



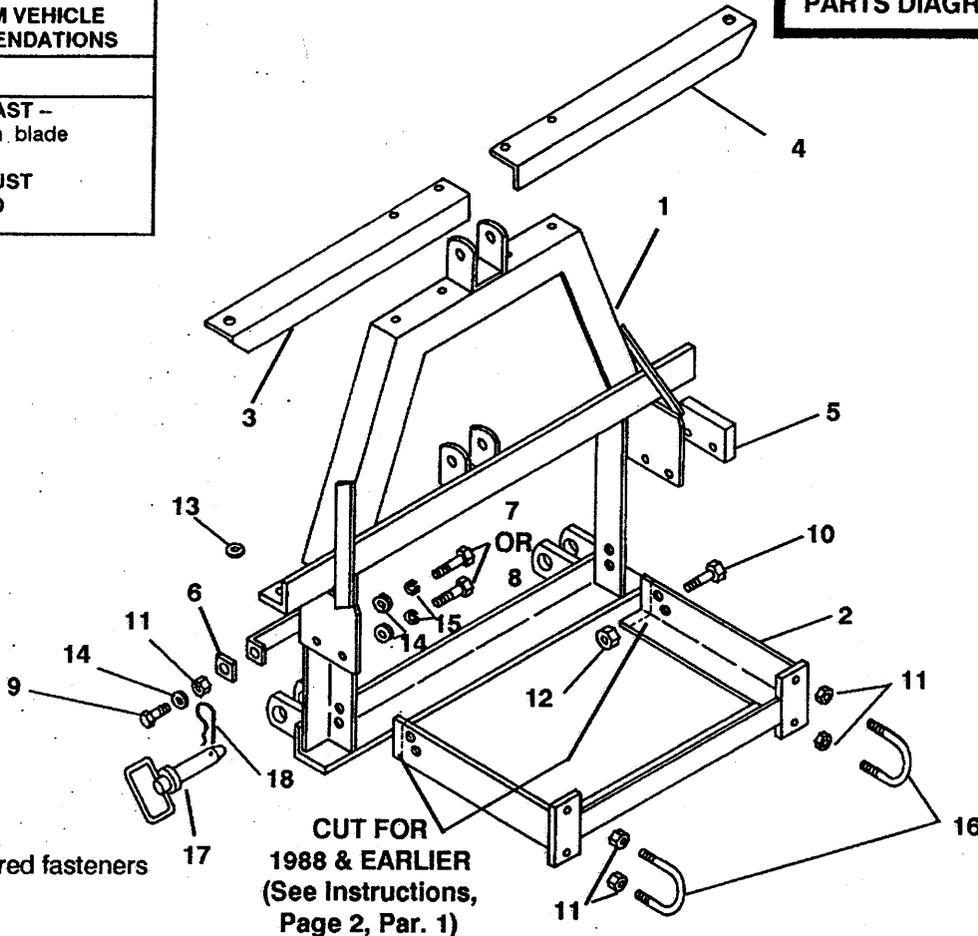
WESTERN PRODUCTS  
 7777 NORTH 73RD STREET  
 P.O. BOX 23045  
 MILWAUKEE, WISCONSIN 53223

**DD** A DIVISION OF DOUGLAS DYNAMICS, INC.

Box No. 60700  
 Model No. 930  
 Dodge Raider/  
 Mitsubishi Montero  
 June 20, 1989

**PARTS DIAGRAM & LIST**

**MINIMUM VEHICLE RECOMMENDATIONS**  
 Aux. Light Kit  
**REAR BALLAST -**  
 300 lbs. when blade is attached  
**WEIGHTS MUST BE SECURED**



**NOTE:** Colored fasteners are Metric.

**CUT FOR 1988 & EARLIER**  
 (See Instructions, Page 2, Par. 1)

ITEM	PART NO.	QUAN	DESCRIPTION
1	60673	1	LIFT FRAME 930
2	60687	1	THRUST FRAME
3	60692	1	LIGHT BRACKET DR
4	60693	1	LIGHT BRACKET CU
5	61303	2	FRAME SPACER (1988 & Earlier - weld to Lift Frame)
6	61304	2	BUMPER SPACER (1989 & Later)
7	95050	4	M10X1.25X30 HX CS G8.8 (1989 & Later)
8	95053	4	M10X1.25X50 HX CS G8.8 (1988 & Earlier)
9	90040	2	3/8-16X1-1/4 HX CS G5 ZP
10	90127	2	5/8-11X1-1/2 HX CS G5 ZP
11	91333	6	3/8-16 PT HX LK NUT NYIS ZP
12	91337	2	5/8-11 PT HX LK NUT NYIS ZP
13	91132	2	5/16 PLAIN WASHER TY A SAE ZP
14	91103	6	3/8 PLAIN WASHER TY A STD ZP
15	95173	4	M10 SP LK WASHER
16	90498	2	3/8-16X2-1/2 U-BOLT, ROUND BEND
17	93028	2	1X3-1/2 HITCH PIN
18	91965	2	.148X2.9375 HAIRPIN COTTER ZP

