

# **SNO-WAY**®

**SNOW & ICE CONTROL EQUIPMENT**

## **ASSEMBLY & INSTALLATION INSTRUCTIONS**

**VEHICLE MOUNT KIT 99101215  
USING  
VEHICLE CENTER MEMBER 99100890**

**TO FIT  
2009-2018 DODGE RAM 1500 PICKUP 4X4  
&  
2019 DODGE RAM 1500 PICKUP 4X4 (OLD BODY STYLE)**

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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.

3. Install Side Weldment, DS (#2) to the inside of the driver side vehicle frame rail. Align the two holes pointed out in figure 2 on item (#2) with the Tow Hook hole and side hole in the truck frame. (See Figure 2)

## MOUNTING INSTRUCTIONS

1. Disconnect fog lights (if equipped) and remove the lower valance and bumper.
2. Remove tow hooks and cross bar (if equipped) and retain with hardware for reinstallation if vehicle mount is ever removed. (See Figure 1)

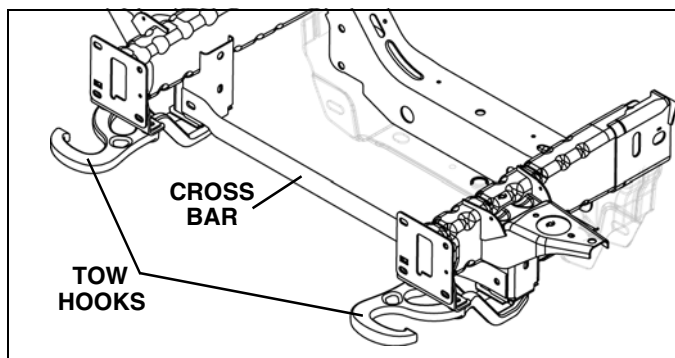


Figure 1

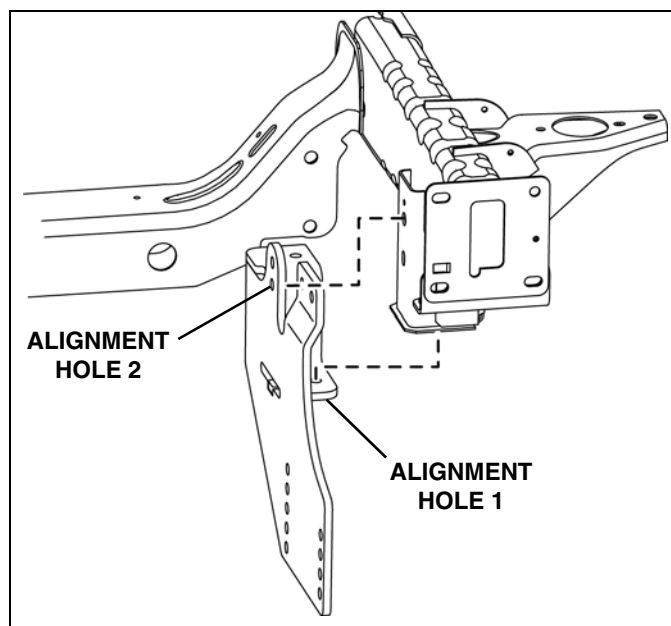
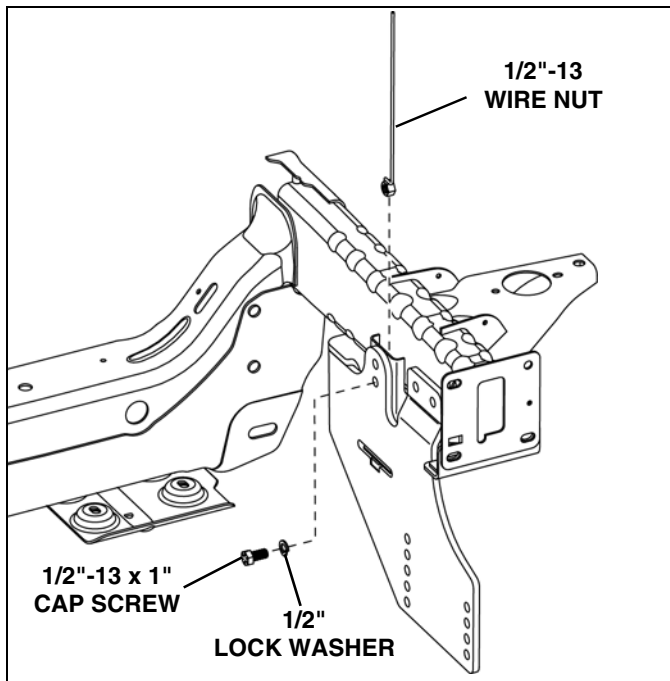


