

# Lightbar Installation Manual

## CONTENTS

Pre-Installation	1
Vehicle Roof Installation	2
Low Profile Standard Feet	2
Permanent Mount	4
Strap Kit Mount	5
Flat Surface Installation	6
Narrow Surface Mount	6
Wide Surface Mount	7

## PRF-INSTALL ATION

To prevent damage to lightbar and vehicle, ensure that all equipment operates properly, and carefully plan where to mount and wire the lightbar and controlling equipment:

- 1. Verify that the lightbar and the mounting hardware purchased.
- 2. Pre-configure desired lightbar functions.
- 3. Determine:
  - the location to mount the lightbar.
  - the location to route the lightbar's Power Cable.
  - the location to route the Function Cable, (eg. to siren, switch box, console).

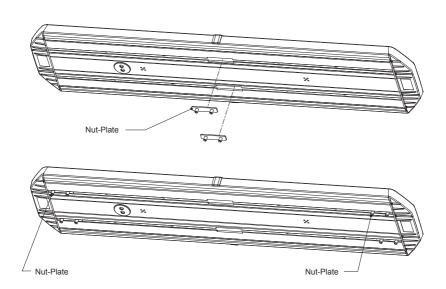
WARNING: Take extreme care when routing wires around airbag areas to not interfere with its proper operation.

- 4. Separate all electronic equipment wiring from two-way radio equipment wiring.
- 5. To avoid interference, keep two-way radio antennas a minimum of 50cm away from warning equipment.
- Before drilling holes in ANY part of the vehicle, ensure that both sides of the mounting surface are clear of parts that could be damaged, such as brake lines, fuel lines, electrical wiring, or other vital parts.
- 7. After drilling holes, deburr and smooth sharp edges, and insert grommets to protect the wires from chafing.
- 8. When frame-ground the equipment, use the manufacturer-supplied ground locations in the vehicle.

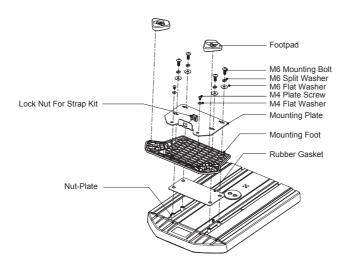
## VEHICLE ROOF INSTALLATION

## Low Profile Standard Feet - Install Mounting Feet onto the Lightbar

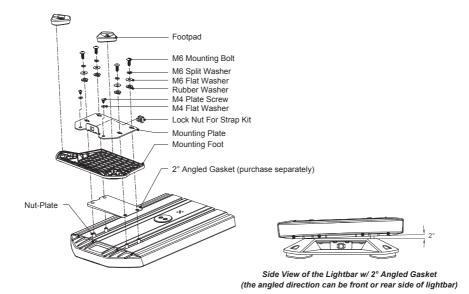
- 1. Turn the lightbar upside down.
- 2. Insert the Nut-Plates into each track through the access grooves of the lightbar; 2 for each side.
- 3. Assemble the mounting assembly on to the lightbar as shown below but do not completely tighten the bolts. Leave them loose enough to reposition the mounting foot.



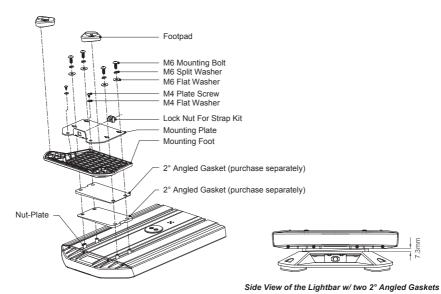
## Mounting Assembly with Standard Gasket



## Mounting Assembly with 2° angled gasket



## Mounting Assembly with two 2° angled gaskets



Permanent Mount - Install the Lightbar on the Vehicle Roof

Installation includes centring the lightbar on the vehicle's roof, levelling the lightbar, and mounting the lightbar permanently to the roof.

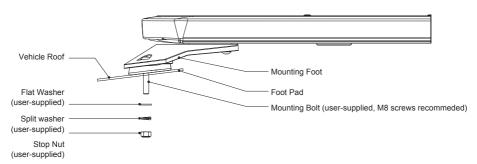
- 1. Place lightbar on the vehicle roof at the desired location. The lightbar is usually centred on the door center post (B-pillar).
- 2. Adjust both mounting feet inward or outward as necessary until the footpads rest near the edge of the roof or gutter (where the roof is the most rigid).
- 3. Level the lightbar by shifting the lightbar slightly forward or backward.
- 4. Using the mounting feet as a template, mark two drilling holes on each side of the vehicle roof.
- 5. Carefully remove the lightbar, turn it upside down, and ensure that the mounting feet do not shift place.
- 6. Tighten the bolts that secure the mounting feet to the lightbar.

NOTE: Set driver torque force at 20~30kgf-cm or 17.36~26.04lbf-in.

7. Carefully drill marked holes on the vehicle roof.

**WARNING:** DO NOT DRILL THROUGH the roof support structure that spans the distance between the driver's and passenger's side. Drilling through this will weaken the roof of the vehicle.

- 8. Place lightbar on the vehicle roof and align the mounting holes with the mounting feet. Secure mounting feet to the vehicle roof with carriage bolts and nuts (user-supplied).
- 9. Apply silicone sealant around mounting holes (wherever nessassary) to prevent possible water leakage.



Front View of the Lightbar with Permanent Mount Low Profile Standard Feet

**NOTE:** After installation, frequently inspect the lightbar and mounting feet to ensure that all nuts and bolts are firmly secured.

