

INSTALLATION OF R-180 FRONT MOUNTING KIT KUBOTA RTV / RTV-X

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 Industries 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 the table below.

Table 1: K-R18FM-KB Front Mounting Kit for Kubota RTV/RTV-X

Part Number	Description	Qty
R-32140	Front Mounting Bracket	1
R-32146D	Bumper Mounting Bracket, DS	1
R-32146P	Bumper Mounting Bracket, DS	1
R-32120	Front Bumper	1
R-20043	Railgear Mounting Shim - 1" Thick	4
R-20042	Railgear Mounting Shim - 1/2" Thick	2
R-20041	Railgear Mounting Shim - 1/4" Thick	2
R-20040	Railgear Mounting Shim - 3/4" Thick	2
R-051	Side Wand Set	1
R-990KIT-285 (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" UNC Gr.8 Bolt X 5.50"	4
	5/8" Type- A Flat Washer Gr.8	8
	5/8" UNC GR.8 Nylock Nut	4
R-990KIT-403	M12-1.25 X 35mm Bolt, Gr.10.9	6
	M12 Flat Washer, GR.200HV	6
	M12 Split Lock Washer	6
	1/2" UNC Gr.8 Bolt X 1.75"	2
	1/2" Type- A Flat Washer Gr.8	4
	1/2" UNC GR.8 Nylock Nut	2
R-990KIT-405	5/16" UNC Gr.8 Bolt X 0.75"	8
	5/16" Type- A Flat Washer Gr.8	8
	5/16" Lock Washer, Gr.8	8
	1/2" UNC Gr.8 Bolt X 1.75"	4
	1/2" Type- A Flat Washer Gr.8	8
	1/2" UNC GR.8 Nylock Nut	4

1. Remove any front attachments or additions to the front of the vehicle...push bar, brush guard, snow plow etc...
2. Position the front mounting bracket against the front cross member. Aligning the slots in the mounting bracket with the existing threaded holes in the front cross member.
3. On the RTV-X units only, it will be necessary to drill two 17/32" diameter holes thru the front cross member using the mounting bracket as a template
4. Bolt the mounting bracket to the front cross member as shown using the supplied 12MM hardware and 1/2" hardware if required.

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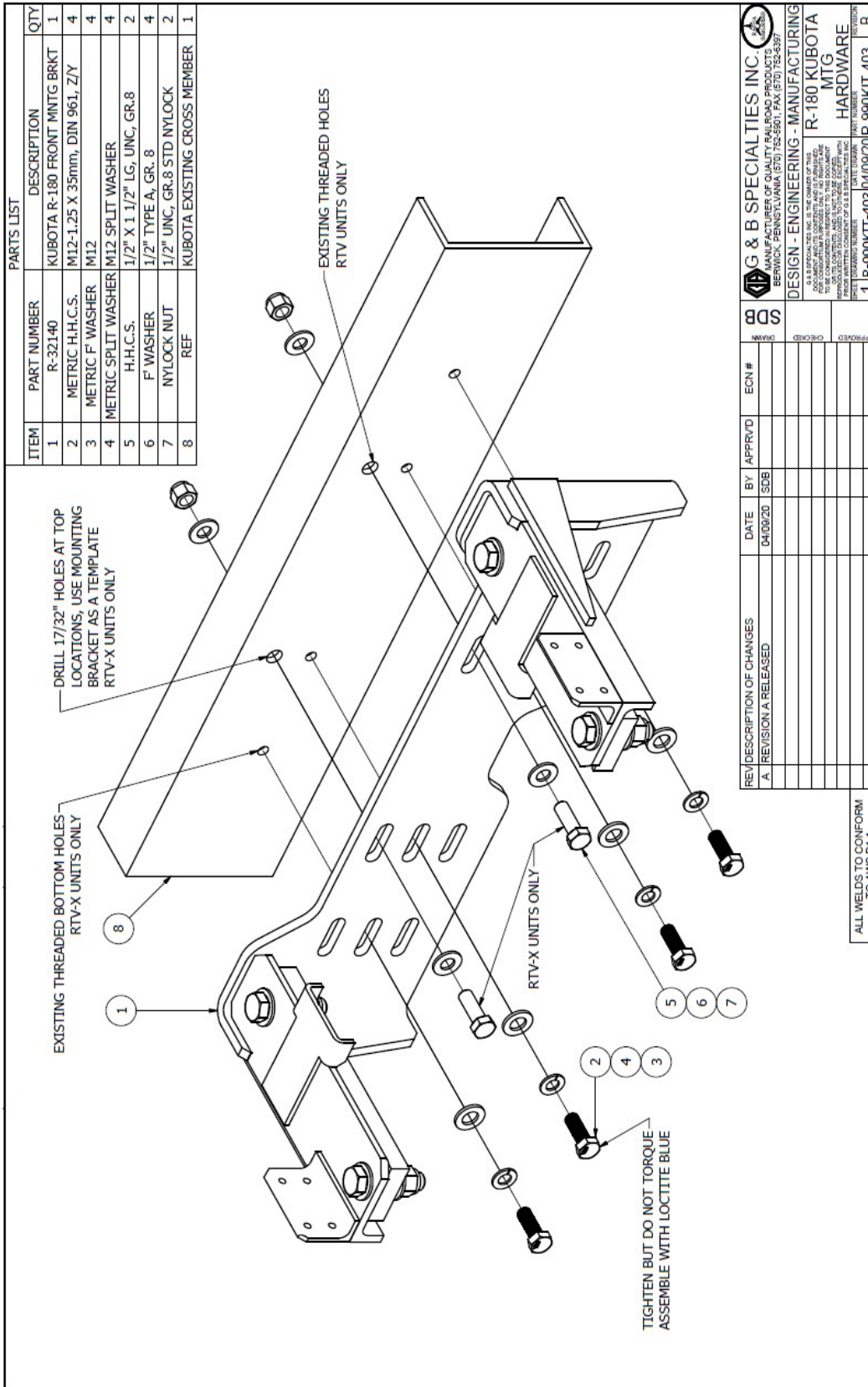
5. Tighten but do not torque the 12MM or 1/2" fasteners. The mounting bracket will need to be adjusted during railgear installation. The 12MM or 1/2" bolts will be torqued at that time.
6. The supplied railgear mounting shims are to be used as required when mounting the railgear to the front mounting plates.

Following the installation of the front railgear, the supplied front bumper will need to be mounted to the railgear mounting bracket using the supplied bumper mounting brackets and hardware.

Front Bumper Mounting

The front bumper and mounting brackets should be installed after the front railgear unit is installed complete and aligned.

1. Attach the bumper mounting brackets to railgear mounting bracket using the supplied 5/16" hardware. Tighten but do not torque at this time.
2. Attach the front bumper to the mounting brackets using the supplied 1/2" hardware. Tighten but do not torque at this time.
3. Once the bumper is aligned, leveled and centered, torque the 1/2" hardware to 50 ft-lbs dry and the 5/16" hardware to 25 ft-lbs dry.


Figure 1: Railgear Mounting Bracket Attachment and Hardware

OPERATION AND SERVICE OF R-180 FRONT MOUNTING KIT KUBOTA RTV/ RTV-X

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 Industries railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Railway company rules governing rail travel must always be observed.
- 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
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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.

Service Required	6 Months
Inspect front mounting kit fasteners (re-torque if required)	✓

Table 3: Standard Fastener Torque Values

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