

INSTALLATION OF R-230 FRONT MOUNTING KIT 2019-PRESENT FORD RANGER

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.
- Always disconnect the vehicle's battery when welding on the vehicle or railgear to protect the vehicle's electrical system.
- 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.
- 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 FRONT MOUNTING KIT

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

Table 1: Front Mounting Kit Installation Parts

Part Number	Description	Qty
R-31340D	Front Mounting Bracket, Drivers Side	1
R-31340P	Front Mounting Bracket, Passengers Side	1
R-31347D	Outside Plate Assy, Drivers Side	1
R-31347P	Outside Plate Assy, Passengers Side	1
R-31350	Frame Spacer	2
R-31350A	Machined Frame Spacer	2
R-20042	Railgear Mounting Shim - 1/2" Thick	4
R-20041	Railgear Mounting Shim - 1/4" Thick	4
R-20040	Railgear Mounting Shim - 3/4" Thick	4
R-051	Side Wand Set	1
R-990KIT-467 (Railgear Mounting)	5/8" UNC Gr.8 Bolt X 2.50"	4
	5/8" UNC Gr.8 Bolt X 3.50"	4
	5/8" UNC Gr.8 Bolt X 4.50"	4
	5/8" Type- A Flat Washer Gr.8	8
	5/8" UNC GR.8 Nylock Nut	4
R-990KIT-466 (Mounting Bracket Install)	1/2" UNC Gr.8 Bolt X 4.25"	4
	1/2" Type- A Flat Washer Gr.8	8
	1/2" UNC GR.8 Nylock Nut	4

1. Remove front bumper and any skid plate/fascia that would prevent the brackets to mount to the frame.
2. Remove the tow hooks. Hardware will be re-used but the tow hooks will not be re-installed.
3. Position the front mounting brackets on the inner side of the frame as shown. (Figure 1) Ensure that the mounting brackets are tight against the inside of the frame and bottom. The holes in the mounting brackets should align with existing holes in the vehicle's frame and where the tow hooks were removed. The hole on the side of the frame that will be used for the slot on the bracket will need to be opened up to Ø0.531.
4. Once hole is opened, Re-install the hardware removed that fastened the tow hooks to the bottom of the frame to hold the bracket in place. These can be left loose for now as the bracket may need to be slid to align with the holes in the side of the frame.
5. Once aligned with the holes in the side, install the frame spacers as shown (Figure 1) inside the frame and bolt each front mounting bracket to the frame using the supplied 1/2" hardware. Ensure the mounting bracket lower surfaces are 0° to the horizontal with the vehicle in the typical road position and aligned with each other. **NOTE:** Spacers may need to be ground for proper frame fitment.

6. Torque the 1/2" fasteners to 100 ft-lbs dry. **NOTE:** Observe the frame when torquing. The frame spacers should prevent the frame from collapsing, but if this is observed before the 100 ft-lbs is met, do not continue torquing.
7. Apply thread locking compound and torque the original tow hook bolts to factory specifications.
8. The supplied railgear mounting shims are to be used as required when mounting the railgear to the front mounting plates.

Following the installation of the front railgear, the front bumper will fit in its original position. The front bumper may need to be trimmed/modified as required.

9. Modify the OEM bumper as required to create clearance for all railgear components to eliminate any interference during its full range of motion.
10. If mounting locations were removed during installation, reinforce the bumper as needed to ensure it remains rigid and does not vibrate during travel.
11. The supplied railgear mounting shims are to be used as required when mounting the railgear to the front mounting brackets.

OPERATION AND SERVICE OF R-230 FRONT MOUNTING KIT 2019-PRESENT FORD RANGER

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 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 Front (GAWR), or the wheel or tire load ratings are exceeded.

OPERATION AND SERVICE OF FRONT MOUNTING KIT

With the Front 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 Front (GAWR), or the wheel or tire load ratings are exceeded.

The front mounting kit must be serviced regularly to avoid damage to the equipment. Table 2 below provides the Recommended Service Schedule and Table 3 provides Standard Fastener Torque Values.

Table 2: Recommended Service Schedule

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

Table 3: Standard Fastener Torque Values

Fastener Size	Torque Value (ft-lbs) Dry
1" UNC Gr. 8 Fasteners	250
3/4" UNC Gr. 8 Fasteners	175
5/8" UNC Gr. 8 Fasteners	150
1/2" UNC Gr. 8 Fasteners	100
7/16" UNC Gr. 8 Fasteners	70
3/8" UNC Gr. 8 Fasteners	40
1/4" UNC Gr. 8 Fasteners	12