



WESTERN PRODUCTS
P.O. BOX 245038
MILWAUKEE, WISCONSIN 53224-9538



A DIVISION OF DOUGLAS DYNAMICS, L.L.C.

Vehicle Installation Instructions and
Parts List

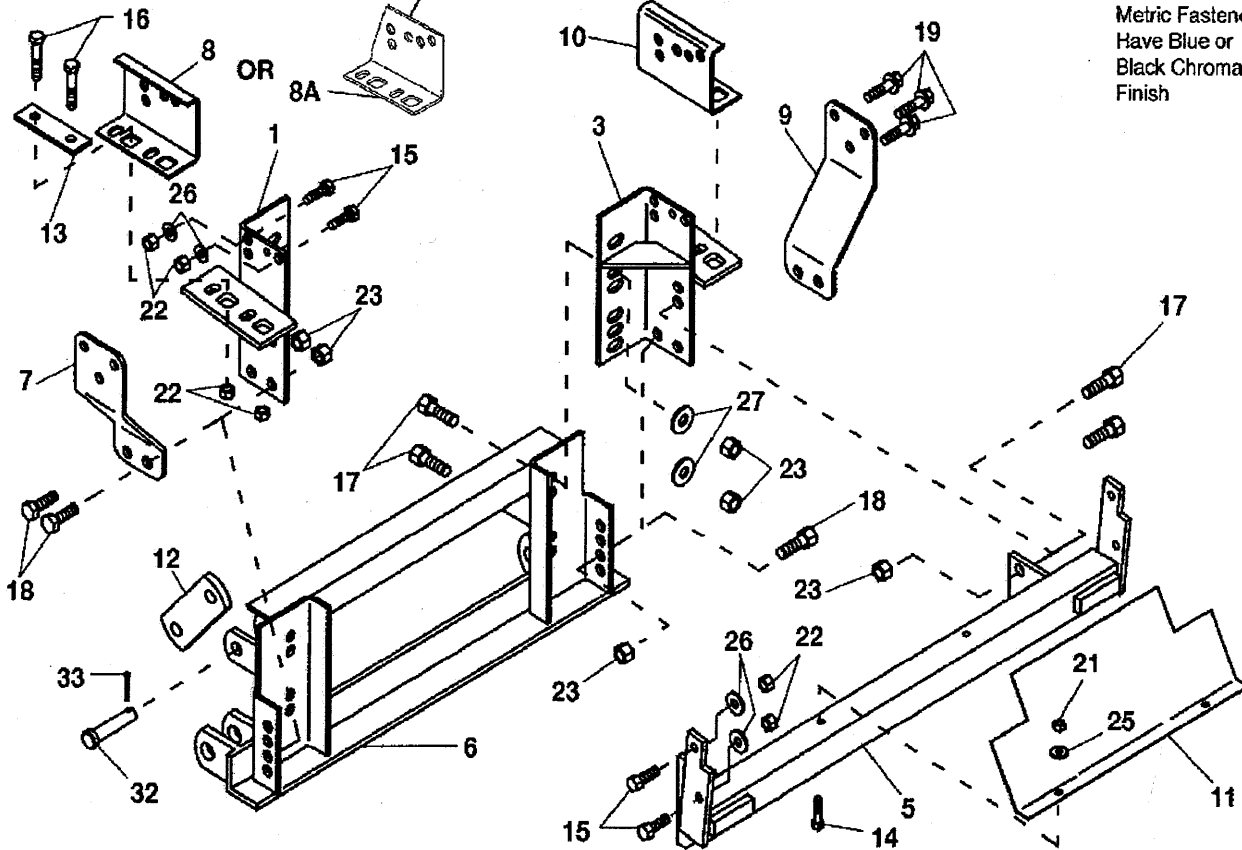
Model 1585
Mount Assembly Box No. 62330
Chev/GMC Light Truck 1988 & Later
Hydraulics Box No. 56365
Harness Kit No. 61545, 61515, 61580,
61555, 61585, or 61560
October 31, 2003

Refer to the current selection
list for minimum vehicle
recommendations and ballast
requirements.

For trucks
with in frame
cooler lines

Mount Assembly Box No. 62330
PARTS DIAGRAM & LIST

Metric Fasteners
Have Blue or
Black Chromate
Finish



ITEM	PART NO.	QTY.	DESCRIPTION
1	62487	1	MOUNT FRAME DR 1585
3	62488	1	MOUNT FRAME CU 1585
5	62295	1	THRUST FRAME
6	62310	1	SPREADER
7	62480	1	SUPPORT BRACKET DR
8	62482	1	DOUBLE PLATE DR
8a	62517	1	DOUBLE PLATE-A DR
9	62481	1	SUPPORT BRACKET CU
10	62483	1	DOUBLE PLATE CU
11	60810	1	SPLASH GUARD
12	61412	2	LINK ARM
13	62974	2	STOP PLATE
14	90039	2	3/8-16X1 HX CS G5 ZP
15	90100	8	1/2-13X1-1/2 HX CS G5 ZYC
16	90104	4	1/2-13X2-1/2 HX CS G5 ZP
17	90127	6	5/8-11X1-1/2 HX CS G5 ZYC
18	90128	4	5/8-11X1-3/4 HX CS G5 ZP
19	95085	6	M14X2X45 SFLS G10.9 Z/BUE/BLK
21	91333	2	3/8-16 PT HX LK NUT NYIS ZYC
22	91335	12	1/2-13 PT HX LK NUT NYIS ZYC
23	91337	10	5/8-11 PT HX LK NUT NYIS ZYC
25	91103	2	3/8 PLAIN WASHER TY A STD ZP
26	91105	8	1/2 PLAIN WASHER TY A STD ZYC

ITEM	PART NO.	QTY.	DESCRIPTION
27	91139	4	5/8 PLAIN WASHER TY A SAE ZP
32	93062	2	RIVET 3/4"X3-1/4" G5 ZYC
33	91911	2	5/32X1-1/2 COTTER PIN ZYC
NOT SHOWN			
	22381	1	BATTERY ADAPTERS, SIDE TERMINAL
	56080	1	DASH BRACKET
	61536	4	CABLE TIE - LONG
	90308	2	#10-24X3/4 RD MS BZP
	91098	2	#10 PLAIN WASHER TY A ZP/ZYC
	91401	2	#10-24 HX NUT ZP

Parts listed above may be found in the following assembly
62486 1 BOLT BAG ASSY 62330

Abbreviation Key			
BLK	Black	MS	Machine Screw
BZP	Black Zinc Plate	NYIS	Nylon Insert
CS	Cap Screw	PT	Prevailing Torque
CU	Curb-Side	RD	Round Head
DR	Driver-Side	SAE	Society of Automotive Engineers
G	Grade	SFLS	Serrated Flange Lock Screw
HX	Hex	STD	Standard
LK	Lock	THD	Thread
M	Metric	TLF	Top Lock Flange
		TY	Type
		ZP	Zinc Plate
		ZBC	Zinc Blue Chromate
		ZYC	Zinc Yellow Chromate

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Recommended Fastener Torque Chart (Ft.-Lb.)			
Size	SAE Grade 2	SAE Grade 5	SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
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	202	378	581
1-8	300	589	893

Metric Grade 8.8 (Ft.-Lb.)			
Size	Torque	Size	Torque
M 6	7	M 12	80
M 8	17	M 14	95
M 10	35	M 16	155

These torque values apply to mount assembly fasteners except those noted in the instruction.

IMPORTANT: Read instructions before assembling. Bolts should be finger tight until instructed to tighten according to the torque chart. Use standard methods and practices when attaching snowplow including wearing safety glasses during cutting, drilling, and welding.

Parts to be installed are furnished in mount box.

MOUNT FRAME

1. Remove air dam, bumper with end braces, splash shield, tow hooks, and tapped bars from inside of boxed frame rails. Bumper with end braces and tow hooks will be reinstalled during installation. Retain all other removed parts and replace whenever mount assembly is removed from vehicle.
2. On the driver-side, place mount frame to in-board side of boxed vehicle frame rail. See diagrams top of this page.

6-Lug Wheels: align top hole in mount frame with threaded hole in inner wall of vehicle frame rail.

8-Lug Wheels: align bottom hole in mount frame with threaded hole in inner wall of vehicle frame rail.

NOTE: If vehicle has oil cooler lines that interfere with the mount, they must be relocated. If interference occurs between the driver-side mount frame and brake lines or brackets, remove mount frame material as required to provide clearance. On vehicles with power steering cooler lines inside of vehicle frame, use mount frame as guide to drill 1/2" clearance hole to reattach cooler line bracket.

Make sure mount frame is tight to bottom and inner wall of vehicle frame. Drill out the threaded hole in the inner vehicle frame wall using a 1/2" drill. Remove burrs from inside of vehicle frame.

Install the formed double plate that matches the multi slotted mount frame plate inside the vehicle frame rail and against the inner wall. Use double plate, item 8a parts diagram, on vehicles with in-frame oil cooler lines.

Install a stop plate on top of the double plate inside the vehicle frame and align with the tow hook holes.

Attach the mount frame to the drilled out inner vehicle frame wall and double plate with a 1/2" x 1-1/2" cap screw, flat washer to double plate, and lock nut. Torque to 75 ft.lb.

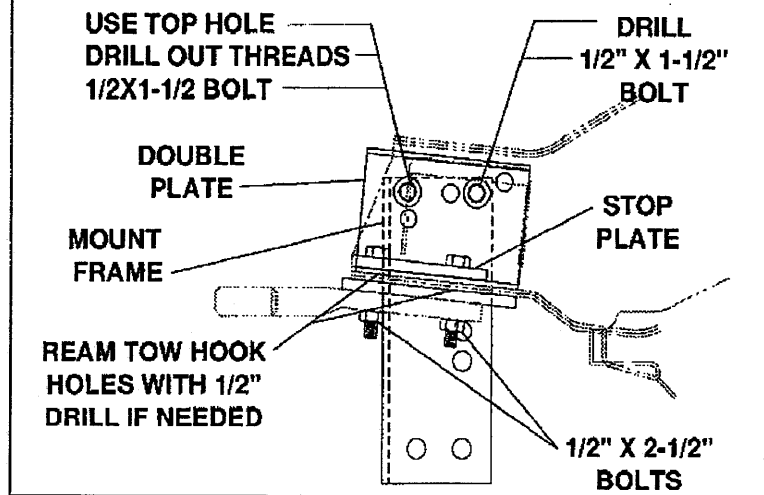
Install two 1/2" x 2-1/2" hex capscrews inside the frame rail through the stop plate, double plate, vehicle frame holes and mount frame. Install tow hook on the capscrews and attach with lock nuts. Torque to 75 ft.lb.

NOTE: Tow hook fasteners must have nuts to the outside of the frame for bumper bracket clearance. Verify back of mount frame and double plate are tight to vehicle frame rail inner wall.

3. Using the rear hole in the mount frame bracket as a guide, drill a 1/2" hole through the vehicle frame. Secure rear mount frame hole with a 1/2" x 1-1/2" hex capscrew, flat washer to double plate, and lock nut. Torque to 75 ft.lb.
4. Repeat steps 2 and 3 on curb side.

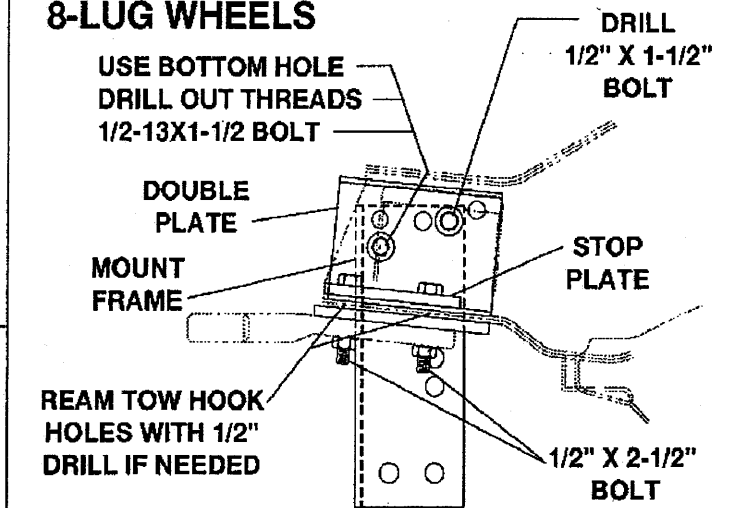
Mount Box No. 62330 INSTALLATION INSTRUCTIONS

6-LUG WHEELS



OR

8-LUG WHEELS



SPREADER

1. During installation, allow for drop in vehicle height when the weight of the plow is added. The distance between the center of the coupling lug hole and the level surface should be 9-1/2" to 10-1/2" with plow attached and resting on a level surface. (See Coupling Lug Height Check, page 18.)
2. Attach spreader to mount frame front faces with four 5/8" x 1-1/2" bolts, SAE flat washer to slots, and lock nuts, and temporarily install a 5/8" x 1-3/4" bolt and lock nut on side face of each mount.

THRUST FRAME

1. Locate thrust frame against the vehicle frame cross member and bottom of vehicle frame. Attach to mount frames with a 5/8" x 1-1/2" bolt in upper hole, a 5/8" x 1-3/4" bolt in lower hole and lock nuts on each side. Lower bolt will be removed.

Thrust frame must be tight against vehicle frame cross member and bottom of vehicle frame. Temporarily secure with clamps.

2. Use holes in end bars of thrust frame to drill two 1/2" holes through side of vehicle frame on each side. Secure with 1/2" x 1-1/2" bolts, flat washers to vehicle frame, and lock nuts. Torque to 75 ft.lb.

SUPPORT BRACKETS

1. Remove two lower spreader and thrust frame to mount frame 5/8" x 1-3/4" bolts on each side.
2. Attach the support brackets to the bottom holes of the mount frame, spreader, and thrust frame with the removed two 5/8" x 1-3/4" hex cap screws and lock nuts on each side.
Do not tighten fasteners at this time.

SPLASH GUARD

Install furnished splash guard to top of thrust frame cross angle using 3/8" x 1" bolts, flat washers to shield, and lock nuts.

LINK ARMS

Attach a link arm, chamfered side of holes towards center of vehicle, to each upper pair of spreader lugs using one 3/4" x 3-1/4" grade 5 rivet and cotter pin on each side.

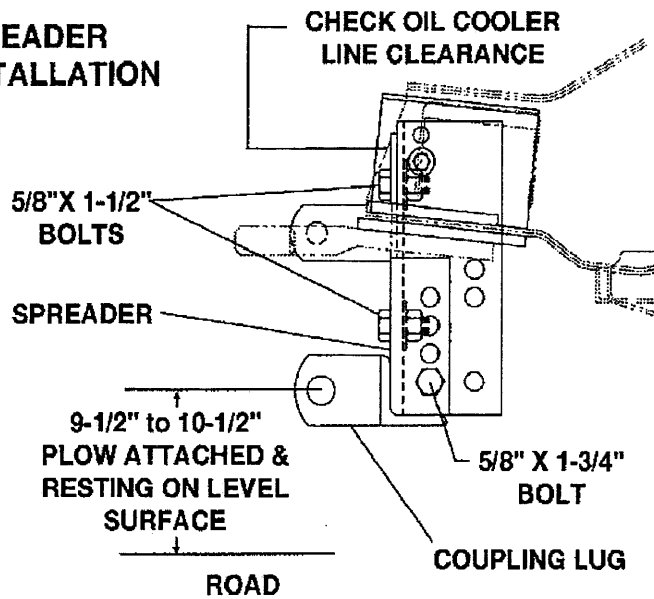
BUMPER

Reinstall bumper using six 14mm x 45mm serrated flange screws through support brackets and vehicle frame. Thread screws into weld nuts on each bumper bracket.

