

# **SNO-WAY**®

**SNOW & ICE CONTROL EQUIPMENT**

## **ASSEMBLY & INSTALLATION INSTRUCTIONS**

**VEHICLE MOUNT KIT 99101329  
AND  
VEHICLE CENTER MEMBER 99100890**

**TO FIT:  
2019 & LATER RAM 1500 PICKUP 4X4 (NEW BODY)**

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97102137A



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 be 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	
Cutting Wheel/Sawzall	
Center Punch and Hammer	
Touch Up Paint	

### 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.

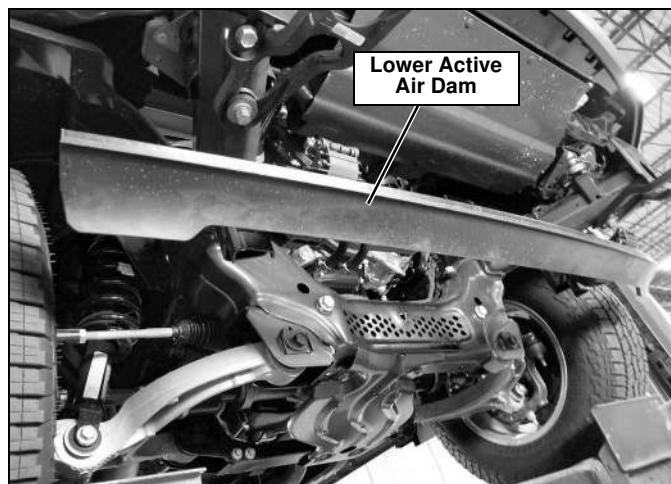


Figure 1

### MOUNTING INSTRUCTIONS

1. Remove the bumper and retain the hardware for re-installation.
2. If the vehicle is not equipped with a lower Active Air Dam, skip to step 3. (See Figure 1.) Remove the four screws (two on each side) holding the air dam to the rotating mechanism. (See Figure 2.) Retain the hardware for installing if plow mount is removed.

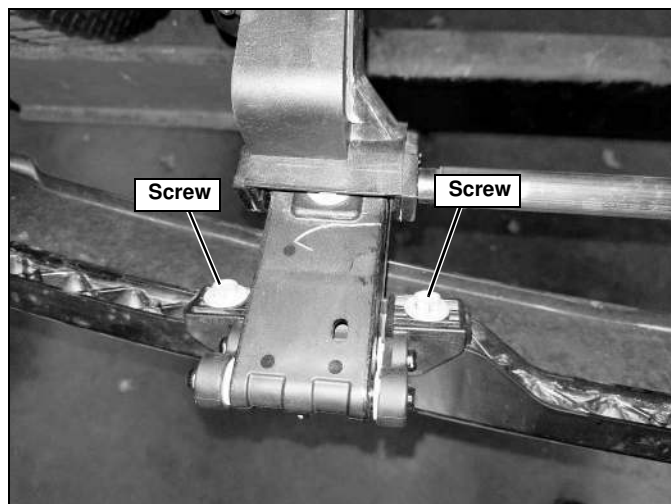


Figure 2

- Remove the tow hooks, if equipped, by taking out the front bolt and sliding the tow hook off the rear rubber bushing. (See Figure 3.) Retain the hardware for installing if plow mount is removed.

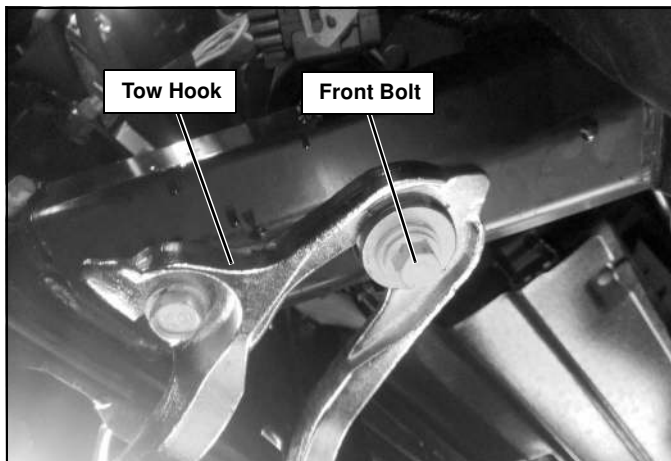


Figure 3

- Remove the rear tow hook bolts from both sides of the vehicle. Take the rubber bushings off the bolts and keep them with the hardware from step 3. (See Figure 4.)