**PARTS NOT SHOWN**

90661	3	#10-24X3/8 SL HXW TCTS TY D ZP
60109	1	FLASHER HD

Abbreviations	
CS	Capscrew
CU	Curb Side
DR	Driver Side
G	Grade
HD	Heavy Duty
HX	Hex
HXW	Hex Washer
LK	Lock
M	Metric
NYIS	Nylon Insert
PT	Prevailing Torque
SAE	Society of Automotive Engineers
SL	Slotted
SP	Spring
STD	Standard
TCTS	Thread Cutting Tapping Screw
TY	Type
ZP	Zinc Plated

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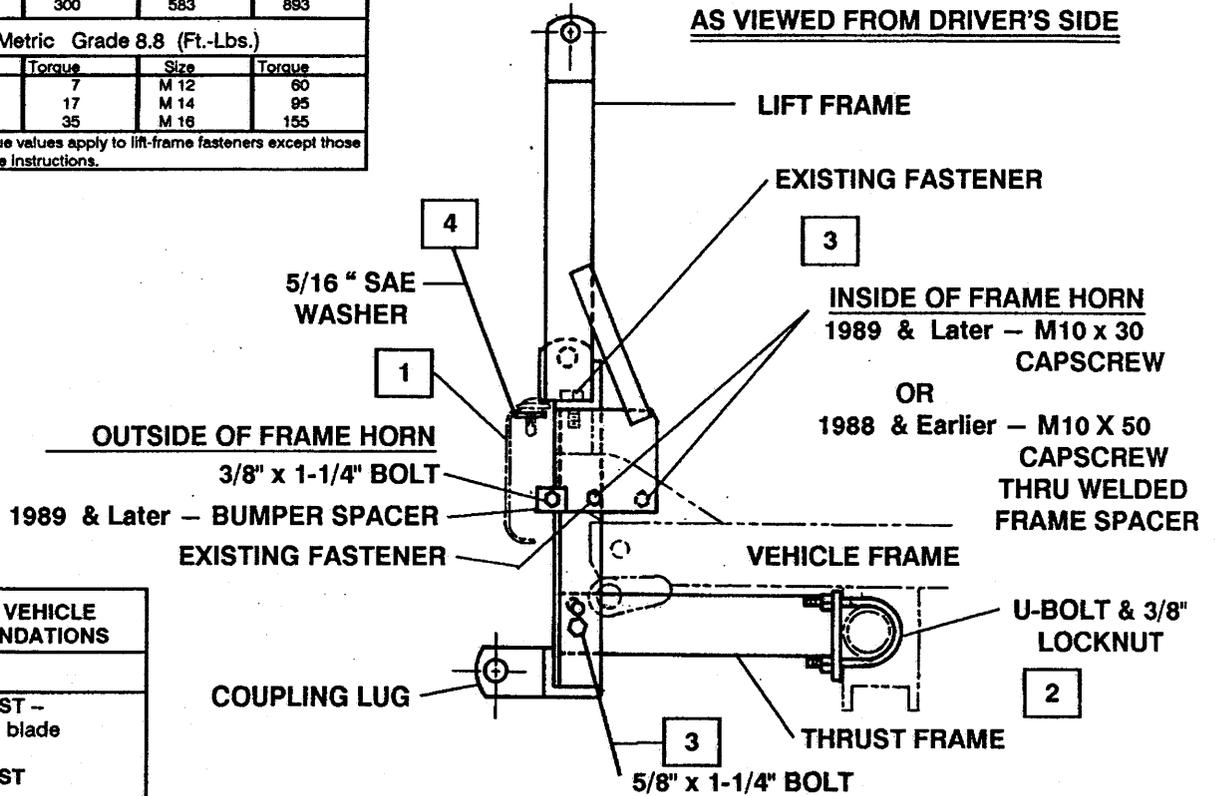
**INSTALLATION INSTRUCTIONS**

Recommended Fastener Torque Chart (Ft.-Lbs.)			
Size	SAE	SAE	SAE
	Grade 2	Grade 5	Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	48
3/8-24	24	48	88
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	88	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	202	378	591
1-8	300	583	893

Metric Grade 8.8 (Ft.-Lbs.)			
Size	Torque	Size	Torque
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155

These torque values apply to lift-frame fasteners except those noted in the instructions.



