



# **Assembly & Installation Instructions**

**FOR  
SUBFRAME COMPONENTS PACKAGE 99100191  
AND  
SUBFRAME NOSE PIECE PACKAGE 96100731**

**TO FIT  
1988 & LATER CHEVROLET & GMC 4x2 C2500 & C3500  
(MIN. 8600 Lbs. GVWR)  
SINGLE AND DUAL REAR WHEELS**



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 Front Springs  
Manufacturers Snow Plow Package  
(Where Applicable)

## ASSEMBLY TOOLS NEEDED

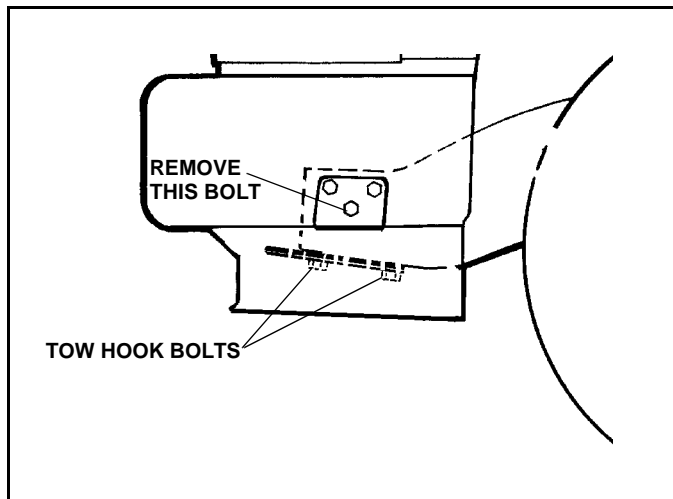
Sockets 7/16" – 1-1/8"  
Wrenches 7/16" – 1-1/8"  
Torque Wrench  
Center Punch and Hammer  
Drill Bits 1/4", 9/16", 5/8"  
Two (2) 6" C-Clamps

## INSTALLATION NOTES

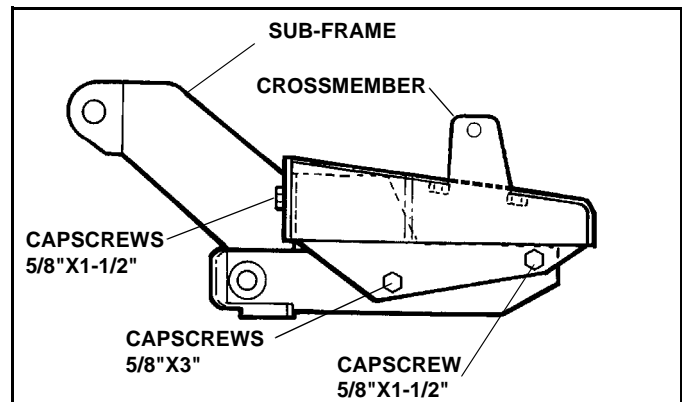
1. Unless specified, mount all sub-frame components to vehicle before tightening any bolts.
2. Vehicle should be parked on a level surface with the front suspension normally loaded.

## MOUNTING INSTRUCTIONS

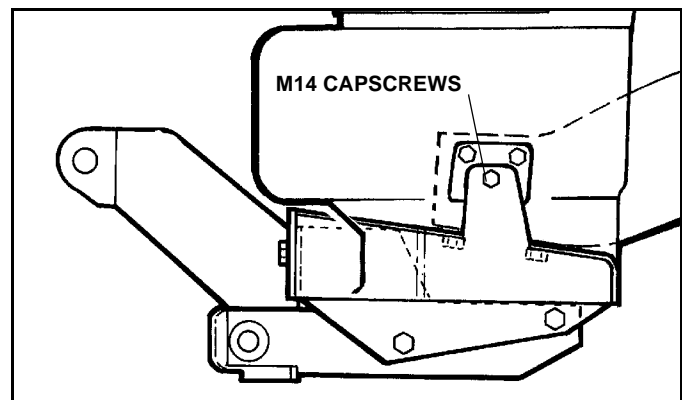
1. Remove tow hook(s). Retain hooks and hardware for installation if plow is removed.



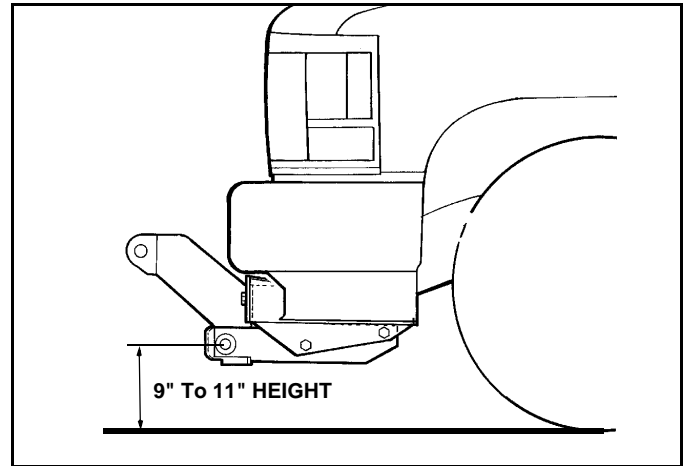
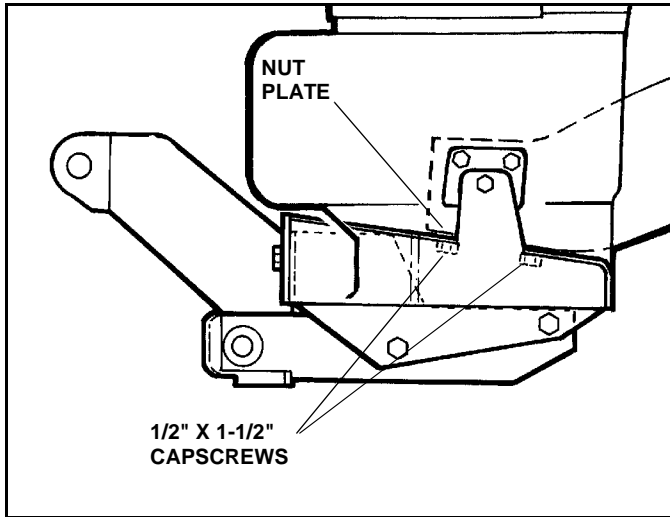
2. Remove lower bolt in body mounting bracket. Lowest of the triangular pattern.



