

Lit. No. 63617 September 13, 2002

# **DODGE DAKOTA and DURANGO** 2000 & LATER **INSTALLATION INSTRUCTIONS**

**Model No. 3915** Mount Assembly Box No. 63620 Hydraulics Box No. 56365

## **Headlamp Kits Selection**

2001 Model Year and Later Without DRL's Harness Kit No. 61185, 63412 Headlamp Kit No. 61540-1 With DRL's Harness Kit No. 61185, 63412, 61584 Headlamp Kit No. 61540-1

2000 Model Year Without DRL's Harness Kit No. 63396, 61185 Headlamp Kit No. 61540-1 With DRL's Harness Kit No. 61185, 63404, 61584 Headlamp Kit No. 61550-1

## **A** CAUTION

Read this document before installing the snowplow.

## **A** CAUTION

See your WESTERN<sup>®</sup> outlet for application recommendations. The Selection List has specific vehicle and snowplow requirements.



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## SAFETY DEFINITIONS

#### **WARNING**

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

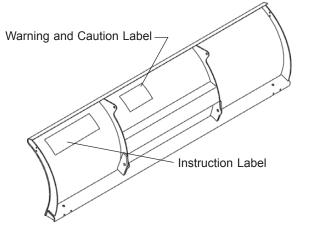
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Indicates a situation that, if not avoided, could result in damage to product or property.

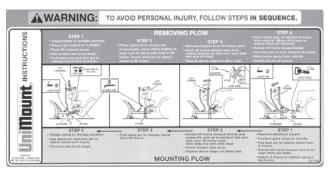
NOTE: Identifies tips, helpful hints and maintenance information the owner/operator should know.

## SAFETY LABELS

Become familiar with and inform users about the warning and instruction labels on the back of the blade.



#### Instruction Label



Warning and Caution Label

## 

LOWER BLADE WHEN VEHICLE IS PARKED.

REMOVE BLADE ASSEMBLY BEFORE PLACING VEHICLE ON HOIST.

DO NOT EXCEED GVWR OR GAWR INCLUDING BLADE AND BALLAST.

## 

READ OWNER'S MANUAL BEFORE OPERATING OR SERVICING SNOWPLOW.

TRANSPORT SPEED SHOULD NOT EXCEED 45 MPH. REDUCE SPEED UNDER ADVERSE TRAVEL CONDITIONS.

PLOWING SPEED SHOULD NOT EXCEED 10 MPH.

SEE YOUR SALES OUTLET FOR APPLICATION RECOMMENDATIONS.

## SAFETY PRECAUTIONS

Improper installation and operation could cause personal injury, and/or equipment and property damage. Read and understand labels and the *Owner's Manual* before installing, operating, or making adjustments.

## **WARNING**

Lower blade when vehicle is parked. Temperature changes could change hydraulic pressure, causing the blade to drop unexpectedly or damaging hydraulic components. Failure to do this can result in serious personal injury.

## A WARNING

Remove blade assembly before placing vehicle on hoist.

(Continued on next page.)

## SAFETY PRECAUTIONS (CONTINUED)

## **A** WARNING

The driver shall keep bystanders clear of the blade when it is being raised, lowered or angled. Do not stand between the vehicle and the blade or within 8 feet of a moving blade. A moving or falling blade could cause personal injury.

## **WARNING**

Do not exceed GVWR or GAWR including blade and ballast. The rating label is found on driverside vehicle door cornerpost.

## 

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

## **A** CAUTION

To prevent accidental movement of the blade, always turn the ON/OFF switch to OFF whenever the snowplow is not in use. The control indicator light will turn off.

## PERSONAL SAFETY

- Wear only snug-fitting clothing while working on your vehicle or snowplow.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt and dust.
- Avoid touching hot surfaces such as the engine, radiator, hoses and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

## FIRE AND EXPLOSION

## A WARNING

Gasoline is highly flammable and gasoline vapor is explosive. Never smoke while working on vehicle. Keep all open flames away from gasoline tank and lines. Wipe up any spilled gasoline immediately.

Be careful when using gasoline. Do not use gasoline to clean parts. Store only in approved containers away from sources of heat or flame.

## VENTILATION

## 

Vehicle exhaust contains deadly carbon monoxide (CO) gas. Breathing this gas, even in low concentrations, could cause death. Never operate a vehicle in an enclosed area without venting exhaust to the outside.

## **BATTERY SAFETY**

## **A** CAUTION

Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

Batteries contain sulfuric acid which burns skin, eyes and clothing.

Disconnect the battery before removing or replacing any electrical components.

