



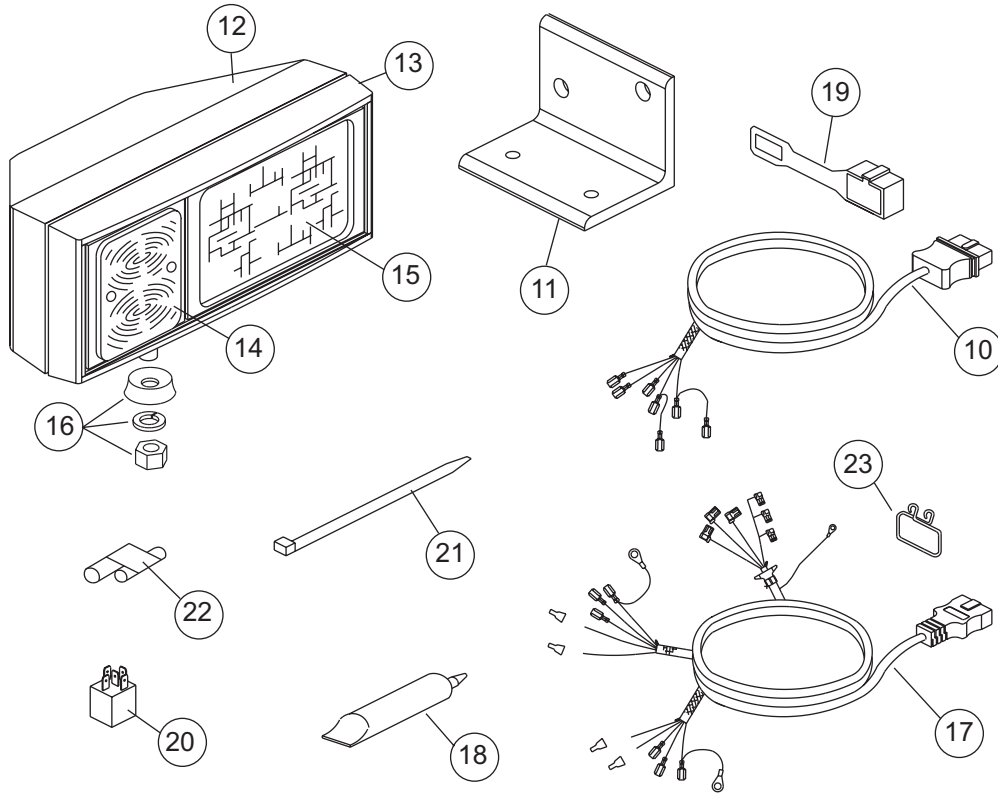
GMC Topkick 1995 - 19__ Chevy Kodiak 1995 - 19__ Peculiar Light Kit

Parts List and Installation Instructions

Table of Contents

Parts List	1
Safety Information	3
Snowplow Light Installation	4
Vehicle Harness and Cable Installation	5
TopKick and Kodiak Frame Wiring	6
Plug-In Harness Installation	7
Relay Connections Diagram	8
Headlamp Aiming	9

20710 Commercial Light Kit		
Part #	Qty	Description
*	1	Plug -in Harness
8324	6	Cable Ties, 3/16" x 14"
21651	1	Split Rubber Grommet
21288	1	Blade Terminal
* - available as part of kit only		



8430-1 Common Light Kit Parts List				21049 Parts Bag			
Ref #	Part #	Qty Req	Description	Ref #	Part #	Qty Req	Description
10	20680	1	9-Pin Vehicle Harness Commercials	18	8329K	1	Dielectric Grease Tube
11	20679	1	Motor Relay Mounting Bracket	19	8291	2	SEHP Plug Cover
12	8328	2	Headlamp (DS or PS)	20	8293	2	Headlamp Relay
13	6122	1	Bezel w/ Fasteners (DS or PS)	21	3666	25	Cable Tie – 8"
14	6123	1	Lens w/ Fasteners (DS or PS)	22	5776	3	Bullet Receptacle Connector 18-14 AWG - insulated
15	6728	2	2E1 Sealed Beam Light-Glass	ns	90106	2	3/8" x 1-1/4" Cap Screw
16	6128	1	Headlamp Swivel & Fasteners	ns	90352	2	3/8" Locknut
17	8246 or	1	9-pin Snowplow Harness – SEHP	ns	90315	2	3/8" Flat Washer
17	21293	1	9-pin Snowplow Harness – SEHP & Insta-Act [®] hydraulics	ns	21526	1	Convuluted Tubing, .75 ID, Black, 12" long
ns	6664	1	Sealed Beam Gaskets Set	23	20128	1	Wire Hook
ns	A6153	1	2E1 Retainer Fingers				
ns	21049	1	Parts Bag				
*8430 only				ns = not shown			

