### NUMBER
16TSB-50

### TYPE
SERVICE ALERT

### TITLE
SWITCHED GROUND DODGE APPLICATIONS

### REV
A

### ISSUED
11/30/2011

### REVISED
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### AFFECTS
DODGE '99-'02 2500/3500, DODGE '99-'01 1500

### INFORMATION
The installation instructions and relay kit for switched ground Dodges have been revised to include all prior service alerts.

### INSTRUCTIONS
See the attached instructions and include with any 16071120 and 16071130 headlight adapters kits sold or used.

The 16071210 relay kit is now suggested for all switched ground Dodge installs.

The 16071220 quad adapter kit is available from stock for sport package Dodges.
### SnowDogg® Snowplow Headlight Adapter

**INSTALLATION INSTRUCTIONS**

16071120

**HB5**

<table>
<thead>
<tr>
<th>HB5/9007</th>
<th>DODGE</th>
<th>FORD</th>
<th>JEEP</th>
<th>NISSAN</th>
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<tr>
<td></td>
<td>2002-2005 RAM 1500</td>
<td>1995-2001 Explorer</td>
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<td>2001-2006 Explorer Sport Trac</td>
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<td>1997-2002 Ford Expedition</td>
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<td>1997-2003 F150</td>
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<td>1997-1999 F250LD</td>
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<td>1992-1997 F250HD/F350/SD</td>
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<td>1999-2004 F250SD/F350/F450/F550</td>
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**SWITCHED GROUND**

<table>
<thead>
<tr>
<th>HB5/9007</th>
<th>DODGE</th>
<th>1999-2001 RAM 1500 - QUAD/SPORT</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1999-2002 RAM 2500/3500 - QUAD/SPORT</td>
</tr>
</tbody>
</table>

If your application is not shown here, contact your dealer for further assistance.

**NOTE:** The 16071120 Headlight Adapter is only for use with HB5 headlights. HB1 headlights use the same connector, but require a 16071130 adapter. Always check the application guide and your bulb marking before installation.

### INSTRUCTIONS

Always verify that all truck lights are functioning correctly before beginning any installation.

**FOR DODGE SPORT APPLICATION – use the OUTBOARD headlamps**

1. Disconnect both PS and DS side truck headlights from the truck headlight harnesses.
2. Connect the 16071120 adapters to the truck headlights and truck headlight harnesses.
3. Connect the 16071120 adapters to the 8-pin RELAY HARNESS connectors.
4. Use an included Tap connector to tap the PURPLE wire into the TURN light circuits on the passenger and driver sides of the truck.

**If the truck is a SWITCHED GROUND INSTALL – skip step 5 and go to the special instructions (on back of this page).**

5. Use an included Tap connector to tap the BROWN wire into the PARK light circuits on passenger and driver sides of the truck.
6. Check all light functionality before operating the plow.

—continued on back
SPECIAL INSTRUCTIONS FOR:
DODGE 1500 1999-2001 4 LAMP (SPORT) – SWITCHED GROUND INSTALL
DODGE 2500/3500 1999-2002 4 LAMP (SPORT) – SWITCHED GROUND INSTALL

NOTE: Auxiliary relay kit 16071210 is required on most switched ground Dodge’s to ensure proper operation when the vehicle is turned off. Without this kit, with ignition in the off position, the relay module may buzz, the parking lights on the will remain on, and the high beam indicator will be lit.

- Adapter kit 16071220 will be required to connect the inboard high beams. Without this, the inboard high beams will remain controlled by the truck and will be on simultaneously with the plow high beams. This will not damage anything, but may result in glare on the back of the moldboard.

THE 16160100 RELAY HARNESS MUST BE INSTALLED FOR SWITCHED GROUND CONFIGURATION PER THE DIAGRAM SHOWN BELOW.

1. Locate the gray wire with pre-connected male/female quick connects. Disconnect the two halves. The male quick connect will not be used and should be taped off.
2. The female end should be connected to the RED/WHITE wire from the 16160300 CONTROL HARNESS.
3. CONNECT THE BROWN WIRES ON THE HEADLIGHT ADAPTERS TO GROUND - THEY DO NOT CONNECT TO THE PARKING CIRCUIT.
4. Connect the WHT/BLK, ORANGE, and BLACK wires as shown. Do not heat-shrink or seal – these will be disconnected when the 16071210 is installed.
5. Verify function of headlights, parking lights, and turn signals on plow and truck.
6. Follow 16071210 installation instructions.

SWITCHED GROUND HEADLIGHTS
(SEE APP GUIDE FOR ASSISTANCE)
**SnowDogg® Snowplow Headlight Adapter**

**INSTALLATION INSTRUCTIONS**

**16071130**

HB1

<table>
<thead>
<tr>
<th>HB1/9004</th>
<th>DODGE</th>
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<th>Ram 1500</th>
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<tr>
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<td>1994-1998</td>
<td>RAM 2500/3500</td>
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</table>

<table>
<thead>
<tr>
<th>HB1/9004</th>
<th>SWITCHED GROUND</th>
<th>1999-2001</th>
<th>RAM 1500 - NON SPORT - 2 LAMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999-2002</td>
<td>RAM 2500/3500 - NON SPORT - 2 LAMPS</td>
<td></td>
</tr>
</tbody>
</table>

*If your application is not shown here, contact your dealer for further assistance.*

**NOTE:** The 16071130 Headlight Adapter is only for use with HB1 headlights. HB5 headlights use the same connector, but require a 16071120 adapter. Always check the application guide and your bulb marking before installation.