## **A** CAUTION

Always disconnect the battery before removing or replacing electrical components such as a motor relay or battery cable.

## HYDRAULIC SAFETY

## **WARNING**

Hydraulic oil under pressure could cause skin injection injury. If you are injured by hydraulic oil, get medical attention immediately.

- Always inspect hydraulic components and hoses before using. Replace any damaged or worn parts immediately.
- If you suspect a hose leak, DO NOT use your hand to locate it. Use a piece of cardboard or wood.

## **TORQUE CHART**

## **A** CAUTION

Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to the torque chart. Use standard methods and practices when attaching snowplow including proper safety equipment.

| Reco  |  | Fastener Torque<br>(FtLb.)                           |  |  |
|---|--|--|--|--|
| Size  | SAE<br>Grade 2                                     | Grade 5  | Grade 8  |  |
| 1/4-20<br>5/16-18<br>3/8-16<br>3/8-24<br>7/16-14<br>1/2-13<br>9/16-12<br>5/8-11<br>3/4-10 | 6<br>11<br>19<br>24<br>30<br>45<br>66<br>93<br>150 | 9<br>18<br>31<br>46<br>50<br>75<br>110<br>150<br>250 | 13<br>28<br>46<br>68<br>75<br>115<br>165<br>225<br>370 |  |
|   | Metric Gra   | de 8.8 (Ft   | Lb.)   |  |
| Size  | Torque   | Size   | Torque   |  |
| M 6<br>M 8<br>M 10  | 7<br>17<br>35                                      | M 12<br>M 14<br>M 16                                 | 60<br>95<br>155  |  |
| These torque values apply to fasteners except those noted in the instruction.             |  |  |  |  |

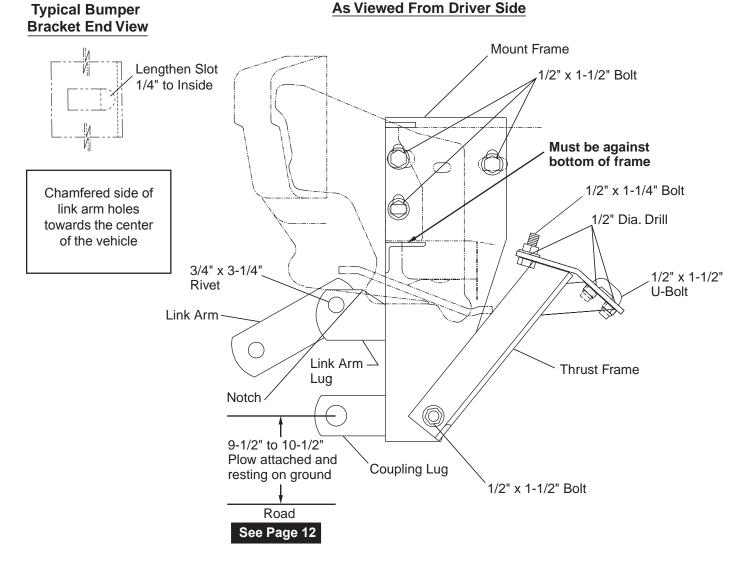
## FOG LAMPS

1. Disconnect fog lamp harness from bumper lamps if equipped.

## **MOUNT FRAME**

- 1. Open vehicle hood and remove four bumper bolts from the top of bumper bracket. Remove two outer bumper bracket bolts from side of frame. Remove bumper with brackets. Cut off rubber portion of air deflector attached to air dam and discard.
- 2. Remove snap fasteners and fan air deflector.

- Remove two bumper bracket nuts at front of frame horns. Clamp bumper bracket to frame and use a hammer and chisel under the head to drive out M12 serrated button head screw. Remove clamp. Repeat for other side. Retain parts for reinstallation if mount is removed from vehicle.
- 4. Place mount frame onto vehicle frame horns. Align slots in mount with slots in frame and holes in bumper brackets. Fasten with 1/2"-13 x 1-1/2" bolts, lock nuts, and washers. (Place nuts and washers inside frame toward slots and outside of vehicle.) Angle piece welded to side of spreader must be against bottom of frame.



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## THRUST ARMS

- Position driver side thrust arm to vehicle frame and crossmember on driver side. Align hole in angle with hole in mount frame. Fasten with 1/2" x 1-1/2" bolt and lock nut. (Place lock nut toward outside of vehicle.)
- 2. Position thrust arm tightly into corner of vehicle frame and crossmember. Clamp in place. Using hole in thrust frame as a template, drill 1/2" hole into both bottom of frame and lower hole in front face of crossmember. Fasten with 1/2" x 1-1/4" bolt with top flange lock nut on inside of frame and U-bolt placed through top hole in crossmember.

