

## INSTALLATION OF R-150 REAR MOUNTING KIT 1999-2011 DODGE DURANGO

### INSTALLATION SAFETY PRECAUTIONS

If any installation problems are encountered, please call G&B Specialties, Inc. for technical assistance before continuing with the installation process.



- Failure to heed to any of the following warnings could result in severe bodily injury and/or equipment damage.
- Read and understand this manual completely before attempting installation of the equipment.
- Installation instructions provided below only address the Rafna railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Before performing any work under the vehicle or railgear, ensure the engine is turned off and the parking brake is set.
- Beware of all pinch points on the railgear and keep all parts of the body clear.
- Ensure all removed components are given to the vehicle owner after the installation of the railgear. These components must be re-installed if the railgear is removed from the vehicle.
- Always disconnect the vehicle's battery when welding on the vehicle or railgear to protect the vehicle's electrical system.
- Railway Company rules governing rail travel must always be observed.
- Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating (GAWR), or the wheel or tire load ratings are exceeded.

**INSTALLATION OF REAR MOUNTING KIT**

The following procedure details the installation of the rear mounting kit. The hardware required for this installation is listed in table 1.

Table 1: Rear Mounting Kit Installation Parts

Part Number	Description	Qty
R-1832L	Rear Mounting Bracket (Left Side)	1
R-1832R	Rear Mounting Bracket (Right Side)	1
R-1828	Bumper Extension	2
R-1794-1	Railgear Mounting Shim - 0.25" Thick	4
R-1794-2	Railgear Mounting Shim - 0.375" Thick	4
R-1794-3	Railgear Mounting Shim - 0.5" Thick	4
R-990KIT-033	½" UNC Gr.8 Bolt x 4.5" Long	6
	½" Gr.8 Washer	12
	½" UNC Gr. 8 Nylon Insert Lock Nut	6

1. Remove the original spare tire from under the vehicle's cargo box if so equipped. The original spare tire will not be re-installed.
2. Remove the rear bumper and rear bumper brackets from the frame. Retain the rear bumper and related hardware for re-installation.
3. Slide each rear-mounting bracket onto the frame, from the underside as shown. The ½" hole in the side of each rear mounting bracket should align with the hole in the side of the frame inside the cross member. The "U" shape of the rear-mounting bracket should fit tightly against the bottom, inside and outside of the frame. Clamp the brackets in place.
4. Fasten each rear mounting bracket to the side of the frame, using the provided hole in each mounting bracket, with one ½" x 4.5" long bolt, two ½" washers, and one ½" nut.
5. Drill two holes through each rear mounting bracket and frame as shown, in order to accommodate two ½" x 4.5" long bolts. The holes should be positioned at the center of each frame rail height wise. The most forward hole should be 3.75" from the most forward edge of each rear mounting bracket and the holes should be drilled 3" apart.
6. Fasten each rear mounting bracket to the frame with two ½" x 4.5" long bolts, four ½" washers, and two ½" nuts. Remove the clamps.
7. Torque the ½" fasteners to 100 ft-lbs dry. Do not over torque.
8. The supplied railgear mounting shims are to be used as required when mounting the railgear to the rear mounting brackets.

Following the Railgear installation, the rear bumper will not fit in its original position. Rafna supplies rear bumper extensions to move the rear bumper further out, in order for it to fit over the railgear with minimal trimming required as described in the following steps.

9. Position the rear bumper extensions in line with the end of the frame, as shown. The portion of the rear bumper extension with one hole should be closest to the frame.
10. Weld the rear bumper extensions onto the vehicle frame.
11. Re-install the vehicle rear bumper on the rear bumper extensions with the original fasteners.
12. Torque the original fasteners to OEM specifications.
13. The installer may have to trim the bumper to avoid any interference between the railgear and the bumper.
14. The installer may fabricate a cover plate made of aluminium tread plate to cover the gap between the bumper and the vehicle body.

## OPERATION, SERVICE, AND PARTS OF R-150 REAR MOUNTING KIT 1999-2005 DODGE DAKOTA

### OPERATION AND SERVICE SAFETY PRECAUTIONS

If any operating, services or parts problems are encountered, please call G&B Specialties, Inc. for technical assistance.



- Failure to heed any of the following warnings could result in severe bodily injury and/or equipment damage.
- Read and understand this manual completely before attempting operation of the railgear-equipped vehicle
- Operating instructions provided below only address the RAFNA industries railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Railway Company rules governing rail travel must be observed at all times.
- Ensure that the position and function of all railgear controls are known before attempting operation.
- Ensure the railgear is locked in road or rail position before starting road or rail travel respectively.
- Ensure all body parts and loose clothing are clear of any moving parts of the equipment.
- If misalignment of the railgear equipment is indicated, promptly perform the alignment procedure.
- Before performing any work under the vehicle of railgear, ensure the engine is turned off and the parking brake is set.
- Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating Front or Rear (GAWR), or the wheel or tire load ratings are exceeded.

**OPERATION AND SERVICE OF REAR MOUNTING KIT**

With the rear mounting kit installed on this vehicle, it may be operated as normal.

Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating Front or Rear (GAWR), or the wheel or tire load ratings are exceeded.

The rear mounting kit must be serviced regularly to avoid damage to the equipment. Table 1 below provides the Recommended Service Schedule and Table 2 provides Standard Fastener Torque Values.