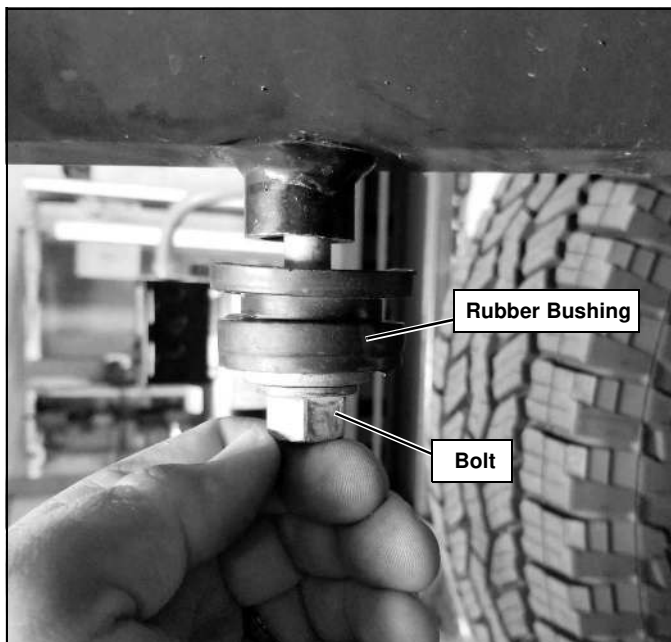


Figure 4

- Attach the Front Mount Weldment (#2) to the frame by aligning the four outer most holes with the tow hooks holes in the frame. Fasten tightly with (2) M14-2.00 X 60 mm Cap Screws (#9) in the front holes of the frame.

- A hole must be drilled to the side of the frame (one in each frame rail), but cannot be done with the Front Mount Weldment (#2) in place. To locate the hole, trace onto the frame the top and back edge of the part around the side hole. Next, remove the Front Mount Weldment from the truck. Draw a parallel line 3/4" down from the horizontal line. Draw a parallel line 9/16" toward the front of the truck from the vertical line. Center punch and drill a 17/32" hole where the two lines cross. (See Figure 5.)

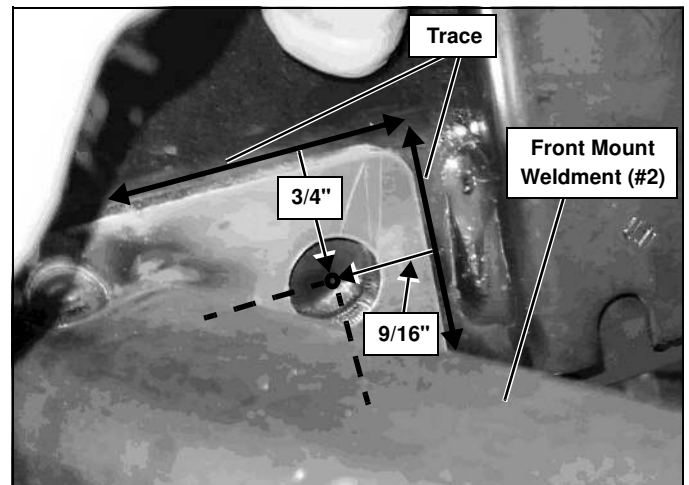


Figure 5

- Remove any skid plates that may be attached to the rear cross member, then attach the Cross Member Weldment (#3). Align the center slot of the vehicle's cross member with the hole center hole of the Cross Member Weldment (#3) and secure using (1) 5/8" Plain Washer (#8), (1) 5/8"-11 x 2" x 16" Handle Bolt Weldment (#13), and (1) 5/8"-11 Locknut (#15). (See Figure 6.)

