

SNO-WAY®

SNOW & ICE CONTROL EQUIPMENT

ASSEMBLY & INSTALLATION INSTRUCTIONS

**VEHICLE MOUNT KIT 99101000
USING
VEHICLE CENTER MEMBER 99100890**

**TO FIT
2009- DODGE 1500 PICKUP 4x4**

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1. **THINK SAFETY, ALWAYS WEAR SAFETY GLASSES WHEN PERFORMING THE OPERATIONS PRESCRIBED IN THESE INSTRUCTIONS**
2. **READ ALL INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION**
3. **BEFORE BEGINNING WORK MAKE SURE TO SET PARKING BRAKE AND CHOCK WHEELS**



MINIMUM VEHICLE RECOMMENDATIONS

Heavy Duty Alternator

Heavy Duty Battery

NOTE: On some vehicles it may be necessary to use a form of load booster to decrease the vehicle's front suspension sag with the snow plow in place. This can be accomplished with the use of supplementary air bags, booster springs, or similar load boosting devices. Since there are different load boosting devices available, it will up to the customer/end user to decide and purchase the product to suit the application, and not the responsibility of Sno-Way International, Inc.

ASSEMBLY TOOLS NEEDED

Drill Bits	1/4", 17/32"
Impact Sockets	7/16" – 1-3/8"
Metric Sockets	10 mm – 18 mm
Wrenches	7/16" – 1-3/8"
Metric Wrenches	10 mm – 18 mm
Torque Wrench	
Rat Tail Pry Bar	
Center Punch and Hammer	
Rubber Bands	

INSTALLATION NOTES

1. **Unless otherwise specified, mount all Vehicle Mount Kit Components to vehicle before tightening any hardware.**
2. **It is recommended that LOCTITE®, or similar thread locking product, be used on ALL mounting hardware (i.e. Nuts, Cap Screws, Bolts, etc.).**
3. Vehicle should be parked on a level surface with a normal vehicle load on the FRONT suspension.
4. Items in parentheses () refer to quantity required for this step. Items in parentheses with a pound sign (#) indicate the part number as found in the parts list on the last page of this document.
Example: (2) 1/2"-13 x 1-1/2" Cap Screws (#8).
5. It may be necessary to relocate license plate holder. Check state and local laws for placement, if needed.

Bolts (#6), (3) 1/2" Flat Washers (#11) and (3) 1/2"-13 Nylock Nuts (#10). Between the frame rail and the upper bumper bolt location is a gap- insert (1) 1/2" Flat Washer (#11) to fill the gap.

NOTE: GREAT TIP: Use a rubber band to keep the washer from falling off when inserting into the frame.

2b. 2013 Model Year and Later:

Install Weldment, Front, LH (#2) (driver's side) to the inside of the vehicle frame rail, align the front holes in the Weldment, Front, LH with the existing holes used to attach the bumper to the frame rail. (the top hole/slot of the frame rail may need to be enlarged to fit the hardware) Secure loosely using the existing bumper hardware. Next, using the remaining holes in the Weldment, Front, LH as a template (one in the side of the frame- two on the bottom of the frame) center punch and drill a 1/4" pilot hole, and then drill to 17/32" through just the one wall of the frame rail. Secure loosely using (3) Handle Bolts (#6), (3) 1/2" Flat Washers (#11) and (3) 1/2"-13 Nylock Nuts (#10). Between the frame rail and the upper bumper bolt location is a gap- insert (1) 1/2" Flat Washer (#11) to fill the gap.

NOTE: GREAT TIP: Use a rubber band to keep the washer from falling off when inserting into the frame.

MOUNTING INSTRUCTIONS

1. Remove bumper and retain hardware for reinstallation in a later step. Next, remove the tow hooks and retain with hardware, for use if vehicle mount kit is ever removed.

NOTE: Prior to notching the fascia (if needed), use the exploded view on the last page to orient the Front Weldments (LH & RH) - (#2 & #3).

2a. 2012 Model Year and Earlier:

Install Weldment, Front, LH (#2) (driver's side) to the inside of the vehicle frame rail, align the front holes in the Weldment, Front, LH with the existing holes used to attach the bumper to the frame rail. Secure loosely using the existing bumper hardware. Next, using the remaining holes in the Weldment, Front, LH as a template (one in the side of the frame- two on the bottom of the frame) center punch and drill a 1/4" pilot hole, and then drill to 17/32" through just the one wall of the frame rail. Secure loosely using (3) Handle

3. Repeat Step #2 to install (1) Weldment, Front, RH (#3) (passenger's side).

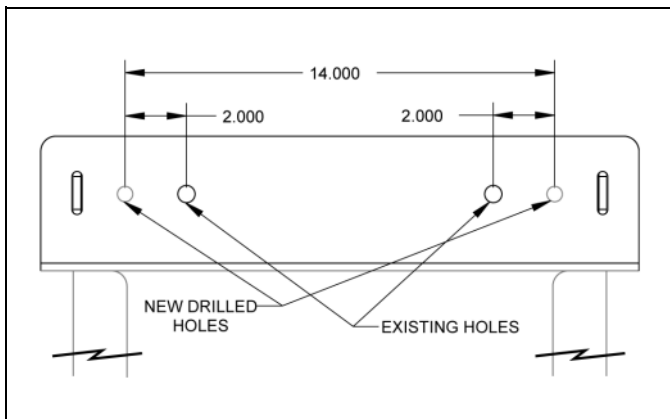
4. Install (1) Vehicle Center Member (#1), secure to the Weldment, Front, LH and RH (#2 & #3) using (8-4 per side) 1/2"-13 x 1 1/2" Cap Screws (#7), (2) 1/2" Lock Washers (#8) in the threaded holes and (6) 1/2"-13 Nylock Nuts (#9).