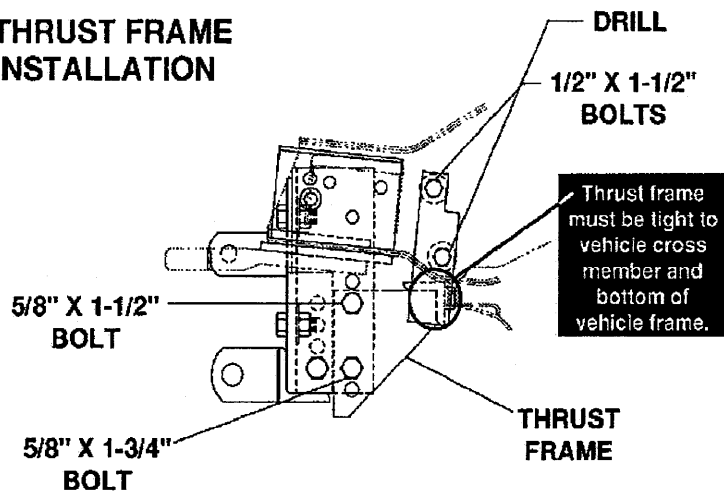
TIGHTEN ALL BOLTS ACCORDING TO THE TORQUE CHART ON PAGE 2.

Continued on next page.

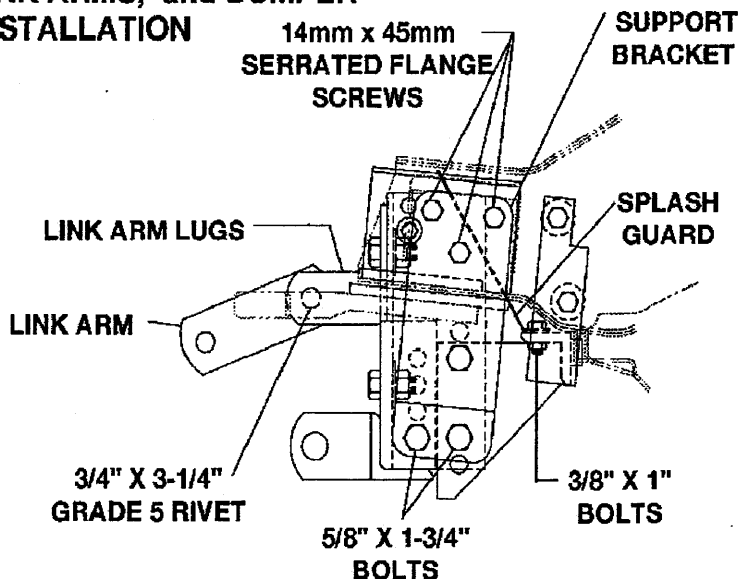
SPREADER INSTALLATION



THRUST FRAME INSTALLATION



SUPPORT BRACKETS, SPLASH GUARD, LINK ARMS, and BUMPER INSTALLATION



NOTE: After using the snowplow for 5-10 hours, retorque all mount assembly fasteners

NOTE: During electrical installation, THE LONG BATTERY GROUND CABLE (no stripe) MUST BE GROUNDED TO THE NEGATIVE BATTERY TERMINAL.

HARNES KIT SELECTION

1996 and later full size vehicles: Both U.S. and Canadian made vehicles are equipped with Daytime Running Lights (DRL's). The reduced voltage low beam system requires the same harnesses as previous U.S. vehicles and also require the installation of 61584 DRL Kit. With this kit, either the plow headlamps or the vehicle headlamps will light in the DRL mode. Applying the parking brake will prevent the DRL's from operating.

1990 through 1995 Canadian vehicles have had DRL's as standard equipment. These vehicles used a series high beam system. This system requires the use of 12-pin harnesses and headlamps in addition to the 61584 DRL Adapter Kit.

**1996 and Later Vehicles with reduced voltage low beam DRL system:
(Used on both U.S. and Canadian built vehicles.
Earlier Canadian vehicles with DRL's, see heading below.)**

Use Box No. 61540 Headlamp Kit 9-Pin. (DO NOT change turn signal flasher.)

All require 61584 DRL Adapter Kit

For DUAL Type 2B Headlamps - Use 61545 Harness Kit 2B/2D 9-Pin -A. (See installation instructions on page 10. Wiring schematic is on page 20.)

For QUAD Type HB-3 & HB-4 - Use 61515 Harness Kit HB-3 & HB-4 9-Pin -A. (See installation instructions on page 11. Wiring schematic is on page 21.)

1995 and earlier vehicles without DRL's

Use Box No. 61540 Headlamp Kit 9-Pin. (DO NOT change turn signal flasher.)

For DUAL Type 2B Headlamps - Use 61545 Harness Kit 2B/2D 9-Pin -A. (See installation instructions on page 12. Wiring schematic is on page 22.)

For QUAD Type HB-3 & HB-4 - Use 61515 Harness Kit HB-3 & HB-4 9-Pin -A. (See installation instructions on page 13. Wiring schematic is on page 23.)

For QUAD Type LF & UF - Use 61580 Harness Kit LF & UF 9-Pin -A. (See installation instructions on page 13. Wiring schematic is on page 23.)

1990 through 1995 Canadian vehicles with series high beam DRL system:

Use Box No. 61550 Headlamp Kit 12-pin. (DO NOT change turn signal flasher.)

All require 61584 DRL Adapter Kit

For DUAL Type 2B Headlamps - Use 61555 Harness Kit 2B/2D 12-Pin -B. (See installation instructions on page 14 & 15. Wiring schematic is on page 24.)

For QUAD Type HB-3 & HB-4 - Use 61585 Harness Kit HB-3 & HB-4 12-Pin -B. (See installation instructions on page 16 & 17. Wiring schematic is on page 25.)

For QUAD Type LF & UF - Use 61560 Harness Kit LF & UF 12-Pin -B. (See installation instructions furnished in harness kit. Wiring schematic is on page 26.)

ENGINE OVERHEATING

In the event vehicle engine overheating occurs while traveling with the plow attached, the CLUTCH FAN ASSEMBLY should be checked by a General Motors (GM) Dealer's Service Department according to the Chevrolet Service Bulletin 88-177-6B.

SPECIAL INSTRUCTIONS

Chevrolet and GMC
Light Trucks

HAZARD WARNING CIRCUIT

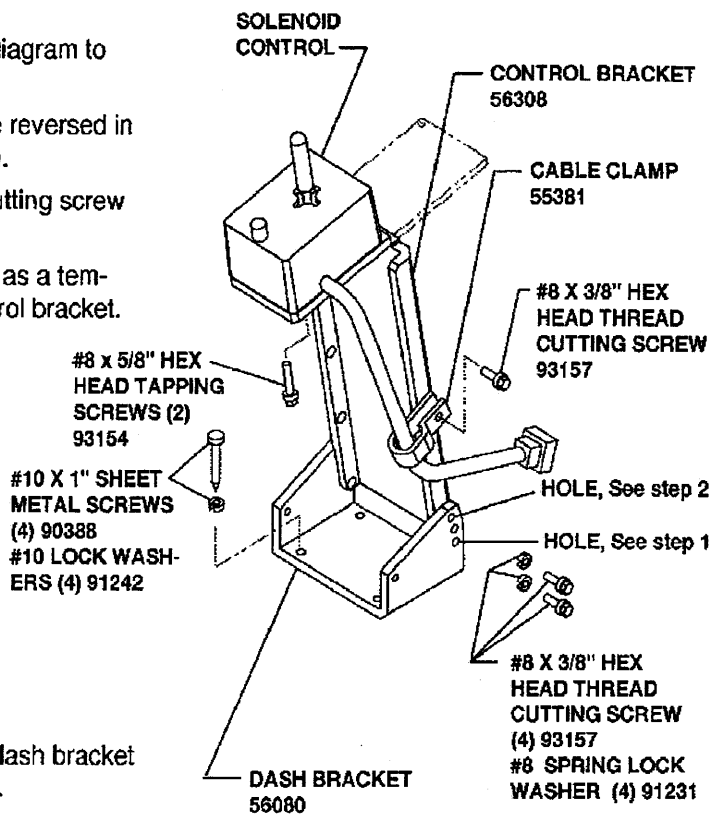
Snowplow park/turn and hazard lights can overload the vehicle electrical circuit when hazard lights flash for extended periods of time or when the foot brake is activated with hazard lights flashing. GM recommends that a light harness and relays be installed for snowplow lighting. See your GM dealer for service bulletin #90-8A-20. Western also offers a Directional Harness Kit, # 61185.

Control installation instructions are on next two pages.

Motor relay and headlamp installation instructions continue starting on page 8.

1995 and Later Floor Mounted
Solenoid Control
INSTALLATION INSTRUCTIONS

- Align the lower dash bracket hole shown in diagram to end hole of control bracket.
NOTE: Top flange of control bracket may be reversed in dash bracket from position shown in diagram.
Attach with one #8 x 3/8" hex head thread cutting screw and lock washer on each side.
- Use top holes in dash bracket (see diagram) as a template to drill a 9/64" hole in each side of control bracket.
Secure dash bracket to control bracket with a second screw and lock washer in each side.
- Secure solenoid control to control bracket with two #8 x 5/8" hex head tapping screws.
- Move seat forward. Locate control and bracket assembly on floor tunnel so that it does not interfere with the operation of vehicle controls. Mark this location.
- Remove control bracket from dash bracket.
- Place dash bracket in marked location. Use dash bracket as a template to drill four 1/8" holes in tunnel.



CAUTION: Check for clearance before drilling holes.

Secure dash bracket to tunnel with four #10 x 1" sheet metal screws and lock washers.

- Reassemble control bracket to dash bracket. Bend top flange of control bracket to desired position.
- Secure harness to control bracket with cable clamp and one #8 x 3/8" hex head thread cutting screw.

Motor relay and headlamp installation instructions continue starting on page 8.

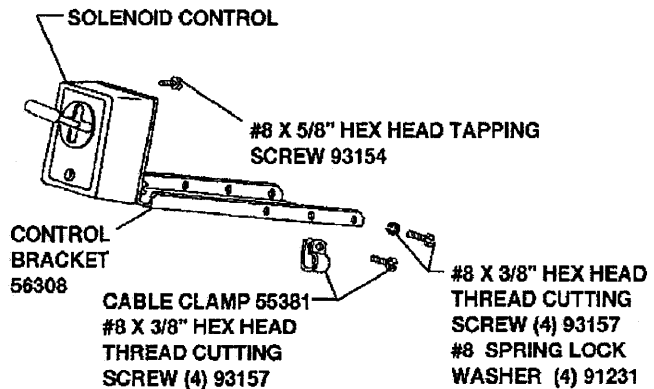
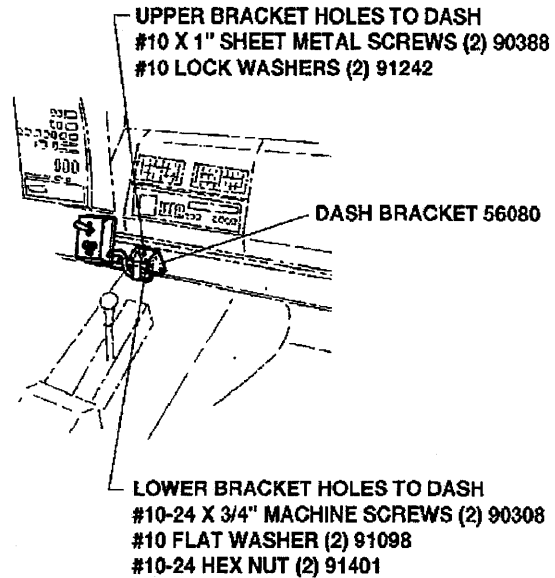
1994 and Earlier Dash Mounted
Solenoid Control
INSTALLATION INSTRUCTIONS

Parts to be installed are found in the hydraulics box, except for parts indicated in parentheses.

1. Remove the center (air vent) section of the dash located above and to the right of the ash tray. Pry out at the bottom, then press in at the top while pulling down and out at the bottom. Disconnect any electrical equipment attached to the panel. Remove radio if located below center section of dash.
2. Temporarily assemble solenoid control to control bracket using two no. 8 x 5/8" hex head screws and control bracket to dash bracket (found in mount box) using four no. 8 x 3/8" hex head thread cutting screws and lock washers.
3. Locate control assembly to the right of the ash tray, and up to the bevel on the flat recessed surface. The bracket should fit fairly flat against the surface of the dash. Verify that the control lever will clear all vehicle components in all positions. Look into opening to locate ribs before drilling holes.

CAUTION: Check for clearance before drilling holes.

4. Mark this location.
5. Remove dash bracket from control assembly. Place bracket in the selected location and mark all four mounting holes.
6. Drill 7/32" holes in the dash for the lower two holes, and 1/8" holes in the dash for the upper two holes for aligning holes in the dash bracket. Secure using two no. 10 x 3/4" machine screws, flat washers to dash, and nuts (found in mount box) in the lower holes and no. 10 x 1" sheet metal screws and lock washers in the upper holes.
7. Reassemble control bracket to dash bracket. Bend top flange of control bracket to desired position.
8. Secure harness to control bracket with cable clamp and a no. 8 x 3/8" thread cutting tapping screw.
9. Replace the radio (if removed) and dash panel.



Motor relay and headlamp installation instructions continue starting on next page.

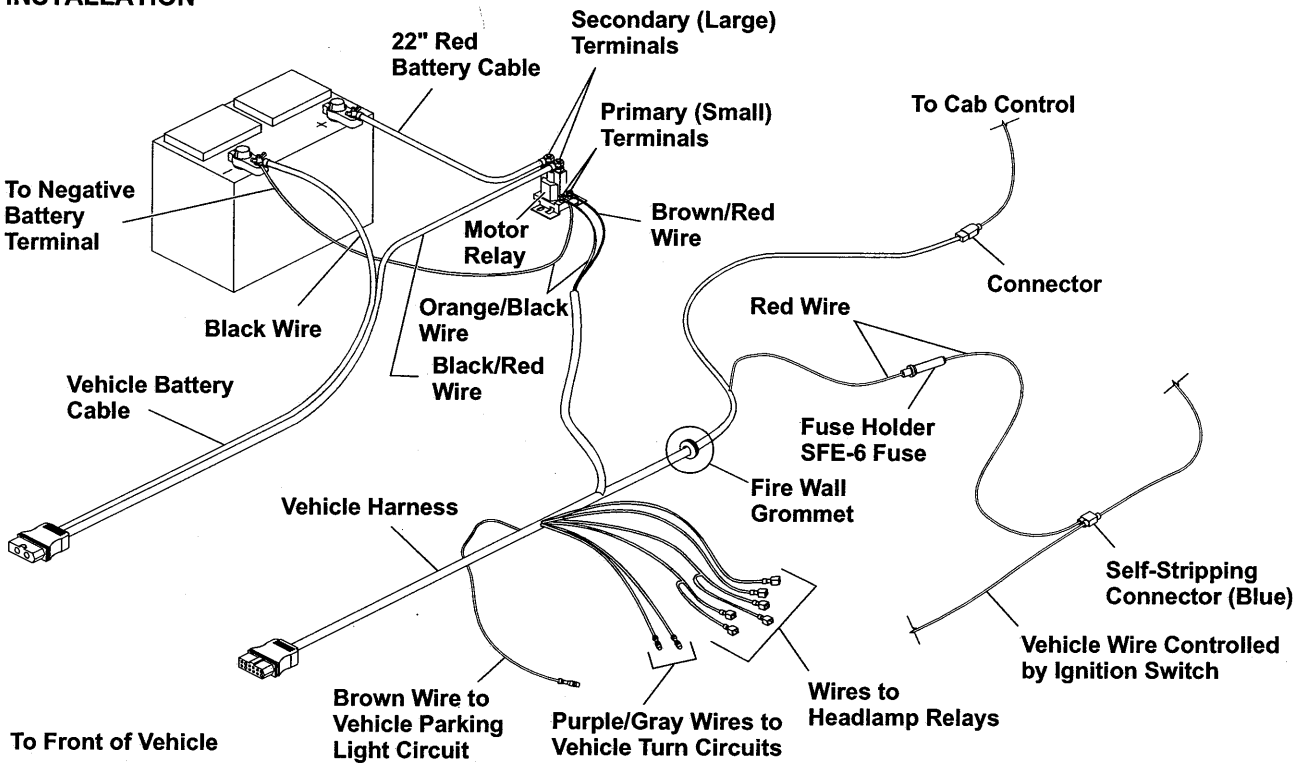


SAFETY NOTE: Whenever you see this symbol, it notes a SAFETY WARNING. To avoid serious injury to yourself or others, follow all warnings.