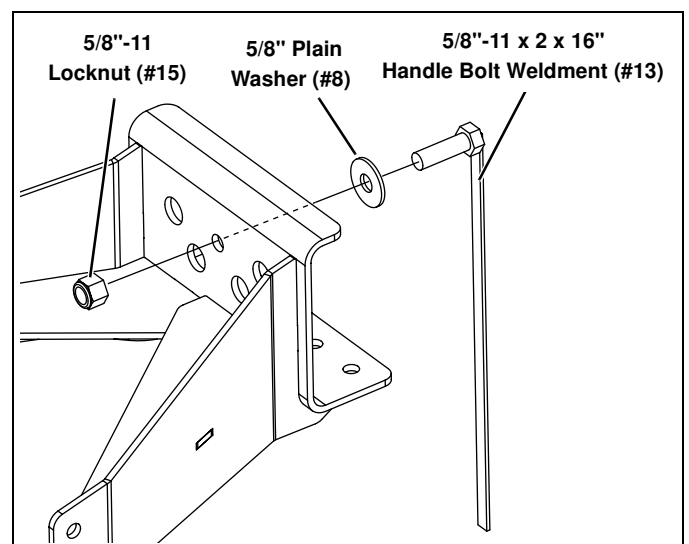


Figure 6

8. Finish securing the Cross Member Weldment (#3) with (2) 1/2"-13 x 1-1/2" x 20" Handle Bolt Weldments (#12) and (2) 1/2"-13 Locknuts (#14). (See Figure 7 and Figure 8.) The passenger side hole already exists, the driver side hole will need to be center punched and drilled to 17/32". Before drilling, make sure the Cross Member Weldment (#3) is held tight against the front and bottom of the cross member. Do NOT drill too far, only enough to pass through the steel.

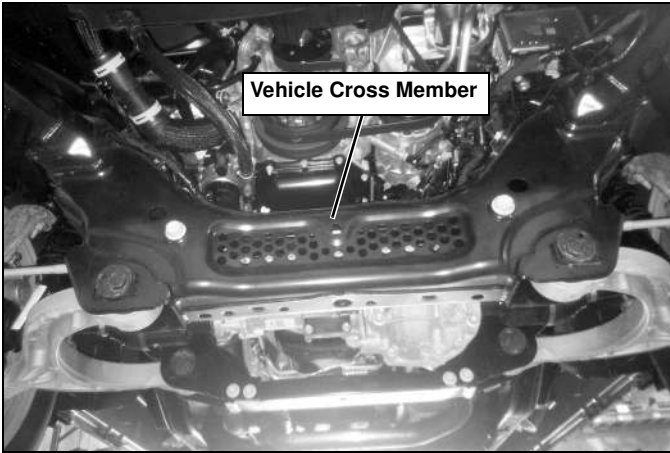


Figure 7

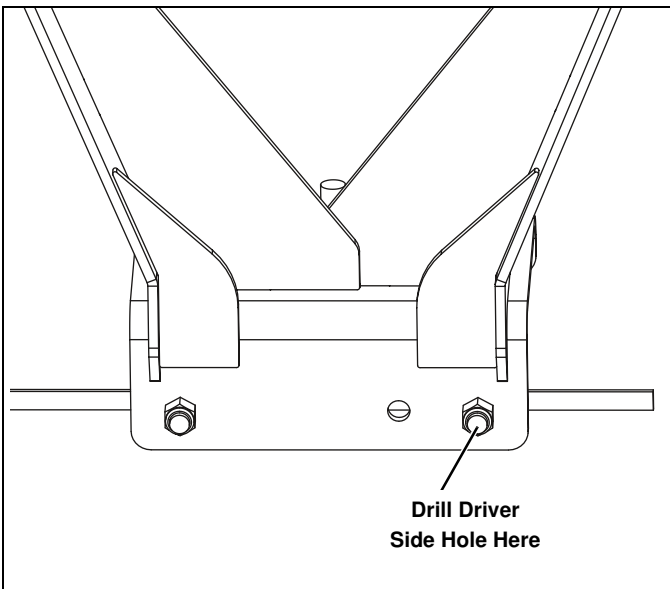


Figure 8

9. The skid plate can be mounted back on top of the Cross Member Weldment (#3), but the skid plate may need to be modified to fit.