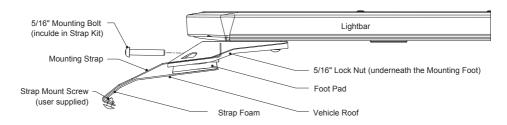
## Strap Mount- Install the Lightbar on the Vehicle Roof

The Strap Kit is designed for specific vehicle model. Before installation, ensure that the correct strap kit is used.

1. Place the lightbar on the vehicle roof at the desired location. Usually, the lightbar should be centred on the center door post (B-pillar).

**NOTE:** Water may leak into the vehicle interior if the straps are improperly installed. Ensure that the straps are positioned above or near the center door post (B-pillar).

2. Determine where the straps will attach to the vehicle.



Front View of the Lightbar with Strap Mount Low Profile Standard Feet

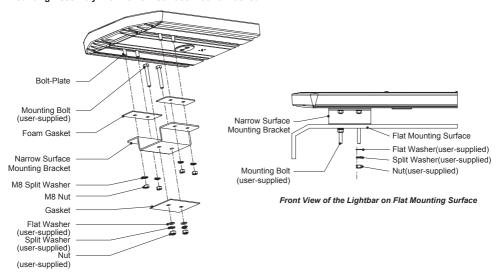
- 3. Place the strap in the position on the roof sheet metal as shown in the diagram.
- 4. Use the strap as a template, then mark drill the mounting holes.
- 5. Apply silicone sealant around the holes before attaching the straps.
- 6. Secure the straps to the vehicle with screws (user supplied).
- 7. Place the lightbar on to the vehicle roof, and align the strap bolt holes with lock nuts.
- 8. Insert the bolt through the strap hole to the lock nut.
- 9. Secure the bolt firmly; repeat steps for the other side; ensure that the lightbar is centred on the roof.
  - NOTE: a. Set driver torque force at 10~30kgf-cm or 8.68~26lbf-in.
    - b. After installation, frequently inspect the lightbar and mounting feet to ensure that all nuts and bolts are firmly secured.

## FLAT SURFACE INSTALLATION

## Narrow Surface Mount - Install the Lightbar on the Flat Surface

- 1. Turn the lightbar upside down.
- 2. Slide the Bolt-Plate into each track through the access grooves of the lightbar; 2 for each side.
- 3. Assemble the mounting assembly onto the lightbar as shown below but do not completely tighten the bolts. Leave them loose enough to reposition the mounting bracket.

#### Mounting Assembly with Narrow Surface Mount Bracket



- 4. Place lightbar on the desired location and adjust both mounting bracket inward or outward as necessary. If possible, try to keep mounting bracket near the ends of the lightbar.
- 5. Using the mounting bracket as a template, mark drilling holes on the mounting surface.
- 6. Carefully remove the lightbar, turn it upside down, and ensure that the mounting bracket do not shift place.
- 7. Tighten the nuts that secure the mounting bracket to the lightbar.

NOTE: Set driver torque force at 110~130kgf-cm or 95.48~112.84lbf-in.

8. Carefully drill marked holes on the roof.

**WARNING:** DO NOT DRILL THROUGH the roof support structure that spans the distance between the driver's and passenger's side. Drilling through this will weaken the roof of the vehicle.

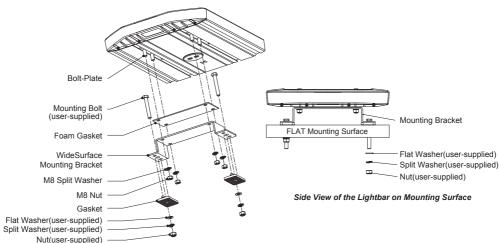
- Place lightbar on the surface and align the mounting holes with the mounting bracket. Secure mounting bracket on to the surface with bolts and nuts (user-supplied).
- 10. Apply silicone sealant around mounting holes (wherever nessassary) to prevent possible water leakage.

**NOTE:** After installation, frequently inspect the lightbar and mounting feet to ensure that all nuts and bolts are firmly secured.

## Wide Surface Mount - Install the Lightbar on the Flat Surface

- 1. Turn the lightbar upside down.
- 2. Slide the Bolt-Plate into each track through the access grooves of the lightbar; 2 for each side.
- Assemble the mounting assembly onto the Lightbar as shown below but do not completely tighten the bolts. Leave them loose enough to reposition the mounting bracket.

## Mounting Assembly with Narrow Surface Mount Bracket



- 4. Place lightbar on the desired location and adjust both mounting bracket inward or outward as necessary. If possible, try to keep mounting bracket near the ends of the lightbar.
- 5. Using the mounting bracket as a template, mark drilling holes on the mounting surface.
- 6. Carefully remove the lightbar, turn it upside down, and ensure that the mounting bracket do not shift place.
- 7. Tighten the nuts that secure the mounting bracket to the lightbar.

NOTE: Set driver torque force at 110~130kgf-cm or 95.48~112.84lbf-in.

8. Carefully drill marked holes on the roof.

**WARNING:** DO NOT DRILL THROUGH the roof support structure that spans the distance between the driver's and passenger's side. Drilling through this will weaken the roof of the vehicle.

- Place lightbar on the surface and align the mounting holes with the mounting bracket. Secure mounting bracket on to the surface with bolts and nuts(user-supplied).
- 10. Apply silicone sealant around mounting holes (wherever nessassary) to prevent possible water leakage.

**NOTE:** After installation, frequently inspect the lightbar and mounting feet to ensure that all nuts and bolts are firmly secured.