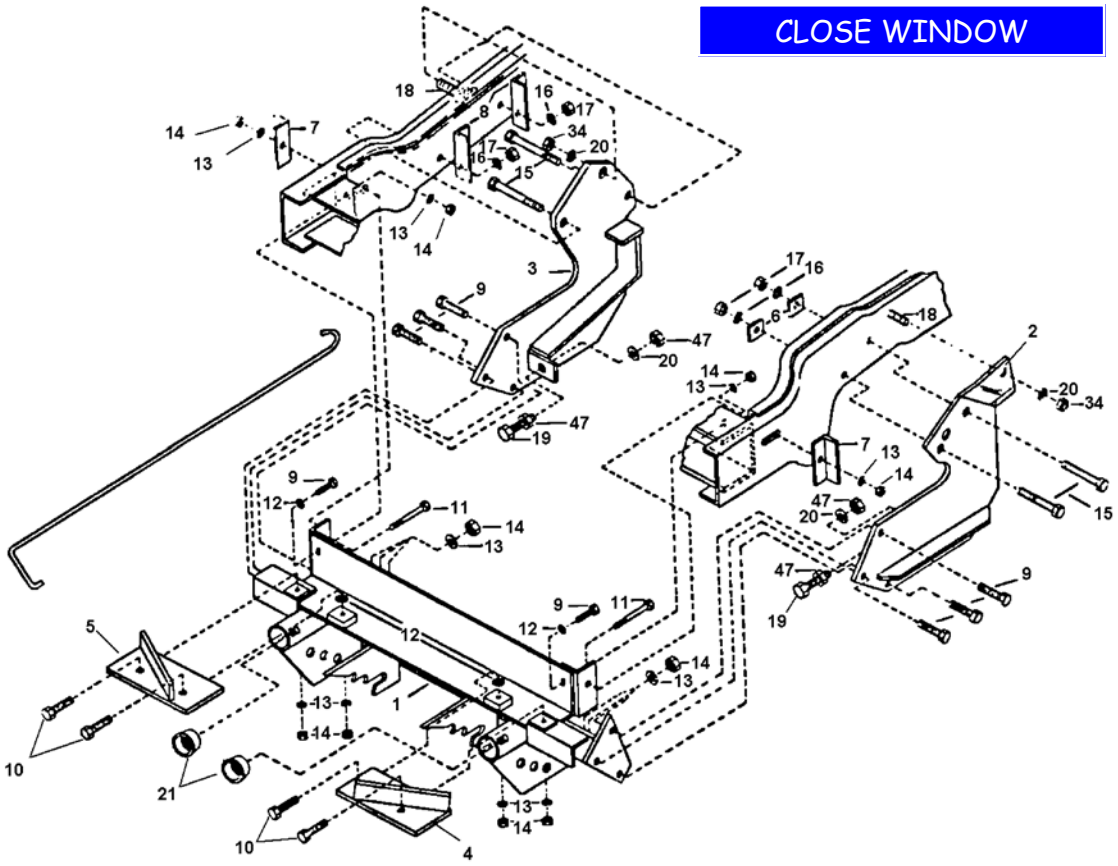
1994 - 1996 1/2 DODGE W1500, W2500, W3500 4X4

CLOSE WINDOW



PARTS LIST

ITEM		STOCK	DESCRIPTION	QTY.	ITEM		STOCK	DESCRIPTION	QTY.
		81005	MOUNTING CARTON		13	*	20329	1/2" LOCKWASHER	16
1		815000 084	FRONT MOUNTING FRAME	1	14	*	8501001 009	1/2-13 NUT	16
2		815000 089	PUSHARM, DR SIDE	1	15	*	20150	5/8-11 X 4-1/2" CAPSCREW	4
3		815000 090	PUSHARM, PS SIDE	1	16	*	20331	5/8" FLATWASHER	4
4		815000 091	CLAMP PLATE, DR. SIDE	1	17	*	20530	5/8-11 NUT	4
5		815000 092	CLAMP PLATE, PS. SIDE	1	18	*	14595	3/4-10 X 1-3/4" "L" HEAD CAP	2
6	*	14744	SPACER	2	19	*	20164	3/4-10 x 2 " CAPSCREW	2
7	*	815000 065 010	BOLTING ANGLE	2	20	*	20333	3/4" LOCKWASHER	4
8	*	815000 065 010	BOLTING ANGLE	2	21		815000 146	REC. TUBE END CAP	2
9	*	20095	1/2-13 X 1-1/2" CAPSCREW	8	34	*	8501001 015	3/4-10 NUT	2
10	*	20097	1/2-13 X 2" CAPSCREW	4	47	*	5201003 015	3/4-10 JAM NUT	4
11	*	20105	1/2-13 X 4" CAPSCREW	2			819000 013	RELEASE HOOK	1
12	*	20355	1/2" FLATWASHER	4					

ITEMS PACKED IN 80072 BOLT BAG

Parts indented are included in the assembly under which they are indented.