**INSTRUCTIONS**

*Always verify that all truck lights are functioning correctly before beginning any installation.*

1. Disconnect both PS and DS side truck headlights from the truck headlight harnesses.
2. Connect the 16071130 adapters to the truck headlights and truck headlight harnesses.
3. Connect the 16071130 adapters to the 8-pin RELAY HARNESS connectors.
4. Use an included Tap connector to tap the PURPLE wire into the TURN light circuits on the passenger and driver sides of the truck.

If the truck is a SWITCHED GROUND INSTALL – skip step 5 and go to the special instructions.

5. Use an included Tap connector to tap the BROWN wire into the PARK light circuits on passenger and driver sides of the truck.
6. Check all light functionality before operating the plow.
SPECIAL INSTRUCTIONS FOR:
DODGE 1500 1999-2001 2 LAMP (NON-SPORT) – SWITCHED GROUND INSTALL
DODGE 2500/3500 1999-2002 2 LAMP (NON-SPORT) – SWITCHED GROUND INSTALL

NOTE: Auxiliary relay kit 16071210 is required on most switched ground Dodge's to ensure proper operation when the vehicle is turned off. Without this kit, with ignition in the off position, the relay module may buzz, the parking lights on the will remain on, and the high beam indicator will be lit. The 16160100 RELAY HARNESS must be installed for SWITCHED GROUND configuration per the diagram shown on back.

1. Locate the gray wire with pre-connected male/female quick connects. Disconnect the two halves. The male quick connect will not be used and should be taped off.
2. The female end should be connected to the RED/WHITE wire from the 16160300 CONTROL HARNESS.
3. CONNECT THE BROWN WIRES ON THE HEADLIGHT ADAPTERS TO GROUND - THEY DO NOT CONNECT TO THE PARKING CIRCUIT.
4. Connect the WHT/BLK, ORANGE, and BLACK wires as shown. Do not heat-shrink or seal – these will be disconnected when the 16071210 is installed.
5. Verify function of headlights, parking lights, and turn signals on plow and truck.
6. Follow 16071210 installation instructions.
16071210 RELAY KIT
INSTALLATION INSTRUCTIONS

THIS IS ONLY INTENDED FOR USE WITH THE FOLLOWING APPLICATIONS:
    Dodge 99-01 Dodge 1500
    Dodge 99-02 Dodge 2500/3500

1. Install RELAY AND CONTROL harnesses per 16071120 or 16071130 instructions (following switched ground instructions)

2. Disconnect ORANGE and BLACK/WHITE wires from the RELAY HARNESS from the BLACK wire (from the CONTROL HARNESS previously connected during 16071120/16071120 installation) and attach to PIN 87 of the relay per figure 1. The BLACK wire from the CONTROL HARNESS is not used and can be taped off.

3. Connect a minimum 2A switched ignition source to pin 85. DO NOT USE THE RED/WHITE wire from the CONTROL HARNESS.

4. Connect the black ground harness on the relay to a good ground (chassis or battery)

5. Pin 87A (if present) on the relay is NOT USED.

6. Verify function of headlights, parking lights, and turn signals on the plow and truck.

SEE DIAGRAMS ON BACK
PIN 85 TO IGNITION SWITCHED POWER (DO NOT USE RED/WHITE WIRE FROM CONTROL HARNESS)

PIN 87 TO BLACK/WHITE WIRE AND ORANGE FROM RELAY HARNESS

PIN 86 TO BLACK WIRE

TO GROUND

FIGURE 1

ORANGE, BLACK/WHITE WIRES FROM RELAY MODULE

TO IGN SWITC3ED POWER (DO NOT USE RED/WHITE)

FIGURE 2
**SnowDogg® Snowplow Headlight Adapter**

**INSTALLATION INSTRUCTIONS**

**16071220**

**DODGE HB1/HB5 QUAD Headlight Adapter Kit**

<table>
<thead>
<tr>
<th>DODGE</th>
<th>1999-2001</th>
<th>RAM 1500 - QUAD ONLY</th>
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<tbody>
<tr>
<td></td>
<td>1999-2002</td>
<td>RAM 2500/3500 - QUAD ONLY</td>
</tr>
</tbody>
</table>

**INSTALLATION INSTRUCTIONS**

For use in combination with 16071120 adapter only

**1.** Install the 16071220 adapter onto the truck headlights.
   A. The 3-wire plug connects to the outboard headlamp.
   B. The 2-wire plug connects to the inboard (high beam only) headlamp.

**2.** Install the 16071120 adapter per instructions and connect to the 16071220 adapter. This will allow the inboard high beams to function properly.