Figure 2

4. Using item (#2) as a template, mark the location of the remaining 3 holes (2 in the front side of the frame and 1 in the bottom rear of the frame) with a center punch. Remove the weldment, drill a pilot hole and then a 17/32" dia. hole through the outer wall of the frame.
5. Place item (#2) back onto the frame and secure as follows:
  - a. Insert (1) M12-1.50 x 30mm Cap Screw (#10) through (1) 1/2" Lock Washer (#9), and the lower hole of the Weldment, Side, DS (#2). Then, thread into the lower Tow Hook hole.

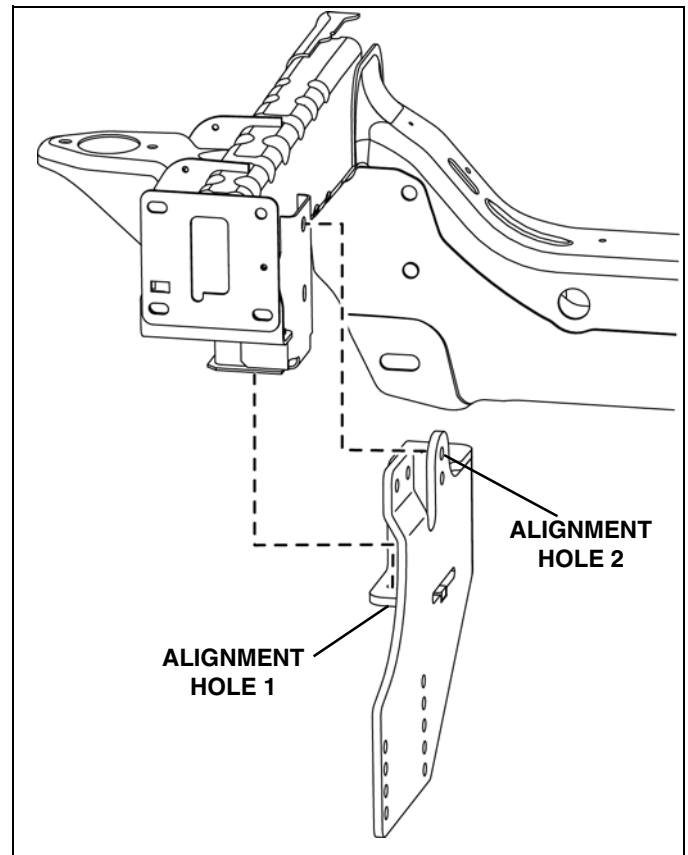
- b. Insert (1) Wire Nut, 1/2"-13 (#5) into the vertical square bracket on the truck frame from the top. Then, insert (1) 1/2"-13 x 1.00" Cap Screw (#11) through (1) 1/2" Lock Washer (#9), then the lower side hole of item (#2) and secure to item (#5). (See Figure 3)



**Figure 3**

- c. Place (1) 1/2" Plain Washer (#8) over the threads of (1) 1/2"-13 x 1-1/2" Handle Bolt (#7). Secure the washer against the head of the bolt using a rubber band tightly wound around the bolt up against the washer. This will prevent the washer from falling off the bolt as it is inserted into the truck frame. Insert items (#6 & 8) into the truck frame, through the front drilled hole in the side of the frame, and item (#2). Secure loosely using (1) 1/2"-13 Nylock Nut (#6).
- d. Repeat Step 5c, but instead of the front hole, insert through the hole directly next to it.
- e. Place (1) 1/2" Plain Washer (#8) over the threads of (1) 1/2"-13 x 1-1/2" Handle Bolt (#7). Secure the washer against the head of the bolt using a rubber band tightly wound around the bolt up against the washer. This will prevent the washer from falling off the bolt as it is inserted into the truck frame. Insert items (#7 & 8) into the truck frame, through the rear drilled hole in the bottom of the frame, and item (#2). Secure loosely using (1) 1/2" Plain Washer (#8) and (1) 1/2"-13 Nylock Nut (#6).