**Vehicle Underhood
INSTALLATION INSTRUCTIONS**

VEHICLE HARNESS AND MOTOR RELAY

**HARNESS, SOLENOID CONTROL
& MOTOR RELAY
INSTALLATION**



CAUTION: To prevent corrosion on all underhood electrical connections, use dielectric grease to fill receptacles and lightly coat ring terminals and blades before assembling, or lightly coat the connections after assembling.

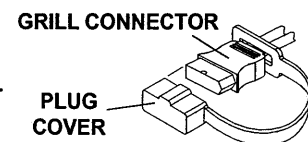
1. Identify wires for the parking lamp on the driver-side and the turn signals on both sides of the vehicle. Attach a black self-stripping bullet receptacle connector (found in harness kit) to each of these three wires.
OPTION: Identify wires for parking lamps and both turn signals in the main harness behind the driver-side headlamp. Attach a black self-stripping bullet receptacle connector to each of these three wires.
2. Remove NEGATIVE battery cable from battery.



WARNING: Electrical shock hazard. Disconnect battery before beginning electrical installation.

3. Find a location for the motor relay where it will be protected from road splash and will be within 18" of the vehicle primary battery.
NOTE: Motor relay terminals must be up or horizontal.
Using the motor relay mounting plate as a template, drill two 9/32" holes, and mount motor relay to holes using 1/4" x 3/4" bolts, flat washers, and lock nuts.
4. Route 22" red battery cable between a large motor relay terminal and the POSITIVE (+) battery terminal, taking care to avoid sharp edges and hot or moving parts. Attach cable to motor relay terminal with a lock washer and 5/16"-24 jam nut. Attach cable to the battery POSITIVE (+) terminal with the furnished battery adapter. (Adapters found in mount box.) Tighten battery adapter to 124-178 in-lb. Attach OEM battery cable to adapter with original bolt. Hold adapter while tightening original bolt to 124-178 in-lb.

5. Stretch rectangular openings of plug cover straps (found in harness kit) over grill connector ends of long battery cable assembly (found in hydraulics box) and vehicle harness (found in harness kit). Place plug covers over molds on harnesses.



6. Find a location in the vehicle grill on the battery side for mounting the battery cable grill connector. The best location is at least 10-1/2" from the center of the grill and at a convenient height for connecting the plug. Allow grill connector of each harness to hang out in front of grill. Allow enough cable so it is easy to mate and remove connector. Secure with long cable ties (found in mount box).
7. Route battery cable through the grill at the selected location and through or around the radiator bulkhead to motor relay taking care to avoiding sharp edges, and hot or moving parts.
8. Attach cable with red stripe to the unused large terminal on the motor relay, and secure it with a lock washer and 5/16"-24 jam nut.
9. Route the battery cable without stripe **directly to the NEGATIVE battery terminal** (carefully separate the two cables as needed to reach ground bolt or battery). **DO NOT** attach cable to battery at this time.
10. Find a location in grill on driver-side for mounting the vehicle harness (similar position to battery cable mount). See Steps 6 & 7 above for how to mount. Route vehicle harness through grill and around, or through radiator bulkhead (drill 5/8" hole if needed) into engine compartment.
11. Route the wires that break out of the vehicle harness to the area behind the driver-side headlamp. Route rest of harness to the firewall. Drill a 5/8" hole through the firewall in a convenient location away from hot or moving engine parts.

IMPORTANT: All vehicles with DRL's — insert fuse holder on pink wire of DRL Adapter Kit (P.N. 61584) through firewall first. Route end of pink wire with receptacles to area of driver-side headlamp.

Feed vehicle harness fuse holder through hole and then feed the plastic connector and harness through to the cab. Disassembly of the fuse holder may make it easier to pass through 5/8" hole.

12. Route brown/red and orange/black (early revision harnesses have brown/red and black/orange wires) wire loom to motor relay. Early revision harnesses must be modified if CabCommand control is being installed. (See instructions furnished with CabCommand control.)
Attach the brown/red and orange/black (early revisions black/orange) wires small ring terminals to separate small terminals on motor relay using a lock washer and #10-32 nut for each connection.
13. Route the orange/black wire with 3/8" ring terminal to the battery negative post **DO NOT** attach wire to battery at this time.
14. Inside the cab, route vehicle harness connector to solenoid or CabCommand control and couple the connectors together.
15. Attach the hydraulic unit black battery cable and orange/black wire terminal to the negative terminal with the furnished battery cable adapter. (Adapters found in mount box.) Tighten battery adapter to 124–178 in-lb. Attach OEM battery cable to adapter with original bolt. Hold adapter while tightening original bolt to 124–178 in-lb.
16. Locate an accessory wire or unused fuse box terminal capable of carrying 7 amps and controlled by the ignition (key) switch. Route the vehicle harness SFE-6* fuse holder red wire to this location and trim off any excess length of wire (keep fuse holder in system).

Fuse block terminal as source: attach a terminal (not furnished) to the vehicle harness red wire and plug on to fuse box terminal. If DRL wire is used, crimp pink wire into the same terminal with the red wire.

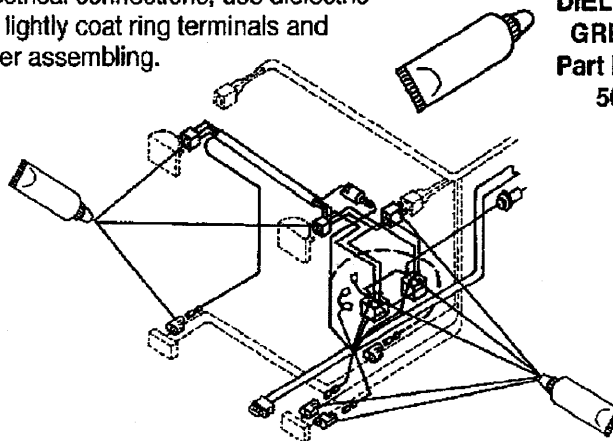
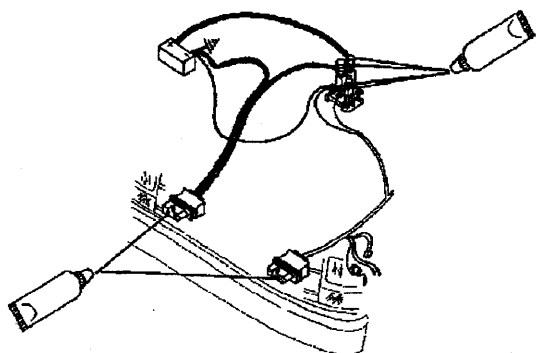
Accessory wire as source: Open blue self stripping connector and place the end of the red wire against the inner groove stop (end of wire must not extend from the connector), and the accessory wire in the outer groove. Close connector over the wires using a pliers and snap the locking tab in place. Repeat with DRL pink wire.

*Early style harnesses have a 10 amp fuse which must be replaced with SFE-6 fuse for Cab Command Control.

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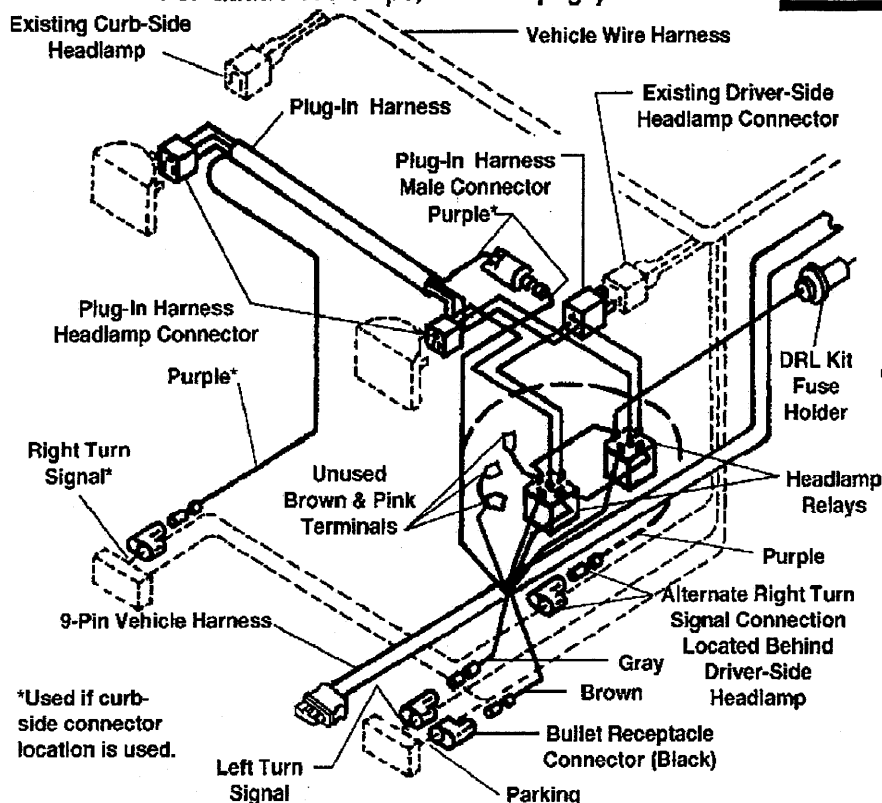
REMINDER: To prevent corrosion on all underhood electrical connections, use dielectric grease to fill receptacles, including grill connectors, and lightly coat ring terminals and blades before assembling or lightly coat connections after assembling.

DIELECTRIC GREASE - Part Number 56099



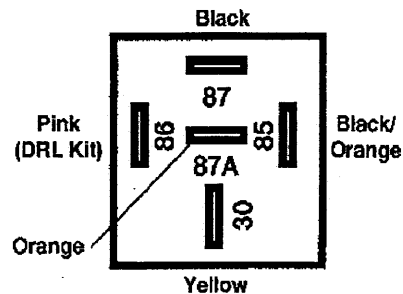
HEADLAMP WIRING DIAGRAM

(1996 & Later vehicles with Dual Headlamps with DRL's Shown
For Quad Headlamps, see next page)

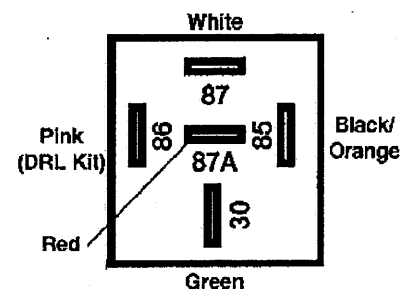


1996 & Later DUAL HEADLAMPS w/ DRL's PLUG-IN HARNESS & HEADLAMP RELAY INSTALLATION

HEADLAMP RELAY WIRING DIAGRAM Type A with DRL's



Low Beam Headlamp Relay



High Beam Headlamp Relay

DUAL VEHICLE HEADLAMP PLUG-IN HARNESS & HEADLAMP RELAYS

REMINDER: Lubricate all receptacles and blades with dielectric grease before assembling.

1. In the engine compartment behind the driver-side headlamp, insert wire bullets from 9-pin vehicle harness into black bullet connectors (installed in step one of previous section) as follows:

Brown wire to parking lamp wire on driver-side.

Gray wire to left turn signal wire on driver-side.

If optional bullet connector location is used — vehicle harness purple wire to right turn signal wire on driver-side.

2. At the vehicle driver-side headlamp, remove the connector from the headlamp and couple matching connector with plug-in harness 3-wire male plug (plug-in harness found in harness kit). Attach plug-in harness headlamp connector to headlamp terminals.
3. Route other end of plug-in harness along radiator bulkhead or over radiator shroud to curb-side headlamp. Remove headlamp connector and secure connector with a cable tie (found in harness kit). Attach plug-in harness headlamp connector to headlamp terminals.

If optional right turn signal connector location is used, skip steps 4 & 5. Purple wire in plug-in harness is not used.

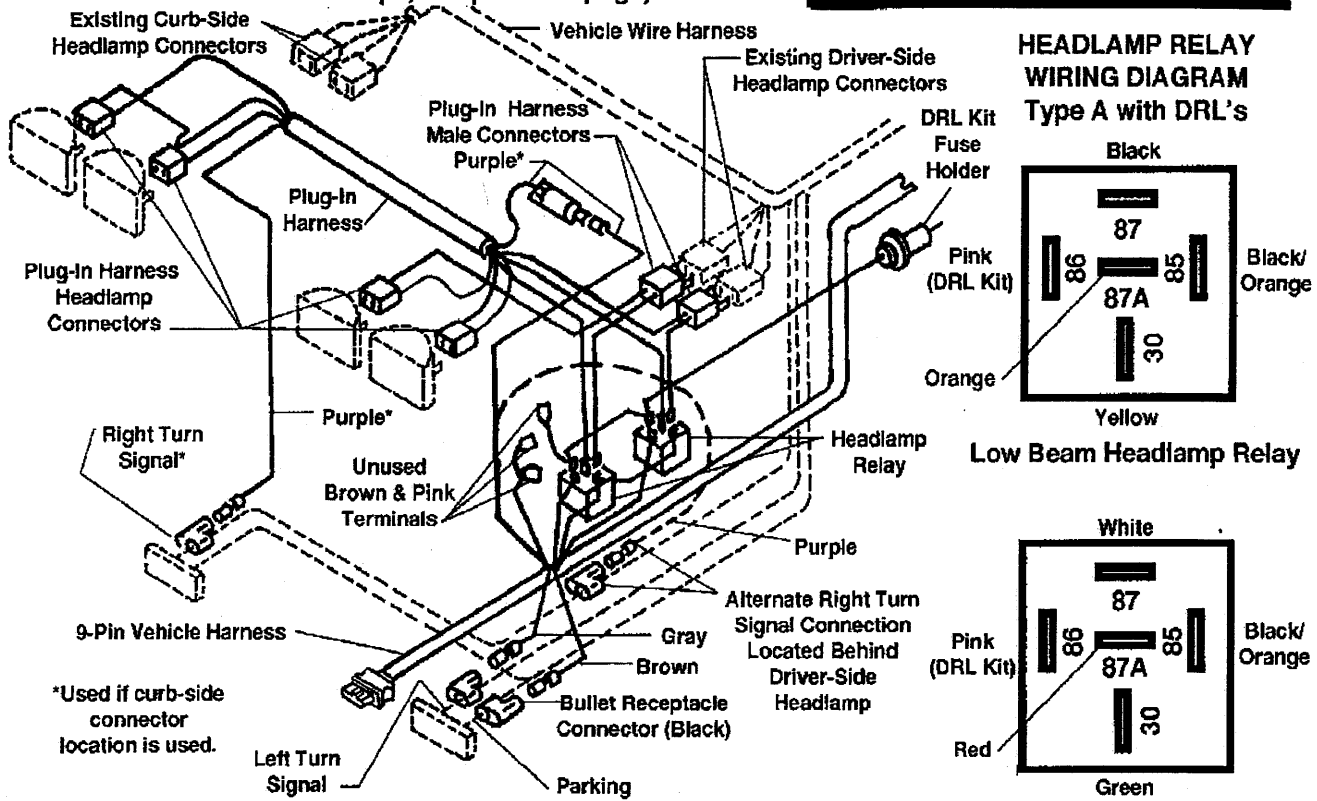
4. On the curb-side, insert purple wire bullet from plug-in harness into vehicle turn signal black bullet connector installed in step one of the previous section.
5. At the driver-side headlamp, insert the purple wire bullet from the 9-pin vehicle harness into the purple wire receptacle on the plug-in harness.
6. At driver-side headlamp, connect 9-pin vehicle and plug-in harness wires with receptacles and pink DRL kit wires to the two headlamp relays (found in harness kit) as shown in the above diagram. (Brown vehicle harness wires are not used in this installation.)
7. Place grommet around 9-pin vehicle harness and insert into firewall hole (also put a grommet in the radiator bulkhead hole if one was drilled). Use cable ties (found in harness kit) to secure harnesses, relays and wires away from sharp edges, and hot or moving engine parts and to prevent accidental grounding of connections.
8. This vehicle does not require a change of the turn signal flasher.
9. Lubricate terminal cavities of both grill connectors with dielectric grease. Give the dielectric grease tube to vehicle owner for future lubrication of grill connectors.

