 for exploded view.

**IMPORTANT:** Frequently inspect the lightbar to ensure that all fasteners and brackets are tight.

Figure 5 Final assembly exploded view



## **Getting Technical Support**

For technical support, please contact:

Federal Signal Corporation  
Service Department  
Phone: 1-800-433-9132  
Fax: 1-800-343-9706  
Email: [empserviceinfo@fedsig.com](mailto:empserviceinfo@fedsig.com)

## **Getting Repair Service**

The Federal Signal factory provides technical assistance with any problems that cannot be handled locally. Any units returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization (RMA). Obtain a RMA from a local Distributor or Manufacturer's Representative. Provide a brief explanation of the service requested, or the nature of the malfunction.

Address all communications and shipments to the following:

Federal Signal Corporation  
Service Department  
2645 Federal Signal Dr.  
University Park, IL 60484-3167

## **Ordering Replacement Parts**

To order replacement parts, call Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT) or contact your nearest distributor.



**FEDERAL SIGNAL**  
Safety and Security Systems

2645 Federal Signal Drive  
University Park, Illinois 60484-3167

[www.fedsig.com](http://www.fedsig.com)

Customer Support

Police/Fire-EMS: 800-264-3578 • +1 708 534-3400

Work Truck: 800-824-0254 • +1 708 534-3400

Technical Support: 800-433-9132 • +1 708 534-3400

*© Copyright 2019 Federal Signal Corporation*

SignalMaster is a trademark of Federal Signal Corp.  
Ford is a registered trademark of Ford Motor Company.