

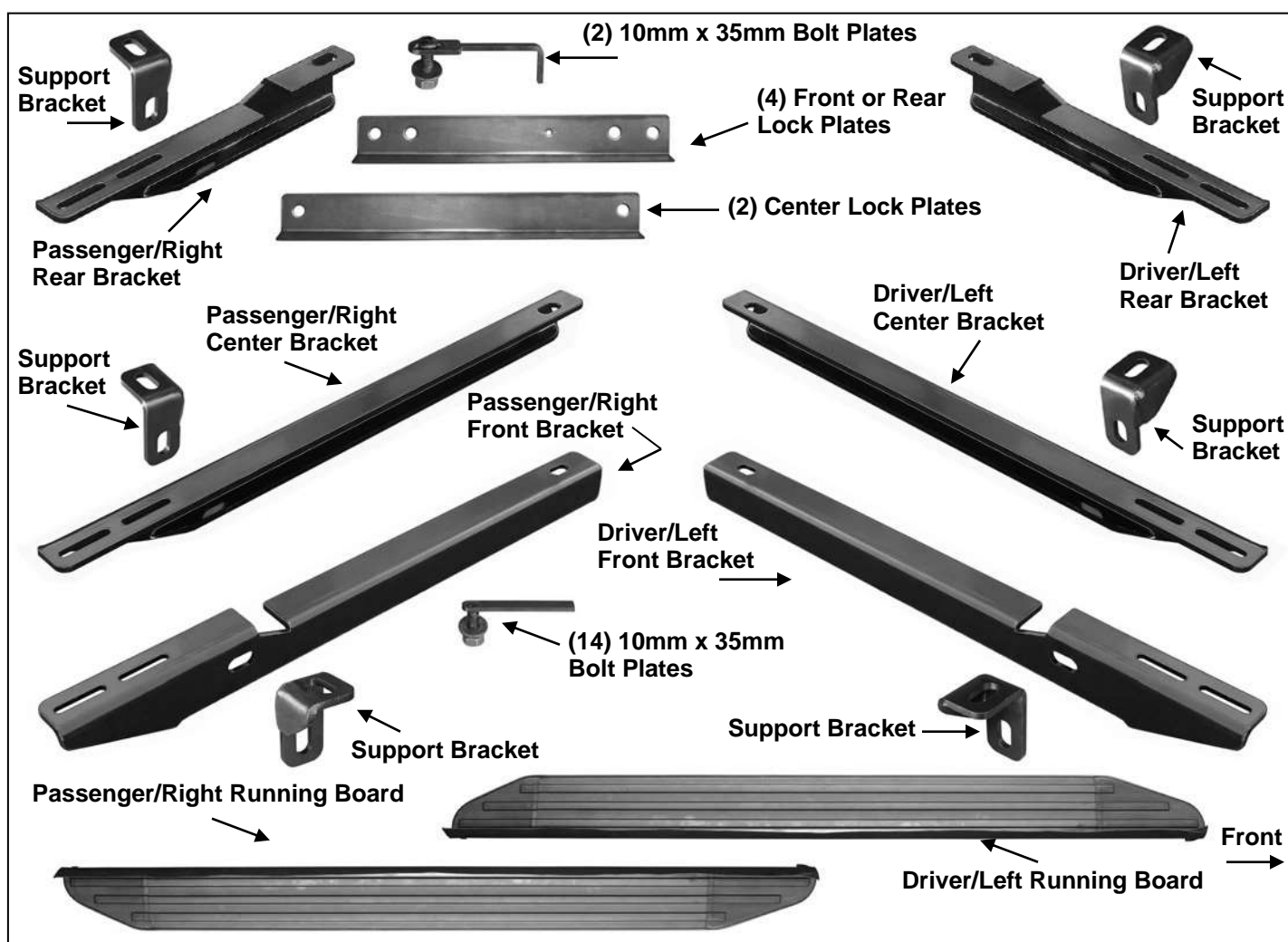


INSTALLATION INSTRUCTIONS

VORTEX RUNNING BROARD FOR 09-14 NISSAN MURANO
PART # VO-NIMU

PARTS LIST:

| Qty | Description | Qty | Description |
|-----|---|-----|----------------------------------|
| 1 | Driver/Left Running Board | 14 | 10-1.5mm x 35mm Bolt Plates |
| 1 | Passenger/Right Running Board | 6 | 10-1.50mm x 30mm Hex Bolt |
| 1 | Driver/Left Front Mounting Bracket | 28 | 10mm x 24mm x 2.2mm Flat Washer |
| 1 | Passenger/Right Front Mounting Bracket | 22 | 10mm Lock Washer |
| 1 | Driver/Left Center Mounting Bracket | 22 | 10-1.5mm Hex Nut |
| 1 | Passenger/Right Center Mounting Bracket | 2 | 8-1.25mm x 25mm Hex Bolt |
| 1 | Driver/Left Rear Mounting Bracket | 2 | 8mm x 22mm OD x 2mm Flat Washer |
| 1 | Passenger/Right Rear Mounting Bracket | 2 | 8mm Lock Washer |
| 6 | Support Brackets | 12 | 6-1.0mm x 20mm T-Bolts |
| 4 | Front and Rear Lock Plates | 12 | 6mm x 22mm OD x 2mm Flat Washers |
| 2 | Center Lock Plates (long) | 12 | 6mm Lock Washers |
| 2 | 10-1.5mm x 35mm Long Bolt Plates | 12 | 6mm Hex Nuts |