Installation instructions continued on page 18.

HEADLAMP WIRING DIAGRAM

(1996 & Later vehicles with Quad Headlamps with DRL's Shown
For Dual Headlamps, see previous page)

1996 & Later QUAD HEADLAMPS
w/ DRL's PLUG-IN HARNESS &
HEADLAMP RELAY INSTALLATION



QUAD VEHICLE HEADLAMP PLUG-IN HARNESS & HEADLAMP RELAYS

REMINDER: Lubricate all receptacles and blades with dielectric grease before assembling.

- In the engine compartment behind the driver-side headlamp, insert wire bullets from 9-pin vehicle harness into black bullet connectors (installed in step one of previous section) as follows:
 - Brown wire to parking lamp wire on driver-side.
 - Gray wire to left turn signal wire on driver-side.
 - If optional bullet connector location is used — vehicle harness purple wire to right turn signal wire on driver-side.

- Remove park/turn lamp housing to access headlamp connectors on quad composite type headlamps. At the vehicle driver-side headlamp, remove the connectors from the headlamps and couple matching connectors with plug-in harness two 2-wire male plugs (plug-in harness found in harness kit). Attach plug-in harness headlamp connectors to headlamp terminals.
- Route other end of plug-in harness along radiator bulkhead or over radiator shroud to curb-side headlamps. Remove headlamp connectors and secure connectors with a cable tie (found in harness kit). Attach plug-in harness headlamp connectors to headlamp terminals.

If optional right turn signal connector location is used, skip steps 4 & 5. Purple wire in plug-in harness is not used.

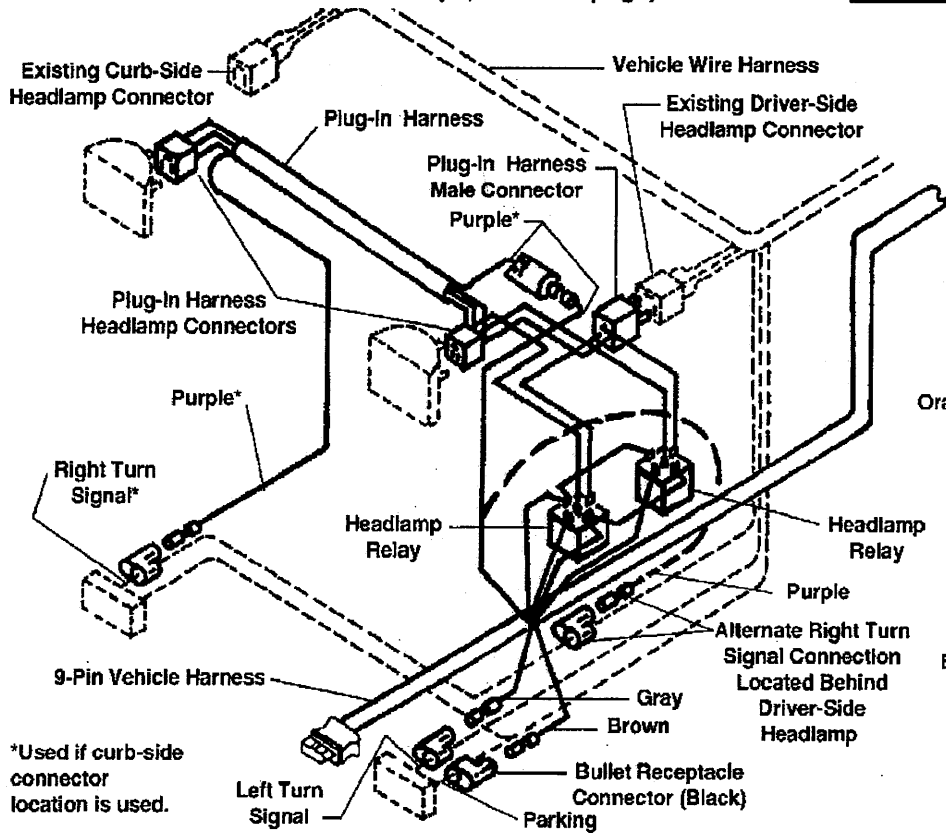
- On the curb-side, insert purple wire bullet from plug-in harness into vehicle turn signal black bullet connector installed in step one of the previous section.
- At the driver-side headlamp, insert the purple wire bullet from the 9-pin vehicle harness into the purple wire receptacle on the plug-in harness.
- At the driver-side headlamp, connect 9-pin vehicle and plug-in harness wires with receptacles and pink DRL kit receptacles to the two headlamp relays (found in harness kit) as shown in the above diagram. (Brown vehicle harness wires are not used in this installation.)
- Place grommet around 9-pin vehicle harness and insert into firewall hole (also put a grommet in the radiator bulkhead hole if one was drilled). Use cable ties (found in harness kit) to secure harnesses, relays and wires away from sharp edges, and hot or moving engine parts and to prevent accidental grounding of connections.
- This vehicle does not require a change of the turn signal flasher.
- Lubricate terminal cavities of both grill connectors with dielectric grease. Give the dielectric grease tube to vehicle owner for future lubrication of grill connectors.

Installation instructions continued on page 18.

HEADLAMP WIRING DIAGRAM

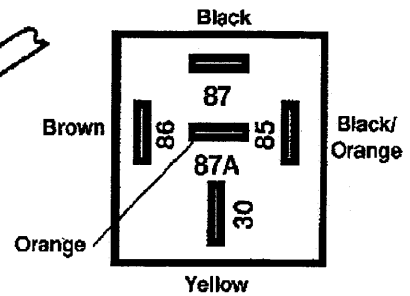
(1995 & Earlier Vehicles with Dual Headlamps without DRL's Shown
For Quad Headlamps, see next page)

1995 & Earlier DUAL HEADLAMP
w/o DRL's PLUG-IN HARNESS &
HEADLAMP RELAY INSTALLATION

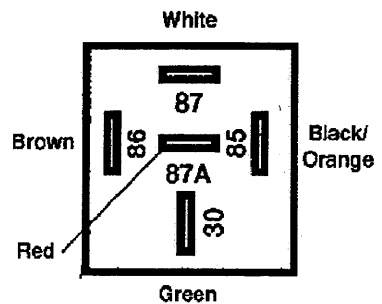


*Used if curb-side connector location is used.

HEADLAMP RELAY WIRING DIAGRAM Type A



Low Beam Headlamp Relay



High Beam Headlamp Relay

DUAL VEHICLE HEADLAMP PLUG-IN HARNESS & HEADLAMP RELAYS

REMINDER: Lubricate all receptacles and blades with dielectric grease before assembling.

1. In the engine compartment behind the driver-side headlamp, insert wire bullets from 9-pin vehicle harness into black bullet connectors (installed in step one of previous section) as follows:

Brown wire to parking lamp wire on driver-side.

Gray wire to left turn signal wire on driver-side.

If optional bullet connector location is used — vehicle harness purple wire to right turn signal wire on driver-side.

2. At the vehicle driver-side headlamp, remove the connector from the headlamp and couple matching connector with plug-in harness 3-wire male plug (plug-in harness found in harness kit). Attach plug-in harness headlamp connector to headlamp terminals.
3. Route other end of plug-in harness along radiator bulkhead or over radiator shroud to curb-side headlamp. Remove headlamp connector and secure connector with a cable tie (found in harness kit). Attach plug-in harness headlamp connector to headlamp terminals.

If optional right turn signal connector location is used, skip steps 4 & 5. Purple wire in plug-in harness is not used.

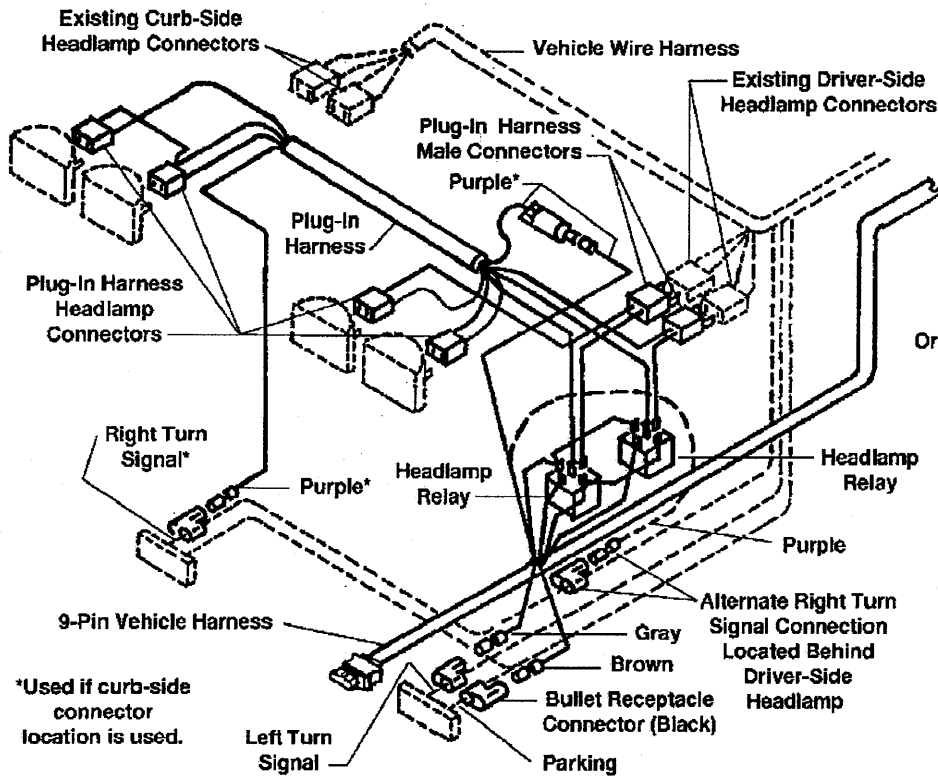
4. On the curb-side, insert purple wire bullet from plug-in harness into vehicle turn signal black bullet connector installed in step one of the previous section.
5. At the driver-side headlamp, insert the purple wire bullet from the 9-pin vehicle harness into the purple wire receptacle on the plug-in harness.
6. At driver-side headlamp, connect 9-pin vehicle and plug-in harness wires with receptacles to the two headlamp relays (found in harness kit) as shown in the above diagram.
7. Place grommet around 9-pin vehicle harness and insert into firewall hole (also put a grommet in the radiator bulkhead hole if one was drilled). Use cable ties (found in harness kit) to secure harnesses, relays and wires away from sharp edges, and hot or moving engine parts and to prevent accidental grounding of connections.
8. This vehicle does not require a change of the turn signal flasher.
9. Lubricate terminal cavities of both grill connectors with dielectric grease. Give the dielectric grease tube to vehicle owner for future lubrication of grill connectors.

Installation instructions continued on page 18.

HEADLAMP WIRING DIAGRAM

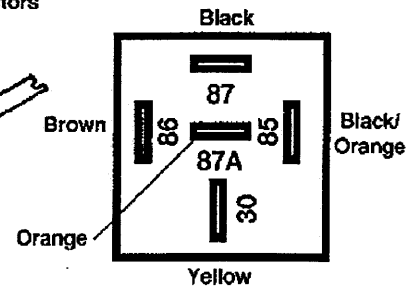
(1995 & Earlier vehicles with Quad Headlamps without DRL's Shown
For Dual Headlamps, see previous page)

1995 & Earlier QUAD HEADLAMP
w/o DRL's PLUG-IN HARNESS &
HEADLAMP RELAY INSTALLATION

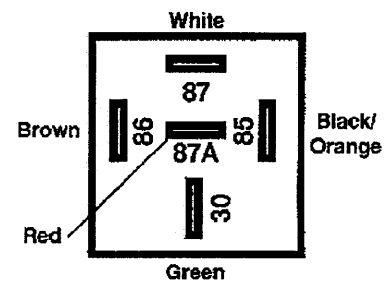


*Used if curb-side connector location is used.

HEADLAMP RELAY WIRING DIAGRAM Type A



Low Beam Headlamp Relay



High Beam Headlamp Relay

QUAD VEHICLE HEADLAMP PLUG-IN HARNESS & HEADLAMP RELAYS

REMINDER: Lubricate all receptacles and blades with dielectric grease before assembling.

1. In the engine compartment behind the driver-side headlamp, insert wire bullets from 9-pin vehicle harness into black bullet connectors (installed in step one of previous section) as follows:

Brown wire to parking lamp wire on driver-side.

Gray wire to left turn signal wire on driver-side.

If optional bullet connector location is used — vehicle harness purple wire to right turn signal wire on driver-side.

2. Remove park/turn lamp housing to access headlamp connectors on quad composite type headlamps. At the vehicle driver-side headlamp, remove the connectors from the headlamps and couple matching connectors with plug-in harness two 2-wire male plugs (plug-in harness found in harness kit). Attach plug-in harness headlamp connectors to headlamp terminals.
3. Route other end of plug-in harness along radiator bulkhead or over radiator shroud to curb-side headlamps. Remove headlamp connectors and secure connectors with a cable tie (found in harness kit). Attach plug-in harness headlamp connectors to headlamp terminals.

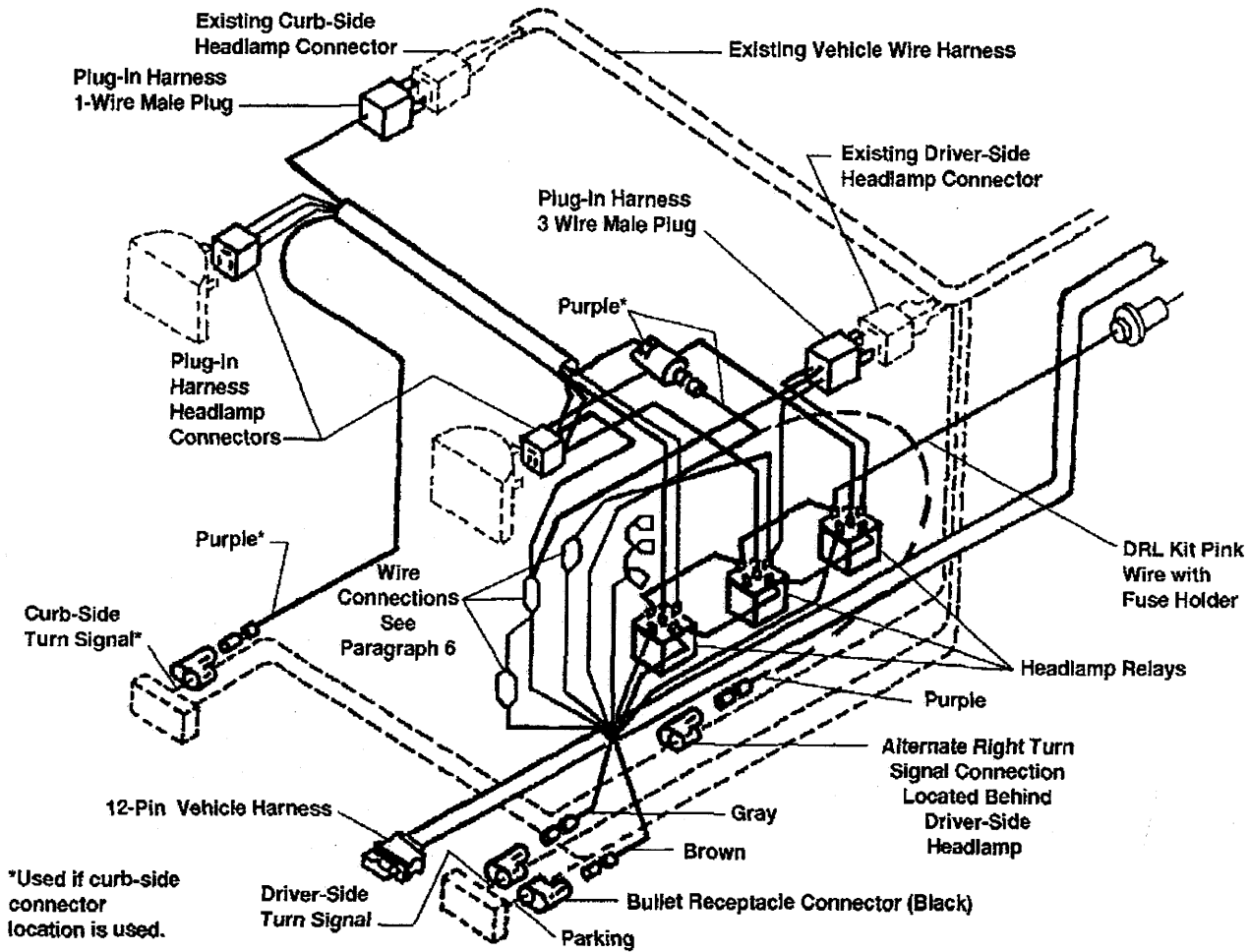
If optional right turn signal connector location is used, skip steps 4 & 5. Purple wire in plug-in harness is not used.

