VEHICLE SAFETY COMPLIANCE TESTING
FOR
FMVSS 208, OCCUPANT CRASH PROTECTION
FMVSS 212, WINDSHIELD MOUNTING
FMVSS 219, WINDSHIELD INTRUSION (PARTIAL)
FMVSS 301, FUEL SYSTEM INTEGRITY

CHRYSLER LLC
2008 DODGE CHARGER PASSENGER CAR
NHTSA NO.: C80301

PREPARED BY:
MGA RESEARCH CORPORATION
5000 WARREN ROAD
BURLINGTON, WI 53105

TEST DATE: JUNE 11, 2008
FINAL REPORT DATE: JUNE 25, 2008

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVENUE, S.E., NVS-220
WASHINGTON, D.C. 20590
This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number DTNH22-03-D-11002.

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Prepared by: _____________________________ Date: June 25, 2008
Jeff Lewandowski, Project Engineer

Reviewed by: _____________________________ Date: June 25, 2008
David Winkelbauer, Facility Director

FINAL REPORT ACCEPTED BY OVSC:

Accepted By: _____________________________

Acceptance Date: June 25, 2008
**Technical Report Documentation Page**

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<table>
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<tr>
<th>16. Abstract</th>
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<tr>
<td>Compliance tests were conducted on the subject 2008 Dodge Charger in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP208-13 for the determination of FMVSS 208 compliance. Test failures identified were as follows:</td>
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**TEST FAILURES:**

None

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<tr>
<th>17. Key Words</th>
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<td>Frontal Impact</td>
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<td>40 kmph Vehicle Safety Compliance Testing</td>
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<td>FMVSS 212, “Windshield Mounting”</td>
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<tr>
<td>FMVSS 219, (partial), “Windshield Zone Intrusion”</td>
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<tr>
<td>FMVSS 301, “Fuel System Integrity”</td>
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Form DOT F1700.7 (8-72)
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<td>B Crash Test Photographs</td>
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<td>C Instrumentation Calibration</td>
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<tr>
<td>D Notice of Test Failure (If Applicable)</td>
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SECTION 1
PURPOSE OF COMPLIANCE TESTS

The tests performed are part of a program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No. DTNH22-03-D-11002. The purpose of this test was to determine whether the subject vehicle, a 2008 Dodge Charger, NHTSA No. C80301, meets certain performance requirements of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Mounting"; FMVSS 219, "Windshield Zone Intrusion"; and FMVSS 301, "Fuel System Integrity". The compliance test was conducted in accordance with OVSC Laboratory Test Procedure No. TP208-13 dated July 27, 2005.
SECTION 2
TESTS PERFORMED

Test Vehicle: 2008 Dodge Charger  NHTSA No.: C80301
Test Program: FMVSS 208 Compliance  Test Dates: 6/11/08

The following checked items indicate the tests that were performed:

1. Rear outboard seating position seat belts (S4.1.1.2(b) & (S4.2.4)
2. Air bag labels (S4.5.1)
3. Readiness indicator (S4.5.2)
4. Passenger air bag manual cut-off device (S4.5.4)
5. Lap belt lockability (S7.1.1.5)
6. Seat belt warning system (S7.3)
7. Seat belt contact force (S7.4.4)
8. Seat belt latch plate access (S7.4.4)
9. Seat belt retraction (S7.4.5)
10. Seat belt guides and hardware (S7.4.6)
11. Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart R)
12. Suppression tests with newborn infant (Part 572, Subpart K)
13. Suppression tests with 3-year-old dummy (Part 572, Subpart P)
14. Suppression tests with 6-year-old dummy (Part 572, Subpart N)
15. Test of reactivation of the passenger air bag system with an unbelted 5th percentile female dummy
16. Low risk deployment test with 12-month-old dummy (Part 572, Subpart R)
17. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P)
18. Low risk deployment test with 6-year-old dummy (Part 572, Subpart N)
19. Low risk deployment test with 5th female dummy (Part 572, Subpart O)
20. Impact Tests

- Frontal Oblique
  - Belted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.1.(a))
  - Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))
  - Unbelted 50th male dummy driver and passenger (32 to 40 kmph) (S5.1.2(a) (1) or S5.1.2(b))

- Frontal 0°
  - Belted 50th male dummy driver (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a))
  - Belted 50th male dummy passenger (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a))
  - Belted 5th female dummy driver (0 to 48 kmph) (S16.1(a))
  - Belted 5th female dummy passenger (0 to 48 kmph) (S16.1(a))
  - Belted 50th male dummy driver and passenger (0 to 56 kmph) (S5.1.1.(b)(2))
  - Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a) (1))
  - Unbelted 50th male dummy driver (32 to 40 kmph) (S5.1.2.(a)(2) or S5.1.2(b))
Unbelted 50th male dummy passenger (32 to 40 kmph) (S5.1.2.(a)(2) or S5.1.2(b))
X Unbelted 5th female dummy driver (32 to 40 kmph) (S16.1(b))
X Unbelted 5th female dummy passenger (32 to 40 kmph) (S16.1(b))
40% Offset 0° Belted 5th female dummy driver and passenger (0 to 40 kmph) (S18.1)

21. Sled Test: unbelted 50th male dummy driver and passenger (S13)
22. FMVSS 204 Indicant Test
X 23. FMVSS 212 Indicant Test
X 24. FMVSS 219 Indicant Test
X 25. FMVSS 301 Frontal Indicant Test

For the crash tests, the vehicle was instrumented with 8 accelerometers. The accelerometer data from the vehicle and dummies were sampled at 10,000 samples per second and processed as specified in SAE J211/1 MAR95 and FMVSS 208, S4.13.