10. Attach the Front Mount Weldment (#2) to the frame using (2) M14 Lock Washers (#5), (2) M14-2.00 x 60 mm Cap Screws (#9), (2) 1/2" Plain Washers (#7), (2) 1/2"-13 x 1-1/4" Cap Screws (#10), and (2) 1/2"-13 Locknuts (#14). (See Figure 9.) Put the rear tow hook bolts (from step 4) back into place, but through the remaining hole on each side of the Front Mount Weldment (#2). Push the bolt up through the hole and the frame while turning it, there is a rubber bushing you'll have to push through before the bolt begins to grab any threads.

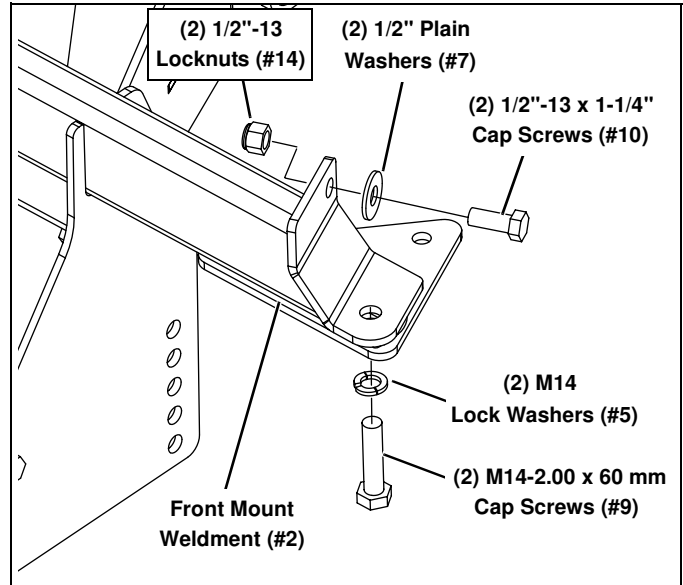


Figure 9

11. Secure the Front Mount and Cross Member Weldments (#2 & 3) together with (6) 1/2"-13 x 1-1/2" Cap Screws (#11) and (6) 1/2"-13 Locknuts (#14). (See Figure 10.)

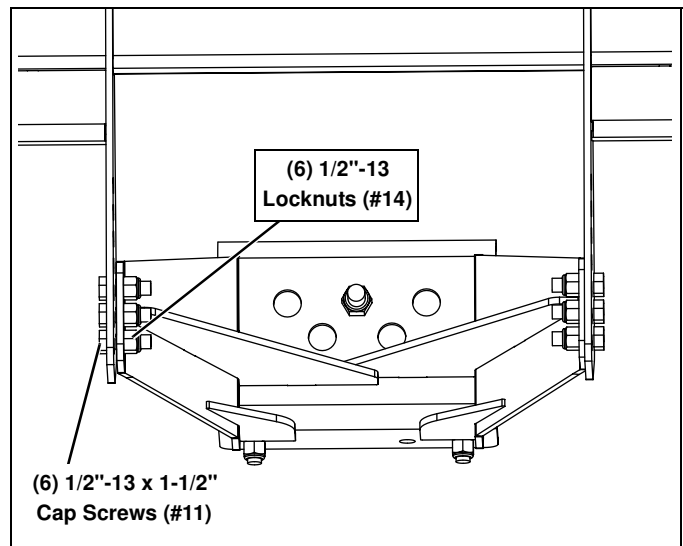


Figure 10

12. Attach the Vehicle Center Member (#1) to the Front Mount Weldment (#2). Secure using (14) 1/2"-13 x 1-1/2" Cap Screws (#11), (2) Spacer Plates (#4), (2) 1/2" Lock Washers (#6), and (12) 1/2"-13 Locknuts (#14). (See Figure 11.)