4. On the curb-side, insert purple wire bullet from plug-in harness into vehicle turn signal black bullet connector installed in step one of the previous section.
5. At the driver-side headlamp, insert the purple wire bullet from the 9-pin vehicle harness into the purple wire receptacle on the plug-in harness.
6. At the driver-side headlamp, connect 9-pin vehicle and plug-in harness wires with receptacles to the two headlamp relays (found in harness kit) as shown in the above diagram.
7. Place grommet around 9-pin vehicle harness and insert into firewall hole (also put a grommet in the radiator bulkhead hole if one was drilled). Use cable ties (found in harness kit) to secure harnesses, relays and wires away from sharp edges, and hot or moving engine parts and to prevent accidental grounding of connections.
8. This vehicle does not require a change of the turn signal flasher.
9. Lubricate terminal cavities of both grill connectors with dielectric grease. Give the dielectric grease tube to vehicle owner for future lubrication of grill connectors.

Installation instructions continued on page 18.

HEADLAMP WIRING DIAGRAM
 (1995 & Earlier Canadian Vehicles with Dual Headlamps with
 DRL's Shown. For Quad Headlamps, see next page)

**1995 & Earlier Canadian DUAL
 HEADLAMP w/ DRL's PLUG-IN
 HARNESS & HEADLAMP RELAY
 INSTALLATION**



DUAL HEADLAMP – PLUG-IN HARNESS & HEADLAMP RELAY

REMINDER: Lubricate all receptacles and blades with dielectric grease before assembling.

1. In the engine compartment behind the driver-side headlamp, insert wire bullets from 12-pin vehicle harness into black bullet connectors (installed in step one of previous section) as follows:
 Brown wire to parking lamp wire on driver-side.
 Gray wire to left turn signal wire on driver-side.
 If alternate bullet connector location is used — vehicle harness purple wire to right turn signal wire on driver-side.
2. At the vehicle driver-side headlamp, remove the connector from the headlamp and couple connector with plug-in harness 3-wire male plug (plug-in harness found in harness kit). Attach plug-in harness headlamp connector to headlamp terminals.
3. Route other end of plug-in harness along radiator bulkhead or over radiator shroud to curb-side headlamp. Remove headlamp connector and couple connector with plug-in harness 1-wire male plug. Secure connector with a cable tie (found in harness kit). Attach plug-in harness headlamp connector to headlamp terminals.

If alternate right turn signal connector location is used, skip steps 4 & 5. Purple wire in plug-in harness is not used.

4. On the curb-side, insert purple wire bullet from plug-in harness into vehicle turn signal black bullet connector installed in step one of the previous section.
5. At the driver-side headlamp, insert the purple wire bullet from the vehicle harness into the purple wire receptacle on the plug-in harness.
6. Behind the driver-side headlamp, connect the following blades and receptacles together:

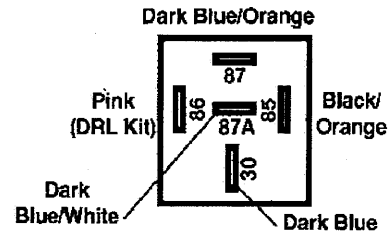
black/white wire blade to black/white wire receptacle,
yellow and orange wire blade to black wire receptacle,
green wire blade to white wire receptacle.

7. At driver-side headlamp, connect 12-pin vehicle and plug-in harness wires with receptacles to the three headlamp relays (found in harness kit) as shown in the diagrams on this page.

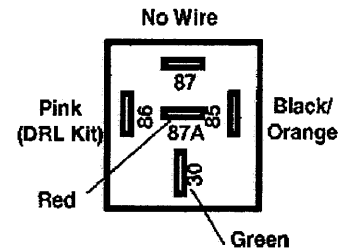
NOTE: The pink wire installed in paragraphs 11 and 15 (previous section) are used on terminal 86 of each headlamp relay. The three brown wires of the 12-pin vehicle harness are not used in DRL installations.

8. Place grommet around 12-pin vehicle harness and insert into fire-wall hole (also put a grommet in the hole in the radiator bulkhead if hole was drilled).
9. Use cable ties (found in harness kit) to secure harnesses, relays and wires away from sharp edges, and hot or moving engine parts and to prevent accidental grounding of connections.
10. This vehicle does not require a change of the turn signal flasher.
11. Lubricate terminal cavities of both grill connectors with dielectric grease. Give the dielectric grease tube to vehicle owner for future lubrication of grill connectors.

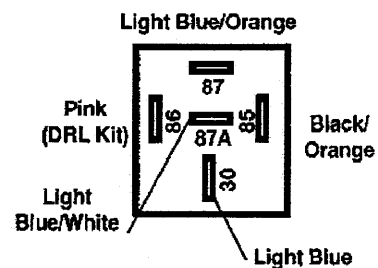
HEADLAMP RELAY WIRING DIAGRAM SAE 2B Headlamps w/ DRL's



Curb-Side Headlamp Relay



Vehicle High Beam Headlamp Relay

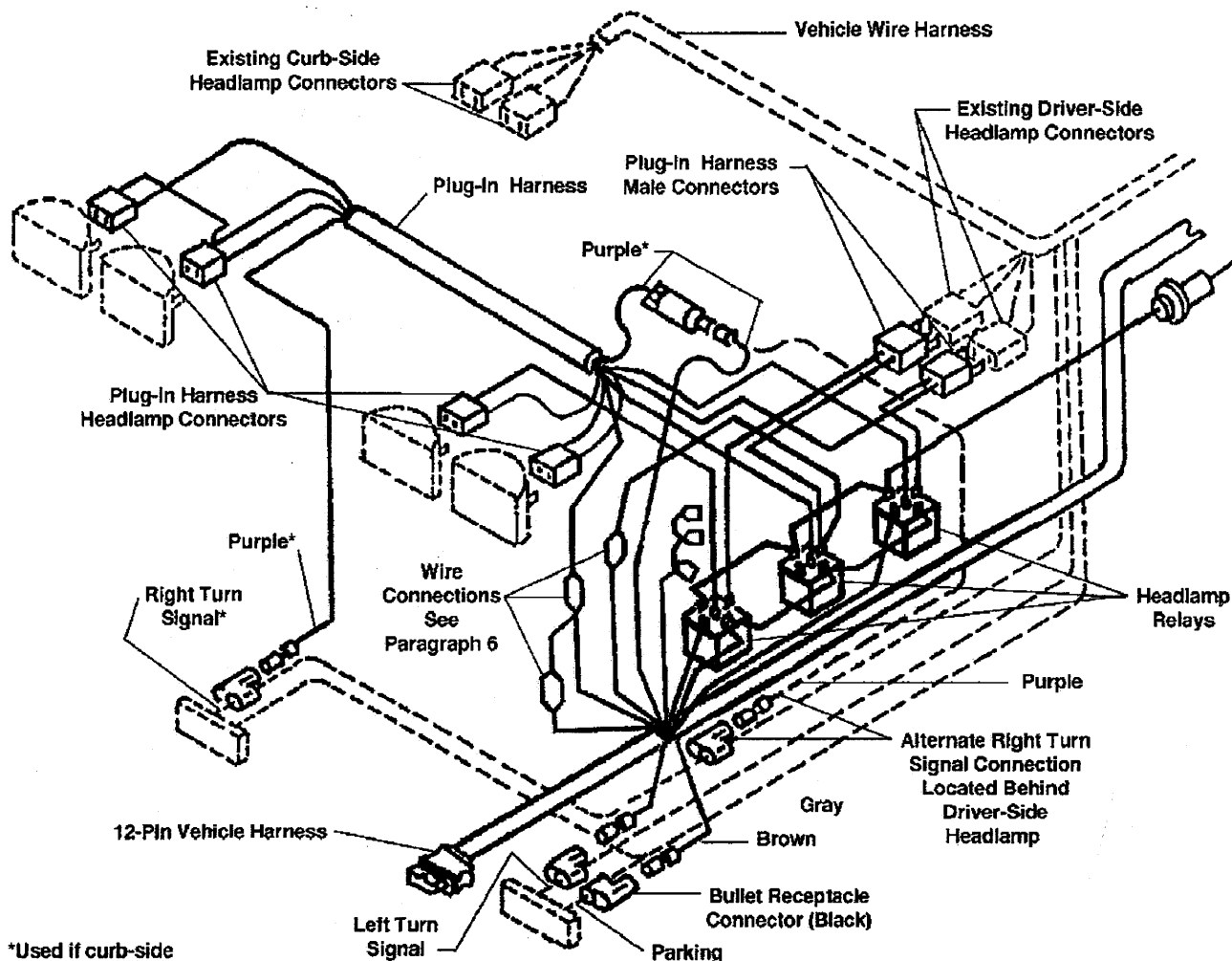


Driver-Side Headlamp Relay

Installation instructions continued on page 18.

HEADLAMP WIRING DIAGRAM
 (1995 & Earlier Canadian Vehicles with Quad Headlamps with
 DRL's Shown. For Dual Headlamps, see previous page)

**1995 & Earlier Canadian QUAD
 HEADLAMP w/ DRL's PLUG-IN
 HARNESS & HEADLAMP RELAY
 INSTALLATION**



*Used if curb-side connector location is used.

QUAD HEADLAMP – PLUG-IN HARNESS & HEADLAMP RELAYS

REMINDER: Lubricate all receptacles and blades with dielectric grease before assembling.

1. In the engine compartment behind the driver-side headlamp, insert wire bullets from 12-pin vehicle harness into black bullet connectors (installed in step one of previous section) as follows:
 - Brown wire to parking lamp wire on driver-side.
 - Gray wire to left turn signal wire on driver-side.
 - If alternate bullet connector location is used — vehicle harness purple wire to right turn signal wire on driver-side.
2. Remove park/turn lamp housing to access headlamp connectors on quad composite type headlamps. At the vehicle driver-side headlamp, remove the connectors from the headlamps and couple matching connectors with two plug-in harness 2-wire male plugs (plug-in harness found in harness kit). Attach two plug-in harness headlamp connectors to headlamp terminals.
3. Route other end of plug-in harness along radiator bulkhead or over radiator shroud to curb-side headlamps. Remove two headlamp connectors and secure connectors with a cable tie (found in harness kit). Attach two plug-in harness headlamp connectors to headlamp terminals.

**HEADLAMP RELAY
WIRING DIAGRAM
SAE HB-3 & HB-4
Headlamps w/ DRL's**

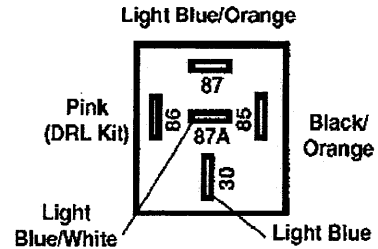
If alternate right turn signal connector location is used, skip steps 4 & 5. Purple wire in plug-in harness is not used.

4. On the curb-side, insert purple wire bullet from plug-in harness into vehicle turn signal black bullet connector installed in step one of the previous section.
5. At the driver-side headlamp, insert the purple wire bullet from the vehicle harness into the purple wire receptacle on the plug-in harness.
6. Behind the driver-side headlamp, connect the following blades and receptacles together:
 - black/white wire blade to black/white wire receptacle,
 - yellow and orange wire blade to black wire receptacle,
 - green wire blade to white wire receptacle.

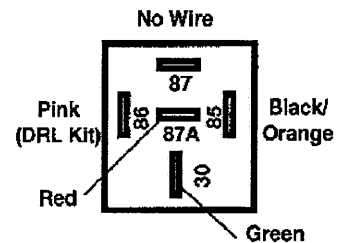
7. At the driver-side headlamp, connect 12-pin vehicle and plug-in harness wires with receptacles to the three headlamp relays (found in harness kit) as shown in the diagram on this page.

NOTE: The pink wire installed in paragraphs 11 and 15 (previous section) are used on terminal 86 of each headlamp relay. The three brown wires of the 12-pin vehicle harness are not used in DRL installations.

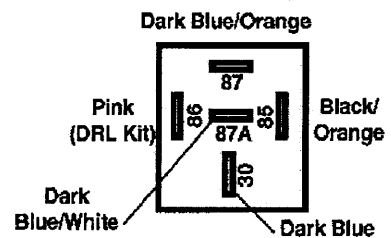
8. Place grommet around 12-pin vehicle harness and insert into firewall hole (also put a grommet in the hole in the radiator bulkhead if hole was drilled).
9. Use cable ties (found in harness kit) to secure harnesses, relays and wires away from sharp edges, and hot or moving engine parts and to prevent accidental grounding of connections.
10. This vehicle does not require a change of the turn signal flasher.
11. Lubricate terminal cavities of both grill connectors with dielectric grease. Give the dielectric grease tube to vehicle owner for future lubrication of grill connectors.



High Beam Headlamp Relay



Vehicle High Beam Headlamp Relay



Low Beam Headlamp Relay

Installation instructions continued on page 18.

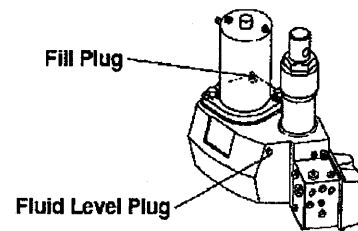
OPERATIONAL TESTS AND ADJUSTMENTS

Mount plow assembly to vehicle. (See label on back of blade or owner's manual for mounting instructions.)

Filling Hydraulic Unit

1. Push lift channel all the way down.
2. Remove fill plug and fluid level plug.
3. Fill unit through fill plug hole until fluid runs out of fluid level plug hole. Replace both plugs.

Use: automatic transmission fluid (ATF) Dexron III to -10° F (-23° C),
 WESTERN® High Performance Fluid to -25° F (-32° C),
 Texaco 1537 Aircraft Hydraulic Oil for temperatures below -25° F (-32° C).



4. Turn ignition (key) switch to the ON or ACCESSORY position.
5. Turn the control ON/OFF switch to the ON position.
6. Move control lever to angle left and angle right several times to remove air from Hydra-Turn® rams. **DO NOT raise blade as this may cause pump cavitation.**
7. Refill unit with fluid following the procedure in step three of this section.
8. Move the control lever as indicated on label to control the plow. Raise and lower plow several times to remove air. Recheck fluid level according to step three of this section.