The dynamic tests were recorded using high-speed film and high-speed digital video.

The vehicle appears to meet the performance requirements to which it was tested.
SECTION 3
INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2008 Dodge Charger  NHTSA No.: C80301
Test Program: FMVSS 208 Compliance  Test Date: 6/11/08

40 kmph Frontal Crash

Impact Angle: Zero degrees

Belted Dummies: ___Yes  _X  No
Speed Range: ___ 0 to 40 kmph  _X  32 to 40 kmph
___ 0 to 48 kmph  ___  0 to 56 kmph

Test Speed: 39.9 kmph  Test Weight: 1819.3 kg

Driver Dummy: _X  5th female  ___  50th male
Passenger Dummy: _X  5th female  ___  50th male

<table>
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<th>Injury Criteria</th>
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<th>Passenger</th>
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<td>HIC15</td>
<td>700</td>
<td>77</td>
<td>256</td>
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<tr>
<td>N_t</td>
<td>1.0</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>N_tf</td>
<td>1.0</td>
<td>0.1</td>
<td>0.4</td>
</tr>
<tr>
<td>N_ce</td>
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<td>0.1</td>
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<td>N_cf</td>
<td>1.0</td>
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<td>Neck Tension</td>
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<td>683</td>
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<td>Neck Compression</td>
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<td>247</td>
<td>1518</td>
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<tr>
<td>Chest g</td>
<td>60 g</td>
<td>53</td>
<td>46</td>
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<tr>
<td>Chest Displacement</td>
<td>52 mm</td>
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<td>Left Femur</td>
<td>6805 N</td>
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<td>Right Femur</td>
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### DISCUSSION OF TESTS

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<th>NHTSA No.:</th>
<th>C80301</th>
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<td>Test Program:</td>
<td>FMVSS 208 Compliance</td>
<td>Test Dates:</td>
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SECTION 5
TEST DATA SHEETS

Test Vehicle: 2008 Dodge Charger  
NHTSA No.: C80301
Test Program: FMVSS 208 Compliance  
Test Dates: 6/11/08
DATA SHEET 1
COTR VEHICLE WORK ORDER

Test Vehicle: 2008 Dodge Charger  
Test Program: FMVSS 208 Compliance  
COTR Signature: Charles R. Case  
NHTSA No.: C80301  
Test Dates: 6/11/08

Test to be performed for this vehicle are checked below:

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<th>Mid Position</th>
<th>Full Forward</th>
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<td>Rear Outboard Seating Position Seat Belts (S4.1.2(b)) &amp; (S4.2.4)</td>
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<td>2.</td>
<td>Air Bag Labels (S4.5.1)</td>
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<td>3.</td>
<td>Readiness Indicator (S4.5.2)</td>
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<td>Passenger Air Bag Manual Cut-off Device (S4.5.4)</td>
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<td>5.</td>
<td>Lap Belt Lockability (S7.1.1.5)</td>
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<td>Seat Belt Warning System (S7.3)</td>
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<td>7.</td>
<td>Seat Belt Contact Force (S7.4.4)</td>
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<td>Seat Belt Latch Plate Access (S7.4.4)</td>
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<td>9.</td>
<td>Seat Belt Retraction (S7.4.5)</td>
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<td>Seat Belt Guides and Hardware (S7.4.6)</td>
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<td>11.</td>
<td>Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart R) using the following indicated child restraints.</td>
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<td>Britax Handle with Care 191 191</td>
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<td></td>
<td>Century Assura 4553</td>
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<td>Century Avanta SE 41530</td>
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<td>Century Smart Fit 4543</td>
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<td>Cosco Opus 35 02603</td>
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<td>Evenflo First Choice 204</td>
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<td>Britax Roundabout 161</td>
<td>Full Rearward</td>
<td>Mid Position</td>
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<td>Century Encore 4612</td>
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<td>Cosco Touriva 02519</td>
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<td>Evenflo Horizon V 425</td>
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<td>Evenflo Medallion 254</td>
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<td>Suppression tests with newborn infant (Part 572, Subpart K) using the following indicated child restraints.</td>
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<td></td>
<td>Cosco Dream Ride 02-719</td>
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<td>Mid Position</td>
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<td>Suppression tests with 3-year-old dummy (Part 572, Subpart P) using the following indicated child restraints where a child restraint is required.</td>
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</table>
14. Suppression tests with representative 3-year-old child using the following indicated child restraints where a child restraint is required. (Appendix H, Data Sheet 16H and 17H)

Section C
- Britax Roundabout 161
- Century Encore 4612
- Century STE 1000 4416
- Cosco Olympian 02803
- Cosco Touriva 02519
- Evenflo Horizon V 425
- Evenflo Medallion 254

Section D
- Britax Roadster 9004
- Century Next Step 4920
- Cosco High Back Booster 02-442
- Evenflo Right Fit 245