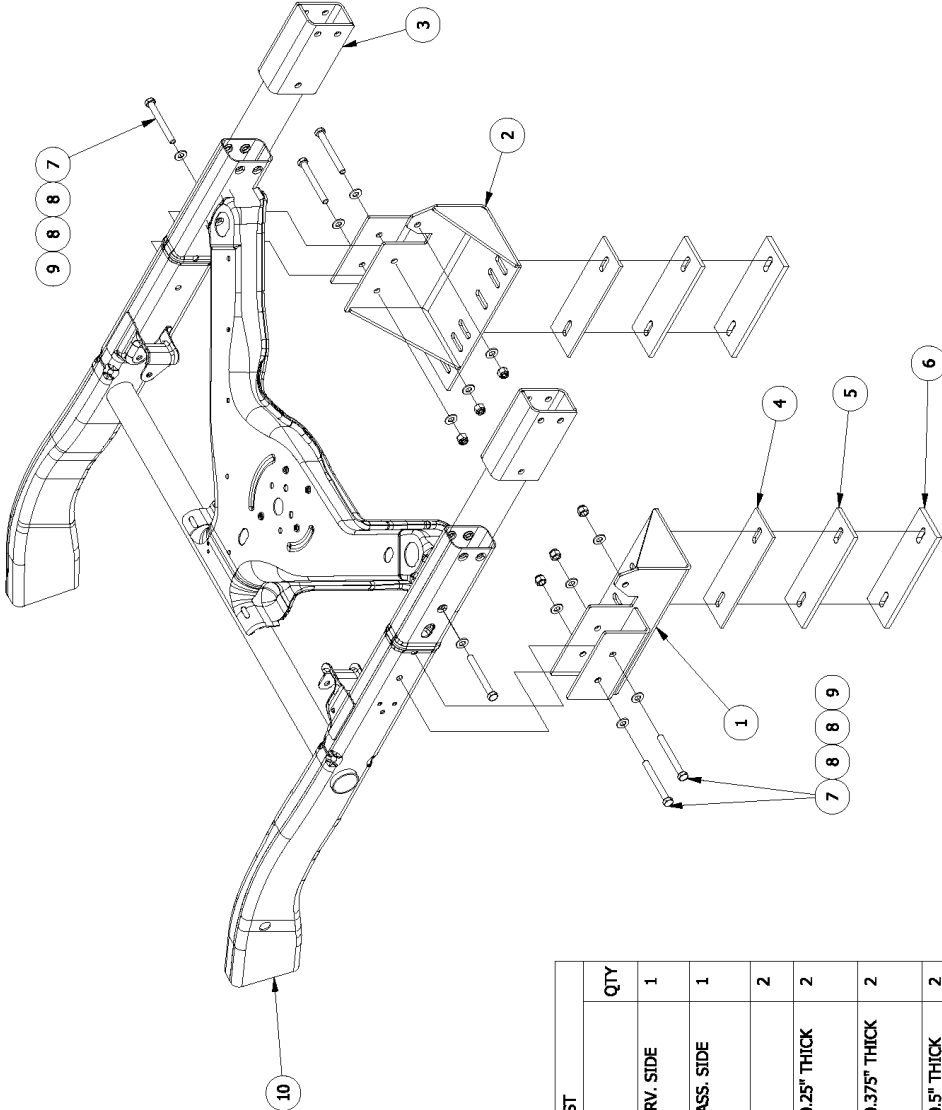
Table 1: Recommended Service Schedule

Service Required	Initial 100 km (62 Miles) of road and/or rail use	Daily	Weekly	Monthly
Inspect rear mounting kit fasteners (re-torque if required)		✓	✓	✓

Table 2: Standard Fastener Torque Values

Fastener Size	Fastener Torque Value (ft-lbs) Dry
1" UNC Gr. 8 Fasteners	250
¾" UNC Gr. 8 Fasteners	175
⅝" UNC Gr. 8 Fasteners	150
½" UNC Gr. 8 Fasteners	100
⅜" UNC Gr. 8 Fasteners	40
¼" UNC Gr. 8 Fasteners	12

**PARTS OF REAR MOUNTING KIT**



ITEM	PART NUMBER	DESCRIPTION	QTY
1	R-1832L	REAR MOUNTING BRACKET - DRV. SIDE	1
2	R-1832R	REAR MOUNTING BRACKET - PASS. SIDE	1
3	R-1828	BUMPER EXTENSION	2
4	R-1794-1	RAILGEAR MOUNTING SHIM - 0.25" THICK (USE AS REQUIRED)	2
5	R-1794-2	RAILGEAR MOUNTING SHIM - 0.375" THICK (USE AS REQUIRED)	2
6	R-1794-3	RAILGEAR MOUNTING SHIM - 0.5" THICK (USE AS REQUIRED)	2
7		1/2" UNC GR.8 BOLT X 4.5" LONG	6
8		1/2" GR.8 TYPE A WASHER	12
9		1/2" UNC GR.8 NYLOCK NUT	6
10	-	VEHICLE FRAME	1

REV	DESCRIPTION OF CHANGES	DATE	BY	APPR'D	ECN #	DRW	CHKD	APPR'D
A	REVISED DRAWING AND BORDER	07/23/19	AJB					

**G & B SPECIALTIES INC.**  
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