Next Generation Driver and Front-Passenger Air Bag* System

Air Bag System Verification
After modification work is complete, the modifier must confirm air bag system readiness, as follows:

— Turn the ignition key on. The air bag lamp in the Instrument cluster will illuminate for six to eight seconds, and then turn off. If the air bag lamp fails to illuminate, cycles on and off, or does not turn off, the modifier must have the vehicle repaired by a Chrysler Motors LLC dealership before shipping.

Passenger Air Bag On/Off Switch
For 2009, on all Ram Standard Cab pickups, a passenger air bag on/off switch with indicator lamp is installed on the instrument panel, as allowed by NHTSA rulemaking. The driver can activate or deactivate the passenger air bag by inserting and turning an ignition key in the switch, observing if its indicator lamp is ON or OFF and then immediately removing the ignition key from the ON/OFF switch. THIS SWITCH MUST REMAIN INTACT AND MAY NOT BE USED FOR ANY OTHER PURPOSE. UNDER NO CIRCUMSTANCES SHOULD THE IGNITION KEY BE LEFT IN THE FRONT PASSENGER AIR BAG ON/OFF SWITCH. For some of the 2500 and 3500 applications the switch may not be required (Mexican Sales, etc.) and therefore not present.

Air Bag Diagnostic Module
The Air Bag Diagnostic Module is located under the instrument panel on the forward end of the transmission tunnel, and is covered by a plastic trim cover. Care must be taken not to disturb this module for any reason. It is also important that no modifications are made to the tunnel sheet metal, as this may affect the performance of the air bag system.

Air Bag Wiring
All air bag wiring must remain intact and may not be used for any other purpose.

Seatbelts
No modifications to the belt in terms of location or alteration to component is allowed for proper function.

Location of Air Bag System Components
It is imperative that all air bag system components remain in their original location and orientation. Any removal or relocation of components, such as the diagnostic module or the instrument panel wiring, may be detrimental to air bag system performance and is prohibited.

Knee Blocker/Lower Steering Column Cover
The lower steering column cover area and glove box, also known as "knee blockers," are integral parts of the air bag restraint system. These areas include energy-absorbing features and must not be removed or modified in any manner. This includes the attachment of any auxiliary switches, such as those for fog lamps or snowplow accessories.

Steering Column Collapse Zone
The steering column in this vehicle is designed to collapse axially under a compressive load in the event of a severe frontal impact. In order for the steering column to perform properly, it must not be modified in any manner. This includes all componentry, which is adjacent to the steering column, such as the shrouds, the upper support bracketry, and the toe board attachment. Caution must also be exercised to ensure that nothing is placed in the axial path of the steering column, or that any of the designed clearance gaps are disturbed.
Front Bumper System
Since the crash sensing of the air bag system is tuned, in part, to the front bumper, the original front bumper system (beam, brackets and fascia) of vehicles with a GVWR of 8,500 pounds or less, and an unloaded vehicle weight of 5,500 pounds or less, must be retained. No modifications or additions to the bumper (i.e., bumper-mounted bicycle racks) are permitted.

Warning Labels
Removing or covering air bag warning labels is prohibited. Labels (glove box, visors, etc.) are used to alert vehicle operators and service personnel that:

- The vehicle is equipped with an air bag, but always use seat belts and child restraints
- A backseat is the safest place for children under 12
- Never put a rearward-facing child seat in the front passenger seat unless the air bag is turned off
- Caution must be exercised when the vehicle is serviced, since improper procedures may cause inadvertent air bag deployment
- The system must be inspected at regular intervals, or when service is indicated by readiness lamp operation
- If a sun visor is replaced, the replacement visor must be equipped with an equivalent warning label

Miscellaneous Requirements
Any components added to the occupant compartment must not break loose during a 30-mph barrier impact test. A plot of the average passenger compartment deceleration with respect to time is shown in the pulse curve below.