(Assembly tip: Tape lock nut to box end wrench and assemble through front of frame. Use rubber band provided to hold U-bolt in place when attaching 1/2" locking nuts.)

3. Repeat steps 1 and 2 for passenger side.

## LINK ARMS

Assemble a link arm (chamfered side of holes towards center of vehicle) between each pair of link arm lugs with a 3/4" x 3-1/4" Grade 5 rivet and cotter pin.

## BUMPER

- Remove brackets from bumper and lengthen slots 1/4" to inside as shown on page 4. Reinstall brackets to bumper, positioning each bracket 1/4" closer together.
- Position bumper on vehicle aligning brackets and frame brackets. Center bumper on vehicle. Mark location of link arm lugs and spreader frame sides on air dam. Remove bumper and notch air dam for clearance. Lug arm clearance should be 3" wide by 5" deep per side. Spreader side clearance should be 1" wide by 3" deep per side when viewed from the bottom of the bumper.
- 3. Reinstall bumper and corner brackets to vehicle with existing hardware.

- 4. Reinstall fan air deflector behind radiator. It may be necessary to cut away a portion from the right angle area forward on the passenger side only.
- 5. Reattach fog lamp wire harness plug if so equipped.

Tighten all bolts to corresponding torque chart values.

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

## HARNESS KIT SELECTION

All model years require the use of 61185 Park/Turn Harness Kit in parklamp circuit. (Furnished in the Mount Box.)

DRL equiped vehicles require the installation of a 61584 DRL Kit. (Not included in any kits.)

#### For Dual replaceable bulb type HB-5

- 2001 Vehicle Model Year Without DRL's: Box No. 61540-1 Headlamp Kit 9-pin and 63412 Harness Kit HB-5 9-pin -G With DRL's: Box No. 61540-1 Headlamp Kit 9-pin and 63412 Harness Kit HB-5 9-pin -G
- 2000 Vehicle Model year Without DRL's: Box No. 61540-1 Headlamp Kit 9-pin and 63396 Harness Kit HB-5/HB-1 9-pin -F With DRL's: Box No. 61550-1 Headlamp Kit 12-pin and 63404 Harness Kit HB-5/HB-1 12-pin -F

NOTE: After 5 to 10 hours of snowplow usage, retorque all mount assembly fasteners.

## SOLENOID CONTROL - FLOOR MOUNTED INSTALLATION INSTRUCTIONS

1. Align dash bracket hole shown in diagram to end hole of control bracket.

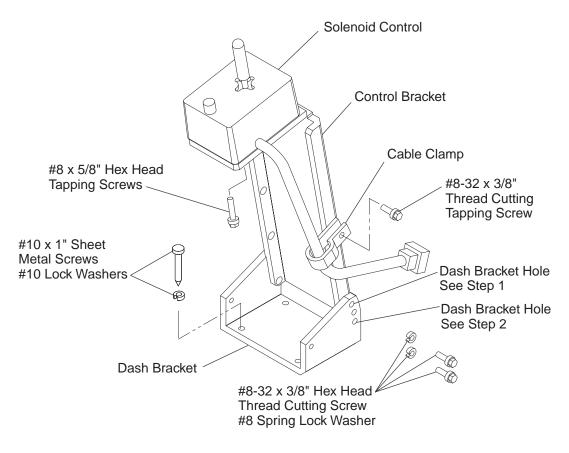
NOTE: Top flange of control bracket may be reversed in dash bracket from position shown in diagram. Attach with one #8 x 3/8" hex head thread cutting screw and lock washer on each side.

- 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.
- 4. 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.

- 5. Remove control bracket from dash bracket.
- 6. Place dash bracket in marked location. Use dash bracket as a template to drill four 1/8" holes in tunnel.

NOTE: Before drilling any holes, check both sides of the material for any wires, fuel lines, fuel tanks, etc. that may be damaged by drilling.

- 7. Secure dash bracket to tunnel with four #10 x 1" sheet metal screws and lock washers.
- 8. Reassemble control bracket to dash bracket. Bend top flange of control bracket to desired position.
- 9. Secure harness to control bracket with cable clamp and one #8 x 3/8" hex head thread cutting screw.



## VEHICLE HARNESS AND MOTOR RELAY

Except as noted, parts to be installed are found in the hydraulics box.

NOTE: Use dielectric grease on all electrical connections to prevent corrosion. Fill receptacles and lightly coat ring terminals and blades before assembling.

 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. 2. Remove NEGATIVE battery cable from battery.

