September 15, 2015 Lit. No. 41924, Rev. 01

2007 - ___

2014 - ___

31599-1 MOUNT KIT

GM K1500 Silv/Sierra

All New

Installation Instructions

A CAUTION

Read this document before installing the snowplow.

See your sales outlet/Web site for specific vehicle application recommendations before installation. The Selection List/Undercarriage Selection Guide has specific vehicle and snowplow requirements.

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.

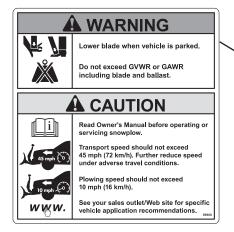
NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

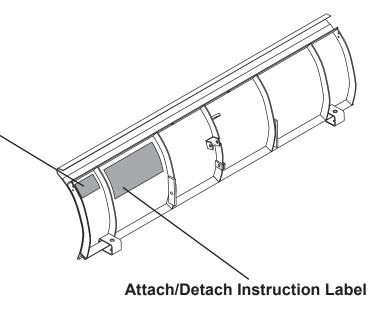
WARNING/CAUTION & INSTRUCTION LABELS

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

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

Warning and 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 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 can 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.

Do not exceed GVWR or GAWR including 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 Selection List/Undercarriage Selection Guide for minimum vehicle recommendations and ballast requirements.

PERSONAL SAFETY

- Remove 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 a vehicle. Keep all open flames away from gasoline tanks 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 70 dB(A) for the snowplow operator.

VIBRATION

Operating snowplow vibration does not exceed 2.5 m/s2 to the hand-arm or 0.5 m/s2 to the whole body.

TORQUE CHART

ACAUTION

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 (ft-lb)			
Size	Torque		
	Grade 2	Grade 5	Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	150	378	591
1-8	220	583	893
Metric Grade 8.8 (ft-lb)			
Size	Torque	Size	Torque
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155
These torque values apply to fasteners except those noted in the instruction.			

INSTALLATION INSTRUCTIONS

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

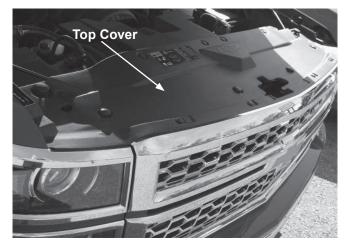
Bumper Removal Instructions

On 2013 and older truck models only:

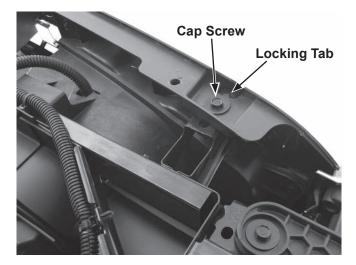
- 1. Remove the air dam from the lower plastic portion of the bumper. Retain air dam and fasteners for future use.
- 2. Remove the lower plastic portion of the bumper from the vehicle. Retain fasteners.
- 3. Continue to Mount Installation Instructions on page 7.

On 2014 and newer truck models only:

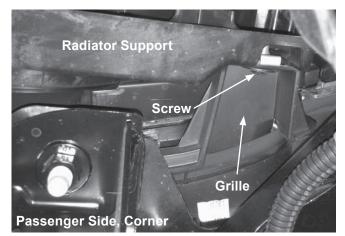
1. Remove plastic top cover (shown below) from the front of the engine compartment.

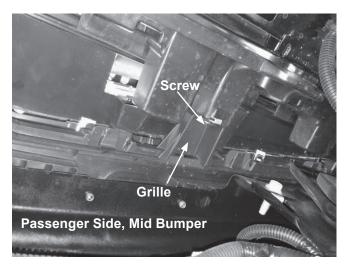


2. Remove the four cap screws and release the locking tabs located along the top of the grille.



3. Remove the four screws attaching the grille to the radiator support.





4. Remove the two bumper cover screws located on the inside of each front wheel well. If the vehicle is equipped with fender trim, it will need to be displaced in order to access the screws.



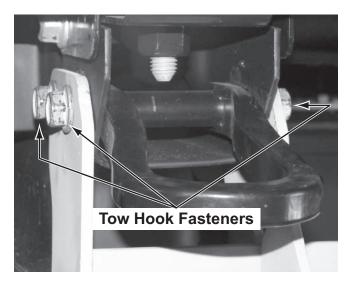
5. Release the hidden locking tabs on each side of the vehicle and pull the bumper cover outward.



- 6. Pull the bumper cover assembly forward to disengage grille tabs and remove the grille.
- 7. Remove the four main bumper fasteners and the single fastener securing the bumper ends to the outer bumper supports. Remove the bumper.

