

# **SNO-WAY**®

***SNOW & ICE CONTROL EQUIPMENT***

## **ASSEMBLY & INSTALLATION INSTRUCTIONS**

**SUBFRAME 99100848  
(For 22 Series Plow ONLY)**

**TO FIT**  
2005 - LATER NISSAN FRONTIER  
2005 - 2015 NISSAN EXTERRA  
2005 - 2012 NISSAN PATHFINDER

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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  
 Manufacturer's Snow Plow Package

*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.*

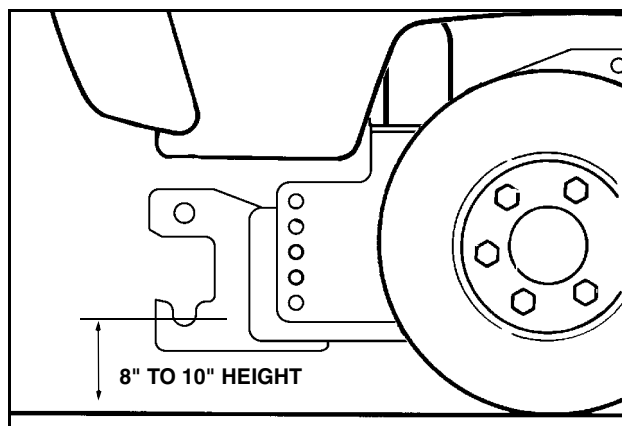
## ASSEMBLY TOOLS NEEDED

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

## 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: (10) Washer, Lock, 1/2" (#8).
5. It maybe necessary to relocate license plate holder. Check state and local laws for placement, if needed.

holes, and (6) 1/2" Nylock Nuts (#8), and if at desired height, fully tighten using the torque specification chart provided.



## MOUNTING INSTRUCTIONS

1. Remove the bumper fascia from the front of the vehicle. Retain fascia and fasteners for reinstallation if the Vehicle Mount Kit is removed.
2. Remove the tow hook(s), if installed on the vehicle. Retain the tow hook(s) and fasteners for reinstallation if the Vehicle Mount Kit is removed.
3. Install (1) Side Plate, LH (#2) and Side Plate, RH (#3). Align the slots in the Side Plate, LH (#2) with the threaded tow hook holes in the bottom of the frame rail. Put (2) 1/2" Flat Washers (#9), (2) 1/2" Lock Washers (#7) onto (2) M12-1.25 x 50mm Cap Screws (#6), and attach the Side Plate, LH to the frame rail. Handtighten the fasteners and repeat on the Side Plate, RH (#3).
4. Assemble the Vehicle Center Mount (#1) between the Side Plates, LH (#2) and RH (#3) and secure with (8) 1/2"-13 x 1-1/2" Cap Screw (#5), (2) 1/2" Lock Washers (#7) on Cap Screws used in the threaded

**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.**

5. Fully tighten the fasteners securing the Side Plates, LH and RH to the frame rails using the torque specification chart provided.
6. Using the remaining hole in the Side Plate, LH (#2) as a guide, drill a 17/32" hole into the side of the vehicle frame rail. Drill only through the outer wall of the frame rail. Repeat drilling on the Side Plate, RH (#3).
7. Insert a Handle Bolt (#4) along with (1) 1/2" Flat Washer (#9) into the large hole in the frame rail and pass the bolt through the just drilled 17/32" hole in the frame and through the hole in the Side Plate, LH.

*NOTE: The handle will need to be bent to allow you to get the bolt into the hole that has been drilled.*

Attach (1) 1/2" Nylock Nut (#8) and fully tighten using the torque specification chart provided. Repeat on the Side Plate, RH.