15. Suppression tests with 3-year-old dummy (Part 572, Subpart P) in the following Forward, Middle, and Rearward seat track positions
- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat with back not against seat back (S22.2.2.3)
- Sitting on seat edge, spine vertical, hands by the child’s side (S22.2.2.4)
- Standing on seat, facing forward (S22.2.2.5)
- Kneeling on seat facing forward (S22.2.2.6)
- Kneeling on seat facing rearward (S22.2.2.7)
- Lying on seat (S22.2.2.8)

16. Suppression tests with representative 3-year-old child in the following positions
- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat with back not against seat back (S22.2.2.3)
- Sitting on seat edge, spine vertical, hands by the child’s side (S22.2.2.4)
- Standing on seat, facing forward (S22.2.2.5)
- Kneeling on seat facing forward (S22.2.2.6)
- Kneeling on seat facing rearward (S22.2.2.7)
- Lying on seat (S22.2.2.8)

17. Suppression tests with 6-year-old dummy (Part 572, Subpart N) using the following indicated child restraints where a child restraint is required.
18. Suppression tests with representative 6-year-old child using the following indicated child restraints where a child restraint is required.

<table>
<thead>
<tr>
<th>Section D</th>
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<tbody>
<tr>
<td>Britax Roadster 9004</td>
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<tr>
<td>Century Next Step 4920</td>
</tr>
<tr>
<td>Cosco High Back Booster 02-442</td>
</tr>
<tr>
<td>Evenflo Right Fit 245</td>
</tr>
</tbody>
</table>

19. Suppression tests with 6-year-old dummy (Part 572, Subpart N) in the following Forward, Middle, and Rearward seat track positions

- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat edge, spine vertical, hands by the child’s side (S22.2.2.4)
- Sitting back in the seat and leaning on the right front passenger door (S24.2.3)

20. Suppression tests with representative 6-year-old child in the following positions

- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat edge, spine vertical, hands by the child’s side (S22.2.2.4)
- Sitting back in the seat and leaning on the right front passenger door (S24.2.3)

21. Test of Reactivation of the Passenger Air Bag System with an Unbelted 5th percentile female dummy (S20.3, 22.3, S24.3). Perform this test after the following suppression tests: After each restraint.

22. Test of Reactivation of the passenger air bag system with a representative 5th percentile female (S20.3, 22.3, S24.3). Perform this test after the following suppression tests:

23. Low risk deployment test with 12-month-old dummy (Part 572, Subpart R) using the following indicated child restraints.

<table>
<thead>
<tr>
<th>Section B</th>
</tr>
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<tbody>
<tr>
<td>Britax Handle with Care 191</td>
</tr>
<tr>
<td>Century Assura 4553</td>
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<tr>
<td>Century Avanta SE 41530</td>
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<td>Century Smart Fit 4543</td>
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<td>Cosco Arriva 02727</td>
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<tr>
<td>Cosco Opus 35 02603</td>
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<tr>
<td>Evenflo Discovery Adjust Right 212</td>
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<td>Evenflo On My Way Position Right V 282</td>
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<td>Graco Infant 8457</td>
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<th>Section C</th>
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<tbody>
<tr>
<td>Britax Roundabout 161</td>
</tr>
<tr>
<td>Century Encore 4612</td>
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<td>Century STE 1000 4416</td>
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<td>Cosco Olympian 02803</td>
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<td>Cosco Touriva 02519</td>
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<tr>
<td>Evenflo Horizon V 425</td>
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<tr>
<td>Evenflo Medallion 254</td>
</tr>
</tbody>
</table>
24. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions
   - Position 1
   - Position 2

25. Low risk deployment test with 6-year-old dummy (Part 572, Subpart N) in the following positions
   - Position 1
   - Position 2

26. Low risk deployment test with 5th percentile female dummy (Part 572, Subpart O) in the following positions
   - Position 1
   - Position 2

27. Impact Tests
   X Frontal Oblique - Test Speed:
   - Belted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.1(a))
   - Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))
   - Unbelted 50th male dummy driver and passenger (32 to 40 kmph) (S5.1.2(a)(1) or S5.1.2(b))
   X Frontal 0° - Test Speed: 39.9 kmph
   - Belted 50th male dummy driver (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a))
   - Belted 50th male dummy passenger (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a))
   - Belted 5th female dummy driver (0 to 48 kmph) (S16.1(a))
   - Belted 5th female dummy passenger (0 to 48 kmph) (S16.1(a))
   - Belted 50th male dummy driver and passenger (0 to 56 kmph) (S5.1.2(a)(1))
   - Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(2) or S5.1.2(b))
   - Unbelted 50th male dummy driver (32 to 40 kmph) (S5.1.2.(a)(2) or S5.1.2(b))
   - Unbelted 5th female dummy driver (32 to 40 kmph) (S16.1(b))
   - Unbelted 5th female dummy passenger (32 to 40 kmph) (S16.1(b))
   X 40% Offset 0° Belted 5th female dummy driver and passenger (0 to 40 kmph) (S18.1) - Test Speed:

28. Sled Test: Unbelted 50th male dummy driver and passenger (S13)

29. FMVSS 204 Indicant Test

30. FMVSS 212 Indicant Test

31. FMVSS 219 Indicant Test

32. FMVSS 301 Frontal Indicant Test
DATA SHEET 2
REPORT OF VEHICLE CONDITION

Test Vehicle: 2008 Dodge Charger  
NHTSA No.: C80301  
Test Program: FMVSS 208 Compliance  
Test Dates: 6/11/08  