SAFETY INFORMATION

Read this manual and labels on the snowplow before installing or operating the snowplow.

WARNING




Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

CAUTION

Indicates a situation that, if not avoided, could result in minor personal injury and/or damage to product or property.

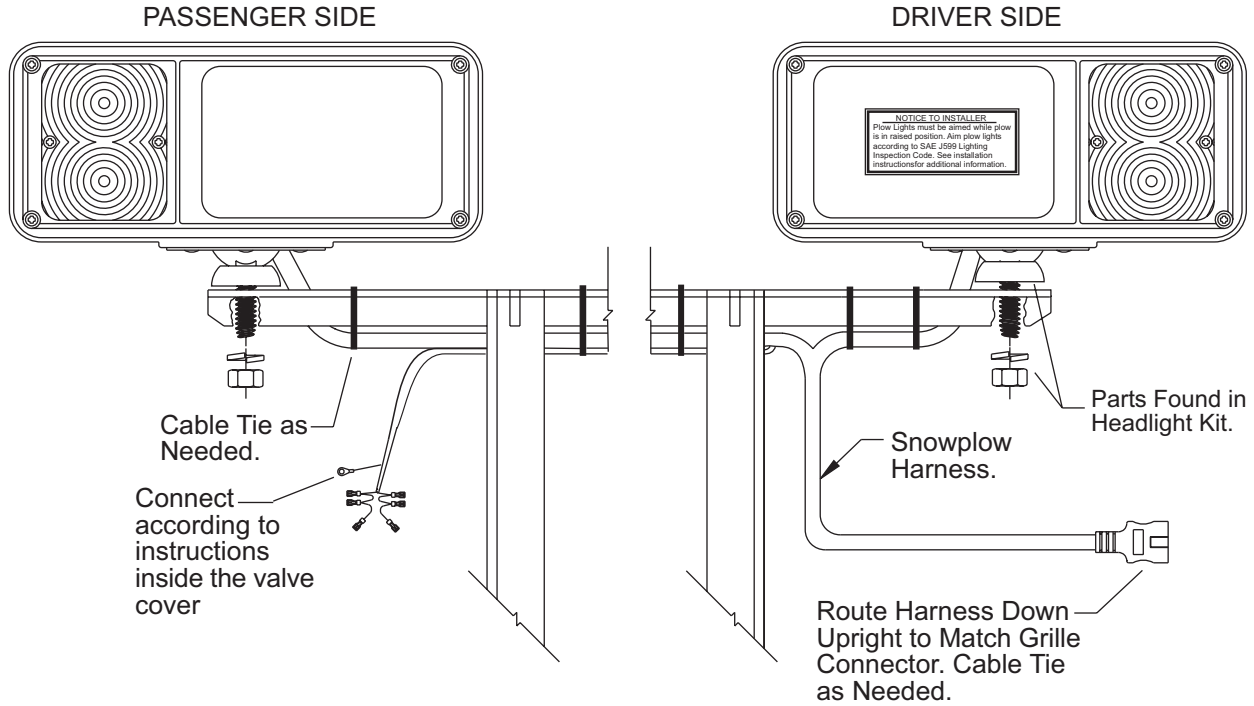
NOTE: Identifies tips, helpful hints and maintenance information the reader should know.

Torque all fasteners according to the torque chart. For proper fit, do not tighten fasteners until instructed to do so.