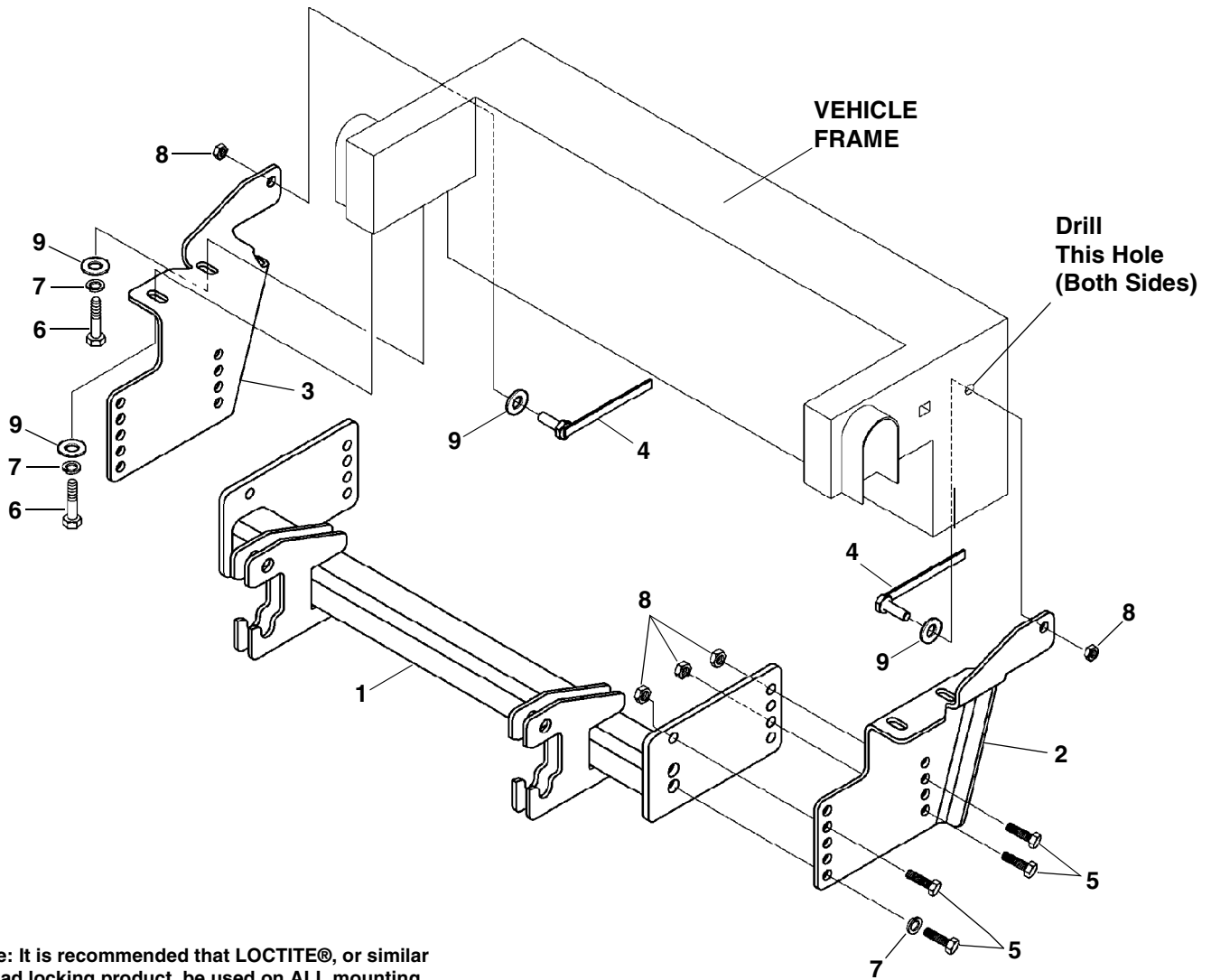
8. Bend the ends of the bolts with handles against the frame rail.

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!**

# 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		Vehicle Center Mount .....	1
2		Side Plate, LH .....	1
3		Side Plate, RH.....	1
4		Handle Bolt, 1/2"-13 x 1-1/4" .....	2
5		HHCS, 1/2"-13 x 1-1/2".....	8
6		HHCS, M12-1.25 x 50mm .....	4
7		LW, 1/2" .....	6
8		LN, Nylock, 1/2" .....	8
9		PW, 1/2".....	6
10	96108535	Kit, HDWE (Not Shown) (Includes Items 4-9).....	1

SNO-WAY® INTERNATIONAL, INC.

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