PROCEDURE:

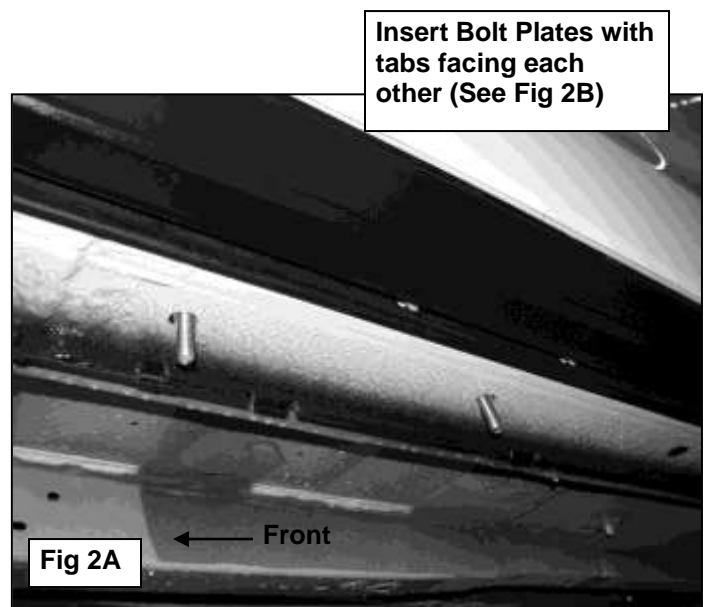
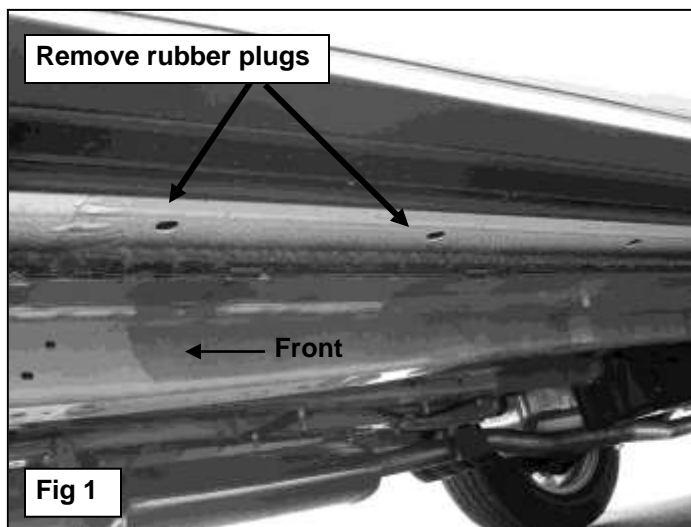
1. **REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. MINOR CUTTING IS REQUIRED.**
2. Start installation under the driver side of the vehicle. Locate and remove the first two rubber plugs in the bottom of the body panel closest to the front tire opening, **(Figure 1)**. Insert (1) 10mm x 35mm Bolt Plate into each of the holes, **(Figure 2A)**. **IMPORTANT:** Insert Bolt Plates with tabs facing each other as illustrated, **(Figure 2B)**.
3. Select (1) Front or Rear Locking Plate. Position the Plate over the (2) Bolt Plates with the bend toward the pinch weld. At this time, attach it to the rear Bolt Plate only with (1) 10mm Flat Washer, (1) 10mm Lock Washer and (1) 10mm Hex Nut, **(Figure 3)**. Tighten this hardware only.
4. Select (1) Support Bracket and the driver side front Mounting Bracket, **(Figure 4A)**. Attach the long side of the Support Bracket to the front of the Mounting Bracket with (1) 10mm x 30mm Hex Bolt, (2) 10mm Flat Washers, (1) 10mm Lock Washer and (1) 10mm Hex Nut, **(Figure 4B)**. **NOTE:** Tab on Support Bracket will face forward. Leave hardware loose at this time.
5. Bolt the Support Bracket on the Bracket assembly to the Bolt Plate, (over the Lock Plate), with (1) 10mm Flat Washer, (1) 10mm Lock Washer and (1) 10mm Hex Nut, **(Figure 5)**.
6. Locate the factory threaded hole in the bottom of the inner frame channel, **(Figure 6)**. Attach the inner end of the front Bracket assembly to the threaded hole with (1) 8mm Hex Bolt, (1) 8mm Lock Washer and (1) 8mm Flat Washer, **(Figure 7)**. Snug but do not fully tighten hardware at this time.
7. Move towards the center of the vehicle and locate the next two rubber plugs in the bottom of the body panel as described in **Step 2**, **(Figure 8A)**. Repeat **Step 2** to install (2) 10mm Bolt Plates. Select (1) long Center Lock Plate, **(Figure 8B)**. Secure the Lock Plate to the rear Bolt Plate with (1) 10mm Flat Washer, (1) 10mm Lock Washer and (1) 10mm Hex Nut. Tighten this hardware only.
8. Repeat **Step 4** to attach the (1) Support Bracket to the back of the driver side Center Bracket, **(Figure 9A)**. Attach the Support Bracket on the Bracket assembly to the remaining front Bolt Plate with (1) 10mm Flat Washer, (1) 10mm Lock Washer and (1) 10mm Hex Nut, **(Figure 9B)**. Leave loose at this time. **IMPORTANT:** Attach the Bracket assembly with the tab on the Support Bracket facing to the rear.
9. Next, locate the factory hole in the end of the inner frame channel, **(Figure 10)**. Select (1) 10mm x 35mm Bolt Plate, **(Figure 11A)**. Insert the Bolt Plate with the plate toward the rear, into the hole in the bottom of the inner frame channel. Attach the inner end of the Center Bracket Assembly to the Bolt Plate with (1) 10mm Flat Washer, (1) 10mm Lock Washer and (1) 10mm Hex Nut, **(Figure 11B)**. Snug but do not fully tighten hardware at this time. **NOTE:** The Center Brackets will be at a slight angle to the vehicle and it does not affect the installation.
Passenger Side Center Bracket: Trim a small section from the heat shield on the bottom of the frame channel to clear the Bolt Plate and Bracket assembly, **(Figures 12A & 12B)**.
10. Continue along the side of the vehicle toward the rear. Remove the last two rear rubber plugs in the bottom of the body panel, **(Figure 13A)**. **NOTE:** Do not remove the last plastic fastener in the body panel, only remove the (2) rubber plugs as described in **Steps 2 & 7**.
11. Repeat **Steps 2 & 3** to install the (2) 10mm Bolt Plates and Rear Lock Plate, **(Figures 13B & 14)**.
12. Select (1) 10mm x 35mm Long Bolt Plate, **(Figure 15A)**. Locate the oval hole toward the rear of the inner frame rail. Insert the Bolt Plate into the oval hole and back out the round hole just in front of the oval hole, **(Figure 15B)**.
13. Bolt (1) Support Bracket to the back of the driver side rear Mounting Bracket with the tab facing the rear as described in **Steps 4 & 8**, **(Figure 16A)**. Attach the Support Bracket on the rear Bracket assembly to the Bolt Plate, (over the Lock Plate), with (1) 10mm Flat Washer, (1) 10mm Lock Washer and (1) 10mm Hex Nut, **(Figure 16B)**. Attach the inner end of the rear Bracket assembly to the Long Bolt Plate with (1) 10mm Flat Washer, (1) 10mm Lock Washer and (1) 10mm Hex Nut, **(Figure 17)**. Snug but do not fully tighten hardware at this time. **IMPORTANT:** The tab on the Support Bracket will face to the rear.
14. Carefully unwrap and select the driver side Running Board. From the front end of the Board, slide (3) 6mm T-Bolts into each channel on the bottom of the Board, **(Figure 18)**. Slide the T-Bolts into place in line with the (3) Brackets and place the Board onto the Brackets. Attach the T-Bolts to the Brackets with (6) 6mm Flat Washers, (6) 6mm Lock Washers and (6) 6mm Hex Nuts. **NOTE:** It may be necessary to loosen the Brackets and drop them down slightly to fit the Running Board between the vehicle and the Brackets. Snug but do not tighten hardware at this time.