CONTRACT NO.: DTNH22-03-D-11002  
Date: 6/16/08  
FROM (Lab and rep name): MGA Research Corporation  
TO: NHTSA, OVSC (NVS-220)  

PURPOSE: (X) Initial Receipt  
( ) Received via Transfer  
(X) Present vehicle condition  

MODEL YEAR/MAKE/MODEL/BODY STYLE: 2008 Dodge Charger 4 Door  
MANUFACTURE DATE: 12/07  
NHTSA NO. C80301  
BODY COLOR: Black  
VIN: 2B3KA43R88H161597  
GVWR: 2225 kg (4905 lbs)  
GAWR (Fr): 1275 kg (2810 lbs)  
GAWR (Rr): 1275 kg (2810 lbs)  

ODOMETER READINGS: ARRIVAL (miles): 65  
DATE: 2/27/08  
COMPLETION (miles): 67  
DATE: 6/11/08  
PURCHASE PRICE: ($) 19,443  
DEALER’S NAME: Boucher Fleet, 1421 E. Moreland Blvd., Waukesha, WI 53186  

A. All options listed on window sticker are present on the test vehicle: 
 _X Yes  ___No  
B. Tires and wheel rims are new and the same as listed:  _X Yes  ___No  
C. There are no dents or other interior or exterior flaws:  _X Yes  ___No  
D. The vehicle has been properly prepared and is in running condition: 
 _X Yes  ___No  
E. Keyless remote is available and working:  _X Yes  ___No  
F. The glove box contains an owner’s manual, warranty document, consumer information, and extra set of keys:  _X Yes  ___No  
G. Proper fuel filler cap is supplied on the test vehicle:  _X Yes  ___No  
H. Using permanent marker, identify vehicle with NHTSA number and FMVSS test type(s) on roof line above driver door or for school buses, place a placard with NHTSA number inside the windshield and to the exterior front and rear side of bus:  
 _X Yes  ___No  
I. Place vehicle in storage area:  _X Yes  ___No  
J. Inspect the vehicle’s interior and exterior, including all windows, seats, doors, etc. to confirm that each system is complete and functional per the manufacturer’s specifications. Any damage, misadjustment, or other unusual condition that could influence the test program or test results shall be recorded. Report any abnormal condition to the NHTSA COTR before beginning any test:  
 _X Vehicle OK  ___Conditions reported below
REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

LIST OF FMVSS TESTS PERFORMED BY THIS LAB: FMVSS 208, 212, 219, 301

VEHICLE: 2008 Dodge Charger  
NHTSA NO. C80301

REMARKS:

Equipment that is no longer on the test vehicle as noted on previous page:
Spare tire, jack and tools, rear seat bottom, and trunk interior

Explanation for equipment removal:
Components removed for instrumentation installation and to meet target weight.

Test Vehicle Condition:
25 mph frontal impact damage - front suspension & structure damaged, hood & front quarter panels damaged, radiator damaged, air bags & pretensioners deployed, Stoddard in fuel system

RECORDED BY: Jeff Lewandowski  
DATE: 6/16/2008

APPROVED BY: David Winkelbauer  
DATE: 6/16/2008

RELEASE OF TEST VEHICLE

The vehicle described above is released from MGA to be delivered to:

Date:  
Time:  
Odometer:

Lab Rep’s Signature:  
Title:  
Carrier/Customer Rep:  
Date:  
**DATA SHEET 3**

**CERTIFICATION LABEL AND TIRE PLACARD INFORMATION**

Test Vehicle: 2008 Dodge Charger  
Test Program: FMVSS 208 Compliance  
Test Technician: Jamie Aide  
NHTSA No.: C80301  
Test Date: 6/11/08  
Test Vehicle: 2008 Dodge Charger  
Test Program: FMVSS 208 Compliance  
Test Technician: Jamie Aide

<table>
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<tr>
<th>Certification Label</th>
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</thead>
<tbody>
<tr>
<td>Manufacturer:</td>
<td>Chrysler LLC</td>
</tr>
<tr>
<td>Date of Manufacture:</td>
<td>12/07</td>
</tr>
<tr>
<td>VIN:</td>
<td>2B3KA43R88H161597</td>
</tr>
<tr>
<td>Vehicle Certified As (Pass. Car/MPV/Truck/Bus):</td>
<td>Passenger Car</td>
</tr>
<tr>
<td>Front Axle GVWR:</td>
<td>1275 kg (2810 lbs)</td>
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<tr>
<td>Rear Axle GVWR:</td>
<td>1275 kg (2810 lbs)</td>
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<tr>
<td>Total GVWR:</td>
<td>2225 kg (4905 lbs)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Tire Placard</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable, vehicle is not a passenger car and does not have a tire placard.</td>
<td>Passenger Car</td>
</tr>
<tr>
<td>This is not a passenger car, but all or part of this information is still contained on a vehicle label and is reported here.</td>
<td>Passenger Car</td>
</tr>
<tr>
<td>Vehicle Capacity Weight:</td>
<td>392 kg (865 lbs)</td>
</tr>
<tr>
<td>Designated Seating Capacity Front:</td>
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<tr>
<td>Designated Seating Capacity Rear:</td>
<td>3</td>
</tr>
<tr>
<td>Total Designated Seating Capacity:</td>
<td>5</td>
</tr>
<tr>
<td>Recommended Cold Tire Inflation Pressure Front:</td>
<td>210 kpa (30 psi)</td>
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<tr>
<td>Recommended Cold Tire Inflation Pressure Rear:</td>
<td>210 kpa (30 psi)</td>
</tr>
<tr>
<td>Recommended Tire Size:</td>
<td>P215/65R17</td>
</tr>
</tbody>
</table>

