

INSTALLATION OF R-290 REAR MOUNTING KIT 2001-2013 FORD E250/350 VAN

INSTALLATION SAFETY PRECAUTIONS

If any installation problems are encountered, please call G&B Specialties 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.
- Do not start the vehicle with the power steering hoses disconnected. Reconnect all hoses and secure the power steering cooler if the vehicle is started.
- 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 be observed at all times.
- 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.

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-2951D-B	Rear Mounting Bracket, Drivers Side	1
R-2951P-B	Rear Mounting Bracket, Passengers Side	1
R-11127	Shim, Railgear Mounting Front	2
R-11128	Shim, Railgear Mounting Front	2
R-2960	Railgear Mounting Shim - 1/2" Thick	4
R-990KIT-241	1/2" UNC Gr. 8 Bolt x 1.75" Long	10
	1/2" Type-A Gr. 8 Washer	20
	1/2" UNC Gr. 8 Nylon Insert Lock Nut	10
	3/4" UNC Gr. 8 Bolt x 2.00" Long	4
	3/4" UNC Gr. 8 Bolt x 2.50" Long	4
	3/4" UNC Gr. 8 Bolt x 3.00" Long	4
	3/4" Type-A Gr. 8 Washer	8
	3/4" UNC Gr. 8 Nylon Insert Lock Nut	4

1. Remove the original spare tire and spare tire from under the vehicle's cargo box if so equipped. The original spare tire will not be re-installed.
2. Place each rear mounting bracket against the underside and outside of the frame rails as shown, behind the rear spring hangers.
3. The one slot in the bottom of each rear mounting bracket should align with the existing slot on the bottom of the frame. Assemble each bracket to the frame using the supplied 1/2" hardware. Tighten but do not torque bolts at this time.
4. Mark the side and bottom of the frame using the slots in the brackets as a guide. Remove the brackets from the frame. Drill 17/32" diameter holes thru the frame at the previously marked positions.
5. Fasten each rear mounting bracket to the side and bottom of the frame with the supplied 1/2" hardware.
6. Ensure the mounting plates are tight to the underside and outside of the frame and are aligned with each other. Torque the 1/2" fasteners to 100 ft-lb dry. Do not over torque.
7. The supplied railgear mounting shims are to be used as required when mounting the railgear to the rear mounting plates.
8. Trim spring hangers as shown for railgear clearance.

BILL OF MATERIAL/PARTS LIST		DESCRIPTION	
ITEM	QTY	PART NUMBER	
1	1	R-2951D-B	REAR MOUNTING PLATE - DRIVERS SIDE (NOT SHOWN)
2	1	R-2951P-B	REAR MOUNTING PLATE - PASSENGERS SIDE
3	REF	-	VEHICLE FRAME
4	REF	-	MOUNTING SHIM, 1/2"
5	20	FWASHER	1/2" TYPE-A GR.8 WASHER
6	10	H.H.C.S.	1/2" UNC GR.8 BOLT X 1.75" LG
7	10	NYLOCK NUT	1/2" UNC GR.8 NYLON INSERT LOCK NUT
8	REF	H.H.C.S.	3/4" UNC GR.8 BOLT X 2.00" LG
9	REF	H.H.C.S.	3/4" UNC GR.8 BOLT X 2.50" LG
10	REF	H.H.C.S.	3/4" UNC GR.8 BOLT X 3.00" LG
11	REF	FWASHER	3/4" TYPE-A GR.8 WASHER
12	REF	NYLOCK NUT	3/4" UNC GR.8 NYLON INSERT LOCK NUT

FRONT OF VEHICLE

NOTES:

- PASSENGERS SIDE SHOWN
- DRIVERS SIDE TYPICAL
- ITEMS 3,4,8,9,10,11, & 12 SHOWN AS REF ONLY. THESE ITEMS ARE FOR RAILGEAR INSTALLATION

REV	DESCRIPTION OF CHANGES	DATE	BY	APPRVD	ECN #
A	REVISION A RELEASED	05/27/08	BM/A		
B	REVISED MOUNTING BOLTS	07/17/12	AML		
C	UPDATED BORDER	05/03/21	SMM	JMP	

DM	BM	APPROVED	CHECKED	DATE DRAWN	PART NUMBER

G & B SPECIALTIES INC. MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK, PENNSYLVANIA (570) 752-5901, FAX (570) 752-6397	2001-2007 FORD E250/350 VAN REAR MNTG KIT
DESIGN - ENGINEERING - MANUFACTURING	
G & B SPECIALTIES INC. IS THE OWNER OF THIS DOCUMENT. IT IS THE PROPERTY OF G & B SPECIALTIES INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. ALL RIGHTS ARE RESERVED. CONTACT G & B SPECIALTIES INC. FOR PERMISSION TO REPRODUCE THIS DOCUMENT.	
REPORT DRAWING NUMBER	DATE DRAWN
1 K-M29XRFR003	05/27/08
1 K-M29XRFR003	05/27/08
1 K-M29XRFR003	05/27/08
1 K-M29XRFR003	05/27/08

ALL WELDS TO CONFORM TO AWS D1.1



OPERATION, SERVICE, AND PARTS OF R-290 REAR MOUNTING KIT 2001-2013 FORD E250/350 VAN

OPERATION SAFETY PRECAUTIONS

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



- 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 operation of the railgear equipped vehicle.
- Operating instructions provided below only address the RAFNA railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Railway company rules governing rail travel must be observed at all times.
- Before performing any work under the vehicle or 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, however the rear bumper is located further back than standard. Caution must be used when operating the vehicle.

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