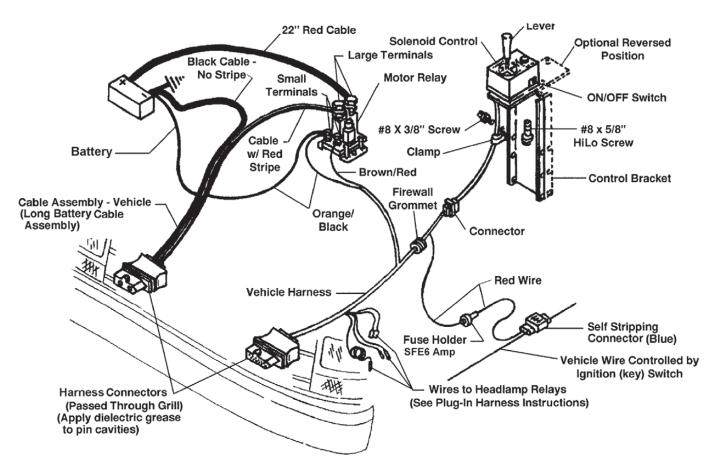
## **A** CAUTION

Batteries normally produce explosive gases, which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

Batteries contain sulfuric acid that burns skin, eyes and clothing.

Disconnect the battery before removing or replacing any electrical components.

(continued on next page)



#### HARNESS, SOLENOID CONTROL AND MOTOR RELAY INSTALLATION DIAGRAM

## VEHICLE HARNESS AND MOTOR RELAY

(continued)

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.

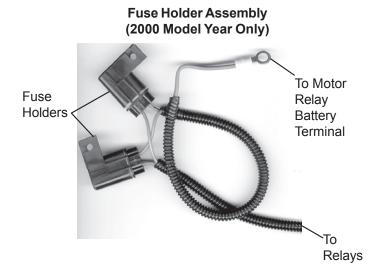
Using the motor relay mounting plate as a template, drill two 9/32" holes, and mount motor relay to holes using 1/4" x 3/4" bolts, plain washers, and lock nuts.

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.

#### At the motor relay large terminal, Attach in the following order:

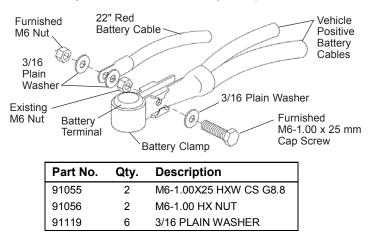
- (2000 model year only) Ring terminal from the fuse holder assembly found in the harness kit (See picture below.)
- Red wire ring terminal from the park/turn lamp harness kit found in the mount box
- · 22" red battery cable end
- · Secure all terminals with a lock washer and 5/16"-24 jam nut

Both the fuse holder assembly and the park/turn lamp harness will be routed to the headlamp relays.

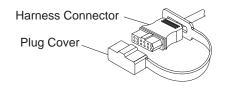


#### At the positive battery terminal clamp,

replace the original equipment battery clamp cap screw with the blue chromate finished cap screw, one 3/16" plain washer and 6mm nut listed below. Use two 3/16" plain washers and a second 6mm nut as shown in diagram to attach the 22" red battery cable end to the battery clamp.



Stretch rectangular openings of plug cover straps 5. (found in harness kit) over harness 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.



Find a location in the vehicle grill or bumper openings on the battery side for the battery cable harness connector. The best location is at least 10-1/2" from the center of the grill and at a convenient height for connecting the plow plugs.

Allow harness 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.

(continued on next page)

## VEHICLE HARNESS AND MOTOR RELAY

(continued)

- Route the battery cable without a stripe directly to the NEGATIVE battery terminal (carefully separate the two cables as needed to reach battery). DO NOT attach cable to battery at this time.
- Find a location in grill or bumper openings on driver-side for the vehicle harness connector (similar position to battery cable mount). See Steps 6 & 7 on previous page 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.

NOTE: 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 wire loom to motor relay.

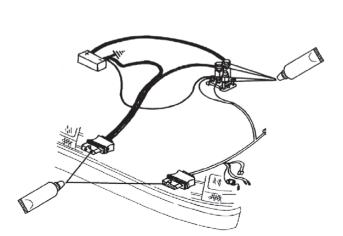
Attach the brown/red and orange/black wires small ring terminals to separate small terminals on motor relay using a lock washer and #10-32 nut for each connection.