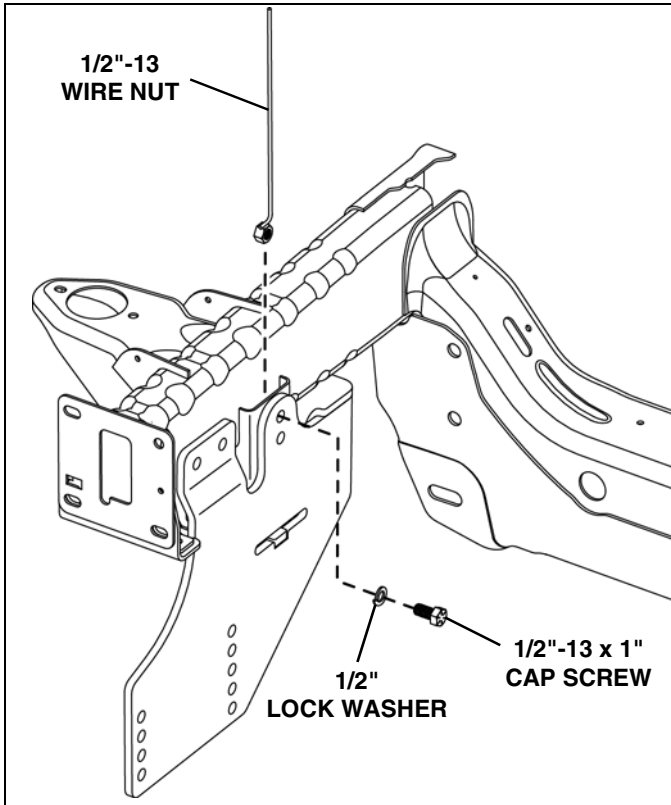
6. Install Side Weldment, PS (#3) to the inside of the driver side vehicle frame rail. Align the two holes pointed out in figure 3 on item (#3) with the Tow Hook hole and side hole in the truck frame. (See Figure 4)



**Figure 4**

7. Using item (#3) as a template, mark the location of the remaining 3 holes (2 in the front side of the frame and 1 in the bottom rear of the frame) with a center punch. Remove the weldment, drill a pilot hole and then a 17/32" dia. hole through the outer wall of the frame.
8. Place item (#3) back onto the frame and secure as follows:
- a. Insert (1) M12-1.50 x 30mm Cap Screw (#10) through (1) 1/2" Lock Washer (#9), and the lower hole of the Weldment, Side, PS (#3). Then, thread into the lower Tow Hook hole.

- b. Insert (1) Wire Nut, 1/2"-13 (#5) into the vertical square bracket on the truck frame from the top. Then, insert (1) 1/2"-13 x 1.00" Cap Screw (#11) through (1) 1/2" Lock Washer (#9), then the top side hole of item (#3) and secure to item (#5). (See Figure 5)

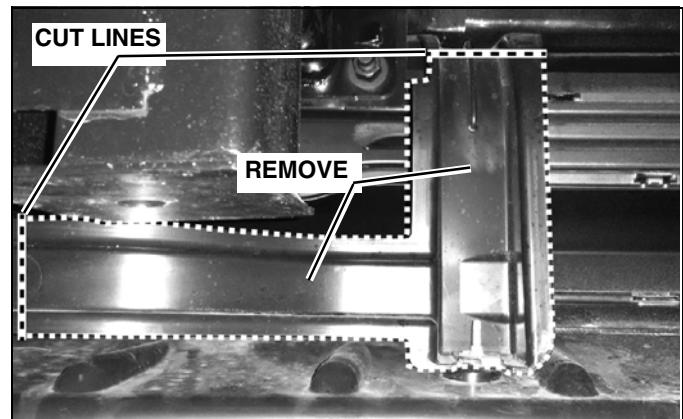


**Figure 5**

- c. Place (1) 1/2" Plain Washer (#8) over the threads of (1) 1/2"-13 x 1-1/2" Handle Bolt (#7). Secure the washer against the head of the bolt using a rubber band tightly wound around the bolt up against the washer. This will prevent the washer from falling off the bolt as it is inserted into the truck frame. Insert items (#6 & 8) into the truck frame, through the front drilled hole in the side of the frame, and item (#3). Secure loosely using (1) 1/2"-13 Nylock Nut (#6).
- d. Repeat Step 8c, but instead of the front hole, insert through the hole directly next to it.