Diamond Equipment reserves the right, under its continuing product improvement program, to change construction or design details, specifications and prices without notice or without inncurring any obligation.

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PARTICULAR ATTACHMENTS INSTRUCTIONS
FOR 81005 PULL AWAY MOUNTINGS

IMPORTANT NOTICE

End user must be given this instruction sheet prior to delivery of this Snow Plow.

The equipment you have just purchased should only be used on vehicles equipped with the Manufacturer's Snow Plow Preparation Packages. Snow Plowing without the original Snow Plow Preparation Package may damage your vehicle and the added weight to the equipment may impair the operation and control of the vehicle . Snow Plowing with a vehicle that the manufacturer does not recommend for that purpose may void your new vehicle warranty. If your vehicle is not originally equipped with the Snow Plow Package, additional parts may be necessary before snow plowing. Owners of these vehicles should consult their dealers before purchase or installation of such parts. CAUTION: the installation, on any vehicle , of these parts is not a full substitute for the original equipment Snow Plow Preparation Package.

Warning: Lift Arm extends beyond bumper of vehicle. To minimize damage from a front-end collision, Lift Arm should be removed from vehicle when Snow Plow is removed.

GENERAL INSTRUCTIONS: Disconnect the vehicle battery or batteries before beginning installation. (Reconnect after installation is complete.) Do not burn holes into or weld pieces onto the vehicle frame. Use extreme caution when drilling any holes in the vehicle to prevent damage to brake lines, fuel lines, wiring, or any other vehicle components. Assemble parts and fasteners "finger tight" until instructions indicate final tightening. After first usage and periodically thereafter, retighten all fasteners to correct torque.

NOTE: 1/2"-13 GRADE 5 fasteners should be torqued to 75 ft. lbs.
5/8"-11 GRADE 5 fasteners should be torqued to 150 ft. lbs.
3/4"-10 GRADE 5 fasteners should be torqued to 250 ft. lbs.

1. **PRELIMINARY:** Jack the vehicle up from under the center of the frame until the tires just clear the ground. Place jack stands under the frame to prevent accidental lowering of the vehicle. It the vehicle has a air dam, either remove it or cut approximately 35" out of the center of it

   On the driver's side frame rail, using a 11/16" dia. drill, ream out and drill through the back side of the boxed rail using the two holes on either side of the rear steering box bolt as guides. Using a 1" dia. drill, ream out the lower large rear hole in the outer surface of the frame rail. Install a 3/4"-10 X 1 3/4" "L" head capscrew (18) into the reamed out hole. On the passenger's side frame rail, using a 11/16" dia. drill, ream out and drill through the back side of the boxed rail using the two lower small holes in the outer surface as guides. Using a 1" dia. drill, ream out the large lower front hole in the outer surface of the frame rail. Install a 3/4"-10 X 1 3/4" "L" head capscrew (18) into the reamed out hole. Screw a 3/4"-10 jam nut (47) all the way onto each of the 3/4"-10 X 2" capscrews (19). Place each of the 3/4"-10 X 2" capscrew/ jam nut assemblies through the hole in the lower front ear of the driver's side and passenger's side push arm (3),(2), with the heads of the capscrews (19) toward the front of the vehicle. Fasten with a 3/ 4" lockwasher (20) and 3/4"-10 jam nut (47) on each capscrew (19).

2. **DRIVER'S SIDE PUSH ARM:** Place the rear frame section of the driver's side push arm (3) up between the sway bar and the outside surface of the frame, just ahead of the vehicle tie rod. Place the large hole in the rear frame plate section of the push arm (2) over the threaded end of the 3/4"-10 X 1 3/4" "L" head capscrew (18) installed earlier into the frame rail. (Be especially careful to prevent the 3/4"-10 X 1 3/4" "L" head capscrew (18) from being pushed into the boxed frame rail.) Fasten the 3/4"-10 X 1 3/4" "L" head capscrew (18) using a 3/4" lockwasher (20), and 3/4"-10 nut (34). Insert a 5/8"-11 X 4 1/2" capscrew (15) through each of the remaining holes in the rear frame plate section of the push arm (2) and through the previously drilled out holes in the boxed frame rail. Install a bolting bar (6) onto the threaded end of each 5/8"-11 X 4 1/2" capscrew (15) and fasten using 5/8"-11 (17) and 5/8" lockwashers (16).