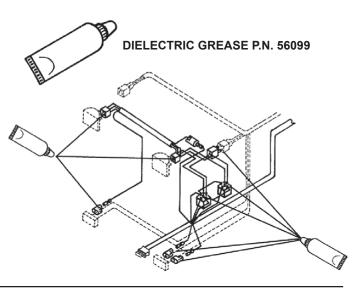
- 13. Route the orange/black wire with 3/8" ring terminal to NEGATIVE battery terminal. **DO NOT attach** wire to battery at this time.
- 14. Inside the cab, route vehicle harness connector to solenoid or CabCommand control and couple the connectors together.
- 15. Replace the NEGATIVE battery terminal clamp cap screw following the procedure shown in Step 4, on previous page. Reconnect vehicle ground cable to NEGATIVE battery terminal. Attach the hydraulic unit black battery cable, the black wire ring terminal from the Park/Turn Harness, and orange/black wire ring terminal to the negative clamp cap screw.
- 16. Locate an accessory wire capable of carrying 7 amps in addition to existing circuit loads 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). If used, DRL pink wire requires .4 amps.

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 closed 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 a SFE-6 fuse for CabCommand control.

NOTE: Use dielectric grease to prevent corrosion on all connections. Fill receptacles and lightly coat ring terminals and blades before assembling.





## PLUG-IN HARNESS AND HEADLAMP RELAY INSTALLATION

NOTE: Use dielectric grease to prevent corrosion on all connections. Fill receptacles and lightly coat ring terminals and blades before assembly.

NOTE: (2000 model year only) This installation uses the vehicle headlamp circuits to activate relays, which allow the plow headlamps to be powered directly off the battery.

- Route the fuse holder assembly (2000 model year only) and the park/turn lamp harness to the area behind the driver-side headlamp. The park/turn harness purple wire bullet should be connected to the park/turn harness purple wire receptacle. Bundle and tie the purple wire as it is not used on this installation.
- 2. Make the following connections behind the driverside headlamp by inserting bullets from vehicle harness and park/turn harness into receptacles.
  - Vehicle harness Brown wire to park/turn harness gray receptacle.
  - Park/turn harness Gray wire bullet to vehicle park lamp wire black receptacle previously installed.
  - Vehicle harness Gray wire bullet to vehicle turn signal wire black receptacle previously installed.
- 3. (2000 model year only) On each end of the plug-in harness, found in the harness kit, locate the blue connector with two wires and the black connector with two wires. Plug these two connectors together. They are not used in this installation.
- 4. Locate the end of the plug-in harness with the short purple wire with a receptacle on it. Place this end behind the driver-side headlamp. Route the other end of the harness along the radiator bulkhead or over the radiator shroud to the passenger-side headlamp.

- 5. At the passenger-side headlamp, remove the headlamp connector and mate with the 3 wire male plug. Mate the 3-wire headlamp connector from the plug-in harness to the vehicle headlamp terminals.
- 6. On the passenger-side, insert purple wire bullet from plug-in harness into vehicle turn signal black bullet connector installed in step one of previous section.
- 7. At the driver-side headlamp, insert the purple wire bullet from the vehicle harness into the purple wire receptacle on the plug-in harness.
- 8. At the driver-side headlamp, remove the headlamp connector and mate it with the 3 wire male plug. Mate the 3-wire headlamp connector from the plug-in harness to the headlamp terminals.

## **NOTE:** Tape the four headlamp relays together with electrical tape to ease wire installation.

- 9. Attach wires from the vehicle harness and the plugin harness to the four relays as shown in the diagrams on:
  - Page 14 for 2001 and later vehicles with/without DRL's
  - Page 15 for 2000 model year vehicles without DRL's
  - Page 16 for 2000 model year vehicles with DRL's
- 10. Place a grommet around 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 wire away from sharp edges, and hot or moving engine parts to prevent accidental grounding of connections.
- 11. Lubricate terminal cavities of both harness connectors located at the grill/bumper area.

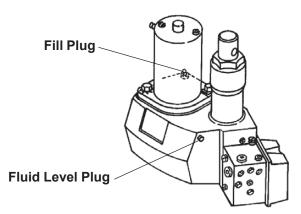
## FILLING HYDRAULIC UNIT

NOTE: Mount plow assembly to vehicle. (See label on back of blade or *Owner's Manual* for mounting instructions.)

## 

Remove fluid level plug slowly to allow any residual pressure in the reservoir to bleed off.

- 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.
- 4. Replace both plugs.

## 

Do not mix different types of hydraulic fluid. Some fluids are not compatible and may cause performance problems and product damage.

#### USE

- WESTERN<sup>®</sup> High Performance Fluid to -25° F (-32° C)
- Automatic transmission fluid (ATF) DEXTRON<sup>®</sup> III to -10° F (-23° C)
- Texaco 1537 Aircraft Hydraulic Oil for temperatures below -25° F (-32° C)

- 6. Turn the control ON/OFF switch to the ON position.
- 7. Move control lever to angle left and angle right several times to remove air from rams.