NC FASTENER TORQUE (FT-LB)			
DIAMETER- THREADS PER INCH	GRADE		
	 G2	 G5	 G8
1/4 - 20	6	9	13
5/16 - 18	11	18	28
3/8 - 16	19	31	46
7/16 - 14	30	50	75
1/2 - 13	45	75	115
9/16 - 12	66	110	165
5/8 - 11	93	150	225
3/4 - 10	150	250	370
7/8 - 9	150	378	591
1 - 8	220	583	893

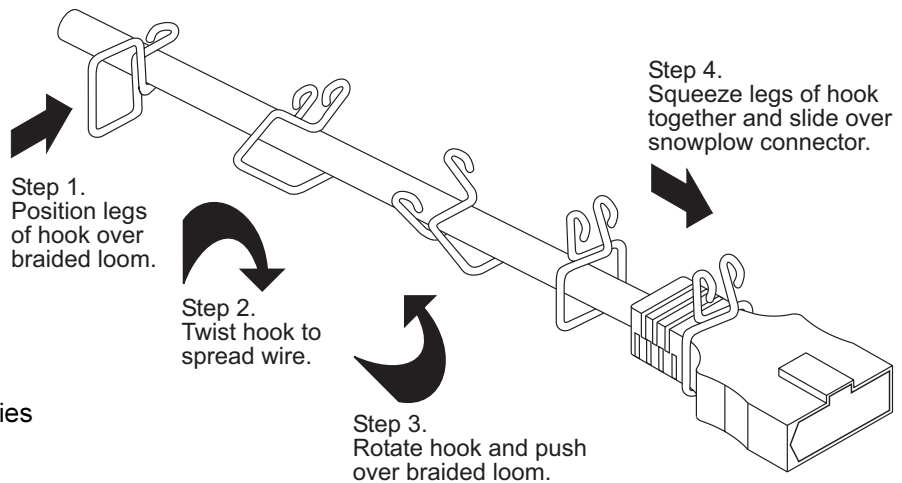
SNOWPLOW LIGHT INSTALLATION

1. Attach snowplow lamps with harness to the headgear with the park turn lamps toward the outside. Route the harness down the driver-side upright on the headgear.
2. Remove the plastic cover from the valve and install the solenoid wires according to the instructions on the inside of the cover. With the harness strain relief in place, install the plastic valve cover.



3. Attach the snowplow cable assembly to the motor terminals. Connect the black and red striped wire to the positive terminal. Connect the black wire to the negative terminal. Connect the smaller black wire with the orange stripe to the negative terminal of the motor.

4. Slide the small pocket of cable boot, from the hydraulic kit, over the ground clip for later off-truck storage of the harness connectors.
5. Secure the harness with cable ties as needed.
6. Install the wire hook as shown.



VEHICLE HARNESS AND VEHICLE CABLE INSTALLATION

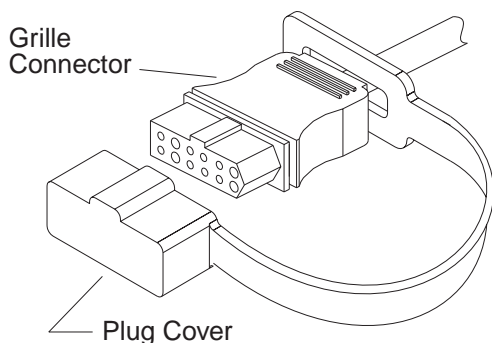
⚠ WARNING

Disconnect battery before installing, removing or replacing electrical components such as the motor, motor relay or battery cables.

⚠ CAUTION

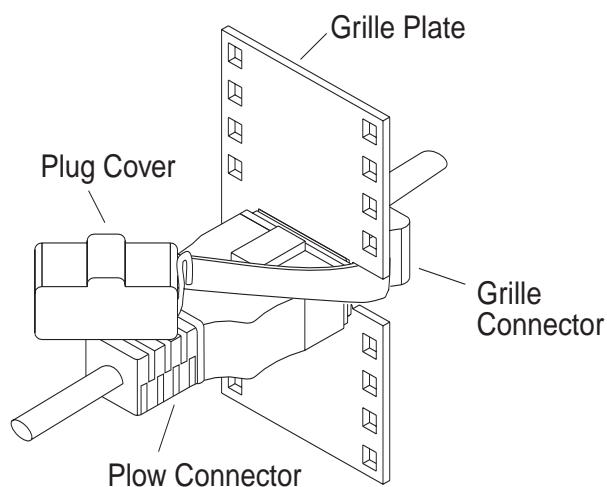
Check for wires, hoses or any other obstructions on the passenger-side frame before drilling.