- e. Place (1) 1/2" Plain Washer (#8) over the threads of (1) 1/2"-13 x 1-1/2" Handle Bolt (#7). Secure the washer against the head of the bolt using a rubber band tightly wound around the bolt up against the washer. This will prevent the washer from falling off the bolt as it is inserted into the truck frame. Insert items (#7 & 8) into the truck frame, through the rear drilled hole in the bottom of the frame, and item (#3). Secure loosely using (1) 1/2" Plain Washer (#8) and (1) 1/2"-13 Nylock Nut (#6).

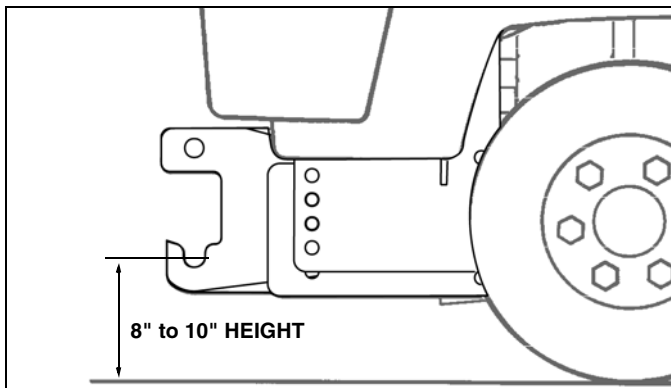
9. Attach the Vehicle Center Member (#1) to the Side Weldments, DS (#2) and PS (#3). Insert (4) Spacers (#4), 2 per side, as shown on the Part List. Secure using (8) 1/2"-13 x 2" Cap Screws (#12), (2) 1/2" Lock Washers (#9) in the threaded holes and (6) 1/2" Nylock Nuts (#6).
10. With all the components now in place, tighten all hardware. Using the Torque Specification Chart provided, torque all Cap Screws.
11. Reinstall the bumper. If the bumper has extra mount points for supporting the lower valance as seen in Figure 6, cut and remove where specified to prevent interference with the Vehicle Mount Kit first.