Signature: [Signature]  
Date: 6/11/08
DATA SHEET 14
MARKING OF REFERENCE POINTS FOR VARIOUS TEST POSITIONS AND POINTS

Test Vehicle: 2008 Dodge Charger  
NHTSA No.: C80301

Test Program: FMVSS 208 Compliance  
Test Date: 6/11/08

Test Technician: Tim Bratz

DATA SHEET 14.1
MARKING OF REFERENCE POINTS FOR 5th FEMALE

X Driver Seat ___Passenger Seat

1. Seat Position

X 1.1 Position the seat’s adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (S16.2.10.1, S20.1.9.1, S20.4.1, S22.1.7.1)
   ___ N/A - No lumbar adjustment

X 1.2 Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S20.4.1, S22.1.7.1, S22.4.2.1, S22.4.3.1, S24.4.2.1, S26.2.3, S26.3.1)
   X N/A - No additional support adjustment

X 1.3 Position an adjustable leg support system in its rearmost position. (8/27/04 interpretation to Toyota)
   X N/A - No adjustable leg support system

X 1.4 Mark a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion. (S16.3.1.12)

X 1.5 Draw a line (seat cushion reference line) through the seat cushion reference point. (S16.3.1.13)

X 1.6 Use only the controls that primarily move the seat in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S22.1.7.3)

X 1.7 If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S20.1.9.3)
   X N/A - No independent fore-aft seat cushion adjustment

X 1.8 Use any part of any control, other than the parts just used for fore-aft positioning, to determine the range of angles of the seat cushion reference line and to set the seat cushion reference line at the mid-angle. (S16.2.10.3.1)
   Maximum angle 0°
   Minimum angle 0°
   Mid-angle 0°

X 1.9 If the seat and/or seat cushion height is adjustable, use any part of any control other than the parts which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-angle found in 1.8. (S16.2.10.3.1)
   X N/A - No seat height adjustment

X 1.10 Use only the controls that primarily move the seat in the fore-aft direction to verify the seat is in the rearmost position.
1.11 Use only the controls that primarily move the seat in the fore-aft direction to mark for future reference the fore-aft seat positions. Mark each position so that there is a visual indication when the seat is at a particular position. For manual seats, move the seat forward one detent at a time and mark each detent. For power seats, mark only the rearmost, middle, and foremost positions. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the closest adjustment position to the rear of the mid-point), and R for rearmost.

1.12 Use only the controls that primarily move the seat in the fore-aft direction to place the seat in the rearmost position.

1.13 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S22.4.3.1, S24.1.2, S24.3.1, S24.4.3.1, S26.2.3, S26.3.1)

1.14 Use only the controls that primarily move the seat and/or seat cushion in the fore-aft direction to place the seat in the mid-fore-aft position.

1.15 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

1.16 Use only the control that change the seat in the fore-aft direction to place the seat in the foremost position. (S16.2.10.3.2)

1.17 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S16.2.10.3.3, S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

1.18 Visually mark for future reference the seat back angle at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer for the rearmost, mid, and foremost seat positions. (S20.1.9.5, S22.1.7.5, S22.4.2.1, S22.4.3.1, S24.1.2, S24.4.2.1, S26.2.3, S26.3.1)

1.19 Is the seat a bucket seat?

Yes, go to 1.20 and skip 1.21

No, go to 1.21 and skip 1.20

1.20 Bucket seats:

Locate and mark for future reference the longitudinal centerline of the seat cushion. The intersection of the vertical longitudinal plane that passes through the SgRP and the seat cushion upper surface determines the longitudinal centerline of a bucket seat cushion. (S16.3.1.10 & S20.1.10)

1.21 Bench seats (complete ONLY the one that is applicable to the seat being marked):

1.21.1 Driver Seat

Locate and mark for future reference the longitudinal line on the seat cushion that marks the intersection of the vertical longitudinal plane through the centerline of the steering wheel and the seat cushion upper surface.
__1.21.2 Passenger Seat

Locate and mark for future reference the longitudinal centerline of the passenger seat cushion. The longitudinal centerline is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel. (S20.2.1.3, S22.2.1.3, S24.2.3, S20.4.4, S22.2.2.1(b), S22.2.2.3(b), S22.2.2.4(a), S22.2.2.5(a), S22.2.2.6(a), S22.2.2.7(a), S24.2.3(a))

Record the distance from the longitudinal centerline of the vehicle to the center of the steering wheel. _______

Record the distance from the longitudinal centerline of the vehicle to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.) _______

2. Head Restraint Position

__N/A Vehicle contains automatic head restraints.

__N/A, there is no head restraint adjustment

X 2.1 Adjust the head restraint to its lowest position. (S16.2.10.2, S20.1.9.6 S20.4.1, S22.1.7.6, S22.4.2.1, S22.4.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X 2.2 All adjustments of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. Mark the foremost position. (S16.2.10.2 & S16.3.4.4 & S20.1.9.6, S20.4.1, S22.4.2.1, S22.4.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X 2.3 Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and mark a horizontal plane through the midpoint of this distance. (S16.3.4.3)