## 

DO NOT raise blade as this may cause pump cavitation.

- 8. Refill unit with fluid following the procedure in steps 1-4 of this section.
- Move the control lever as indicated on label to control the plow. Raise and lower plow several times to remove air. Place control lever in float position. Push lift channel all the way down. Recheck fluid level according to steps 1-4 of this section.

#### FLUID CAPACITY

Solenoid ISARMATIC<sup>®</sup> Mark IIIa reservoir 1-3/4 quarts Equipped with 10" rams 2-3/8 quarts

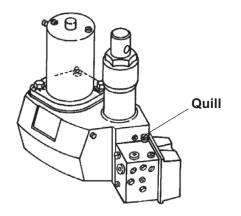
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To prevent accidental movement of the blade, always turn the ON/OFF switch to OFF whenever the snowplow is not in use. The control indicator light will turn off.

## BLADE DROP SPEED ADJUSTMENT

NOTE: The quill on the top rear of the valve manifold (see diagram) adjusts blade drop speed. Turning quill too far in can slow raise time.

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



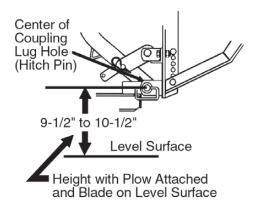
## FINAL HYDRAULIC INSPECTION

- 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.

NOTE: Do not over tighten packing nuts. 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. A small amount of leakage is necessary to properly lubricate the cylinder rod.

## 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 as found in Selection List.
- 2. Lift blade and move vehicle a minimum of 10 feet. Lower blade.
- 3. With the blade on a level surface, slack in lift chain and rear ballast located behind rear wheels, the center of the coupling holes (hitch pin shaft) to level surface should measure 9-1/2" to 10-1/2".
  - To obtain height, adjust torsion bar suspension. Alternate driver and passenger side torsion bar adjustments for uniform height change. After each series of adjustments, repeat steps 2 and 3.



## 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.** 

## **VEHICLE LIGHTING CHECK**

1. Check the operation of vehicle and plow lights with plow mounted to vehicle and all harnesses 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-pin or 12-pin plow plug from the vehicle harness connector should switch between vehicle and plow headlamps as follows:

9-pin or 12-pin plow plug DISCONNECTED

- Vehicle headlamps should be on.
- Plow headlamps should be off.

9-pin or 12-pin plow plug CONNECTED

- Plow headlamps should be on.
- Vehicle headlamps should be 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.

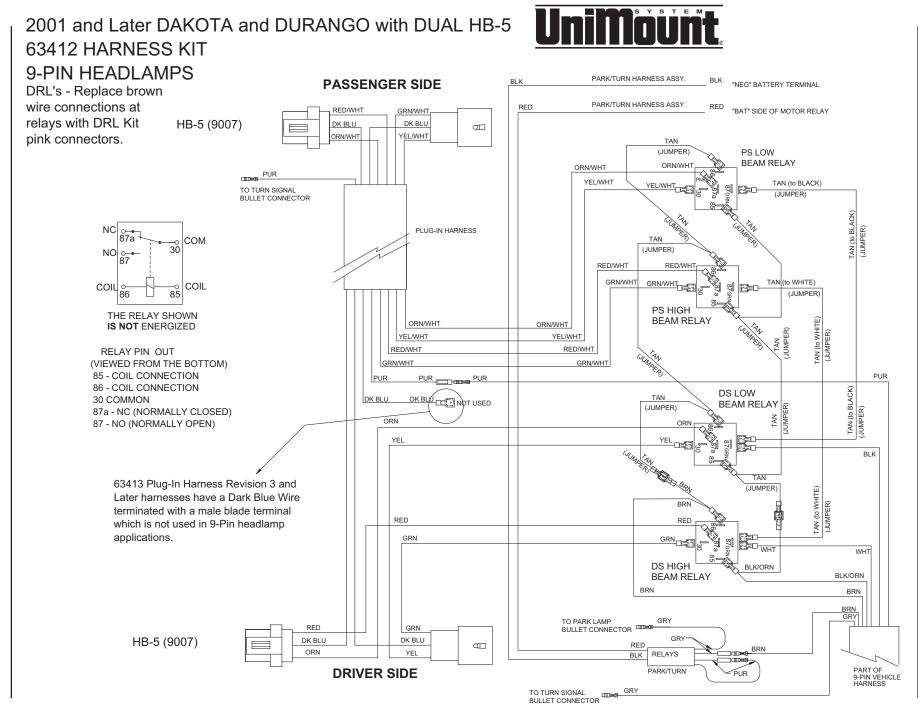
## Solenoid Control or CabCommand Control

9-pin or 12-pin vehicle harness revision 10 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 vehicle harness connectors.

