July 1, 2021 Lit. No. 74351, Rev. 02

# 35204 MOUNT KIT

# Kubota RTV 900/11XX Kubota RTV X-Series

## **Installation Instructions**

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Read this document before installing the snowplow.

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See your sales outlet/website for specific vehicle application recommendations before installation. The online selection tool has specific vehicle and snowplow requirements.

**A DIVISION OF DOUGLAS DYNAMICS, LLC** 

#### SAFETY DEFINITIONS

#### **A** WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

#### **A**CAUTION

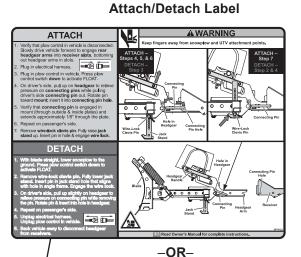
Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

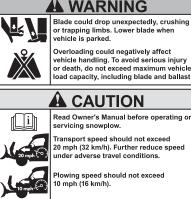
#### WARNING/CAUTION & INSTRUCTION LABELS

Become familiar with and inform users about the warning/caution and instruction labels on the back of the blade.

NOTE: If labels are missing or cannot be read, see your sales outlet.







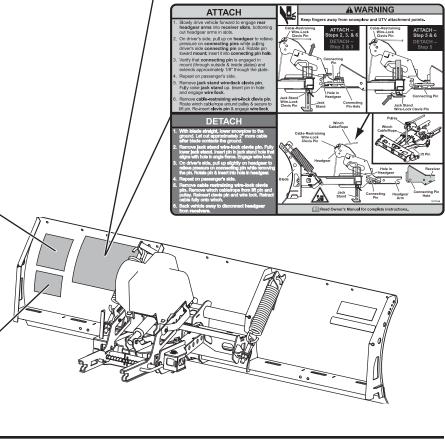
See your sales outlet/website for specific vehicle application recommendations.

#### Warning Label



W WK W

🗚 WARNING HIGH-PRESSURE FLUID HAZARD To prevent serious injury or death: Relieve pressure on hydraulic system before servicing or disconnecting. Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands. Keep all components in good repair.



### SAFETY PRECAUTIONS

Improper installation and operation could cause personal injury, and/or equipment and property damage. Read and understand labels and the vehicle owner's manual before installing, operating, or making adjustments.

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Lower the blade when vehicle is parked. Temperature changes could change hydraulic pressure, causing the blade to drop unexpectedly or damaging hydraulic components. Failure to do this could result in serious personal injury.

#### **A**WARNING

The driver shall keep bystanders clear of the blade when it is being raised, lowered, or angled. Do not stand between the vehicle and the blade or within 8 feet of a moving blade. A moving or falling blade could cause personal injury.

#### A WARNING

Keep hands and feet clear of the blade and A-frame when mounting or removing the snowplow. Moving or falling assemblies could cause personal injury.

#### A WARNING

Do not exceed GVWR, GAWR, or maximum vehicle load capacity, including the blade and ballast.

### A WARNING

To prevent accidental movement of the blade, always turn the control OFF whenever the snowplow is not in use. The power indicator light will turn OFF.

#### A WARNING

Remove blade assembly before placing vehicle on hoist.

#### **A** WARNING

Vehicle mount reduces ground clearance. Use additional caution when driving vehicle with mount installed. Remove vehicle mount to restore original vehicle ground clearance at the end of the plowing season.

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Refer to the online selection tool for minimum vehicle recommendations and ballast requirements.

### PERSONAL SAFETY

- Remove the ignition key and put the vehicle in PARK or in gear to prevent others from starting the vehicle during installation or service.
- Wear only snug-fitting clothing while working on your vehicle or snowplow.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt, and dust.
- Avoid touching hot surfaces such as the engine, radiator, hoses, and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

### FIRE AND EXPLOSION

#### **A** WARNING

Gasoline is highly flammable and gasoline vapor is explosive. Never smoke while working on vehicle. Keep all open flames away from gasoline tank and lines. Wipe up any spilled gasoline immediately.

Be careful when using gasoline. Do not use gasoline to clean parts. Store only in approved containers away from sources of heat or flame.

#### **CELL PHONES**

A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate mobile communication equipment such as cell phones, text messaging devices, pagers, or two-way radios.

#### VENTILATION

#### A WARNING

Vehicle exhaust contains lethal fumes. Breathing these fumes, even in low concentrations, can cause death. Never operate a vehicle in an enclosed area without venting exhaust to the outside.

#### NOISE

Airborne noise emission during use is below 95 dB(A) for the snowplow operator.

#### VIBRATION

Operating snowplow vibration does not exceed  $2.5 \text{ m/s}^2$  to the hand-arm or  $0.5 \text{ m/s}^2$  to the whole body.

#### **TORQUE CHART**

#### **A** CAUTION

Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to the torque chart. Use standard methods and practices when attaching snowplow, including proper personal protective safety equipment.