Capacity: Solenoid ISARMATIC® Mark IIIa reservoir 1-3/4 quarts
 Equipped with 10" Hydra-Turn rams 2-3/8 quarts

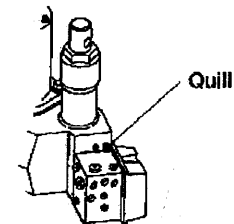
WARNING: To prevent accidental movement of plow, always turn the solenoid control to the OFF position when not using the mounted plow.

Blade Drop Speed Adjustment

The quill on the top rear of the valve manifold (see diagram) adjusts blade drop speed.

- Turn quill IN (clockwise) to decrease drop speed.
- Turn quill OUT (counterclockwise) to increase drop speed.

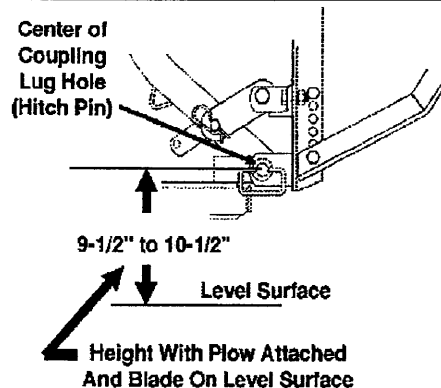
NOTE: Turning quill too far in can slow raise time



COUPLING LUG HEIGHT CHECK

COUPLING LUG HEIGHT CHECK

1. Mount plow to vehicle (see label on back of blade or owner's manual for mounting instructions). Add recommended ballast (see page 1).
2. Lift plow and move vehicle a minimum of 10 feet. Lower blade.
3. After step 2, with: blade on level surface,
 slack in lift chain,
 rear ballast located behind rear wheels,
 the center of the coupling lug holes (hitch pin shaft) to level surface should measure 9-1/2" to 10-1/2". To obtain height, adjust spreader position.



NOTE: Coupling height must be 9-1/2" minimum to allow stand to be pinned to lift frame.

4. Adjust chain slack with plow mounted to vehicle, and lift channel pushed all the way down. To adjust, remove chain from hook. Straighten chain and pull tight. Rehook it to the lift channel. After it is hooked, it will have the correct amount of slack for blade "float". **DO NOT** remove chain from lift channel when removing plow from vehicle.

FINAL HYDRAULIC INSPECTION

1. Make sure all fasteners and hydraulic and electrical connections are tight.
2. Check ram packing nuts for oil leakage. If any leakage is observed, tighten the packing nut 1/4 turn after you feel the nut contact the packing. Do not over tighten — over tightening affects cylinder operation and shortens the life of the packing. A short period of normal operation will allow chevron packings to become saturated, and leakage will normally stop.

VEHICLE LIGHTING CHECK**VEHICLE LIGHTING CHECK**

1. Check the operation of vehicle and plow lights with plow mounted to vehicle and both plow plugs connected.

Turn signals and parking lamps

Parking lamps ON	Both vehicle and plow parking lamps should be on at the same time.
Right turn signal ON	Both vehicle and plow right turn signal lamps should flash at the same time.
Left turn signal ON	Both vehicle and plow left turn signal lamps should flash at the same time.

Headlamps

Move vehicle headlamp switch to the ON position. Connecting and disconnecting the 9- or 12-pin plow plug from the grill connector should switch between vehicle and plow headlamps as follows:

9- or 12-pin plow plug DISCONNECTED	Vehicle headlamps should be on, plow headlamps off.
9- or 12-pin plow plug CONNECTED	Plow headlamps should be on, vehicle headlamps off.

Dimmer switch should dim whichever headlamps are operating. The high beam indicator on the dash should light when either set of headlamps is on high beam.

Solenoid Control or CabCommand Control

9-pin vehicle harness revision 10 and later or
12-pin vehicle harness revision 8 and later or
9-pin or 12-pin vehicle harnesses – earlier revisions modified for CabCommand Control:

The control indicator light should light whenever the control ON/OFF switch and the ignition (key) switches are both turned ON. The plow plugs do not need to be connected to the grill connectors.

Solenoid Control used with earlier revision harnesses

9-Pin revision 7, 8, or 9 vehicle harnesses or
12-pin revision 5, 6, or 7 vehicle harnesses:

The control indicator light should light whenever the control ON/OFF switch and the ignition (key) switches are both turned ON and the plow plugs are connected to the grill connectors.

9-pin or 12-pin vehicle harnesses – all earlier revisions:

The indicator light will also light when the control and ignition (key) switches are on the plow plugs are disconnected. If the parking lights are turned on (with plug plugs disconnected), the indicator light will go out.

2. Connect plow plug to grill connector. Raise plow and aim plow headlamps according to SAE J599 Lighting Inspection Code (See Service Bulletin SP 608) and any applicable federal, state, or local regulations.
3. Check aim of vehicle headlamps with plow removed.
4. When plow is removed from the vehicle, install plug covers on grill connectors and insert the plow plugs into the boot on the hydraulic unit.

NOTE: After using the snowplow for 5-10 hours, retorque all mount assembly fasteners.

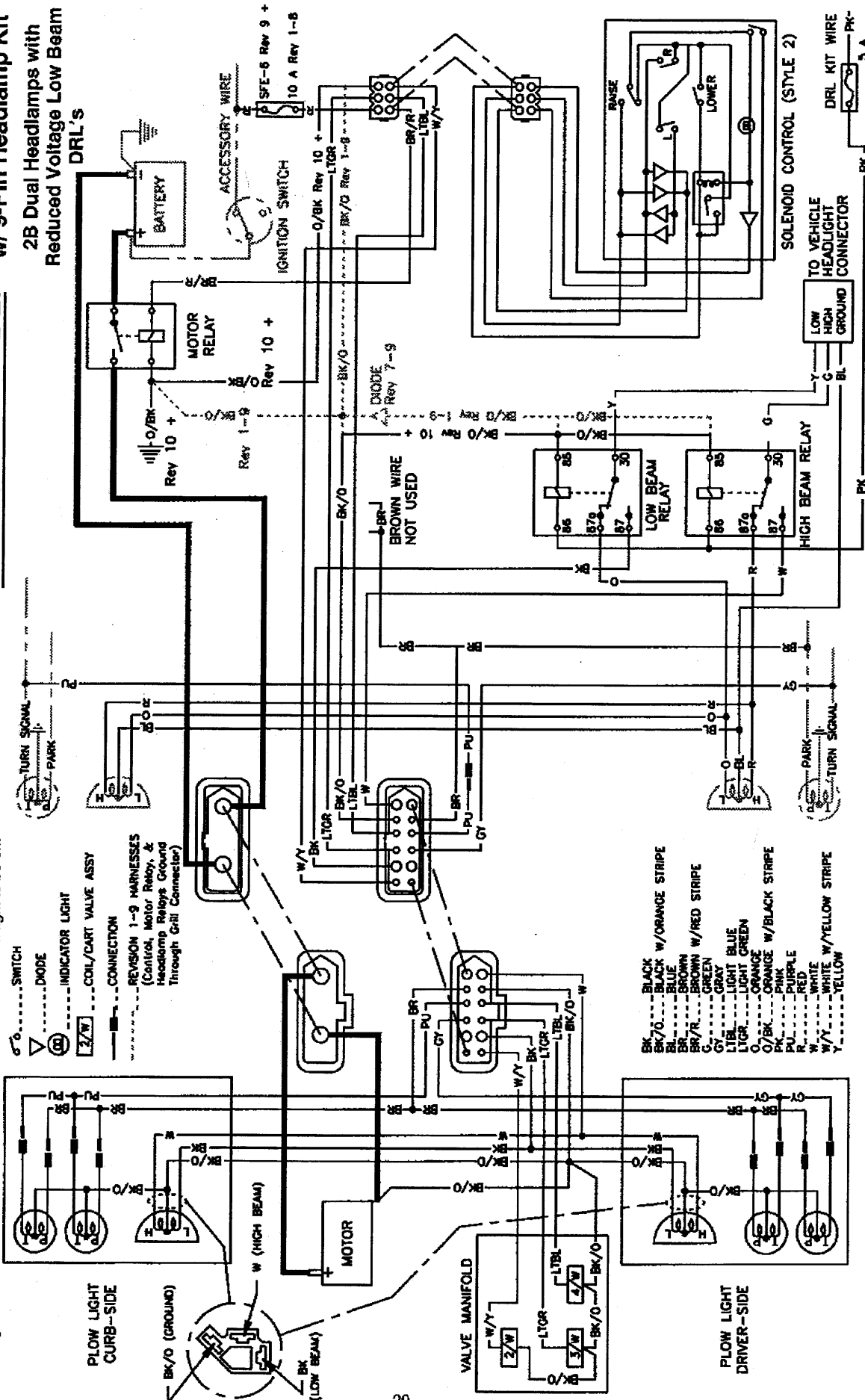
Headlamp Kit 9-Pin P.N. 61540, Harness Kit 2B U -A P.N. 61545 w/ DRL Kit P.N. 61584, Installation Instructions page 10



Wiring Diagram
 Harness Type - A
 w/ 9-Pin Headlamp Kit

Solenoid Control - 9-Pin Vehicle Harness Revision 10 & later - The control indicator light will light whenever the control ON/OFF switch and the ignition (key) switch are both turned ON. The plow plugs and grill connectors do not need to be connected for the control light to be on.

2B Dual Headlamps with
 Reduced Voltage Low Beam
 DRL's



- BK/O... BLACK W/ORANGE STRIPE
- BL... BLUE
- BR... BROWN
- BR/R... BROWN W/RED STRIPE
- G... GREEN
- GY... GRAY
- LTCR... LIGHT GREEN
- LTBL... LIGHT BLUE
- O... ORANGE
- O/BK... ORANGE W/BLACK STRIPE
- PK... PINK
- P... PURPLE
- R... RED
- W... WHITE
- W/Y... WHITE W/YELLOW STRIPE
- Y... YELLOW

9-Pin Vehicle harnesses with revision numbers prior to listed revisions at right - The indicator light will also be on when the control and ignition (key) switches are ON and the plow plugs are disconnected. If the parking lights are turned on (with plow plugs disconnected), the indicator light will go out.

9-Pin Vehicle harnesses - P.N. 61437, rev. 7, 8, or 9 - The indicator light on the solenoid control will only light when both plow plugs and grill connectors are connected and the ignition (key) switch and control on/off switch are both turned on.

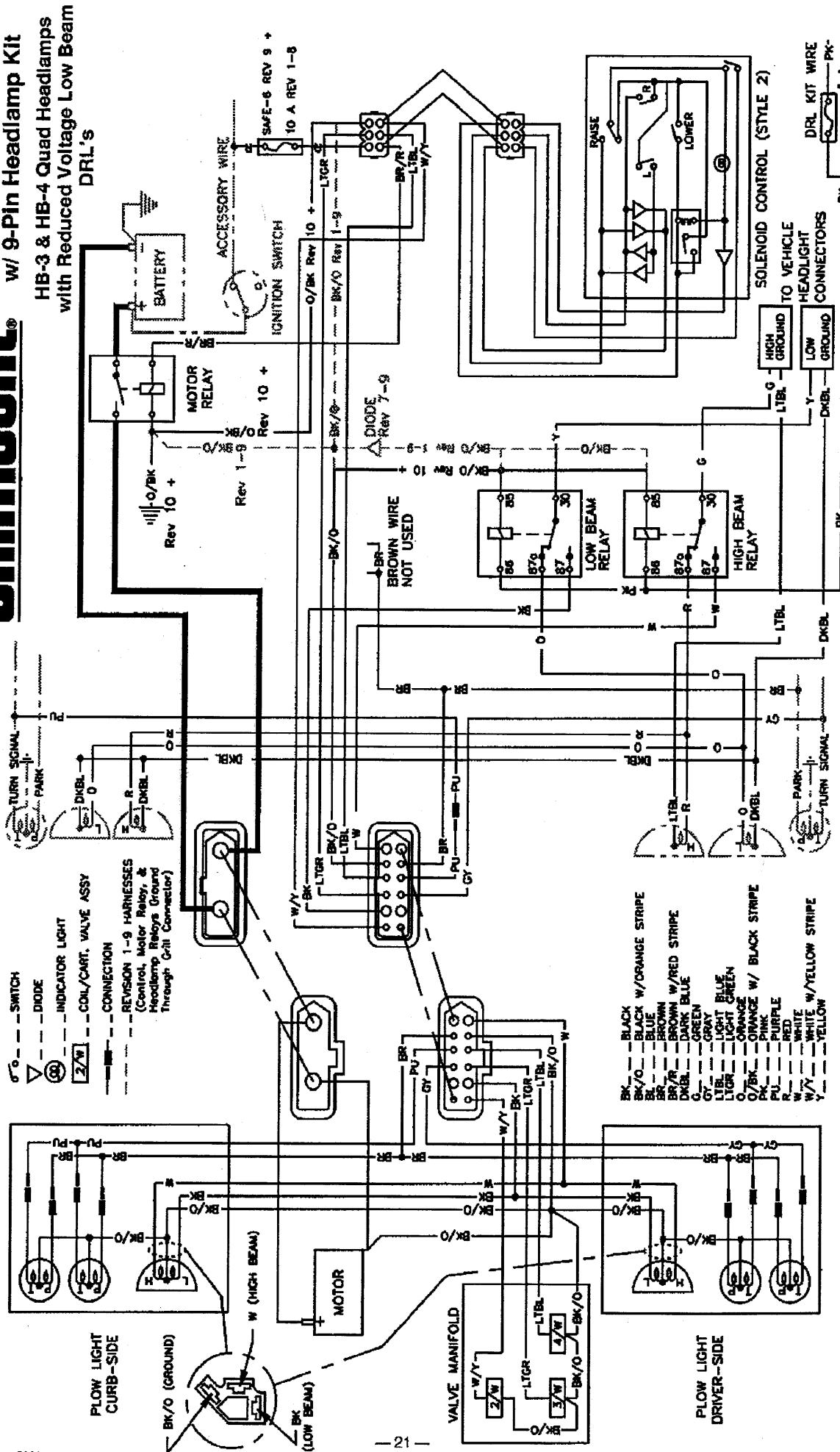
Headlamp Kit 9-Pin P.N. 61540, Harness Kit HB-3 & HB-4 U -A P.N. 61515 w/ DRL Kit P.N. 61584, Installation Instructions page 11.



Wiring Diagram Harness Type - A w/ 9-Pin Headlamp Kit

HB-3 & HB-4 Quad Headlamps
with Reduced Voltage Low Beam
DRL's

Solenoid Control - 9-Pin Vehicle Harness Revision 10 & later - The control indicator light will light whenever the control ON/OFF switch and the ignition (key) switch are both turned ON. The plow plugs and grill connectors do not need to be connected for the control light to be on.



9-Pin Vehicle harnesses with revision numbers prior to listed revisions at right - The indicator light will also be on when the control and ignition (key) switches are ON and the plow plugs are disconnected. If the parking lights are turned on (with plow plugs disconnected), the indicator light will go out.