5a. 2012 Model Year and Earlier:

Install (1) Rear Crossmember Weldment (#4) by aligning the holes in the Rear Crossmember Weldment with the corresponding rear holes in the Vehicle Center Member, ensuring that the 90 degree piece on the Rear Crossmember Weldment is flush against the vehicle crossmember on both the horizontal and vertical surfaces. If needed clamp the crossmember in place until the holes that need to be drilled are drilled. Use the (2) holes in the Rear Crossmember Weldment on the horizontal surface as a template and drill 1/4" pilot holes, and then drill to 17/32", through the vehicle crossmember bottom wall. Next attach the Rear Crossmember Weldment to the vehicle frame by inserting (2) Handle Bolts (#6) and (2) 1/2" Flat Washers (wide) (#10) into the frame crossmember and securing with (2) 1/2" Flat Washers (wide) (#10) and (2) 1/2"-13 Nylock Nuts (#9). Finally secure the Rear Crossmember Weldment to the Vehicle Center Member by inserting (2-1 per side) Spacer Plates (#5) between the Vehicle Center Member and the Rear Crossmember Weldment. Secure using (6- 3 per side) 1/2"-13 x 1 1/2" Cap Screws (#7) and (6- 3 per side) 1/2"-13 Nylock Nuts (#9).

5b. 2013 Model Year and Later:

Modification of the Rear Crossmember Weldment (#4) will be needed. Drill a hole to the outside of each existing hole, 2" from the center. Drill 1/4" pilot holes, and then drill to 17/32" (See below picture).

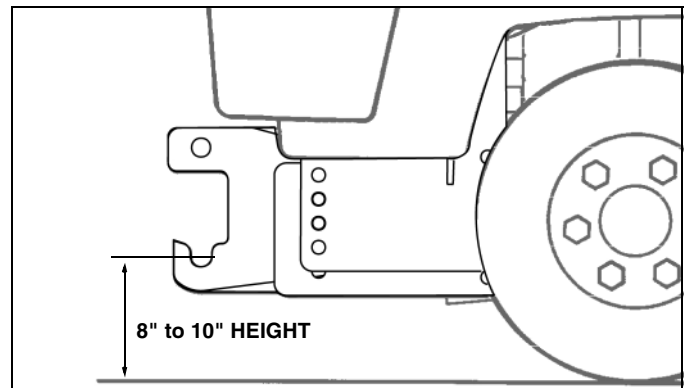


5c. 2013 Model Year and Later:

Install (1) Rear Crossmember Weldment (#4) by aligning the holes in the Rear Crossmember Weldment with the corresponding rear holes in the Vehicle Center Member, ensuring that the 90 degree piece on the Rear Crossmember Weldment is flush against the vehicle crossmember on both the horizontal and vertical surfaces. If needed, clamp the crossmember in place until the holes that need to be drilled are drilled. Use the (2) just drilled holes (that are 14" apart) in the Rear Crossmember Weldment on the horizontal surface as a template and drill 1/4" pilot holes, and then drill to 17/32", through the vehicle crossmember bottom wall. Next attach the Rear Crossmember Weldment to the vehicle frame by inserting (2) Handle Bolts (#6) and (2) 1/2" Flat Washers (wide) (#10) into the frame crossmember

and securing with (2) 1/2" Flat Washers (wide) (#10) and (2) 1/2"-13 Nylock Nuts (#9). Finally secure the Rear Crossmember Weldment to the Vehicle Center Member by inserting (2-1 per side) Spacer Plates (#5) between the Vehicle Center Member and the Rear Crossmember Weldment. Secure using (6- 3 per side) 1/2"-13 x 1 1/2" Cap Screws (#7) and (6- 3 per side) 1/2"-13 Nylock Nuts (#9).

IMPORTANT: Height from the center of the lower Plow mounting holes on the Vehicle Mount Kit to the ground should be between 8" and 10" to ensure proper operation.