![Average 30mph Frontal pulse for DR Light Duty](image)

Further, any pulse curve information can be retrieved from the National Highway Traffic Safety Administration at the address below:

National Highway Traffic Safety Administration
Technical References Division
NAD-40, Room 5108
400 7th Street, S.W.
Washington, D.C. 20590
Telephone: (800) 445-0197

Working hours: 7:45 a.m. - 4:15 p.m. EST

* Certified to the Federal Regulations that allow less forceful front air bags. Always use seat belts. Children 12 and under can be in the front seat only with the passenger air bag turned off in Ram Pickups correctly using an infant or child restraint system, or a seat belt that is right for their age and size

Upgraded Driver Restraint System
1. Disconnect battery negative terminal before removing the driver’s side seat belt retractor.
2. The OEM driver’s side retractor cover must be used unless approval is given from Chrysler LLC Modified Vehicles Engineering for an alternate retractor cover.
3. Store driver’s side retractor in a secure area when removed from the vehicle to avoid damage or loss.
4. The driver’s side retractor must be connected to the Air Bag Electronic Control Module located under the driver’s seat.
There are four interior zones to be aware of:
- Driver airbag deployment zone
- Passenger airbag deployment zone
- Side curtain airbags deployment zone
- Side airbags (seat-mounted) deployment zone

Figure 73 Driver Airbag Dimensions

NOTE: Illustration represents the maximum dynamic deployment shape.

Table 11 Driver Airbag Cushion Position

<table>
<thead>
<tr>
<th>DAB Diameter when full</th>
<th>681mm (26&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAB Depth when full</td>
<td>305mm (12&quot;)</td>
</tr>
<tr>
<td>Maximum rearward displacement during fill</td>
<td>407mm (16&quot;)</td>
</tr>
</tbody>
</table>

Figure 74 Driver Airbag Deployed Shape

Table 12 Steering Column Tilt Position Range

2 degrees from steering column tilt pivot point
"22.0" degrees from vertical is the normal position

Figure 75 Deployment Zone

"586mm (27.0")
2014 Chassis Cab Occupant Restraint System Information

**SIDE AIRBAG DEPLOYMENT ZONE**

1. Front Driver Seat
2. 460 mm (18.1”)
3. 130 mm (5.12”)
4. 270 mm (10.6”)
5. Seat-mounted Airbag

**SIDE CURTAIN AIRBAG DEPLOYMENT ZONE**

1. Cross-sectional Area Side View
2. 120 mm (4.75”)
3. 120 mm (4.75”)
4. 508 mm (20”)
5. 560 mm (22.1”)
6. 955 mm (37.6”)
7. 80 mm (3.2”)
8. 508 mm (20”)
9. 508 mm (20”)
10. B Pillar
11. Side Curtain Airbag Inflator Module
12. 120 mm (4.75”)

Figure 80 Side Curtain Airbag Deployment Zone
## Side Curtain Airbag Deployment Zone

### Cross Sectional Area Side View

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Cross Sectional Area Side View</td>
<td>7</td>
<td>80 mm</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>120 mm (4.75&quot;)</td>
<td>8</td>
<td>503 mm (19.8&quot;)</td>
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<tr>
<td>3</td>
<td>120 mm (4.75&quot;)</td>
<td>9</td>
<td>503 mm (19.8&quot;)</td>
<td></td>
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<tr>
<td>4</td>
<td>503 mm (19.8&quot;)</td>
<td>10</td>
<td>B Pillar</td>
<td></td>
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<tr>
<td>5</td>
<td>560 mm (22.1&quot;)</td>
<td>11</td>
<td>Side Curtain Airbag Inflator Module</td>
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<td>6</td>
<td>766 mm (30.2&quot;)</td>
<td>12</td>
<td>120 mm (4.75&quot;)</td>
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</table>

### Figure 80 Side Curtain Airbag Deployment Zone

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<table>
<thead>
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<tr>
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<td>Cross Sectional Area Side View</td>
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<td>80 mm (3.2&quot;)</td>
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<tr>
<td>2</td>
<td>120 mm (4.75&quot;)</td>
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<td>512 mm (20.2&quot;)</td>
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### Figure 78 Deployment Zone

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<th>Measurement</th>
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<td>1</td>
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<td>2</td>
<td>Passenger Airbag Deployment Zone</td>
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<td>3</td>
<td>756 (29.8&quot;)</td>
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<td>4</td>
<td>Reference Point</td>
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### Figure 79 Center, Interior Area