1. Mount the motor relay mounting bracket to the passenger-side shock tower on the cab side. Use the existing mounting hole and a 3/8 x 1-1/4" cap screw, washer and locknut. If needed, use the motor relay mounting bracket as a template to mark and drill a second 13/32" mounting hole.
2. Mount the motor relay from the hydraulic kit to the motor relay mounting bracket with 1/4-20 x 3/4" cap screw, flat washers and locknuts from the hydraulic kit.
3. Stretch the rectangular opening of the plug cover strap over the grille connector end of the vehicle harness. Place the plug cover over the molded connector on the harness. Repeat for the vehicle cable assembly from the hydraulic kit.



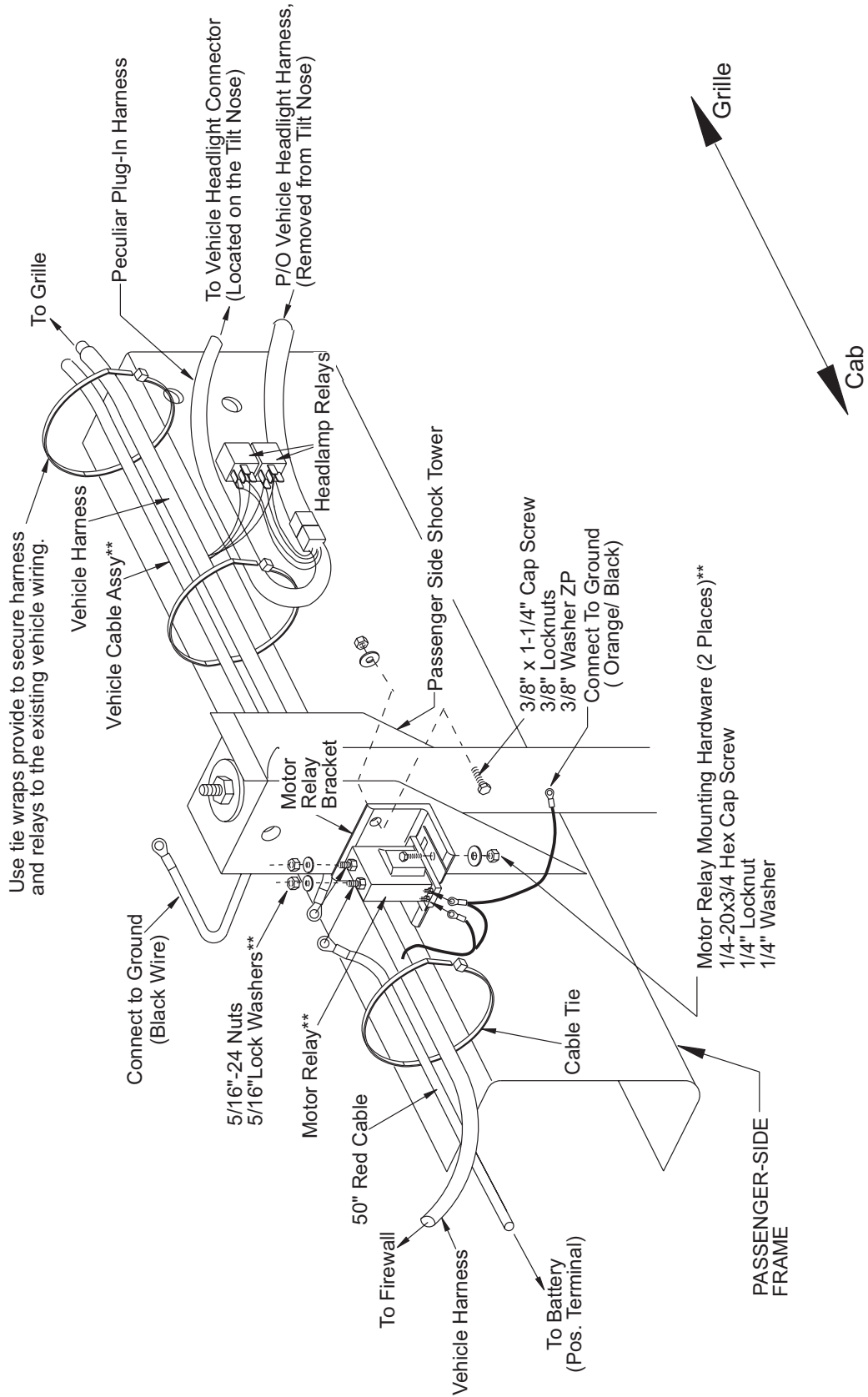
4. Find a place on the driver side of the grille to attach the vehicle harness plug within reach of the plow harness plug. Route the grille plug through the grille. Install the grille plate from the hydraulic kit by sliding it into the groove on the molded plug. Attach the grille plate to the grille with cable ties.