3. Assemble Crossmember (#96102264) to Sub-Frame (#96100477) by aligning with mounting holes in Crossmember. Secure at front holes and rear side holes using 5/8" x 1-1/2" Capscrews (#98009115), Flat Washer and Nylock Nuts provided. Secure at center side hole with 5/8" x 3" Capscrew (#98009217) Nylock Nuts provided. Using the Torque Chart tighten all hardware.



4. Raise assembly from step #3 and align upper most mounting holes with existing hole at body mounting brackets. Secure using M14-2.00 x 60 Metric Capscrews.



5. Insert Nut Plates (#96102233) into frame rails, and align with town hook and crossmember mounting holes. Secure using 1/2" x 1-1/2" Capscrews (#98009010) and Flat Washers provided.

*NOTE: It is recommended that LOCKTITE® or similar thread lock be used on Crossmember mounting Capscrews.*

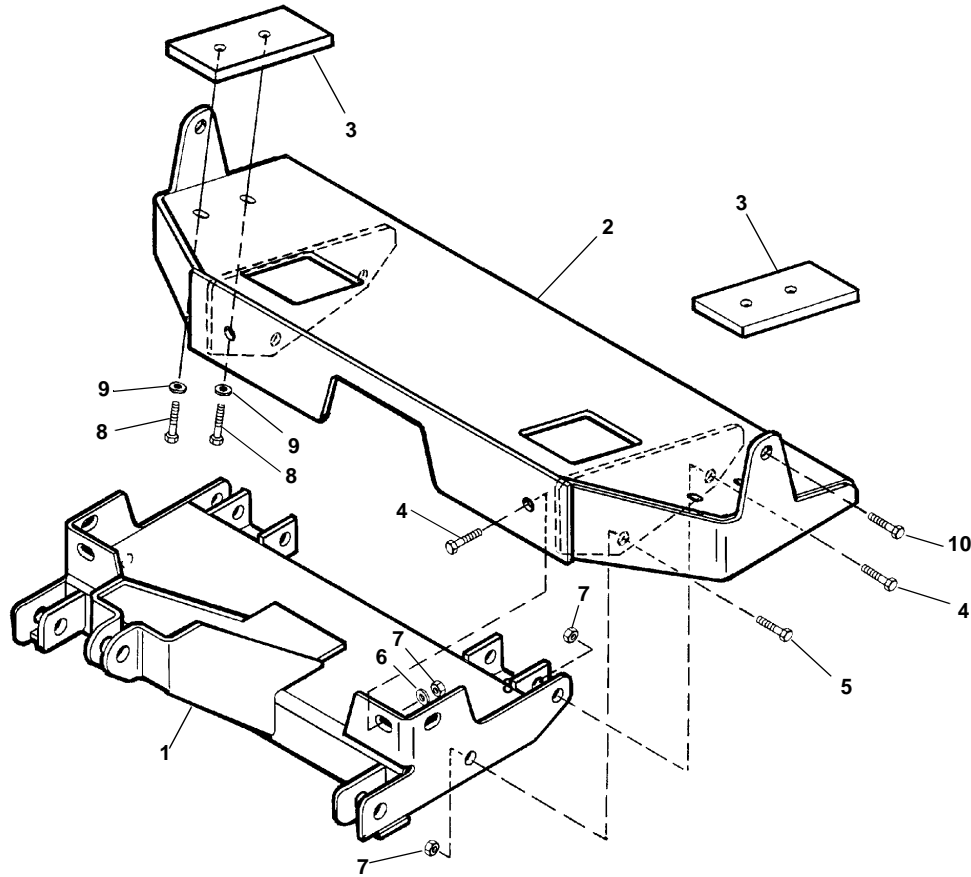
6. Using the Torque Specification Chart below torque all capscrews starting at the rear and working forward.

**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.

**REMEMBER** After 5 to 10 hours of snowplow usage, re-torque all capscrews!

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



ITEM	PART NO.	DESCRIPTION	QTY.
1	96100731	Sub-Frame, Nose Piece (96100477).....	1
2	96102264	Crossmember, .....	1
3	96102233	Plate, Nut.....	2
4	98009115	Capscrew, Hex Head, 5/8"-11NC x 1-1/2" .....	4
5	98009217	Capscrew, Hex Head, 5/8"-11NC x 3" .....	2
6	98009039	Washer, Flat, 5/8" .....	2
7	98009038	Nut, Hex, 5/8"-11NC Nylock.....	6
8	98009010	Capscrew, Hex Head, 1/2"-13NC x 1-1/2".....	4
9	98009011	Washer, Flat, 1/2" .....	4
10	98100110	Capscrew, Hex Head, M14-2.00 x 60.....	2



SNO-WAY INTERNATIONAL, INC.