

SNO-WAY[®]

SNOW & ICE CONTROL EQUIPMENT

Assembly & Installation Instructions

**FOR
SUBFRAME COMPONENTS PACKAGE 99100503**

TO FIT
2002 - LATER Ford Explorer 4x4
2002 - LATER Mercury Mountaineer 4x4



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

Impact Sockets	7/16" – 1-3/8"
Metric Sockets	10mm - 17mm
Wrenches	7/16" – 1-3/8"
Torque Wrench	
Hacksaw	
Clamping Devices ("C", Bar, type device)	

INSTALLATION NOTES

1. Unless otherwise specified, mount all Subframe 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.

4. Install the Mounting Assembly. Secure to the Front Mounting Plates using (8) 1/2" x 1-1/2" Cap Screws (#6), (6) 1/2" Nylock Nuts (#9) and in the threaded holes (2) 1/2" Lock Washers (#8). Secure to the Rear Crossmember using (4) 1/2" x 1-1/2" Cap Screws (#6) and (4) 1/2" Nylock Nuts (#9).
5. Using the torque specification chart provided, torque all bolts.
6. Re-install bumper.

MOUNTING INSTRUCTIONS

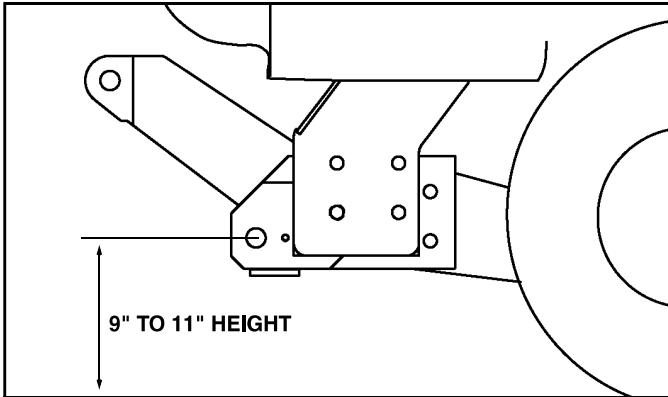
1. Remove the bumper and air dam from the front of the vehicle. Retain with hardware for re-installation in later step.
2. Insert Nut Plates (#5) into the truck frame and align with existing holes in the frame. Install the Front Mounting Brackets, LH (#3) and RH (#4) by aligning the side mounting holes with the holes in the frame and securing to Nut Plates (#5) using (2) 1/2" x 1-1/2" Cap Screws (#6), (2) 1/2" Lock Washers (#8) and (2) 1/2" Flat Washers (#7).
3. Insert Nut Plates (#10) in the square slots in the vehicle crossmember. Install (1) Rear Crossmember Assembly (#2) by aligning the holes in the Rear Crossmember Assembly with the existing holes in the vehicle crossmember. Secure to the nut plates (#10) using (4) 1/2" x 1-1/2" Cap Screws (#6), (4) 1/2" Lock Washers (#8) and (4) 1/2" Flat Washers.

**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		

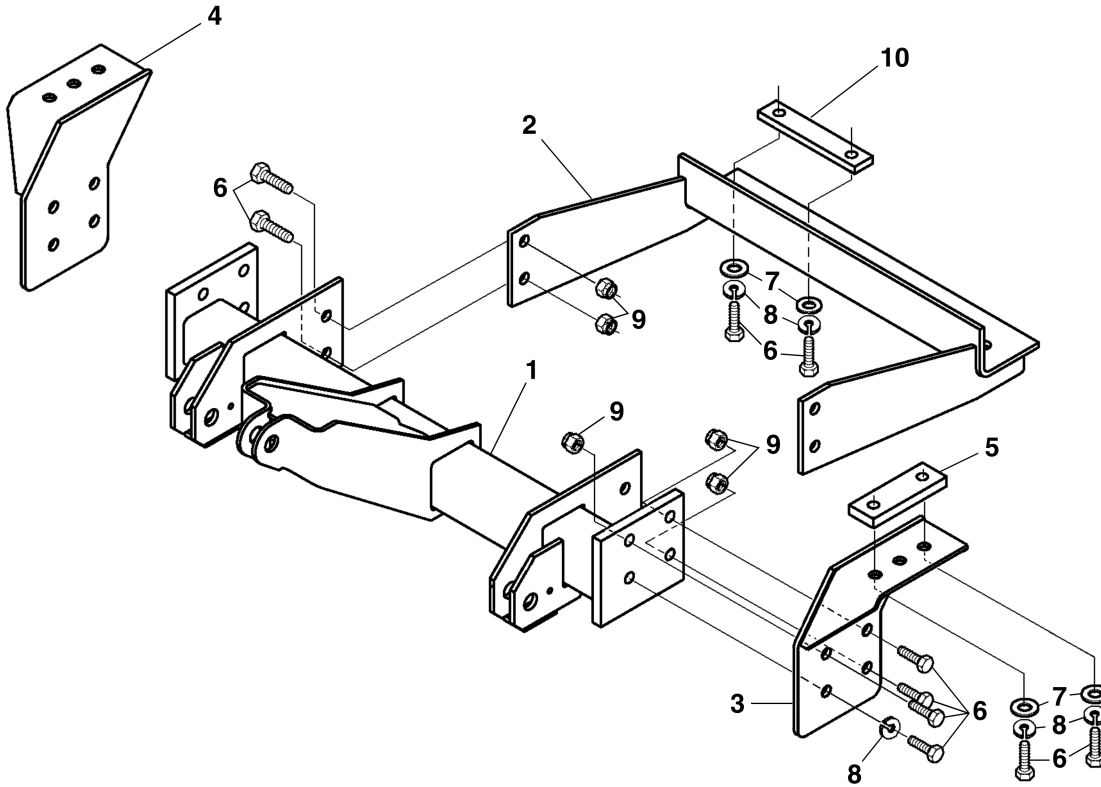
Note: These torque values are to be used for all hardware. Unless otherwise specified, all torque values must meet this specification.
 Note: All torque values are in Ft.-Lbs unless otherwise stated
 Note: *In-Lbs

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



IMPORTANT: Height from the center of the lower Plow mounting holes on the Subframe to the ground should be between 9" and 11" to ensure proper operation.

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	96105355	Mounting, Assembly	1
2	96105362	Crossmember Assembly, Rear	1
3	96105367	Mounting Bracket, Front, LH	1
4	96105368	Mounting Bracket, Front, RH.....	1
5	96105992	Plate, Nut	2
6	98009010	Cap Screw, Hex Head 1/2" - 13 x 1-1/2"	20
7	98009011	Washer, Flat, 1/2"	8
8	98009012	Washer, Lock, 1/2"	10
9	98009013	Nut, Hex Nylock, 1/2" - 13.....	10
10	96106091	Plate, Nut	2

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