15. Level and adjust the Running Board and tighten all hardware. **IMPORTANT!** Make sure that the Bolt Plates do not disengage while tightening the hardware on the Mounting Brackets.
16. Repeat **Steps 2 – 15** for passenger side Running Board installation. **IMPORTANT:** See **Step 9** for note regarding passenger side Center Bracket installation.
17. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

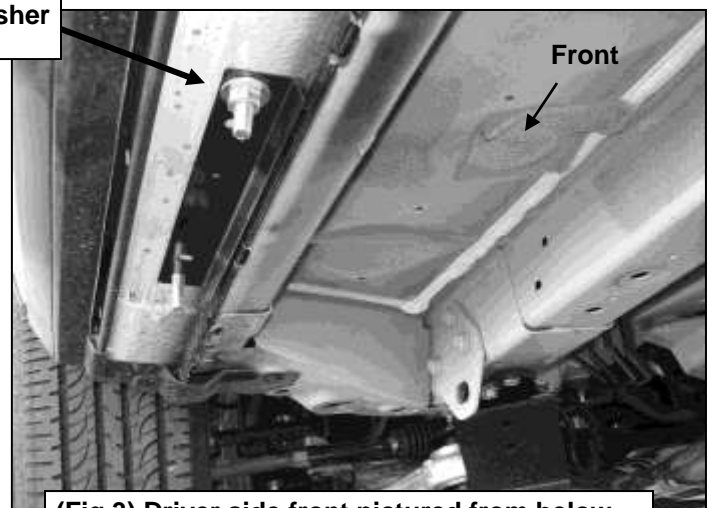
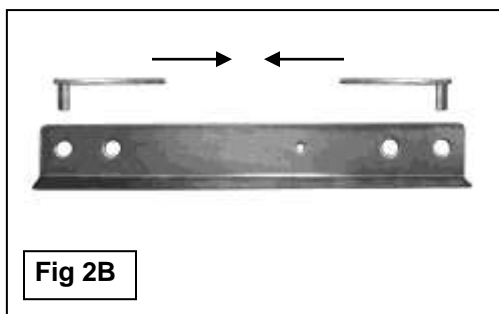
To protect your investment, wax this product after installing. Regular waxing is recommended to add a protective layer over the finish. Do not use any type of polish or wax that may contain abrasives that could damage the finish.