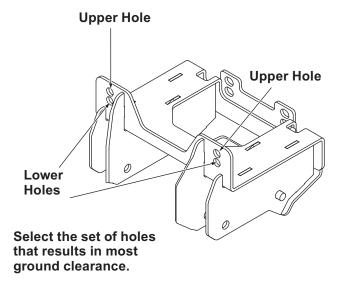
Recommended Fastener Torque Chart					
Inch Fasteners Grade 5 and Grade 8					
Size	Torque (ft-lb)			Torque (ft-lb)	
	Grade 5		Size	Grade 5	
1/4-20	8.4	11.9	9/16-12	109	154
1/4-28	9.7	13.7	9/16-18	121	171
5/16-18	17.4	24.6	5/8-11	150	212
5/16-24	19.2	27.3	5/8-18	170	240
3/8-16	30.8	43.6	3/4-10	269	376
3/8-24	35.0	49.4	3/4-16	297	420
7/16-14	49.4	69.8	7/8-9	429	606
7/16-20	55.2	77.9	7/8-14	474	669
1/2-13	75.3	106.4	1-8	644	909
1/2-20	85.0	120.0	1-12	704	995
Metric Fasteners Class 8.8 and 10.9					
Size	Torque (ft-lb)			Torque (ft-lb)	
	Class 8.8	Class 10.9	Size	Class 8.8	Class 10.9
M6 x 1.00	7.7	11.1	M20 x 2.50	325	450
M8 x 1.25	19.5	26.9	M22 x 2.50	428	613
M10 x 1.50	38.5	53.3	M24 x 3.00	562	778
M12 x 1.75	67	93	M27 x 3.00	796	1139
M14 x 2.00	107	148	M30 x 3.50	1117	1545
M16 x 2.00	167	231	M33 x 3.50	1468	2101
M18 x 2.50	222	318	M36 x 4.00	1952	2701
These torque values apply to fasteners except those noted in the instructions.					

#### INSTALLATION INSTRUCTIONS

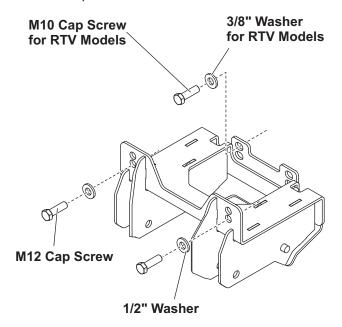
#### **RTV Models**

NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.

- 1. Remove the brush guard and any accessories mounted on the front of the vehicle. Retain the fasteners. (Front-mounted accessories should not be used while the snowplow is on the vehicle. Retain the accessories for reinstallation when the snowplow and mount are removed from the vehicle.)
- 2. Remove and retain the two innermost OEM fasteners attaching the vehicle skid plate to the frame.
- 3. Align the four holes in the front bumper with the set of holes in the mount that result in the most ground clearance. On some models it will not be possible to use the lower set of mount holes. Install the mount to the bumper using the supplied M12 cap screws and 1/2" washers.



#### 4. Install the rear edge of the mount to the skid plate using the supplied M10 cap screws and 3/8" washers. Insert the fasteners through the set of holes in the mount that align with the holes in the skid plate.



Tighten all fasteners according to the torque chart. 5.

NOTE: After five to ten hours of snowplow usage, retorque all mount assembly fasteners.

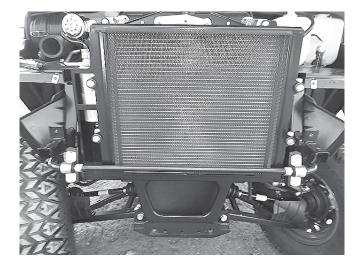
#### **RTV X-Series Models**

NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.

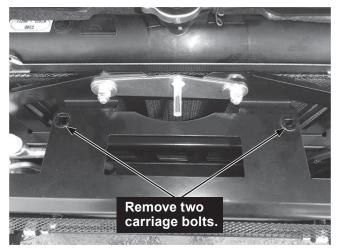
For models not equipped with secondary radiator, skip to Step 5.

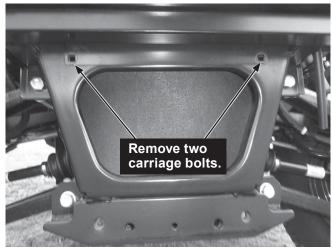
1. Remove the front brush guard and front plastic.



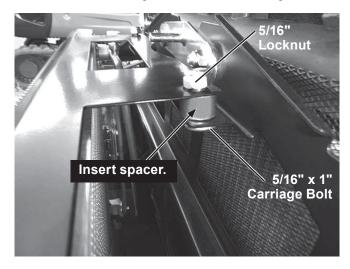


2. Remove the two carriage bolts that secure the top of the radiator frame. Remove the two carriage bolts that secure the bottom of the radiator frame.