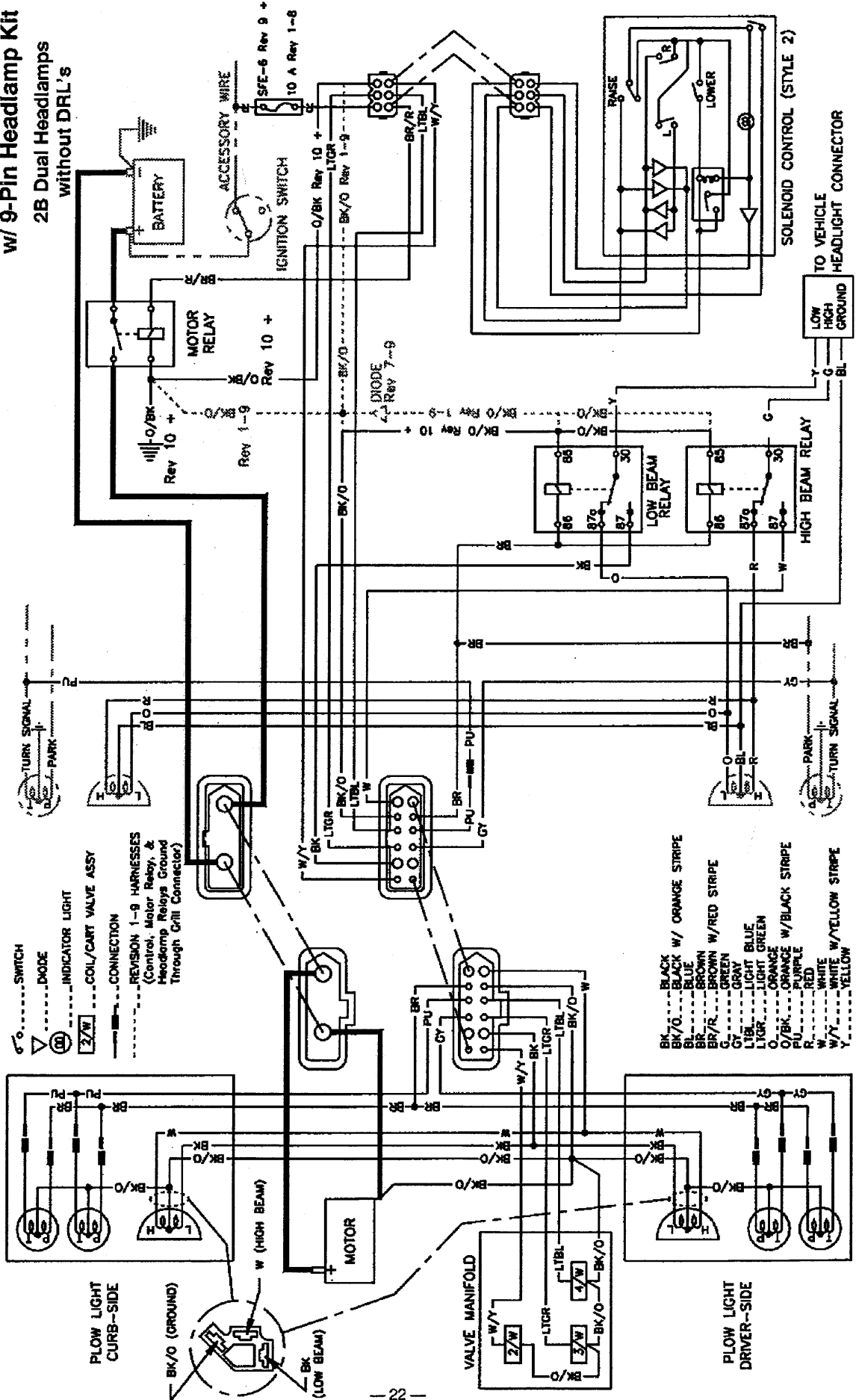
Headlamp Kit 9-Pin P.N. 61540, Harness Kit 2B U - A P.N. 61545 (without DRL's), Installation Instructions page 12



Wiring Diagram
 Harness Type - A
 w/ 9-Pin Headlamp Kit

2B Dual Headlamps
 without DRL's

Solenoid Control — 9-Pin Vehicle Harness Revision 10 & later — The control indicator light will light whenever the control ON/OFF switch and the ignition (key) switch are both turned ON. The plow plugs and grill connectors do not need to be connected for the control light to be on.



9-Pin Vehicle harnesses — P.N. 61437, rev. 7, 8, or 9 — The indicator light on the solenoid control will only light when both plow plugs and grill connectors are connected and the ignition (key) switch and control on/off switch are both turned on.

9-Pin Vehicle harnesses with revision numbers prior to listed revisions at right — The indicator light will also be on when the control and ignition (key) switches are ON and the plow plugs are disconnected. If the parking lights are turned on (with plow plugs disconnected), the indicator light will go out.

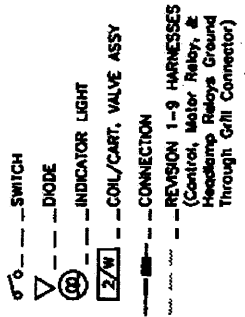
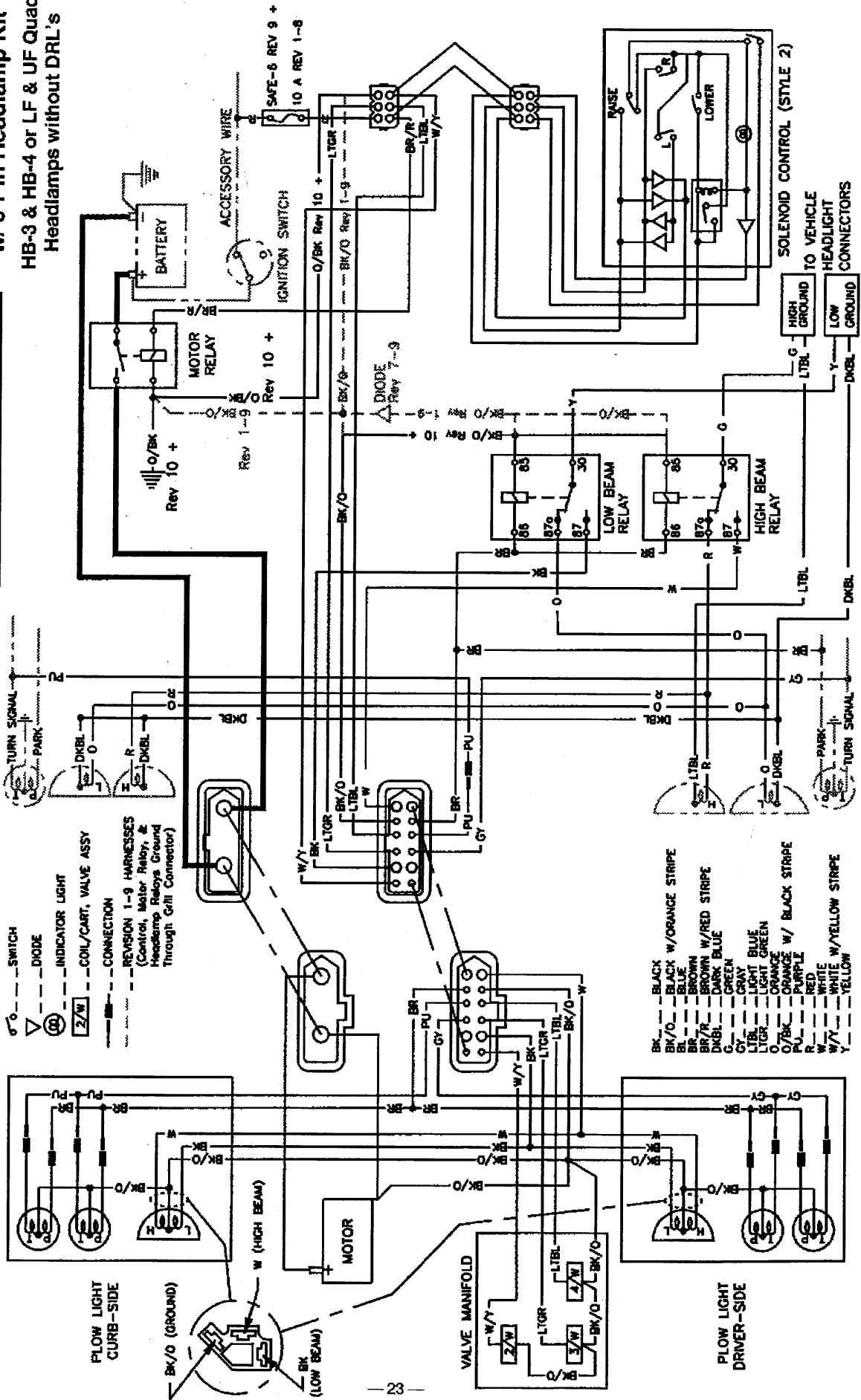
Headlamp Kit 9-Pin P.N. 61540, Harness Kit HB-3 & HB-4 U -A P.N. 61515 or Harness Kit LF & UF U -A P.N. 61580 (without DRL's), Installation Instructions page 13

Solenoid Control — 9-Pin Vehicle Harness Revision 10 & later — The control indicator light will light whenever the control ON/OFF switch and the ignition (key) switch are both turned ON. The plow plugs and grill connectors do not need to be connected for the control light to be on.



Wiring Diagram
 Harness Type — A
 w/ 9-Pin Headlamp Kit

HB-3 & HB-4 or LF & UF Quad
 Headlamps without DRL's



- BK/O — BLACK W/ORANGE STRIPE
- BL — BLUE
- BR — BROWN
- BR/R — BROWN W/RED STRIPE
- DKBL — DARK BLUE
- G — GREEN
- GY — GRAY
- LTBL — LIGHT BLUE
- LTGR — LIGHT GREEN
- O/BK — ORANGE W/ BLACK STRIPE
- PU — PURPLE
- R — RED
- W — WHITE
- W/Y — WHITE W/YELLOW STRIPE
- Y — YELLOW

9-Pin Vehicle harnesses — P.N. 61437, rev. 7, 8, or 9 — The indicator light on the solenoid control will only light when both plow plugs and grill connectors are connected and the ignition (key) switch and control on/off switch are both turned on.

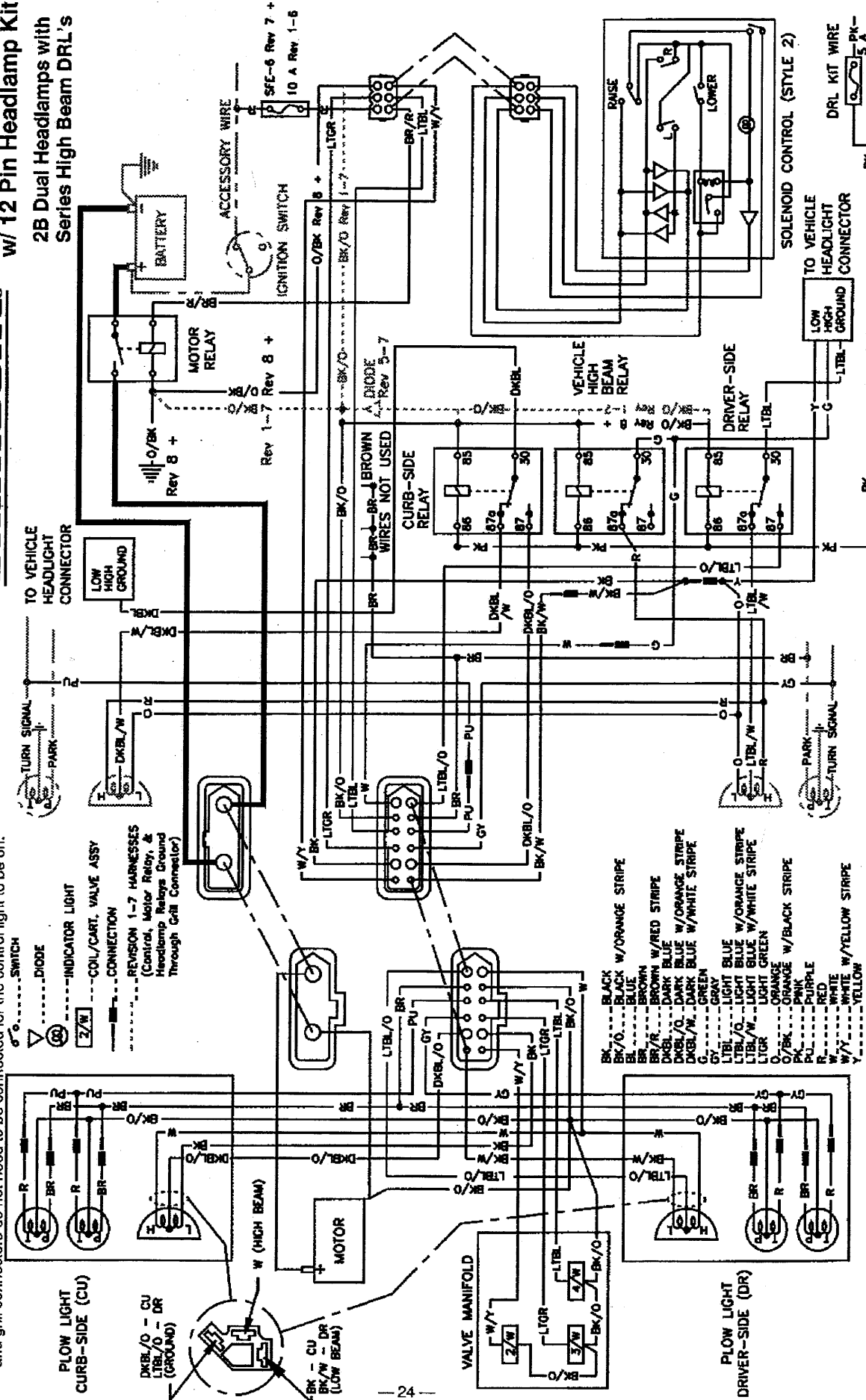
9-Pin Vehicle harnesses with revision numbers prior to listed revisions at right — The indicator light will also be on when the control and ignition (key) switches are ON and the plow plugs are disconnected. If the parking lights are turned on (with plow plugs disconnected), the indicator light will go out.

Headlamp Kit 12-pin P.N. 61550, Harness Kit 2B U -B P.N. 61555 w/ DRL Kit P.N. 61584, Installation Instructions page 14 & 15



Wiring Diagram
 Harness Type - B
 w/ 12 Pin Headlamp Kit
 2B Dual Headlamps with
 Series High Beam DRL's

Solenoid Control — 12-Pin Vehicle Harness Revision 8 & later — The control indicator light will light whenever the control ON/OFF switch and the ignition (key) switch are both turned ON. The plow plugs and grill connectors do not need to be connected for the control light to be on.



- SWITCH
- DIODE
- INDICATOR LIGHT
- COIL/CART. VALVE ASSY CONNECTION
- REVISION 1-7 HARNESSES (Control, Motor Relay, & Headlamp Relays Ground Through Grill Connector)

- BK/O — BLACK W/ORANGE STRIPE
- BL — BLUE
- BR — BROWN W/RED STRIPE
- DKBL — DARK BLUE W/ORANGE STRIPE
- DKBL/W — DARK BLUE W/WHITE STRIPE
- G — GREEN
- GY — GRAY
- LTBL — LIGHT BLUE W/ORANGE STRIPE
- LTBL/W — LIGHT BLUE W/WHITE STRIPE
- LTGR — LIGHT GREEN
- O — ORANGE W/BLACK STRIPE
- PK — PINK
- PU — PURPLE
- R — RED
- W — WHITE W/YELLOW STRIPE
- Y — YELLOW

9-Pin Vehicle harnesses — P.N. 61557, rev. 5, 6 or 7 — The indicator light on the solenoid control will only light when both plow plugs and grill connectors are connected and the ignition (key) switch and control on/off switch are both turned on.

9-Pin Vehicle harnesses with revision numbers prior to listed revisions at right — The indicator light will also be on when the control and ignition (key) switches are ON and the plow plugs are disconnected. If the parking lights are turned on (with plow plugs disconnected), the indicator light will go out.