For stainless steel: Aluminum polish may be used to polish small scratches and scuffs on the finish. Mild soap may be used also to clean the Running Board.

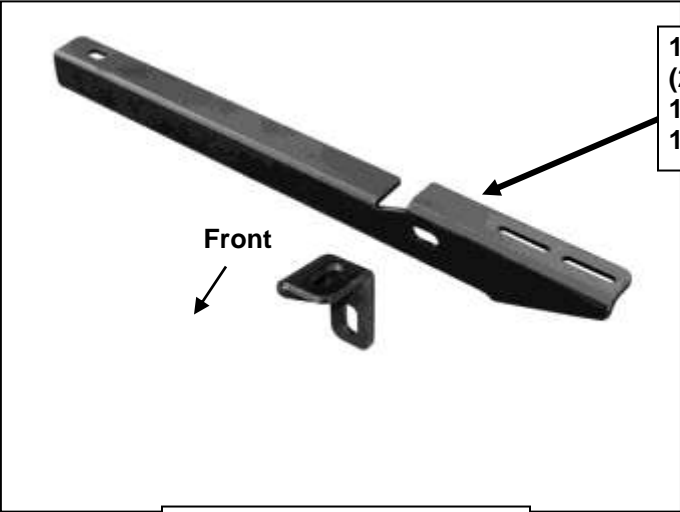
Driver Side Front Mounting Bracket Installation Pictured



10mm Flat Washer
10mm Lock Washer
10mm Hex Nut

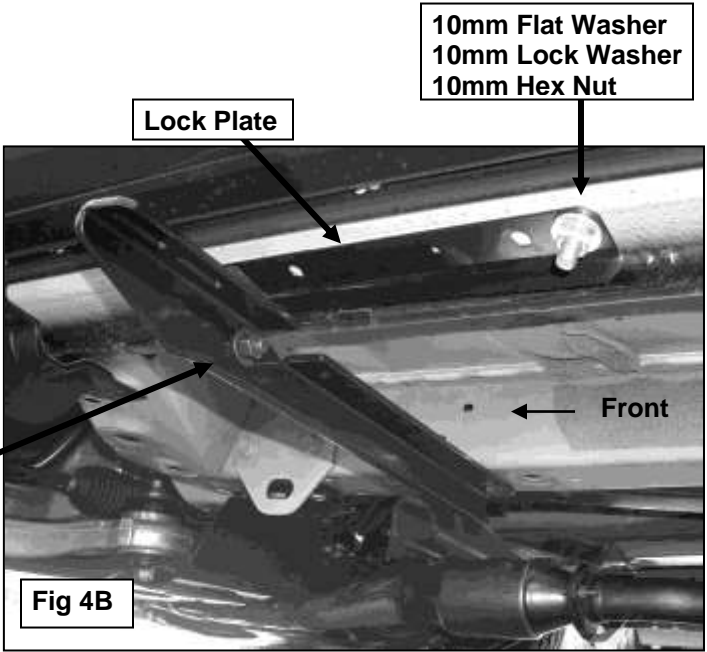


Driver Side Installation Pictured



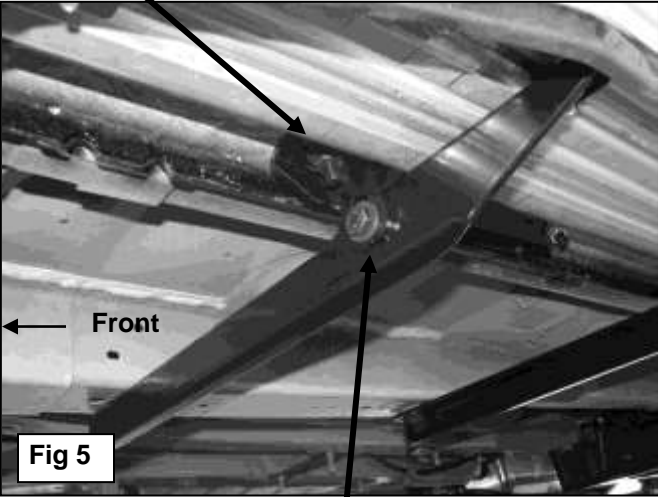
(Fig 4A) Driver side front Bracket assembly pictured