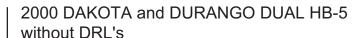
- Connect plow plug to vehicle harness connector. Raise plow and aim plow headlamps according to SAE J599 Lighting Inspection Code (See Service Bulletin SP 608) and any state or local regulations.
- 3. Check aim of vehicle headlamps with plow removed.
- 4. When plow is removed from the vehicle, install plug covers on vehicle harness 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.



RELAY CONNECTIONS DIAGRAM

**1**4



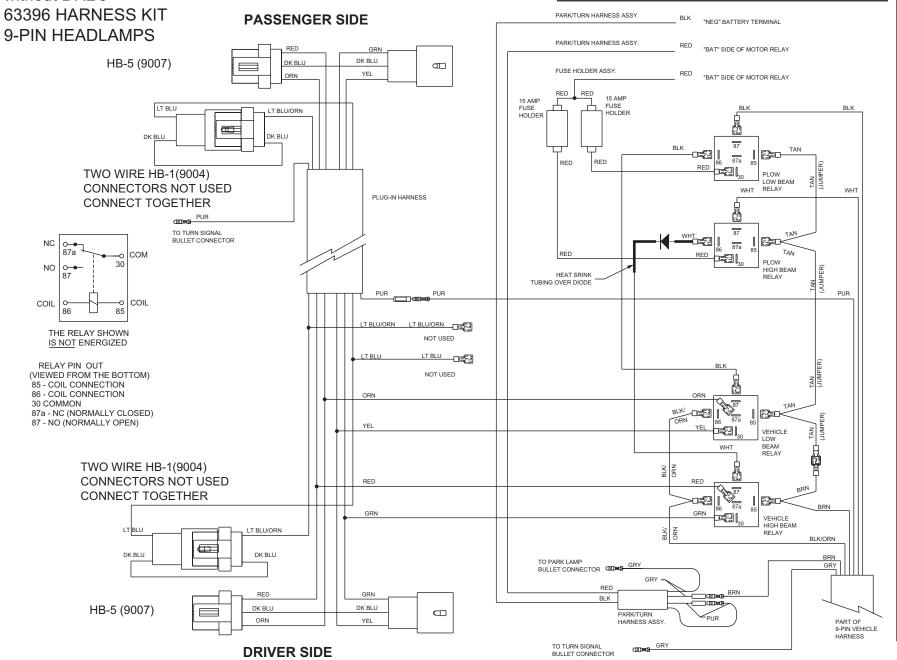


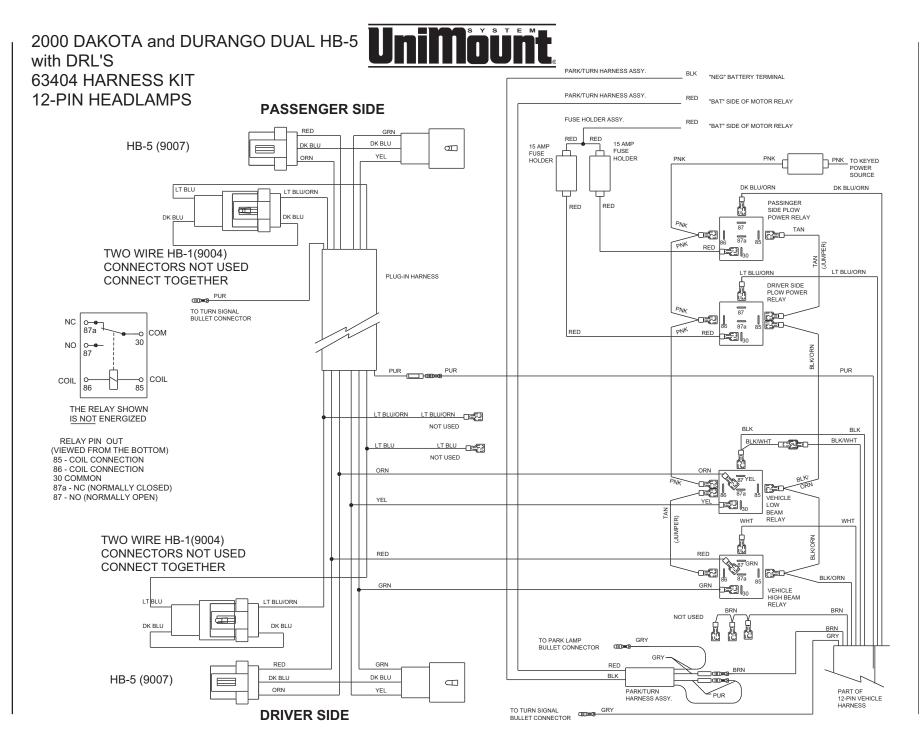
NOTE: The white jumper wire contains a diode and must be installed correctly. Connect the white wire receptacle <u>without the heat shrink</u> to terminal 87 of the vehicle high beam relay. The white wire receptacle <u>with the heat shrink</u> covered diode connects to terminal 86 of the plow high beam relay.

