



**Assembly
&
Installation Instructions**

**FOR
SUBFRAME COMPONENTS PACKAGE 99100528
AND
SUBFRAME NOSE PIECE PACKAGE 96105756**

**TO FIT
1987 - 1996 JEEP WRANGLER 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
Heavy Duty Suspension	Timbren Load Boosters

ASSEMBLY TOOLS NEEDED

Drill Bits	21/32"
Sockets	7/16" – 1-1/8"
Wrenches	7/16" – 1-1/8"
Torque Wrench	
Center Punch and Hammer	

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.

INSTALLATION NOTES

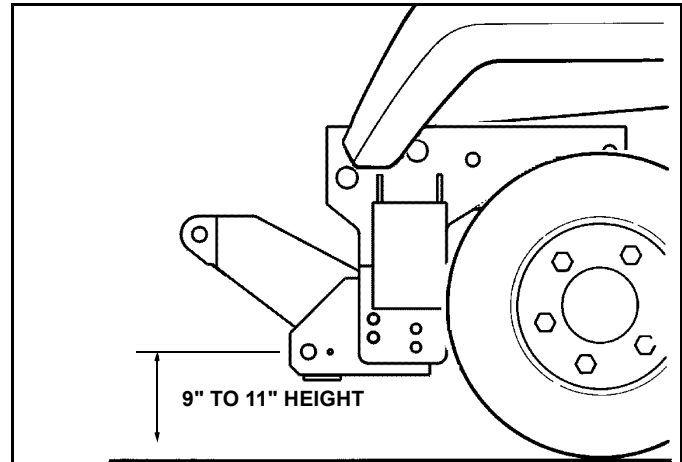
1. **Unless otherwise specified, mount all Sub-Frame Components to vehicle before tightening any hardware.**
2. **It is recommended that LOCTITE®, or similar thread locking product, be used on ALL mounting hardware (i.e. Nuts, Cap Screws, Bolts, etc.).**
3. Vehicle should be parked on a level surface 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: (8) 5/8" x 4-1/2" Cap Screws (#7).
5. It may be necessary to relocate license plate holder. Relocate under the driver's side headlight by drilling new holes in the bumper.

NOTE: The third bolt hole on the inside of the frame on each side may need to be drilled. If so, drill to 21/32" using the Right and Left Bracket Assemblies as a template.

4. Install the Mounting Assembly (#1). Secure to the Left and Right Bracket Assemblies using (8) 1/2" x 1-1/2" Cap Screws (#9) and (4) 1/2" Lock Nuts (#11). In the threaded holes use (4) 1/2" Lock Washers (#10) with the cap screws.

MOUNTING INSTRUCTIONS

1. Remove plastic guard located above and behind bumper.
2. Remove the two (2) self-tapping screws used to retain the brake line mounting strip which was beneath the plastic guard.
3. Utilizing the existing holes in vehicle frame, install the Left and Right Bracket Assemblies (#2 and #3). Secure each Bracket Assembly using (4) 5/8" x 4-1/2" Cap Screws (#7) and (4) 5/8" Nylock Nuts (#8). Use a Spacer (#5) and a Back-Up Plate (#4) between each Bracket Assembly and the vehicle frame. Use a Backing Plate (#6) and a Back-Up Plate (#4) on the inside of the vehicle frame on each side.