10mm x 30mm Hex Bolt
(2) 10mm Flat Washers
10mm Lock Washer
10mm Hex Nut



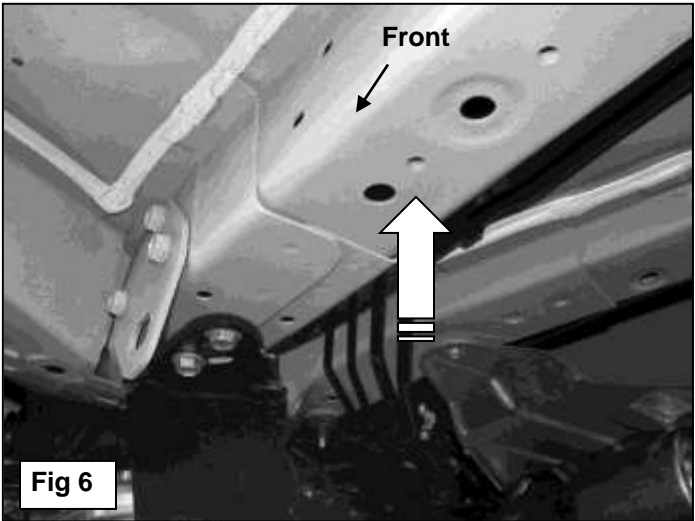
10mm x 30mm Hex Bolt
(2) 10mm Flat Washers
10mm Lock Washer
10mm Hex Nut

10mm Flat Washer
10mm Lock Washer
10mm Hex Nut

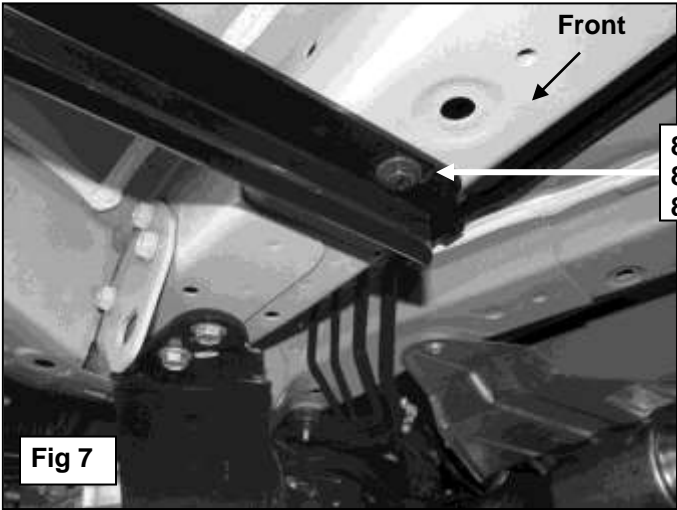


10mm x 30mm Hex Bolt
(2) 10mm Flat Washers
10mm Lock Washer
10mm Hex Nut

Do not install Running Board at this time

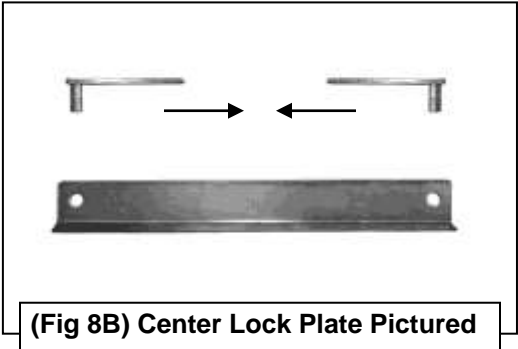
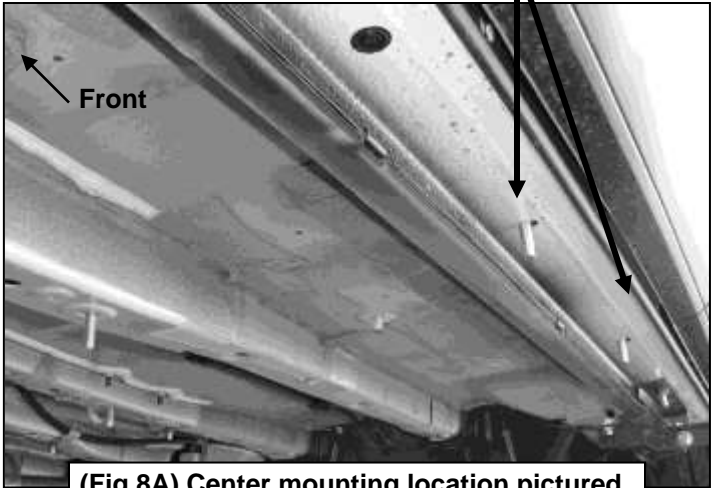