Mount Installation Instructions

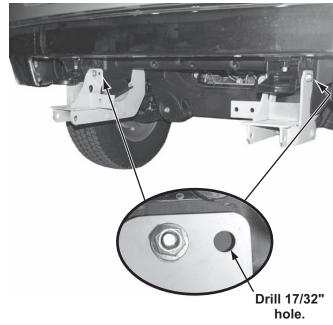
- 1. Remove the splash shield. Retain fasteners.
- 2. On the passenger's side of the vehicle, remove and retain the tow hook fasteners for reinstallation in the following step.



- 3. Attach the passenger-side mount and tow hook to the truck frame using the original tow hook fasteners. Hand tighten.
- 4. Push the passenger-side mount tight against the bottom of the frame, and clamp it into place.

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

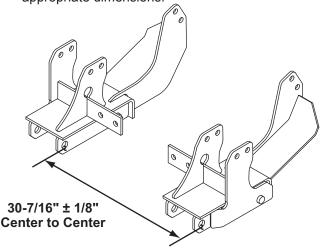
5. Using the front hole in the passenger-side mount as a guide, drill a 17/32" hole into the truck frame.



6. Using the rear holes in the passenger-side mount as a guide, drill two 17/32" holes into the truck frame.



- Insert two 1/2" x 1-1/2" cap screws with handles and 1/2" flat washers into the inside of the truck frame and out through the rear drilled holes. Attach a 1/2" locknut to each cap screw and hand tighten.
- 8. Completely remove the passenger-side tow hook. Retain fasteners for reinstallation in Step 12.
- 9. Insert one 1/2" x 1-1/2" cap screw or 1/2" x 1-1/2" cap screw with handle and 1/2" flat washer into the front of the truck frame and out through the front drilled hole. Attach a 1/2" locknut, and hand tighten.
- 10. Reinstall the passenger-side tow hook using the original fasteners, and hand tighten. Remove the clamp from the mount.
- 11. Repeat Steps 4–12 on the driver's side of the vehicle.
- 12. Install the cross bar using four 1/2" x 1-1/2" cap screws and 1/2" locknuts. Hand tighten fasteners.
- 13. Make sure that the mounts are tight against the truck frame. Then, fully tighten the fasteners securing the mounts and tow hooks, followed by the fasteners securing the cross bar, according to the torque chart.
- 14. Check for a U-bracket distance of 30-7/16" ± 1/8". Take a second measurement farther back on the mounts to ensure that they are parallel. If the U-bracket distance is not within 30-7/16" ± 1/8", then 1/2" flat washers may be used to shim one or both mounts in the appropriate direction to obtain the desired dimension. Tighten all fasteners according to the torque chart after achieving the appropriate dimensions.

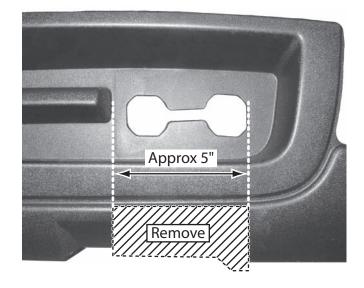


15. Reattach the splash shield using the original fasteners.

Bumper Notch Instructions

On 2013 and older truck models only:

1. If the lower plastic portion of the bumper does not clear the U-brackets, remove or notch as needed.



2. Reattach the lower plastic portion of the bumper using the original fasteners.

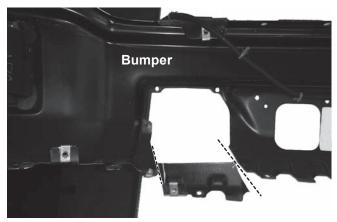
NOTE: After five to ten hours of snowplow usage, retorque all mount assembly fasteners.

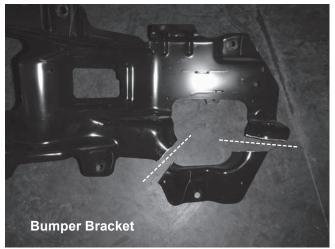
On 2014 and newer truck models only:

Remove the bumper brackets and bumper filler from the main bumper assembly. Depending on your vehicle make, notch each side of the bumper, bumper bracket, and bumper filler according to the cut lines as shown.

All depictions are of driver-side bumper parts, except where noted.

GMC Vehicles:





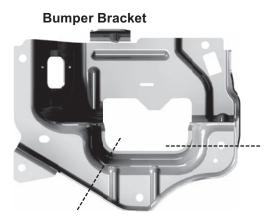
Bumper Filler



Chevy Vehicles:

Bumper





Bumper Filler



Passenger's Side

Reassemble and resinstall the bumper using the original fasteners.

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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