6. Using the torque specification chart provided, torque all cap screws.

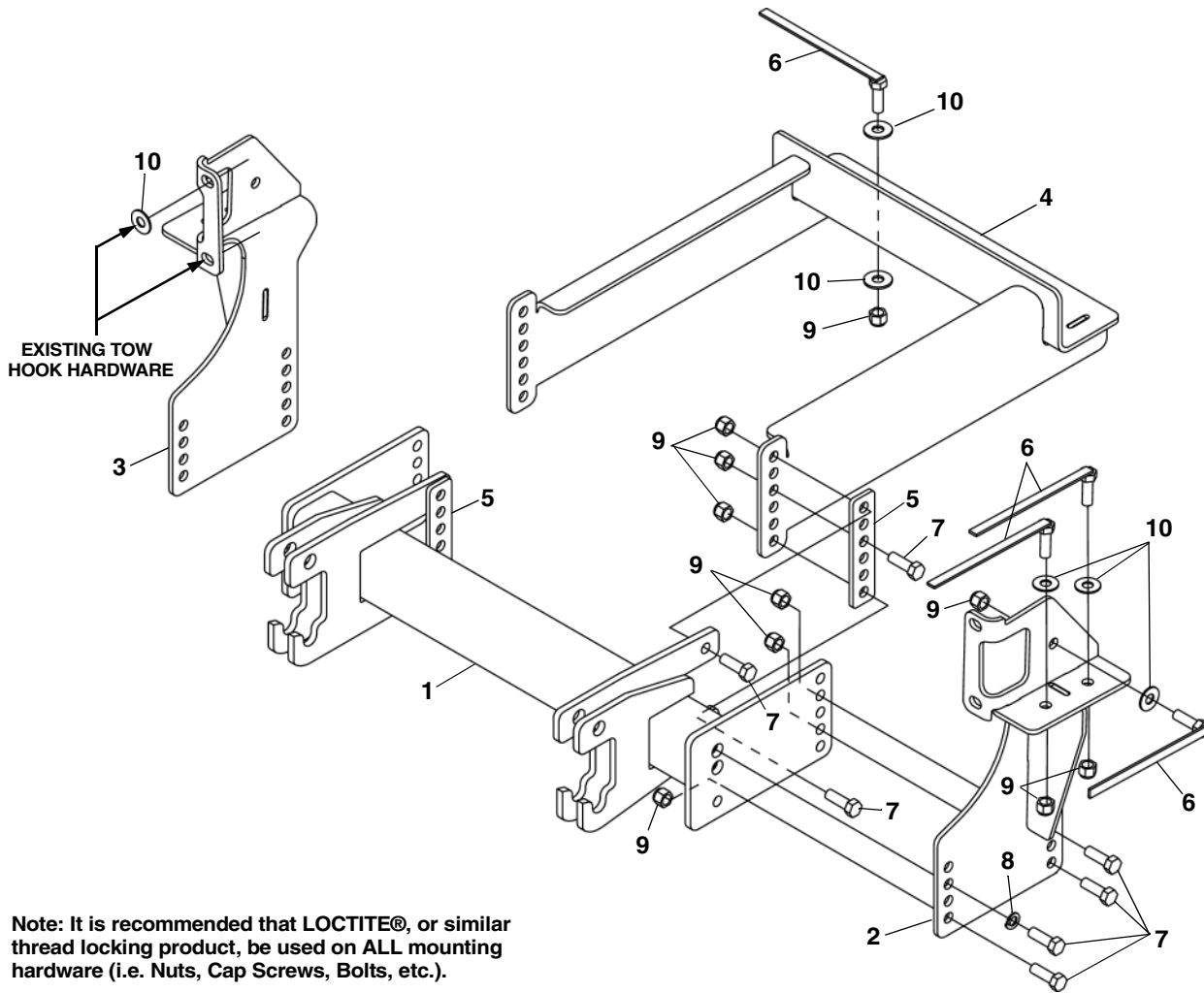
TORQUE SPECIFICATIONS FOR STANDARD MACHINE HARDWARE					
Bolt Size	GR.2 Dry	GR.5 Dry	GR.8 Dry	Metric Size	GR.8.8 Dry
1/4"	66*	9	12	M8	17
5/16"	11	17	25	M10	35
3/8"	20	30	45	M12	60
7/16"	32	50	70	M14	95
1/2"	50	75	110	M16	155
9/16"	70	110	150		
5/8"	100	150	220		
3/4"	175	260	380		
7/8"	170	430	600		
1"	250	640	900		

Note: These torque values are to be used for all hardware. Unless otherwise specified, all torque values must meet this specification.
 Note: All torque values are in Ft.-Lbs unless otherwise stated
 Note: *In-Lbs

REMEMBER After 5 to 10 hours of snowplow usage, re-torque all Cap Screws!

7. Reinstall bumper and all other items previously removed that can be reattached.

PARTS LIST



ITEM	PART NO.	DESCRIPTION	QTY.
1	99100890	Vehicle Center Member	1
2		Weldment, Front, LH.....	1
3		Weldment, Front, RH	1
4		Weldment, Rear Crossmember.....	1
5		Spacer Plate.....	2
6		Handle Bolt, ½"-13 x 1 ½" x 8".....	8
7		HHCS, ½"-13 x 1 ½" Gr. 8, ZP/DT	14
8		LW, ½", Heavy Split, ZP/DT	2
9		LN, ½"-13, Nylon Insert, ZP/DT	22
10		PW, ½", A Wide, Hardened, ZP/DT	12
11	96112950	Kit, HDWE (Includes Items 7-11) (Not Shown)	1

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