5. Route the vehicle harness from the grille down to the lower radiator support and along the inside edge of the support to the passenger side of the frame. Use existing holes and cable ties to secure the harness to the radiator support. Allow for a service loop where the vehicle harness passes from the tilt nose to the support. Continue routing the vehicle harness along the top of the passenger-side frame, past the shock tower to the fire wall. Do not secure with cable ties at this time.



6. Connect the vehicle harness to the motor relay (small ring terminals on brown/red and orange/black wires) using #10-32 nuts and lock washers from the hydraulic kit. Connect the 24" orange/black lead to ground. Clean away any paint or dirt to ensure a good ground connection.
7. Drill a 7/8" hole in a convenient location on the passenger side of the fire wall.
8. Route the remaining half of the vehicle harness from the shock tower to the vehicle cabling that runs from the frame up to the fire wall. Feed the fuse holder, then the control cable, through the hole drilled. Inside the cab, route the control cable to the mounted control. Connect the red wire to a switched accessory line (on when the ignition switch is on) using fuse taps from the hydraulic kit or blade terminals and insulated receptacles. Plug the control into the vehicle harness.

TOPKICK/KODIAK FRAME WIRING



** From hydraulic kit

⚠ CAUTION

Avoid any sharp, hot or moving parts when securing a harness to the vehicle.

9. Attach the vehicle harness to the existing vehicle wiring with cable ties avoiding any sharp, hot, or moving parts. Place a rubber grommet into the hole in the firewall around the vehicle harness.