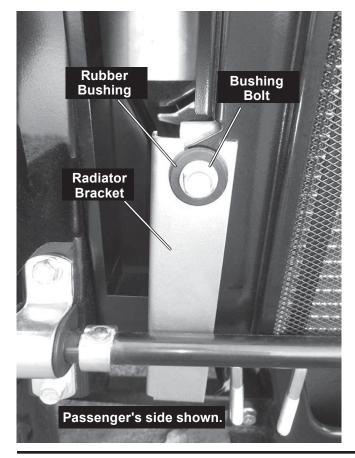




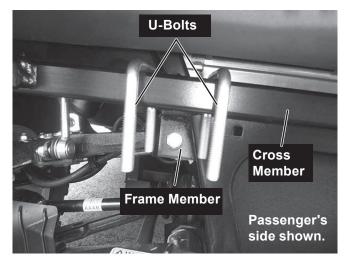
 Lift the radiator and install spacers under the top of the radiator frame, as shown below. Install 5/16" x 1" carriage bolts and secure with 5/16" locknuts. Tighten fasteners hand tight.



 Loosen the bolt that holds the lower rubber bushing to the radiator frame on both sides of the vehicle. Install the passenger-side and driver-side radiator brackets by pushing them onto the rubber bushings, as shown below. Tighten the bushing bolts.

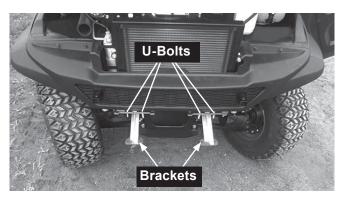


5. Starting on the passenger's side of the vehicle, install two U-bolts over the cross member found below the radiator. Position the U-bolts on either side of the frame member that runs fore and aft, as shown below.



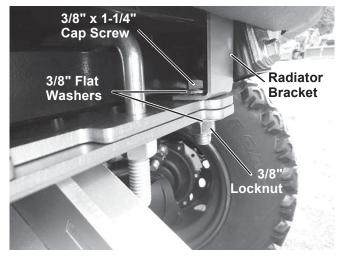
Repeat on driver's side.

 Install the brackets through the U-bolts as shown below. Secure each bracket with four 3/8" locknuts. Tighten the locknuts hand tight.

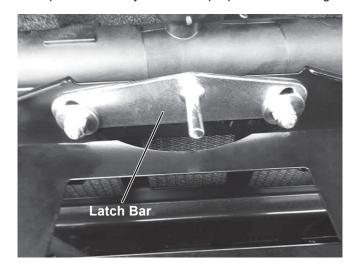


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 Fasten the passenger-side and driver-side radiator brackets (if installed in Step 4) to the top of the brackets installed in Step 6, using a 3/8" x 1-1/4" cap screw with a 3/8" flat washer on each one. Secure each cap screw with a second 3/8" flat washer and a 3/8" locknut. Tighten the fasteners hand tight.



 Reinstall the front plastic and brush guard if removed in Step 1. Make sure the brush guard is fully fastened to the vehicle. Check that the hood of the vehicle latches properly. Move the latch bar up as necessary to achieve proper hood latching.



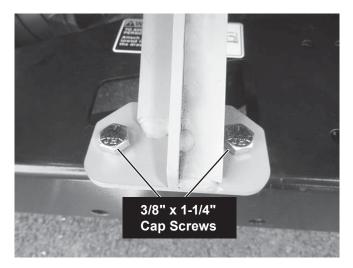
9. Mark the location of the four bottom holes of the brackets on the brush guard.



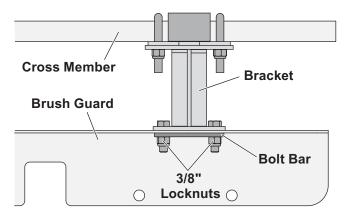
A CAUTION Use caution not to pinch, cut, or drill through any wires or hoses running along the frame rails.

- 10. Remove the brush guard. Drill four 13/32" holes in the locations marked in Step 9.
- 11. Reinstall the brush guard.

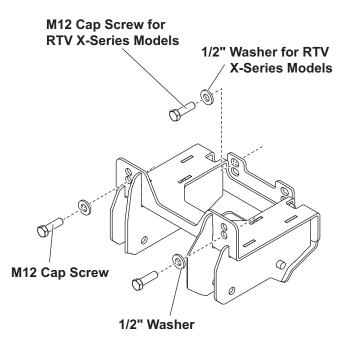
12. Insert a 3/8" x 1-1/4" cap screw through each of the holes drilled in Step 10.



Place a bolt bar through the cap screws on the inside of the brush guard and secure with two 3/8" locknuts. Tighten hand tight.



- 13. Tighten all bracket fasteners according the torque chart.
- 14. Remove and retain the two innermost OEM fasteners attaching the vehicle skid plate to the frame.
- 15. Align the two lower holes in the front edge of the mount with the holes in the vehicle bumper and frame. Install the mount to the bumper using the supplied M12 cap screws and 1/2" washers.
- 16. Install the rear edge of the mount to the skid plate using the supplied M12 cap screws and 1/2" washers. Insert the fasteners through the set of holes in the mount that align with the holes in the skid plate.



17. Tighten all fasteners according to the torque chart.

NOTE: After five to ten hours of snowplow usage, retorque all mount assembly fasteners.

The company reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. This equipment manufacturer or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. The company offers a limited warranty for all snowplows and accessories. See separately printed page for this important information.

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