Headlamp Kit 12-Pin P.N. 61550, Harness Kit HB-3 & HB-4 U - B P.N. 61585 w/ DRL Kit P.N. 61584, Installation

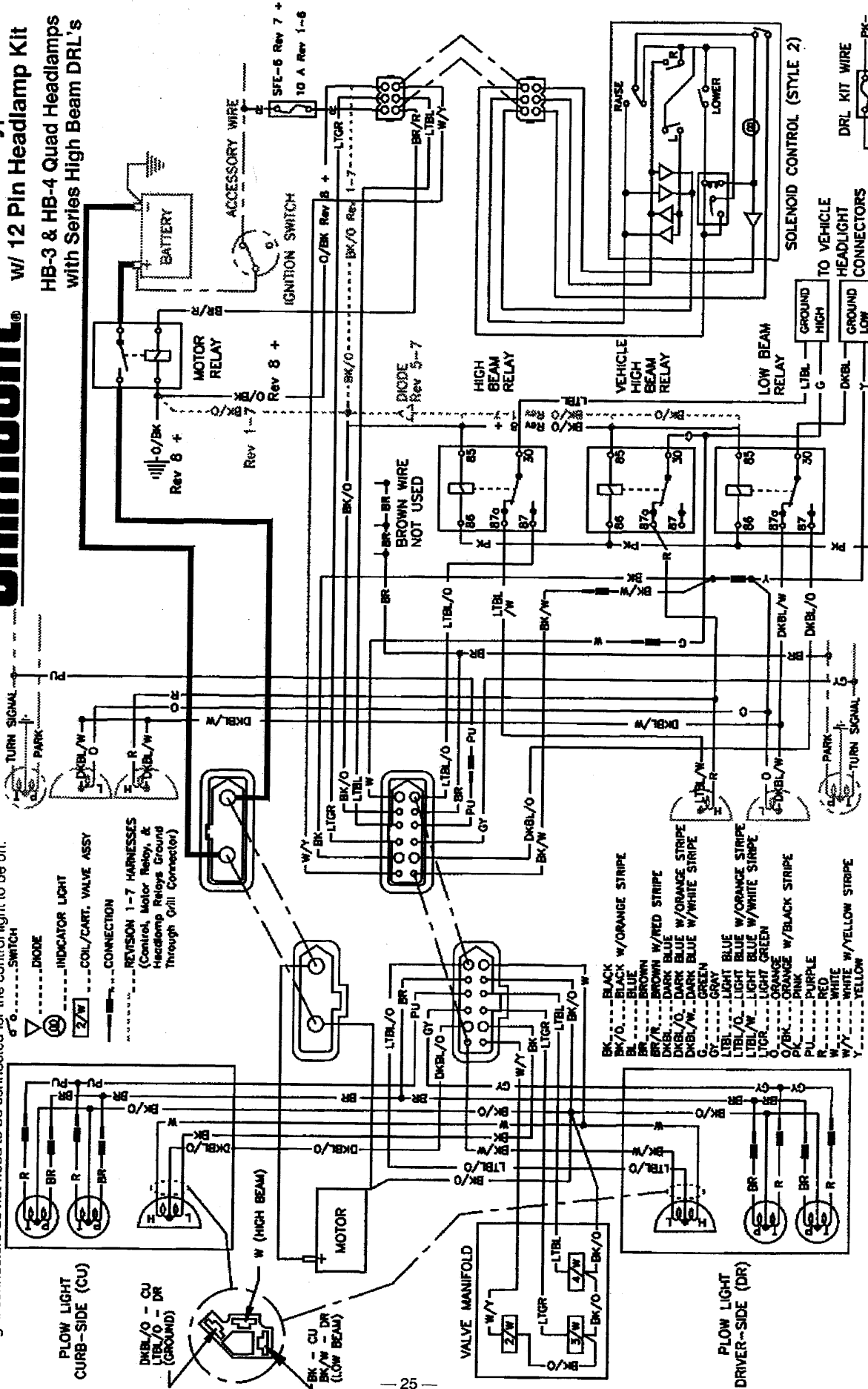
Instructions page 16 & 17

Solenoid Control — 12-Pin Vehicle Harness Revision 8 & later — The control indicator light will light whenever the control ON/OFF switch and the ignition (key) switch are both turned ON. The plow plugs and grill connectors do not need to be connected for the control light to be on.

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Wiring Diagram Harness Type - B w/ 12 Pin Headlamp Kit

HB-3 & HB-4 Quad Headlamps with Series High Beam DRL's



9-Pin Vehicle harnesses — P.N. 61557, rev. 5, 6 or 7 — The indicator light on the solenoid control will only light when both plow plugs and grill connectors are connected and the ignition (key) switch and control on/off switch are both turned on.

9-Pin Vehicle harnesses with revision numbers prior to listed revisions at right — The indicator light will also be on when the control and ignition (key) switches are ON and the plow plugs are disconnected. If the parking lights are turned on (with plow plugs disconnected), the indicator light will go out.

Headlamp Kit 12-pin P.N. 61550, Harness Kit LF & UF U -B P.N. 61561 w/ DRL Kit P.N. 61584, Installation

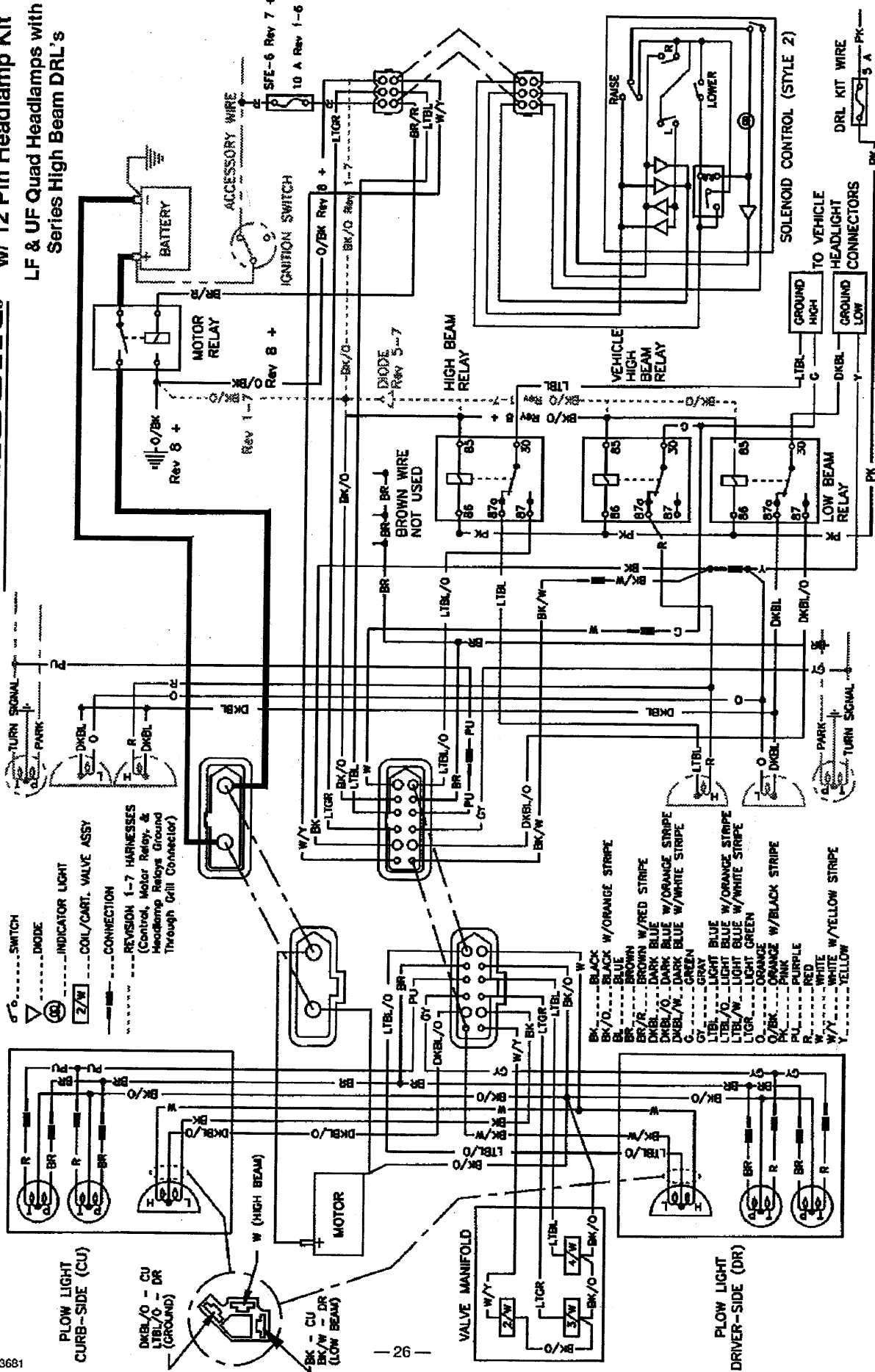
Instructions Furnished in Harness Kit

Solenoid Control — 12-Pin Vehicle Harness Revision 8 & later — The control indicator light will light whenever the control ON/OFF switch and the ignition (key) switch are both turned ON. The plow plugs and grill connectors do not need to be connected for the control light to be on.



Wiring Diagram
Harness Type - Modified A
w/ 12 Pin Headlamp Kit

LF & UF Quad Headlamps with
 Series High Beam DRL's

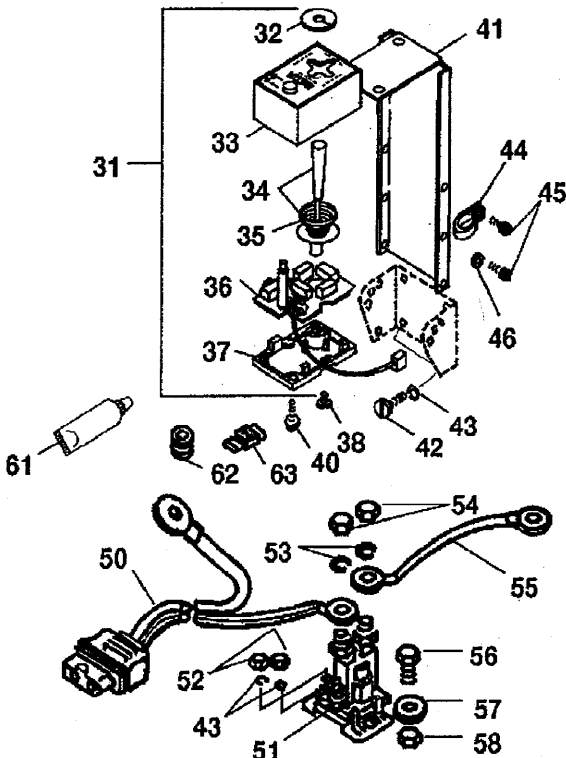


9-Pin Vehicle harnesses - P.N. 61557, rev. 5, 6 or 7 — The indicator light on the solenoid control will only light when both plow plugs and grill connectors are connected and the ignition (key) switch and control on/off switch are both turned on.

9-Pin Vehicle harnesses with revision numbers prior to listed revisions at right — The indicator light will also be on when the control and ignition (key) switches are ON and the plow plugs are disconnected. If the parking lights are turned on (with plow plugs disconnected), the indicator light will go out.

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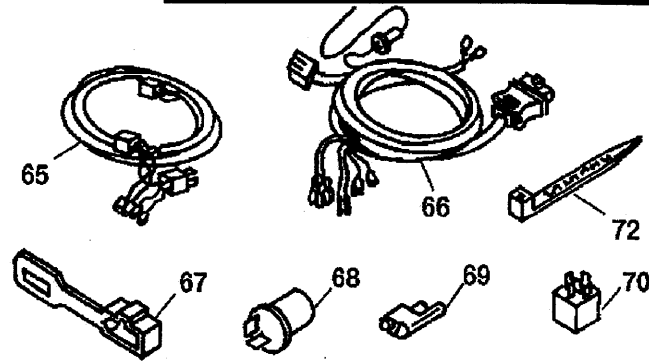
Mount Assembly 62330
Harness Kit No. 61545, 61515, 61580,
61555, 61585, or 61560
Hydraulic Box No. 56365
PARTS DIAGRAMS & LIST



ITEM	PART NO.	QTY.	DESCRIPTION
Found in Hydraulics Box No. 56365			
31	56369	1	SOLENOID CONTROL (Style 2)
32	56283	1	SHIELD
33	49286	1	BODY W/LABEL & LENS (Style 2)
34	49287	1	LEVER, SPRING & ACTUATOR KIT (Style 2)
35	55923	1	SPRING - CONICAL
36	49283	1	PC BOARD ASSY MOLEX (Style 2)
37	56199	1	BASE
38	93153	2	#6-19X3/8 SL HXW TFTS HILO
40	93154	2	#8-18X5/8 SL HXW TFTS HILO
41	56308	1	CONTROL BRACKET
42	90388	4	#10X1 SL PN TFTS TY AB BZP
43	91242	4	#10 SP LK WASHER BPO
44	55381	1	CABLE CLAMP
45	93157	5	#8-32X3/8 SL HXW TCTS TY T BP
46	91231	4	#8 SP LK WASHER BP
50	61169	1	CABLE ASSEMBLY - VEHICLE
51	56134K	1	RELAY-SOLENOID HYDRAULIC SYS
43	91242	2	#10 SP LK WASHER BPO
52	91402	2	#10-32 HX NUT ZP
53	91202	2	5/16 SP LK WASHER ZP
54	92842	2	5/16-24 HX JAM NUT
55	22511	1	BATTERY CABLE 22" RED
56	90002	2	1/4-20X3/4 HX CS G2 ZP
57	91101	2	1/4 PLAIN WASHER TY A STD ZP
58	91331	2	1/4-20 PT HX LK NUT NYIS ZP
61	56099	1	DIELECTRIC GREASE TUBE
62	66130	2	RUBBER GROMMET
63	59114	1	SELF STRIP WIRE CONNECTOR

Parts listed above may be found in one of these assemblies.

56368	1	CARTON ASSY LOOSE PARTS U
56367	1	BOLT BAG ASSY LARGE U
56358	1	BOLT BAG SMALL U



ITEM	PART NO.	QTY.	DESCRIPTION
Found in Harness Kit Box No. 61545, 61515, 61580, 61555, 61585, or 61560			
65	61546	1	PLUG-IN HARNESS 2B/2D U -A (For Harness Kit No. 61545)
61556	1	PLUG-IN HARNESS 2B/2D U -B (For Harness Kit No. 61555)	
61716	1	PLUG-IN HARNESS HB-3 & HB-4 U -A (For Harness Kit No. 61515)	
61586	1	PLUG-IN HARNESS HB-3 & HB-4 U -B (For Harness Kit Non 61585)	
61581	1	PLUG-IN HARNESS LF & UF U -A (For Harness Kit No. 61580) (Modified For Harness Kit No. 61560)	
66	61437	1	VEHICLE HARNESS 9-PIN U
61557	1	VEHICLE HARNESS 12-PIN U	
67	61548	2	PLUG COVER U
68	60109	1	FLASHER HD
69	59224	3	BULLET RECEPTACLE CONNECTOR
70	61535	2	HEADLAMP RELAY SPDT
72	59223	8	CABLE TIE
Parts listed above may be found in the following assembly.			
61547	1	PARTS BAG	



ITEM	PART NO.	QTY.	DESCRIPTION
Found in Mount Box No. 62330			
85	61536	4	CABLE TIE - LONG
90	56080	1	DASH BRACKET
Parts listed above may be found in the following assembly.			
62486	1	BOLT BAG ASSY (62330)	

Indented part numbers are included in the assembly under which they are listed. Quantities shown are included with the assembly.

Abbreviation Key					
ASSY	Assembly	LK	Lock	SYS	System
BP	Black Phosphate	NYIS	Nylon Insert	TCTS	Thread Cutting
BPO	Black Phosphate & Oil	PC	Printed Circuit		Tapping Screw
BZP	Black Zinc Plate	PN	Pin	TFTS	Thread Forming
CS	Cap screw	PT	Prevailing Torque		Tapping Screw
G	Grade	SL	Slotted	TY	Type
HX	Hex	SP	Spring	U	Unit/Mounting System
HXW	Hex Washer	SPDT	Single Pole Double Throw	W/	With
		STD	Standard	ZP	Zinc Plate