



**Assembly
&
Installation Instructions**

**FOR
SUBFRAME COMPONENTS PACKAGE 99100599**

**TO FIT
1988 - 2000 CHEVROLET and GMC 2500 and 3500 PICKUP 4x4
1992 - 1999 CHEVROLET and GMC 2500 SUBURBAN 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 Torsion Bars
 Heavy Duty Battery
 Manufacturers Snow Plow Package

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
 Hacksaw

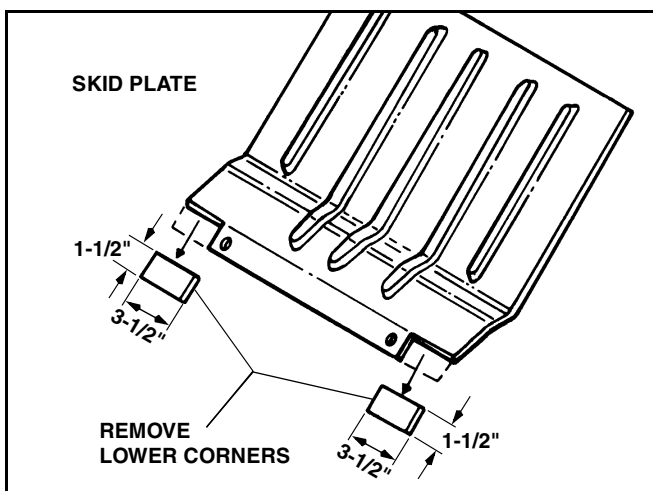
NOTE: On some vehicles it may be necessary to use a form of load booster to decrease the vehicle's front suspension sag with the snow plow in place. This can be accomplished with the use of supplementary air bags, booster springs, or similar load boosting devices. Since there are different load boosting 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 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: (2) 5/8" - 11 x 2" Cap Screws (#10).
5. It may be necessary to relocate license plate holder. Check state and local laws for placement, if applicable.

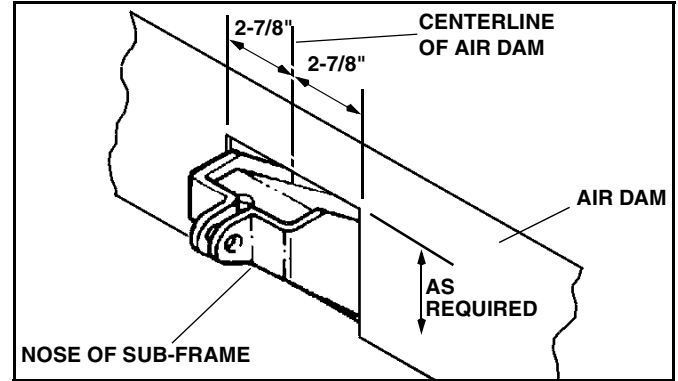
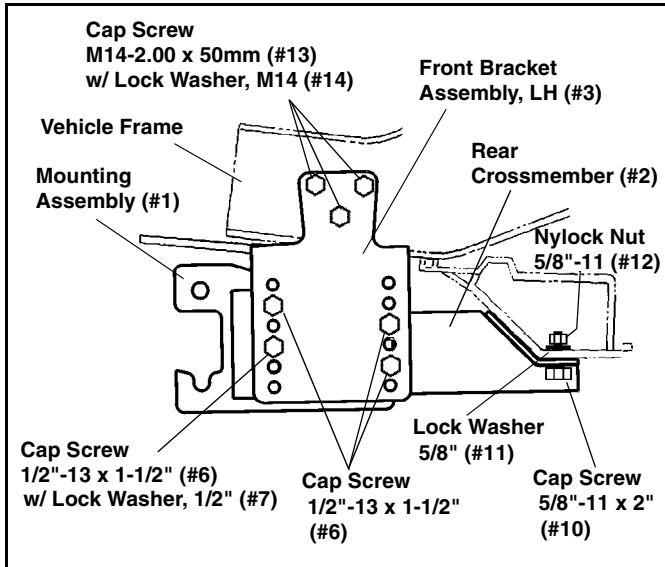
MOUNTING INSTRUCTIONS

1. Remove air dam from front of vehicle. (Retain with hardware for future use).
2. Remove tow hooks. Retain for reinstallation in step 4.
3. Remove the four existing bolts holding the skid plate, retain hardware and remove corners for clearance. Retain for reinstallation in Step 6.