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3. **PASSENGER'S SIDE PUSH ARM:** Place the rear frame plate section of the passenger's side push arm (3) up between the sway bar and the outside surface of the frame rail, just ahead of the vehicle tie rod. Place the large hole in the rear frame plate section of the push arm (3) over the threaded end of the 3/4"-10 X 1-3/4" "L" head capscrew (18) installed earlier into the frame rail. (Be especially careful to prevent the 3/4"-10 X 1-3/4" "L" head capscrew (18) from being pushed into the boxed frame rail.) Fasten the 3/4"-10 X 1-3/4" "L" head capscrew (18) using a 3/4"-10 nut (34) and 3/4" lockwasher (20). Insert 5/8"-11 X 4-1/2" capscrew (15) through each of the remaining smaller holes in the rear frame plate section of the push arm (3) and through the previously reamed out and drilled holes in the boxed frame rail. Install a bolting angle (8) on to the threaded end of each 5/8"-11 X 4-1/2" capscrew (15) and fasten using 5/8"-11 nuts (17) and 5/8" lockwashers (16).

4. **MOUNTING FRAME:** Install the mounting frame (1) with the vertical flange of the upper cross angle between the frame rail and against the back side of the vehicle front cross member. Fasten the mounting frame (1) to the cross member using two 1/2"-13 X 1-1/2" capscrews (9) with 1/2" flatwashers (12), (against cross member), 1/2" lockwashers (13), and 1/2-13 nuts (14). Insert 1/2"-13 X 4" capscrews (11) cut through the hone frame angles of the mounting frame (1) and through the slotted holes in each frame rail. Install a bolting angle (7) onto the threaded end of each of the 1/2"-13 X 4" capscrews (11) and fasten using 1/2" lockwashers (13) and 1/2"-13 nuts (14). Place driver's and passenger's side clamp plates (4),(5) onto the horizontal flange of the upper cross angle of the mounting frame (1) with the ends of the clamp plates laying on top of the bottom flange of each vehicle frame rail. Place a 1/2" flatwasher (12) between each clamp plate (4),(5) and the cross angle of the mounting frame (1) at the inner hole of each clamp plate (4),(5). Align the holes in the clamp plates (4),(5) with the corresponding holes in the horizontal flange of the upper cross angle and fasten together using 1/2"-13 X 2" capscrews (10), 1/2" lockwashers (13) and 1/2"-13 nuts (14). Align the three holes in the front section of each push arm (2),(3) with the holes in the end plates of the lower push angle on the mounting frame (1). Fasten each of the push arms (2),(3) to the mounting frame (1) using three 1/2"-13 X 1-1/2" capscrews (9), 1/2" lockwashers (13), and 1/2"-13 nuts (14). Remove the jack stands from under the frame and lower vehicle to the ground.

5. **FASTENERS:** Hold the mounting frame (1) tight against the bottom of the vehicle frame and tighten the 1/2" fasteners holding it to the vehicle front cross member. Tighten the 1/2" fasteners holding the clamp bars (4),(5) to the horizontal flange of the cross member of the mounting frame (1). Tighten the 1/2" fasteners holding the front frame angles of the mounting frame (1) to the vehicle frame rails. Hold the push arms (2),(3) tight against the outside and bottom flange of the frame rails and tighten the 5/8" and 3/4" fasteners holding them to the frame. Adjust the 3/4" capscrews (19) using the 3/4" jam nuts (47) so that the heads of the capscrews are tight against the push angles of the mounting frame (1). Lock the 3/4" capscrews (19) in place using the rear 3/4" jam nuts (47). Tighten the 1/2" fasteners holding the push arms (2),(3) to the mounting frame (1).

6. **LIFT FRAME:** Clean paint and burrs from the outside tube ends of the lift frame and the inside surfaces of the receiver tubes of the front mounting frame (1).

SPECIAL NOTE:

Liberally coat the entire tube ends of the lift frame, the inside surfaces of the receiving tubes and threads of the slack adjusting bolts on the receiver tubes with chassis grease or anti-seize lubricant. Back off the slack adjusting bolts on the receiver tubes until they no longer protrude inside the tubes. Slide the lift frame into the receiver tubes of the front mounting frame (1) until the fastening holes line up. Tighten the slack adjusting bolts on the receiver tubes until the lift frame will just slide in and out of the receiver tubes. Secure the lift frame to the front mounting frame using 5/8" hinge pins (26) and hair pin cotters (27).

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7. **LIFT ARM:** Install the lift arm (24) and lift cylinder or electric hydraulic unit onto the lift frame using the 5/8"-11 X 5-1/2" capscrew (25) through the upper lift frame ears and the rear lift arm hole. Place a 5/8"-11 X 4-3/4" capscrew through the front lift arm hole and the ram end of the lift cylinder or electric hydraulic unit. Place a 5/8"-11 X 3-1/4" capscrew through the lower lift frame ears and stationary end of the lift cylinder or electric hydraulic unit. Fasten the three 5/8"-11 capscrews using three 5/8"-11 lockouts (32).