Driver Side Installation Pictured



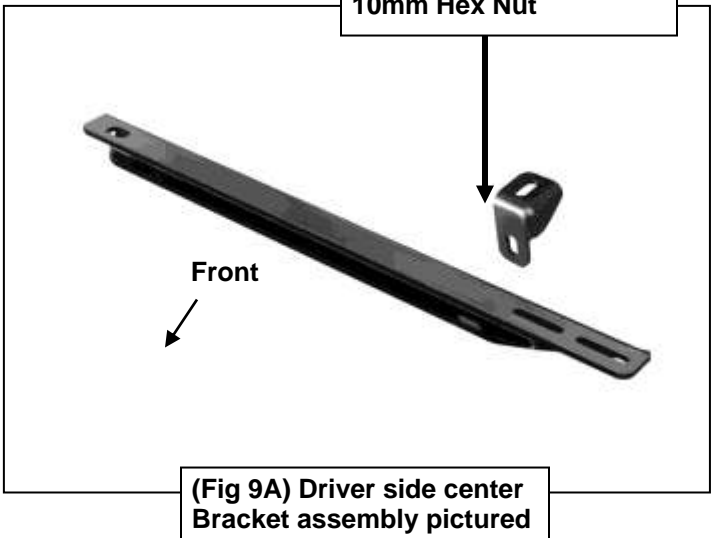
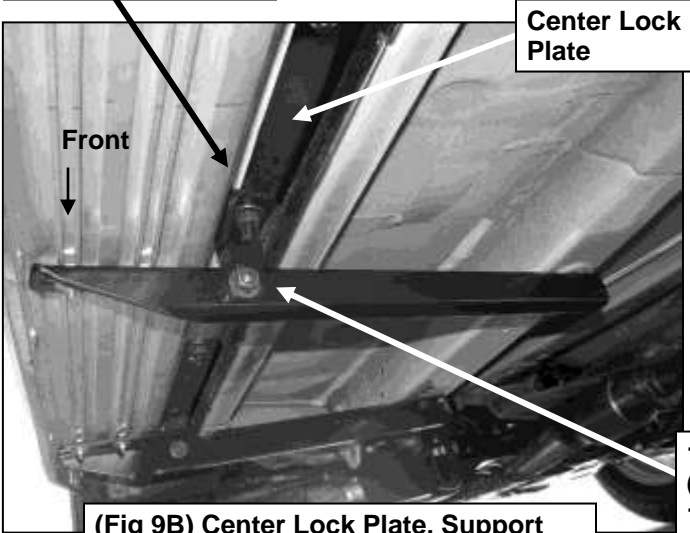
8mm x 25mm Hex Bolt
8mm Lock Washer
8mm Flat Washer

Insert (2) outer Bolt
Plates with tabs facing
each other (See Fig 8B)