Vertical height of head restraint 200 mm
Mid-point height 100 mm

I certify that I have read and performed each instruction. Date
DATA SHEET 14.1
MARKING OF REFERENCE POINTS FOR 5th FEMALE

__Driver Seat  X Passenger Seat

1. Seat Position
   1.1 Position the seat’s adjustable lumbar supports so that the lumbar supports are in the
       lowest, retracted or deflated adjustment positions. (S16.2.10.1, S20.1.9.1, S20.4.1,
       S22.1.7.1)
       __N/A - No lumbar adjustment
   1.2 Position any adjustable parts of the seat that provide additional support so that they are
       in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S20.4.1,
       S22.1.7.1, S22.4.2.1, S22.4.3.1, S24.4.2.1, S26.2.3, S26.3.1)
       X N/A - No additional support adjustment
   1.3 Position an adjustable leg support system in its rearmost position.  (8/27/04
       interpretation to Toyota)
       X N/A - No adjustable leg support system
   1.4 __Mark a point (seat cushion reference point) on the side of the seat cushion that is
       between 150 mm and 250 mm from the front edge of the seat cushion. (S16.3.1.12)
   1.5 Draw a line (seat cushion reference line) through the seat cushion reference point.
       (S16.3.1.13)
   1.6 Use only the controls that primarily move the seat in the fore-aft direction to move the
       seat cushion reference point to the rearmost position. (S16.2.10.3.1, S22.1.7.3)
   1.7 If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls
       that primarily move the seat cushion in the fore-aft direction to move the seat cushion
       reference point to the rearmost position. (S16.2.10.3.1, S20.1.9.3)
       X N/A - No independent fore-aft seat cushion adjustment
   1.8 Use any part of any control, other than the parts just used for fore-aft positioning, to
       determine the range of angles of the seat cushion reference line and to set the seat
       cushion reference line at the mid-angle. (S16.2.10.3.1) NO ADJUSTMENT
       Maximum angle Zero
       Minimum angle Zero
       Mid-angle Zero
   1.9 If the seat and/or seat cushion height is adjustable, use any part of any control other
       than the parts which primarily move the seat or seat cushion fore-aft, to put the seat
       cushion reference point in its lowest position with the seat cushion reference line angle
       at the mid-angle found in 1.8. (S16.2.10.3.1)
       X N/A - No seat height adjustment
   1.10 Use only the controls that primarily move the seat in the fore-aft direction to verify the
       seat is in the rearmost position.
   1.11 Use only the controls that primarily move the seat in the fore-aft direction to mark for
       future reference the fore-aft seat positions. Mark each position so that there is a visual
       indication when the seat is at a particular position. For manual seats, move the seat
       forward one detent at a time and mark each detent. For power seats, mark only the
       rearmost, middle, and foremost positions. Label three of the positions with the following:
       F for foremost, M for mid-position (if there is no mid-position, label the closest
       adjustment position to the rear of the mid-point), and R for rearmost.
   1.12 Use only the controls that primarily move the seat in the fore-aft direction to place the
       seat in the rearmost position.
X 1.13 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S22.4.3.1, S24.1.2, S24.3.1, S24.4.3.1, S26.2.3, S26.3.1)  
X N/A - No seat height adjustment. Go to 1.18

1.14 Use only the controls that primarily move the seat and/or seat cushion in the fore-aft direction to place the seat in the mid-fore-aft position.

1.15 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

1.16 Use only the control that change the seat in the fore-aft direction to place the seat in the foremost position. (S16.2.10.3.2)

1.17 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S16.2.10.3.3, S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

X 1.18. Visually **mark** for future reference the seat back angle at the manufacturer’s nominal design riding position for a **50th percentile adult male** in the manner specified by the manufacturer for the rearmost, mid, and foremost seat positions. (S20.1.9.5, S22.1.7.5, S22.4.2.1, S22.4.3.1, S24.1.2, S24.2.3, S26.2.3, S26.3.1)  
__ N/A - No seat back angle adjustment

Manufacturer’s design seat back angle 14.0° On Seat Back Frame

X 1.19. Is the seat a bucket seat?  
X Yes, go to 1.20 and skip 1.21  
__ No, go to 1.21 and skip 1.20

X 1.20 Bucket seats:  
Locate and **mark** for future reference the longitudinal centerline of the seat cushion. The intersection of the vertical longitudinal plane that passes through the SgRP and the seat cushion upper surface determines the longitudinal centerline of a bucket seat cushion. (S16.3.1.10 & S20.1.10)

__ 1.21 Bench seats (complete ONLY the one that is applicable to the seat being marked):

__ 1.21.1 Driver Seat  
Locate and **mark** for future reference the longitudinal line on the seat cushion that marks the intersection of the vertical longitudinal plane through the centerline of the steering wheel and the seat cushion upper surface.