4. Position the Front Bracket Assembly, LH (#3) to the front frame rails of the truck. Using (3) M14-2.00 x 50mm Cap Screws (#13) and (3) M14 Lock Washers (#14) provided, bolt the Front Bracket Assembly, LH (#3) through the outside of the frame. Next, insert (1) Nut Plate (#5) into the frame. Position the two hooks below the Front Bracket Assembly and attach by using (2) 1/2"-13 x 3" Cap Screws (#15), (2) 1/2" Lock Washers (#7), and (2) 1/2" Flat Washers (#9).
5. Repeat Step 4 to install the Front Bracket Assembly, RH (#4).

NOTE: If holes for mounting the Rear Crossmember are not present in the vehicle frame, the following steps will be necessary: The Mounting Assembly will have to be assembled to the Front Bracket Assemblies. Then the Rear Crossmember must be assembled to the Mounting Assembly. Finally, two 21/32" holes will have to be drilled through the vehicle frame using the Rear Crossmember as a template.

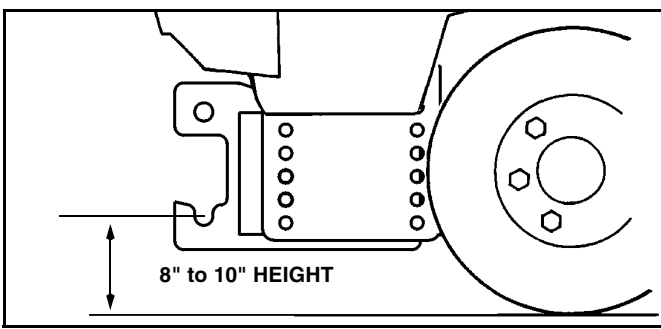


NOTE: Front air dam can be modified to clear Subframe by cutting dam to allow clearance for nose of Subframe. To modify air dam, measure 2-7/8" from each side of center and remove a section as required from between the marked areas to provide clearance for nose of Subframe.

6. Position the Rear Crossmember (#2) on the vehicle frame crossmember and attach through the two outer mounting holes with (2) 5/8"-11 x 2" Cap Screws (#10), (2) 5/8" Flat Washers (#11) and (2) 5/8" Nylock nuts (#12). Re-install the skid plate removed in Step 3.
7. Bolt the Mounting Assembly (#1) in place using (8) 1/2"-13 x 1-1/2" Cap Screws (#6), (2) 1/2" Lock Washers (#7) (for threaded holes), and (6) 1/2"-13 Nylock Nuts (#8). Bolt to the Rear Crossmember using (4) 1/2"-13 x 1-1/2" Cap Screws (#6) and (4) 1/2"-13 Nylock Nuts (#8).