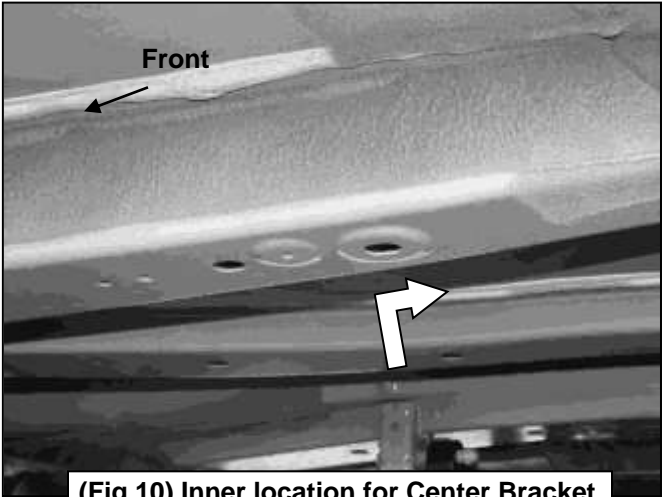


10mm x 30mm Hex Bolt
(2) 10mm Flat Washers
10mm Lock Washer
10mm Hex Nut

10mm Flat Washer
10mm Lock Washer
10mm Hex Nut



10mm x 30mm Hex Bolt
(2) 10mm Flat Washers
10mm Lock Washer
10mm Hex Nut

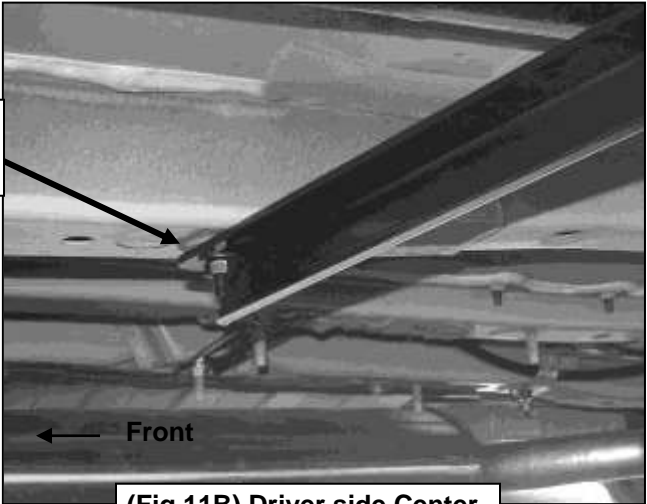


(Fig 10) Inner location for Center Bracket

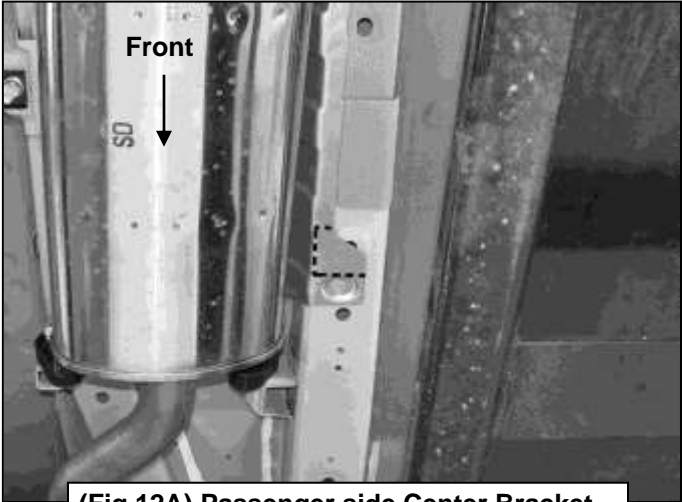


(Fig 11A) 10mm Bolt Plate

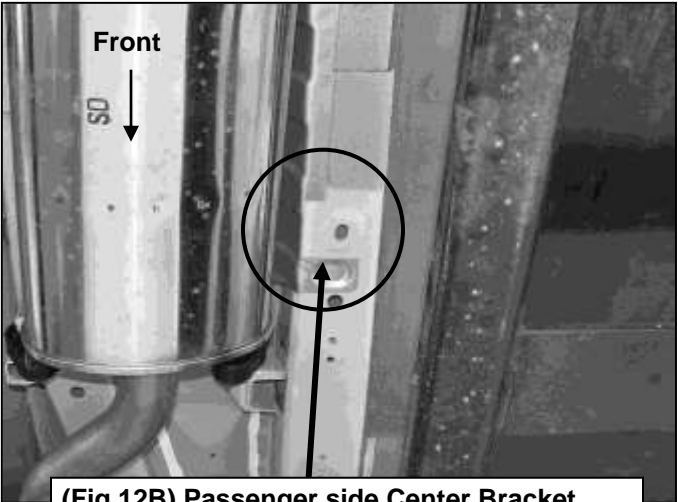
10mm Flat Washer
10mm Lock Washer
10mm Hex Nut



(Fig 11B) Driver side Center Bracket inner location



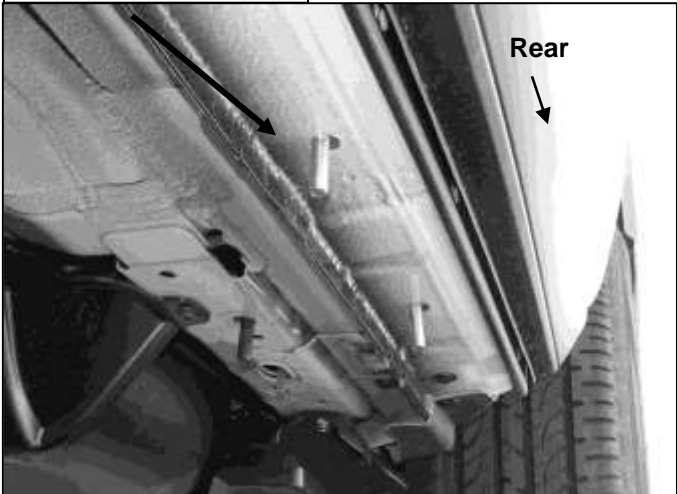
(Fig 12A) Passenger side Center Bracket inner location pictured from below



(Fig 12B) Passenger side Center Bracket inner location pictured from below after cut

Driver Side Installation Pictured

Insert Bolt Plates with
tabs facing each
other (See Fig 13B)



(Fig 13A) Driver side rear mounting location pictured

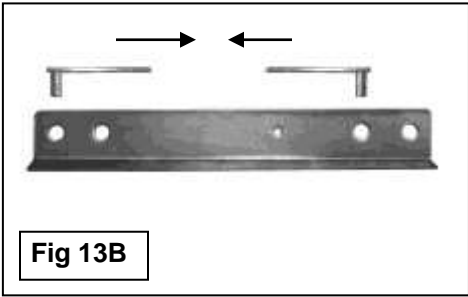


Fig 13B

10mm Flat Washer
10mm Lock Washer
10mm Hex Nut

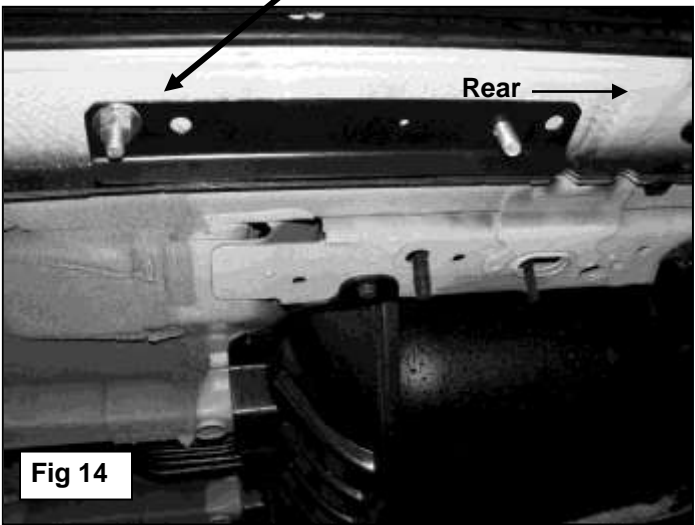
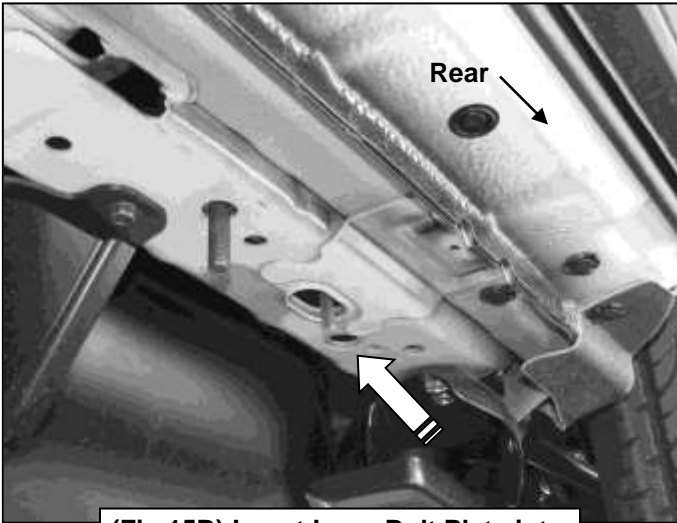