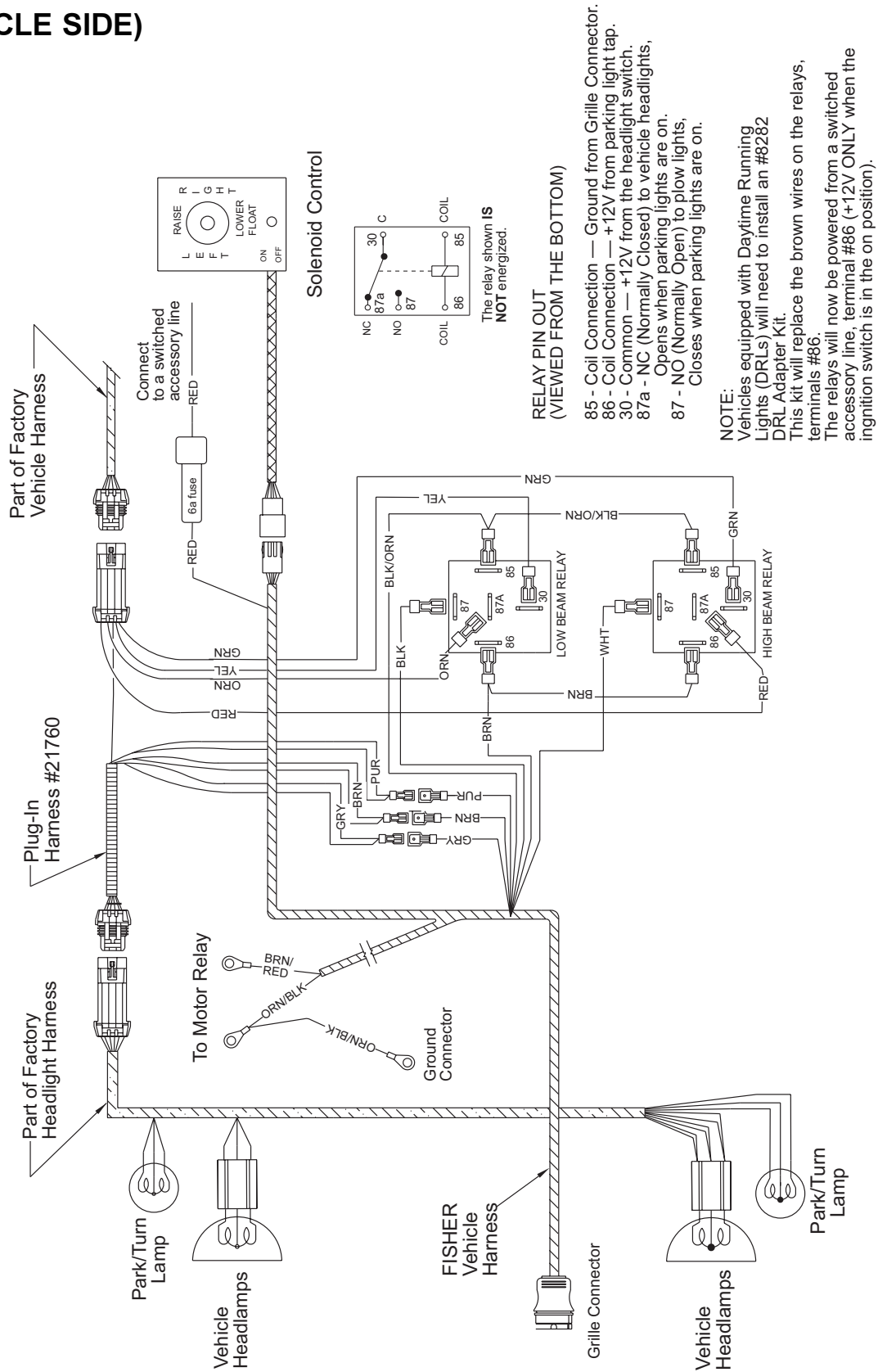
NOTE: Mount the control according to the instructions in the control kit.

10. Find a place on the passenger side of the grille to attach the vehicle cable assembly plug within reach of the snowplow cable plug. Route the grille plug through the grille. Install the grille plate by sliding it into the groove on the molded connectors. Attach the grille plate to the grille with cable ties.
11. Install 12" length of anti-chafe convoluted tubing to the grille plug end of the vehicle cable assembly. The tubing should sit flush with the back edge of the grille plug. Hold the tubing in place with cable ties. Route the vehicle cable down to the passenger side of the frame to the motor relay. Allow for a service loop where vehicle harness passes from the tilt nose to the frame.
12. Connect the black/red stripe cable to one of the large motor relay terminals with one 5/16"-24 jam nut and lock washer. Split the vehicle cable as required to attach the black lead from the cable without a stripe to a ground bolt on the frame or the engine. When using the frame as a ground, remove any paint or dirt around the hole or bolt.
13. Attach the battery cable to the second large motor relay terminal with one 5/16"-24 jam nut and lock washer. Connect the other end to the "positive" battery terminal. Use a cable tie to attach the battery cable away from any sharp, hot or moving parts.
14. Lubricate the grille connectors with dielectric grease. Save the tube for future lubrication of the grille connectors.