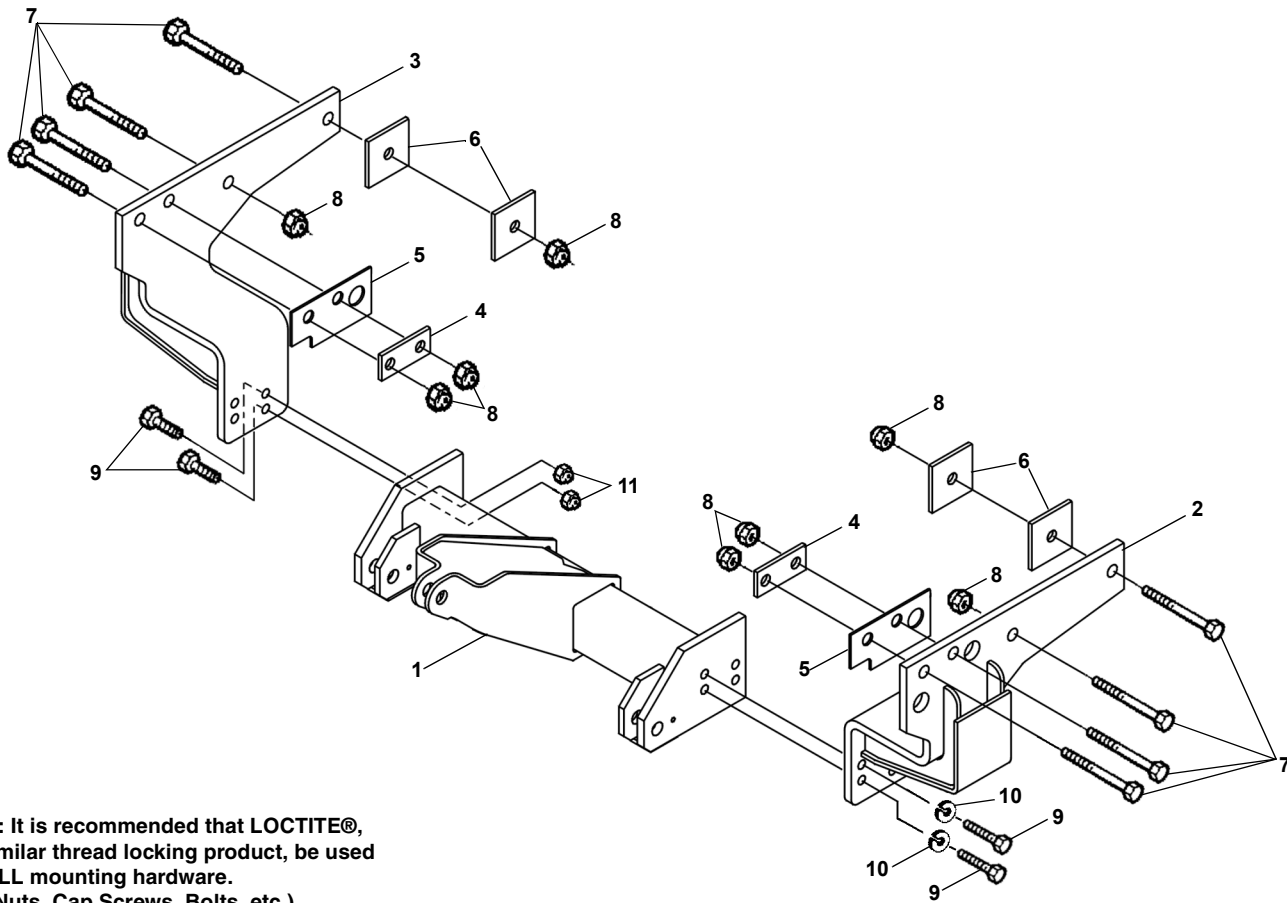
IMPORTANT: height from the center of the lower Plow Mounting holes on the Sub-Frame to the ground should be between 9" and 11" to insure proper operation.

5. Using the Torque Specification Chart below, torque all cap screws, starting at the rear and working forward.

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!



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	96105756	Assembly, Mounting	1
2	96106042	Bracket Assembly, Left	1
3	96106043	Bracket Assembly, Right	1
4	96101440	Plate, Back-Up	2
5	96101407	Spacer.....	2
6	96106323	Plate, Backing	4
7	98009111	Cap Screw, Hex, 5/8"-11 x 4-1/2"	8
8	98009038	Nut, Hex Nylock, 5/8"-11	8
9	98009010	Cap Screw, Hex, 1/2"-13 x 1-1/2"	8
10	98009012	Washer, Lock, 1/2"	4
11	98009013	Nut, Hex Nylock, 1/2"-13	4

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