Fig 14

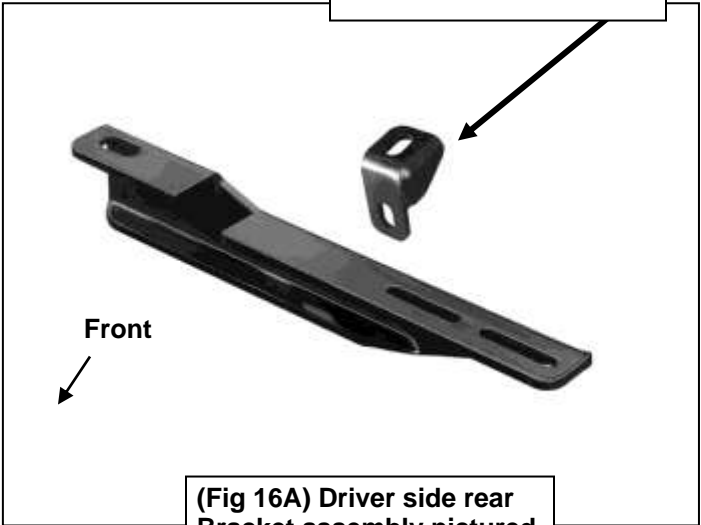


Fig 15A



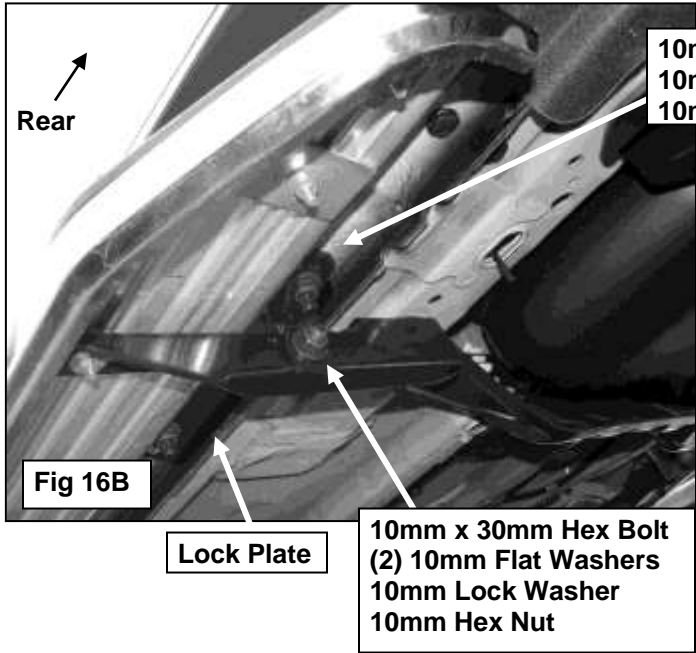
(Fig 15B) Insert Long Bolt Plate into
large oval hole and out round hole

10mm x 30mm Hex Bolt
(2) 10mm Flat Washers
10mm Lock Washer
10mm Hex Nut

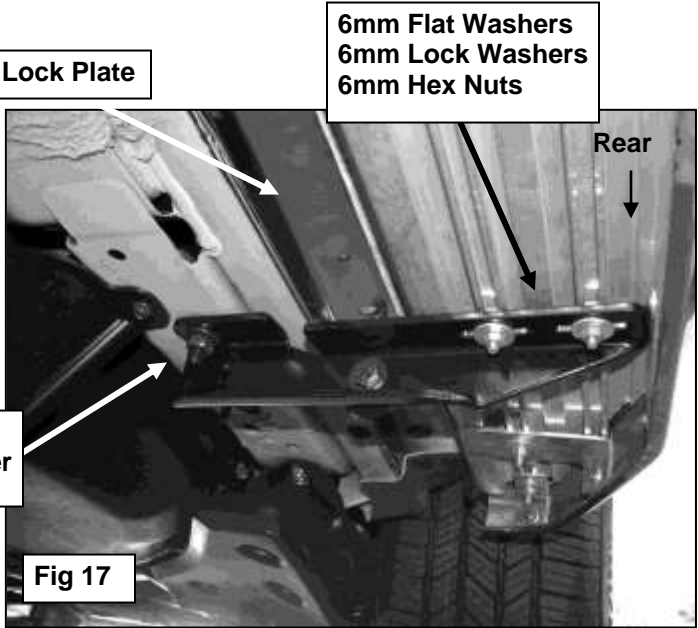


(Fig 16A) Driver side rear
Bracket assembly pictured

Driver Side Installation Pictured



Running Board pictured installed for instruction purposes only. Do not install Running Board until after all Brackets have been installed



10mm Flat Washer
10mm Lock Washer
10mm Hex Nut