RELAY

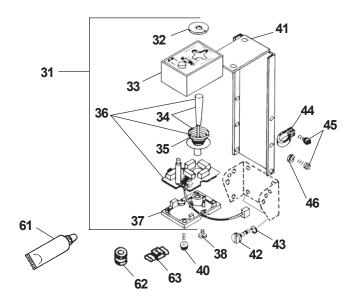
CONNECTIONS

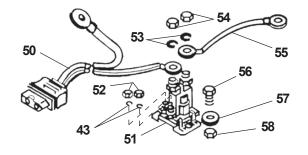
DIAGRAM



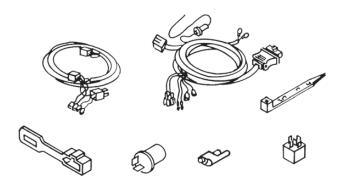


## ASSEMBLY DIAGRAM



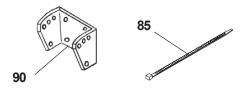


|    | -               |   | DESCRIPTION                    |
|----|-----------------|---|--------------------------------|
|    | I in Hydraulics |   |                                |
| 31 | 56369           | 1 | SOLENOID CONTROL (Style 2)     |
| 32 | . 56283         | 1 | SHIELD                         |
| 33 | . 49286         | 1 | BODY W/LABEL & LENS (Style 2)  |
| 34 | . 49287         | 1 | LEVER, SPRING & ACTUATOR KIT   |
| 35 | . 55923         | 1 | SPRING - CONICAL               |
| 36 | . 49283         | 1 | PC BOARD ASSY MOLEX (Style 2)  |
|    |                 |   | W/LEVER, SPRING & ACTUATOR KIT |
| 37 | . 56199         | 1 | BASE                           |
| 38 | . 93153         | 2 | #6-19X3/8 SL HXW TFTS HILO     |
| 40 | 93154           | 2 | #8-18X5/8 SL HXW TFTS HILO BPO |
| 41 | 56308           | 1 | CONTROL BRACKET                |
| 42 | 90388           | 4 | #10X1 PH 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           | 1 | 21/4-20 PT HX LK NUT NYIS ZP   |
| 61 | 56099           | 1 | DIELECTRIC GREASE TUBE         |
| 62 | 66130           | 2 | RUBBER GROMMET                 |
| 63 | 59114           | 1 | SELF STRIP WIRE CONNECTOR      |



#### 2000 and Later

See Parts List furnished with Harness Kit for DRL's or Non-DRL's.



#### ITEM PART NO. QTY. DESCRIPTION Parts listed above may be found in one of t

| arts listed above m | ay 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                 |

#### Found in Mount Box No. 63620

| 85 | 61536 | 4 | CABLE TIE - LONG |
|----|-------|---|------------------|
| 90 | 56080 | 1 | DASH BRACKET     |

| Abbreviations |                       |      |                              |  |  |
|---------------|-----------------------|------|------------------------------|--|--|
| ASSY          | Assembly              | PT   | Prevailing Torque            |  |  |
| BP            | Black Phosphate       | SL   | Slotted                      |  |  |
| BPO           | Black Phosphate & Oil | SP   | Spring                       |  |  |
| BZP           | Black Zink Plate      | STD  | Standard                     |  |  |
| CS            | Cap Screw             | SYS  | System                       |  |  |
| G             | Grade                 | TCTS | Thread Cutting Tapping Screw |  |  |
| HX            | Hex                   | TFTS | Thread Forming Tapping Screw |  |  |
| HXW           | Hex Washer            | ΤY   | Туре                         |  |  |
| LK            | Lock                  | U    | UniMount® System             |  |  |
| NYIS          | Nylon Insert          | W/   | With                         |  |  |
| PH            | Phillips Head         | ZP   | Zinc Plate                   |  |  |
| PN            | Pan                   |      |                              |  |  |
|               |                       |      |                              |  |  |



WESTERN PRODUCTS MILWAUKEE, WI 53224-9538

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