October 1, 2019 Lit. No. 41376, Rev. 08

# **33884** MOUNT KIT

Dodge Ram 2500/3500 (all) Dodge Ram 2500/3500 (gasoline only)

2010–12 2013–18

**Installation Instructions** 

#### 

Read this document before installing the snowplow.

#### **A**CAUTION

See your sales outlet/website for specific vehicle application recommendations before installation. The online selection system 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.

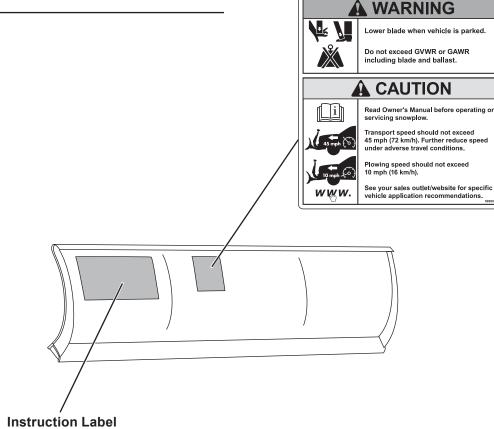
NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

## WARNING/CAUTION AND 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.

#### Warning/Caution Label



## SAFETY PRECAUTIONS

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

#### 

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.

#### **WARNING**

Do not exceed GVWR or GAWR including the blade and ballast. The rating label is found on the driver-side vehicle door cornerpost.

#### 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.

## 

Remove blade assembly before placing vehicle on hoist.

## 

Refer to the online selection system 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.

3

#### NOISE

Airborne noise emission during use is below 70 dB(A) for the snowplow operator.

#### VIBRATION

Operating snowplow vibration does not exceed 2.5 m/s<sup>2</sup> to the hand-arm or 0.5 m/s<sup>2</sup> 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.

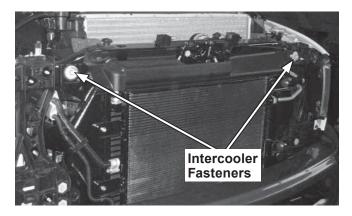
Recommended Fastener Torque Chart					
Inch Fasteners Grade 5 and Grade 8					
Size	Torque (ft-lb)			Torque (ft-lb)	
	Grade 5		Size	Grade 5	
1/4-20	8.4	11.9	9/16-12	109	154
1/4-28	9.7	13.7	9/16-18	121	171
5/16-18	17.4	24.6	5/8-11	150	212
5/16-24	19.2	27.3	5/8-18	170	240
3/8-16	30.8	43.6	3/4-10	269	376
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

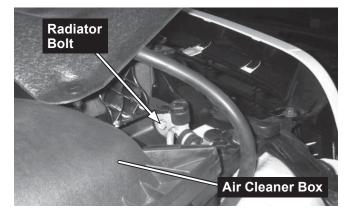
NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.

- 1. Remove the bumper from the bumper brackets. Retain the fasteners.
- 2. Remove the bumper brackets from the frame. Retain the fasteners.

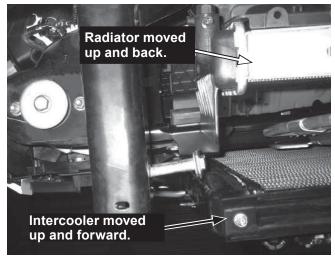
**On Diesel applications,** you must first remove the top two intercooler fasteners, then push the intercooler up and out to provide clearance for removing the bumper bracket bolt assembly.



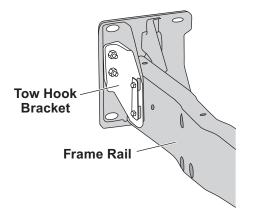
**On model year 2011 and later vehicles,** the radiator may need to be moved rearward to allow removal of the bumper bracket bolt. This is due to an added plastic and foam air-management structure on these vehicles. To move the radiator, remove the upper radiator bolts. The air cleaner box may have to be removed to access the passenger-side radiator bolt.



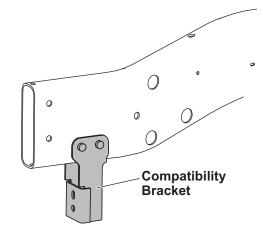
From underneath the truck, gently push the radiator up to clear the hooks that secure its lower section and move it rearward.