__ 1.21.2 Passenger Seat  
Locate and **mark** for future reference the longitudinal centerline of the passenger seat cushion. The longitudinal centerline is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel. (S20.2.1.3, S22.2.1.3, S24.2.3, S20.4.4, S22.2.2.1(b), S22.2.2.3(b), S22.2.2.4(a), S22.2.2.5(a), S22.2.2.6(a), S22.2.2.7(a), S24.2.3(a))  
Record the distance from the longitudinal centerline of the vehicle to the center of the steering wheel. ________  
Record the distance from the longitudinal centerline of the vehicle to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.) ________
2. Head Restraint Position
   N/A Vehicle contains automatic head restraints.
   N/A, there is no head restraint adjustment

X 2.1 Adjust the head restraint to its lowest position. (S16.2.10.2, S20.1.9.6 S20.4.1, S22.1.7.6, S22.4.2.1, S22.4.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X 2.2 All adjustments of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. Mark the foremost position. (S16.2.10.2 & S16.3.4.4 & S20.1.9.6, S20.4.1, S22.4.2.1, S22.4.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X 2.3 Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and mark a horizontal plane through the midpoint of this distance. (S16.3.4.3)
   Vertical height of head restraint 200 mm
   Mid-point height 100 mm

_________________________  6/11/08
I certify that I have read and performed each instruction. Date
DATA SHEET 14.3
MARKING OF REFERENCE POINTS FOR STEERING WHEEL

X 1. Is the steering wheel adjustable up and down and/or in and out?
   X Yes - go to 2
   __No - this form is complete

X 2. Find and **mark** for future reference each up and down position. Label three of the positions with the following: H for Top of 4, M for mid-position (if there is no mid-position, label the next lowest adjustment position), and L for lowest.
   __N/A - steering wheel is not adjustable up and down

X 3. Find and **mark** for future references each in and out position. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the next rearmost adjustment position), and R for rearmost.
   __N/A - steering wheel is not adjustable in and out.

I certify that I have read and performed each instruction.  Date

[Signature]

6/11/08
DATA SHEET 32

VEHICLE WEIGHT, FUEL TANK, AND ATTITUDE DATA

Test Vehicle: 2008 Dodge Charger  NHTSA No.: C80301
Test Program: FMVSS 208 Compliance  Test Date: 6/11/08
Test Technician: Jamie Aide

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>X 5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>X 5th female</td>
</tr>
</tbody>
</table>

1. Fill the transmission with transmission fluid to the satisfactory range.

2. Drain fuel from vehicle.

3. Run the engine until fuel remaining in the fuel delivery system is used and the engine stops.

4. Record the useable fuel tank capacity supplied by the COTR.

5. Useable Fuel Tank Capacity supplied by COTR: 68.1 liters (18.0 gallons).

6. Record the fuel tank capacity supplied in the owner’s manual.


8. Using purple dyed Stoddard solvent having the physical and chemical properties of Type 1 solvent or cleaning fluid, Table 1, ASTM Standard D484-71, “Standard Specifications for Hydrocarbon Dry-cleaning Solvents,” or gasoline, fill the fuel tank.

   Amount Added: 68.1 liters (18.0 gallons)

7. Fill the coolant system to capacity.

8. Fill the engine with motor oil to the Max. mark on the dip stick.

9. Fill the brake reservoir with brake fluid to its normal level.

10. Fill the windshield washer reservoir to capacity.

11. Inflate the tires to the tire pressure on the tire placard. If no tire placard is available, inflate the tires to the recommended pressure in the owner’s manual.

   | Tire placard pressure: | RF: 30 psi | LF: 30 psi | RR: 30 psi | LR: 30 psi |
   | Owner’s manual pressure: | RF: 30 psi | LF: 30 psi | RR: 30 psi | LR: 30 psi |
   | Actual inflated pressure: | RF: 30 psi | LF: 30 psi | RR: 30 psi | LR: 30 psi |

12. Record the vehicle weight at each wheel to determine the unloaded vehicle weight (UVW), i.e. "as delivered" weight.

   | Right Front (kg): | 445.9 | Right Rear (kg): | 401.4 |
   | Left Front (kg): | 438.6 | Left Rear (kg): | 391.5 |
   | Total Front (kg): | 884.5 | Total Rear (kg): | 792.9 |
   | % Total Weight: | 52.7 | | 47.3 |
   | UVW = TOTAL FRONT PLUS TOTAL REAR (KG): | 1677.4 |

13. UVW Test Vehicle Attitude: (All dimensions in millimeters)

13.1 Mark a point on the vehicle above the center of each wheel.

13.2 Place the vehicle on a level surface.
13.3 Measure perpendicular to the level surface to the 4 points marked on the body and record the measurements

RF: 783  LF: 788  RR: 796  LR: 802

14. Calculate the Rated Cargo and Luggage Weight (RCLW): 52 kg

14.1 Does the vehicle have the vehicle capacity weight (VCW) on the certification label or tire placard?

X Yes, go to 14.3

No, go to 14.2

14.2 VCW = Gross Vehicle Weight - UVW

VCW = __________ - __________ = __________

14.3 VCW = 392 kg (865 lbs)

14.4 Does the certification or tire placard contain the Designated Seating Capacity (DSC)?

X Yes, go to 14.6

No, go to 14.5 and skip 14.6

14.5 DSC = Total number of seat belt assemblies = __________

14.6 DSC = __________

14.7 RCLW = VCW - (68 kg x DSC) = 392 kg - (68 kg x 5) = 52 kg

14.8 Is the vehicle certified as a truck, MPV or bus (see the certification label on the door jamb)?

X Yes, if the calculated RCLW is greater than 136 kg, use 136 kg as the RCLW. (S8.1.1)