MINIMUM VEHICLE RECOMMENDATIONS
Aux. Light Kit
REAR BALLAST – 300 lbs. when blade is attached
<b>WEIGHTS MUST BE SECURED</b>

**IMPORTANT:** Read instructions before assembling. Bolts should be finger tight until the installation is completed to allow sufficient adjustment for aligning holes and locating parts to vehicle frame. Preventive maintenance can prevent accidents. Regularly inspect all components and repair or replace any worn, loose, or damaged parts immediately. Remember to use standard methods and practices when attaching snowplow including wearing safety glasses during drilling. Install snowplow as follows:

**CAUTION:** To prevent damage to gas lines, brake lines, gas tank vapor lines or wiring during installation, move and replace as necessary.

1. Remove bumper with brackets and front splash plate. Replace fasteners that secure rear splash plate. NOTE: Retain front splash plate and fasteners and reinstall whenever Lift Frame is removed from vehicle.  
1988 AND EARLIER MODELS, cut 9/16" off front of both Thrust Frame angles (See Parts Diagram). Also, accurately align matching holes in Frame Spacers to outside of Lift Frame side plates (See Parts Diagram), clamp in place and weld along top. Paint Frame Spacers.
2. Place Thrust Frame bars against tubular cross member and temporarily rest angle iron legs on stabilizer bar. Loosely attach with U-bolts and 3/8" locknuts.
3. Align holes in Lift Frame cross angle to top holes in frame horns. Fasten with existing bumper fasteners. Attach Lift Frame side plates to frame horns with M10 x 30 (1989 and later) or M10 x 50 (1988 and earlier) capscrews, M10 lock washers and 3/8 plain washers. Secure Thrust Frame angles to Lift Frame with 5/8" x 1-1/2" capscrews and locknuts. Tighten U-bolt nuts (DO NOT CRUSH TUBULAR CROSS MEMBER).

**TIGHTEN ALL BOLTS TO CORRESPONDING TORQUE VALUES NOTED IN FASTENER TORQUE CHARTS.**

Continued on next page.

- Replace bumper, aligning the rear hole of bumper bracket to the original front mounting hole of frame horn. Fasten with existing bumper fastener. Align front bumper bracket hole to welded tab and attach with furnished 3/8" x 1-1/4" capscrew, plain washer and locknut. Add 1/4" Bumper Spacer between the welded tab and the bumper bracket on 1989 and later models (See Parts Diagram). Tighten all fasteners. Retain plastic plugs in top flange of bumper with 5/16" SAE plain washers.

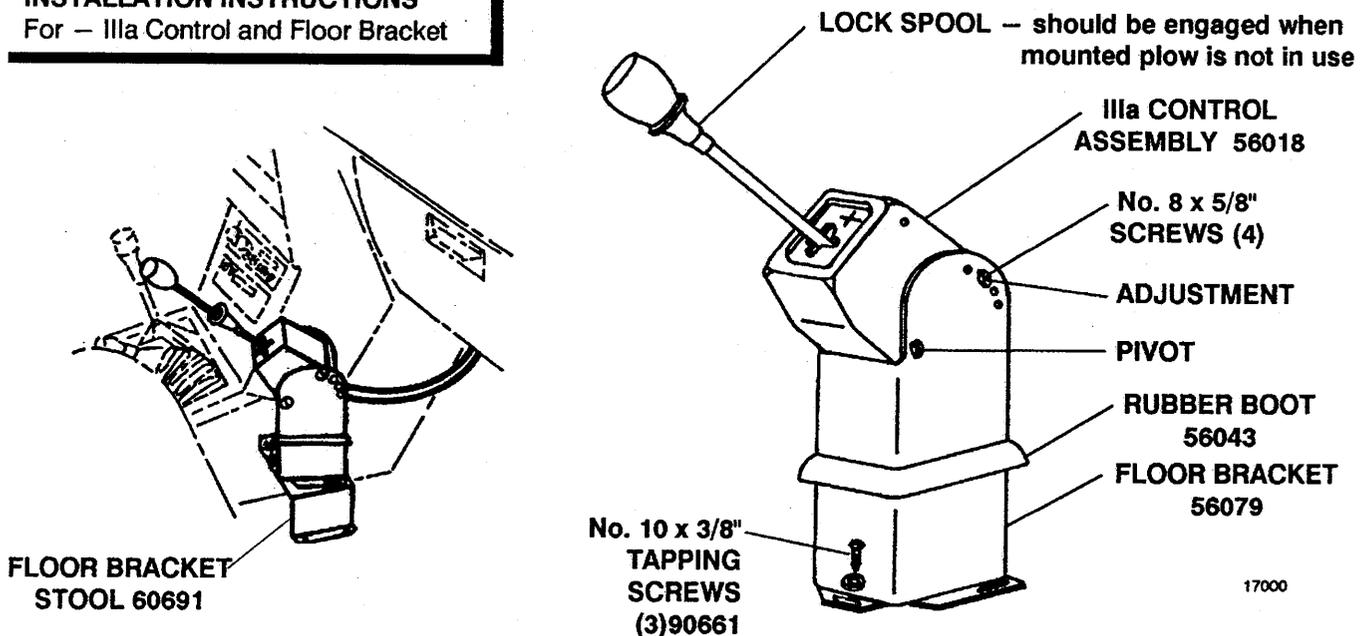
**LIGHT KIT ASSEMBLY** - Use Box No. 60750 Headlamp Kit - 5 Wire (Pair) and Box No. 60755 Harness Bracket Kit - 2B/2D 5 Wire NF.