8. Using the Torque Specification Chart provided, torque all Cap Screws starting at the rear and working forward.

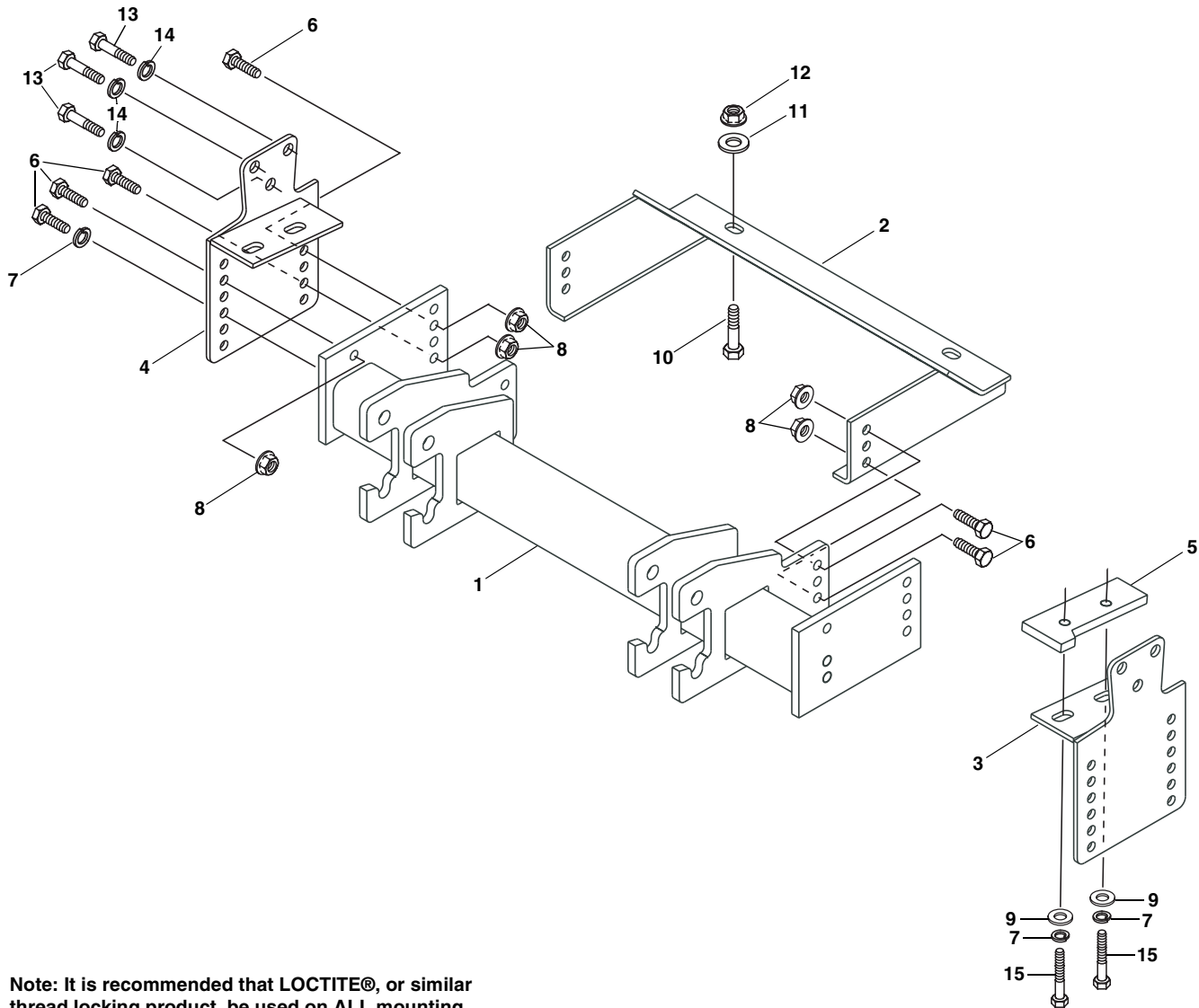
REMEMBER After 5 to 10 hours of snowplow usage, re-torque all cap screws.



IMPORTANT: Height from the center of the lower pin slots on the Subframe to the ground should be between 8" and 10" to insure proper operation. On some vehicles, it may be necessary to use a form of load booster (See note, page 1, Minimum Vehicle Recommendations).

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		

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



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	96106791	Assembly, Mounting	1
2	96106812	Crossmember, Rear	1
3	96105637	Front Bracket Assembly, LH	1
4	96105638	Front Bracket Assembly, RH.....	1
5	96101691	Plate, Nut.....	2
6	98009010	Cap Screw, Hex Head, 1/2"-13 x 1-1/2"	12
7	98009012	Washer, Lock, 1/2"	6
8	98009013	Nut, Hex, 1/2"-13 Nylock	10
9	98009011	Washer, Flat, 1/2"	4
10	98009041	Cap Screw, Hex Head, 5/8"-11 x 2".....	2
11	98009039	Washer, Flat, 5/8"	2
12	98009038	Nut, Hex, 5/8"-11 Nylock	2
13	98100305	Cap Screw, Hex Head, M14-2.00 x 50mm	6
14	98100306	Washer, Lock, M14.....	6
15	98009017	Cap Screw, hex Head, 1/2"-13 x 3"	4

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