**Figure 6**

12. Reconnect the fog lamp harness connectors if so equipped.

**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. (See Figure 7)**



**Figure 7**

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

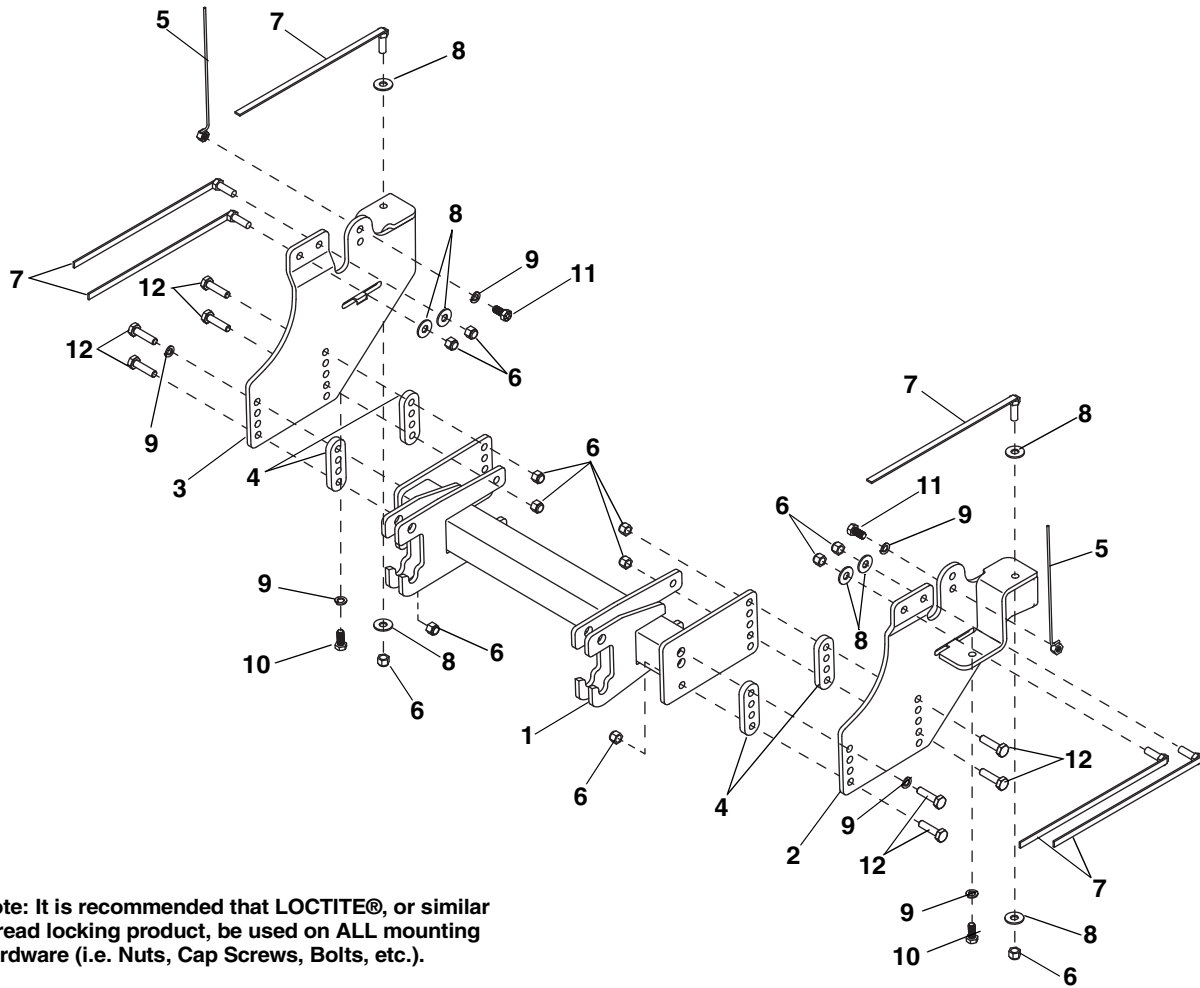
TORQUE SPECIFICATIONS FOR STANDARD MACHINE HARDWARE					
Bolt Size	GR.2 Dry	GR.5 Dry	GR.8 Dry	Metric Size	GR.8.8 Dry
1/4"	66*	9	12	M8	17
5/16"	11	17	25	M10	35
3/8"	20	30	45	M12	60
7/16"	32	50	70	M14	95
1/2"	50	75	110	M16	155
9/16"	70	110	150		
5/8"	100	150	220		
3/4"	175	260	380		
7/8"	170	430	600		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

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

# PARTS LIST



Note: It is recommended that LOCTITE®, or similar thread locking product, be used on ALL mounting hardware (i.e. Nuts, Cap Screws, Bolts, etc.).

ITEM	PART NO.	DESCRIPTION	QTY.
1	99100890	Vehicle Center Member .....	1
2		Weldment, Side, DS.....	1
3		Weldment, Side, PS.....	1
4		Spacer, VCM, 1/2" .....	4
5		Wire Nut, 1/2"-13 x 1-1/2" x 8" .....	2
6		LN, 1/2"-13.....	12
7		Handle Bolt, 1/2"-13 x 1-1/2".....	6
8		PW, 1/2" .....	8
9		LW, 1/2".....	6
10		HHCS, M12-1.50 x 30mm.....	2
11		HHCS, 1/2"-13 x 1" .....	2
12		HHCS, 1/2"-13 x 2" .....	8
13	96115837	Kit, Hardware (Not Shown) (Includes Items 4-12).....	1

# NOTES

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**SNO-WAY® INTERNATIONAL, INC.**



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