**NOTE:** Directional light flasher located next to driver's side kick pad **MUST BE REPLACED** with furnished flasher. Use furnished angle iron brackets in place of formed brackets in Harness Bracket carton.

**NOTE:** Assemble and install balance of snowplow per instructions furnished with each respective assembly.

### INSTALLATION INSTRUCTIONS

For - Illa Control and Floor Bracket



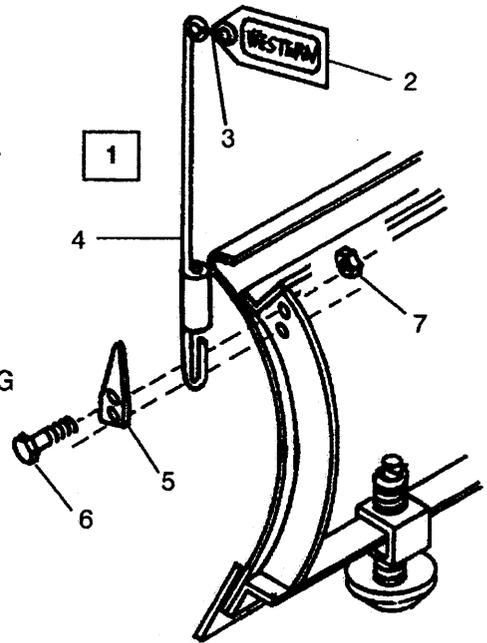
- Temporarily assemble Floor Bracket to Floor Bracket Stool with three (3) No. 10 x 3/8" long hex head tapping screws. Place Rubber Boot onto body of Floor Bracket and assemble Illia Control to Floor Bracket with four (4) No. 8 x 5/8" long hex head screws. Position assembly on passenger side of tunnel in a convenient location for the driver. Mark location of the four (4) mounting holes in Floor Bracket Stool. Check under hole locations for wires or other interference before drilling four (4) 9/64" diameter holes in marked locations. Remove Floor Bracket assembly from Stool. Install Stool using four (4) No. 10 x 1" sheet metal screws and lock washers.
- Pass Illia Control cables through holes drilled in firewall per hydraulic system instructions.
- Place Floor Bracket assembly on top of Stool rotated to desired position. Secure with three (3) No. 10 x 3/8" long hex head tapping screws.
- Slide Rubber Boot down to cover attaching flange screws.

**INSTALLATION INSTRUCTIONS  
FOR 59700 BLADE GUIDE ASSEMBLY**

Insert pointed end of clamp into coil of Blade Guide Rod. Attach a Blade Guide Rod to each outer rib using 5/16" x 1" capscrews and lock-nuts as shown in diagram..

**PARTS LIST  
9700 – BLADE GUIDE ASSEMBLY**

Item	Part No.	Quan.	Description
1	59697	2	BLADE GUIDE ROD, S-HOOK & FLAG
2	59694K	1	BLADE GUIDE FLAG
3	59696	1	S-HOOK
4	59691	1	BLADE GUIDE ROD
5	59946	2	CLAMP
6	90020	4	5/16-18X1 HX CS G2 ZP
7	91332	4	5/16-18 PT HX LK NUT NYIS ZP



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