Vehicles equipped with tow hooks will need the tow hooks and tow hook brackets removed. These cannot be reinstalled with the snowplow mount in place. Retain the tow hooks, brackets, and fasteners for reinstallation if the mount is removed.



3. Remove the compatibility brackets from the frame, if so equipped (see illustration below). Save the brackets and hardware for the vehicle owner.

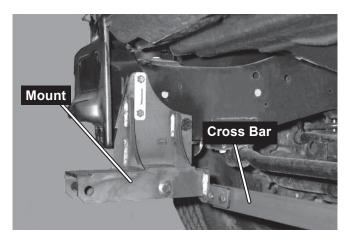


4. Install the mount by holding the front portion of the mount in place and securing with the previously removed bumper bracket bolt assembly.

**On vehicles with compatibility brackets,** use the 5/8" x 4-1/2" cap screw and 5/8" locknut, and insert into the rear of the mount. Hand tighten the fastener.

The 1/2" x 1-1/2" cap screws with handles are **not** used for this application.

Continue to Step 5.



**On vehicles without compatibility brackets,** clamp the rear portion of the mount into position on the truck frame, making sure that the mount is tight against the bottom of the frame.

## 

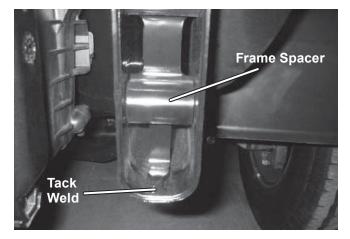
Before drilling any holes, check both sides of the material for any wires, fuel lines, fuel tanks, etc., that may be damaged by drilling.

Using the 11/16" diameter holes in the mounts as guides, drill an 11/16" diameter hole through the inner wall of the frame rail. On some models, including Diesels, access to the inner frame rail will be blocked. For these instances, use the hole in the outer tab of the mount as a guide to drill through the outer wall of the frame, then proceed through the inner wall.



Use the hole in the bottom rear of the mount as a guide to drill a 17/32" hole through the bottom of the frame rail.

Pull up and forward on the bottom tab of the frame spacer, creating enough room to install the 1/2" x 1-1/2" cap screws with handles. On some vehicle model years, the frame spacer is tack welded in position. This tack weld will need to be removed or broken to allow the tab to pull up out of its slot in the frame.



Insert one 1/2" x 1-1/2" cap screw with handle past the opening in the front frame spacer and into the truck frame. (Do not put a washer on this cap screw.) Fasten with a 1/2" locknut. Bend or trim cap screw handles after installation to avoid interference with vehicle components.

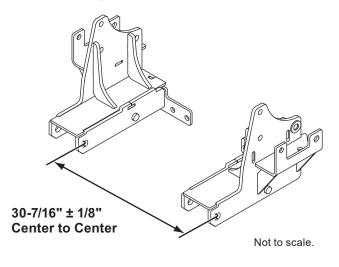
Insert a 5/8" nut with handle through the frame opening and align with the drilled hole in the inner frame wall. Insert the 5/8" x 1-3/4" cap screw through the drilled hole and thread it into the nut with handle. Hand tighten the fasteners.

Place the frame spacer back into its original position.

NOTE: Do not use the 5/8" x 4-1/2" cap screw for this application. Using this long fastener will crush the truck frame when torqued.

- 5. Install other mount as described in Steps 1–4.
- Install the cross bar using four 1/2" x 1-1/2" cap screws and four 1/2" locknuts. Hand tighten the fasteners.

Measure the distance between the U-brackets. The distance should be  $30-7/16" \pm 1/8"$  from center to center. Take a second measurement farther back on the mount to ensure that the mounts are parallel.



7. Remove or notch the air dam to allow sufficient clearance for the mounts and mounting of the blade assembly.



- 8. Remove the bolt assembly from the front of the mount. Reattach the bumper brackets using the bolt assembly. Make sure to install the assembly from the inside of the frame. Verify that the bumper brackets are between the frame and the mount tabs.
- 9. Reattach the bumper to the bumper brackets using existing hardware.
- 10. 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.

#### Printed in U.S.A.