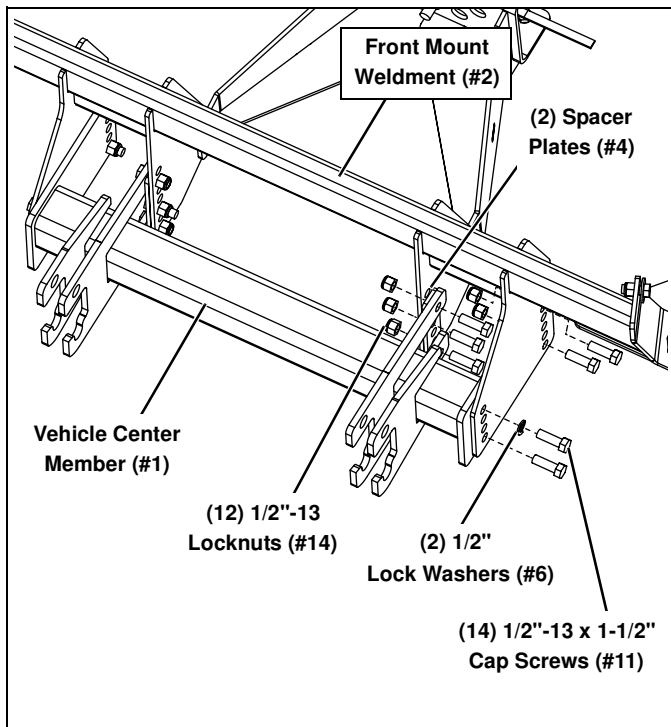
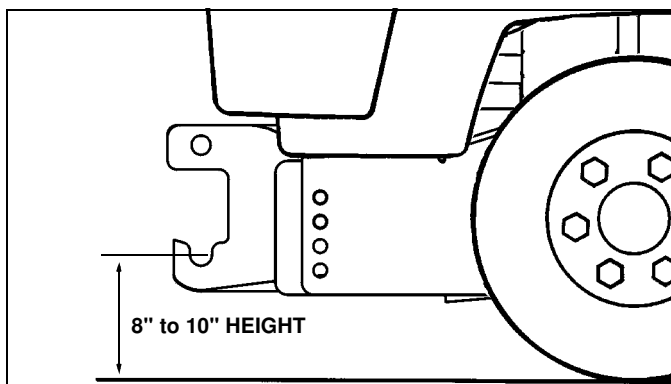


Figure 11

13. The components are now in place. Tighten all the hardware. Using the Torque Specification Chart below, torque all Cap Screws.