8. **LIFT CHAIN:** Attach each end of the lift chain (40) to the two holes in each of the diagonal braces of the push frame using 7/16" -14 “U” bolts (41), 7/16" lockwashers (43), and 7/16"-14 nuts (42

9. **PUSH FRAME:** Install the push frame onto the plow blade with the upper and lower pivot holes lined up with the pivot holes in the back of the plow blade. Insert the shorter pivot pin (36) down through the upper pivot holes. Insert the longer pivot pin (39) down through the lower pivot holes. Secure the pivot pins (36),(39) using 1/4" X 2" cotter pins (23).

10. **ANGLE CYLINDERS:** Install the angle cylinders between the push frame and the ears on the back side of the plow blade with the rod end of the cylinders toward the plow blade. The elbows in the ports of the angle cylinders should be between the angle cylinders and the push frame.

    NOTE: When installing the angle cylinders on 8' and 8-1/2' plow blades, place four 1-1/4" flatwashers (30) between each lower push frame ear and the stationary end of each angle cylinder.

    Attach the stationary end of the angle cylinders to the push frame using the two shorter cylinder pins (22). Attach the rod ends of the angle cylinders to the back side of the plow blade using the two longer cylinder pins (44). Secure the cylinder pins using 1/4” X 2" cotter pins (23).

11. **PLOW’ MARKERS:** Attach each plow marker (33) to the two holes in the upper outer surface of each end rib of the plow blade using two 5/16"-18 X 1" capscrews (35), 5/16" lockwashers (37), and 5/16"-18 nuts (38).

12. **HOOK UP PINS:** Compress each hook up pin spring (50) slightly and place them between the inner most ear and the center ear on each side of the push frame with the hole through the center of each spring lined up with the pin holes in the push frame ears. Insert each hook up pin (48) through the pin hole in each inner most ear of the push frame, through the center of the springs (50), and out through the center and outside ears on each side of the push frame. Compress the hook up pin springs (50) slightly and secure the hook up pins (48) using a 1" snap ring (49) in the snap ring groove of each hook up pin (48). (The snap rings should be between the end of the spring and the inner surface of each of the center ears on the push frame.)

13. **PLOW TO VEHICLE ATTACHING:** Pull back and lock the spring loaded hook up pins (48) on each side of the push frame. Attach the lift chain to the lift arm hooks and lift the back end of the push frame up level using the vehicle hydraulics. Line up the spring loaded hook up pins with the corresponding set of holes in the lower part of the mounting frame. Unlock the spring loaded hook up pins so that they go completely through the holes in the mounting frame and the push frame ears. Adjust the lift chain at the lift chain hooks on the lift arm so that the plow blade will lift fully and also be able to follow the ground contour while plowing.

    NOTE: If the lift chain does not pull evenly, shorten the longer side by attaching at a different link or at half a link where the chain is attached to the pushframe with the 7/16" “U” bolts.

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14. **PUSH FRAME STOP BOLTS:** Screw a 5/8"-11 jam nut (29) all the way onto each of the 5/8"-11 X 3" full thread capscrews (28). Place the capscrew/jam nut assemblies up through the ears on each side of the lower lift frame with the heads of the capscrews down. Fasten with a 5/8" lockwasher (31) and jam nut (29). Adjust the 5/8"-11 X 3" full thread capscrews (28) with the jam nuts (29) so that the heads of the capscrews (28) contact the push frame before the upper pivot section of the push frame contacts the lift arm or the lift cylinder / out front electric hydraulic unit while lifting plow or stacking snow.

    NOTE: If the push frame is attached to a different set of connecting holes on the mounting frame, the push frame stop bolts should be checked and may need to be readjusted to prevent the push frame from contacting the lift arm, or the lift cylinder/out front electric hydraulic unit while lifting plow or stacking snow.

    CAUTION: CHECK THE TRIPEDGE ADJUSTMENT AT THIS TIME.

A. THE SPRINGS ARE PROPERLY ADJUSTED WHEN A PIECE OF PAPER CAN BE PLACED BETWEEN THE COILS.

B. IF THE TRIPEDGE SPRINGS NEED ADJUSTMENT, LOOSEN THE BOTTOM LOCK NUT ON BOTH SPRING ASSEMBLIES. ROTATE THE TOP NUT UNTIL THE SPRINGS ARE PROPERLY ADJUSTED.

C. BE SURE TO TIGHTEN THE BOTTOM LOCK NUT SECURELY ON BOTH ASSEMBLIES TO THE TOP NUT TO PREVENT LOOSENING OF THE ASSEMBLIES.

NOTICE: Diamond Equipment or Meyer Products assume no responsibility for installations not made in accordance with these instructions.

Instructions are subject to change without notice.

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