PLUG-IN LIGHT HARNESS INSTALLATION

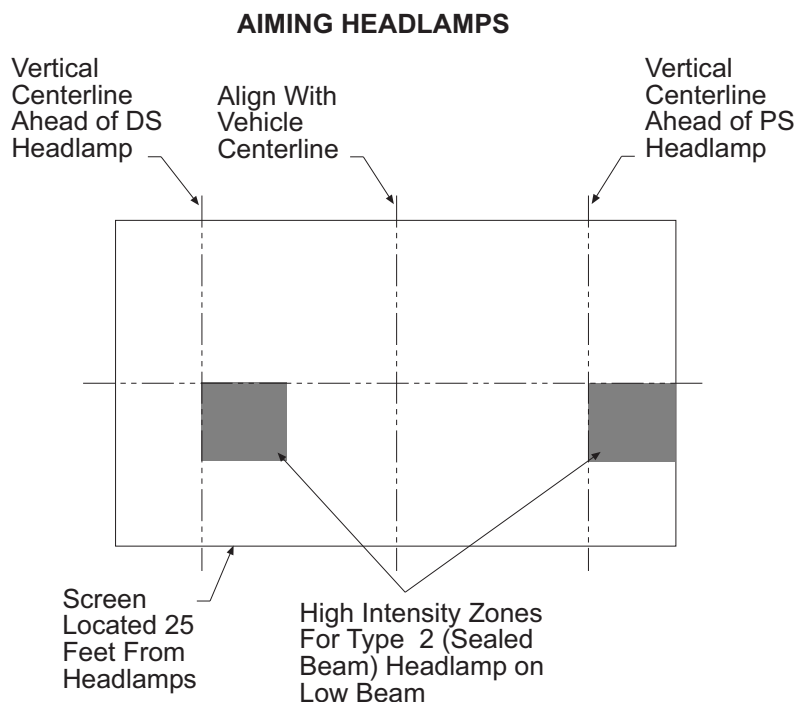
1. Locate the passenger-side vehicle headlamp connector below the headlamp housing. Remove the gray connector lock by depressing the tabs on both sides and pulling outward. Save the connector lock.
2. Disconnect the connector by lifting up on the locking tab and pulling it apart. Carefully unclip the vehicle headlamp harness and reroute it back toward the frame.
3. Connect the plug-in harness female connector to the male connector from the vehicle headlamp harness. Reinstall the gray connector lock. Route the plug-in harness back toward the frame using the existing cable clips. Connect the plug-in harness male connector to the vehicle headlamp harness female connector removed in step 2.
4. Connect the wires from the vehicle harness and the plug-in harness to the relays as shown on page 8.
5. Using the cable ties supplied, secure the relays, vehicle harness, plug-in harness, vehicle cable assembly and vehicle headlamp harness away from any sharp, hot or moving parts.
6. Reconnect negative battery cable.
7. Adjust headlamps according to instructions on Page 9.

TOPKICK/KODIAK SYSTEM DIAGRAM (VEHICLE SIDE)



HEADLAMP BEAM AIMING

- Place vehicle on level surface 25 feet in front of a matte-white screen, such as a garage door. The screen should be perpendicular both to the ground and to the vehicle centerline.
 - Check functioning of any "level-ride" control.
 - Check lens and aiming pad.
 - Check for bulb burn out, broken mechanical aiming pads and proper beam switching.
- The vehicle should be equipped for normal operation, the snowplow blade should be in place and in raised position. Below are points listed by the Society of Automotive Engineers (SAE) pertinent to headlamp aiming in specification #SAE J599d:
 - Remove ice or mud from under fenders.
 - See that no tire is noticeably deflated.
 - Check springs for sag or broken leaves.
 - See that there is no load in the vehicle other than the driver.
- Prepare vehicle for headlamp aim or inspection – before checking beam aim, the inspector shall:
 - Stabilize suspension by rocking vehicle sideways.
- Mark or tape the vertical centerline of the headlamps and the vehicle itself on the screen. Mark the horizontal centerline of the headlamps on the screen (distance from ground to headlamp centers).
- The correct visual aim for Type 2 headlamps (snowplow headlamps are Type 2; see number on face of sealed beam) is with the top edge of the high intensity zone of the lower beam below the horizontal centerline and the left edge of the high intensity zone on the vertical centerline (see diagram below)



Copyright © 1999 Douglas Dynamics, L.L.C. All rights reserved. This material may not be reproduced or copied, in whole or in part, in any printed, mechanical, electronic, film or other distribution and storage media, without the written consent of Fisher Engineering. Authorization to photocopy items for internal or personal use by Fisher Engineering outlets is granted.

Fisher Engineering reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used herein. Fisher Engineering and the vehicle manufacturer may require and/or recommend optional equipment for snow removal. Fisher Engineering offers a limited warranty for all snowplows and accessories. See separately printed page for this important information. The following are registered (®) and unregistered (™) trademarks of Douglas Dynamics, L.L.C.: FISHER®

Printed in USA