**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 insure proper operation.



**TORQUE SPECIFICATIONS FOR STANDARD MACHINE HARDWARE**

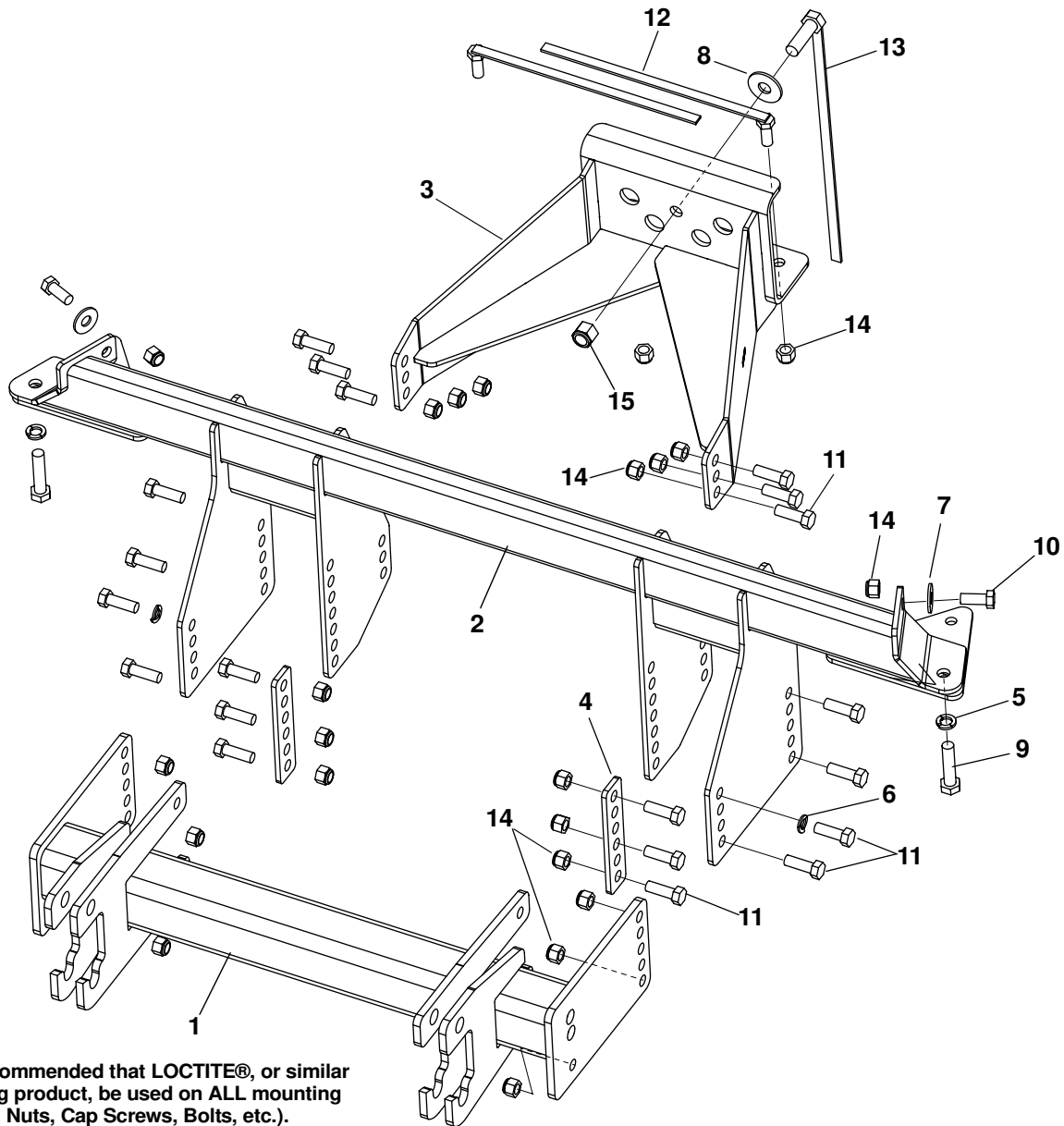
Bolt Size	GR.2 Dry	GR.5 Dry	GR.8 Dry	Metric Size	GR.8.8 Dry
1/4"	66*	9	12	M8	17
5/16"	11	17	25	M10	35
3/8"	20	30	45	M12	60
7/16"	32	50	70	M14	95
1/2"	50	75	110	M16	155
9/16"	70	110	150		
5/8"	100	150	220		
3/4"	175	260	380		
7/8"	170	430	600		
1"	250	640	900		

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 the bumper. The lower part of the bumper and valance will need to be cut (notched) to achieve the Vehicle Mount Kit height requirement.

# 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, Front Mount.....	1
3		Weldment, Cross Member .....	1
4		Plate, Spacer .....	2
5		LW, 14 mm .....	2
6		LW, 1/2" .....	2
7		PW, 1/2" .....	2
8		PW, 5/8" .....	1
9		HHCS, M14-2.00 x 60 mm .....	2
10		HHCS, 1/2"-13 x 1-1/4" .....	2
11		HHCS, 1/2"-13 x 1-1/2" .....	20
12		Handle Bolt Weldment, 1/2"-13 x 1-1/2 x 20" .....	2
13		Handle Bolt Weldment, 5/8"-11 x 2 x 16" .....	1
14		LN, 1/2"-13 .....	22
15		LN, 5/8"-11 .....	1
16	96117131	Kit, HDWE (Includes Items 4-15) (Not Shown) .....	1

# NOTES

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**SNO-WAY® INTERNATIONAL, INC.**



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