No, use the RCLW calculated in 14.7

15. Fully Loaded Weight (100% fuel fill): 1827.5 kg

15.1 Place the appropriate test dummy in both front outboard seating positions.

Driver: X 5th female __ 50th male

Passenger: X 5th female __ 50th male

15.2 Load the vehicle with the RCLW from 14.7 or 14.8 whichever is applicable.

15.3 Place the RCLW in the cargo area. Center the load over the longitudinal centerline of the vehicle. (S8.1.1 (d))

15.4 Record the vehicle weight at each wheel to determine the Fully Loaded Weight.

| Right Front (kg): | 470.8 | Right Rear (kg): | 453.1 |
| Left Front (kg): | 461.8 | Left Rear (kg): | 441.8 |
| Total Front (kg): | 932.6 | Total Rear (kg): | 894.9 |
| % Total Weight: | 51.1 | % Total Weight: | 48.9 |
| % GVW | 57.3 | % GVW | 57.3 |

(% GVW = Axle GVW divided by Vehicle GVW)

Fully Loaded Weight = Total Front Plus Total Rear (kg): 1827.5

16. Fully Loaded Test Vehicle Attitude: (All dimensions in millimeters)

16.1 Place the vehicle on a level surface.
16.2 Measure perpendicular to the level surface to the 4 points marked on the body (see 13.1 above) and record the measurements

<table>
<thead>
<tr>
<th>Point</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF</td>
<td>772</td>
</tr>
<tr>
<td>LF</td>
<td>778</td>
</tr>
<tr>
<td>RR</td>
<td>778</td>
</tr>
<tr>
<td>LR</td>
<td>786</td>
</tr>
</tbody>
</table>

17. Drain the fuel system

18. Using purple dyed Stoddard solvent having the physical and chemical properties of Type 1 solvent or cleaning fluid, Table 1, ASTM Standard D484-71, “Standard Specifications for Hydrocarbon Dry-cleaning Solvents,” fill the fuel tank to 92 - 94 percent of useable capacity.

Fuel tank capacity x .94 = 68.1 liters (18.0 gallons) x .94 = 64.0 liters (16.9 gallons)

Amount added 63.2 liters (16.7 gallons) 92.8%

19. Crank the engine to fill the fuel delivery system with Stoddard solvent

20. Calculate the test weight range.

20.1 Calculated Weight = UVW (see 12 above) + RCLW (see 14 above) + 2x(dummy weight)

1827.4 kg = 1677.4 kg + 52.0 kg + 98.0 kg

20.2 Test Weight Range = Calculated Weight (- 4.5 kg, - 9 kg.)

Max. Test Weight = Calculated Test Weight - 4.5 kg = 1822.9 kg
Min. Test Weight = Calculated Test Weight - 9 kg = 1818.4 kg

21. Remove the RCLW from the cargo area.

22. Drain transmission fluid, engine coolant, motor oil, and windshield washer fluid from the test vehicle so that Stoddard solvent leakage from the fuel system will be evident.

23. Vehicle Components Removed For Weight Reduction:
Spare tire, jack and tools, rear seat bottom, and trunk interior

24. Secure the equipment and ballast in the load carrying area and distribute it, as nearly as possible, to obtain the proportion of axle weight indicated by the gross axle weight ratings and center it over the longitudinal centerline of the vehicle.

25. If necessary, add ballast to achieve the actual test weight.

26. Ballast, including test equipment, must be contained so that it will not shift during the impact event or interfere with data collection or interfere with high-speed film recordings or affect the structural integrity of the vehicle or do anything else to affect test results. Care must be taken to assure that any attachment hardware added to the vehicle is not in the vicinity of the fuel tank or lines.

27. Record the vehicle weight at each wheel to determine the actual test weight.

<table>
<thead>
<tr>
<th>Wheel</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Front</td>
<td>464.0</td>
</tr>
<tr>
<td>Left Front</td>
<td>469.9</td>
</tr>
<tr>
<td>Total Front</td>
<td>933.9</td>
</tr>
<tr>
<td>% Total Weight</td>
<td>51.3</td>
</tr>
<tr>
<td>% GVW</td>
<td>57.3</td>
</tr>
</tbody>
</table>

TOTAL FRONT PLUS TOTAL REAR (kg): 1819.3
28. Is the test weight between the Max. Weight and the Min. Weight (See 20.2)?
   - Yes
   - No, explain why not.

29. Test Weight Vehicle Attitude: (all dimensions in millimeters)
   29.1 Place the vehicle on a level surface
   29.2 Measure perpendicular to the level surface to the 4 points marked on the body (see 13 above) and record the measurements

   | RF: 772 | LF: 778 | RR: 796 | LR: 786 |

30. Summary of test attitude
   30.1 AS DELIVERED:

   | RF: 783 | LF: 788 | RR: 796 | LR: 802 |

   AS TESTED:

   | RF: 772 | LF: 778 | RR: 796 | LR: 786 |

   FULLY LOADED:

   | RF: 772 | LF: 778 | RR: 778 | LR: 786 |

30.2 Is the "as tested" test attitude equal to or between the “fully loaded” and "as delivered" attitude?
   - Yes
   - No, explain why not.

REMARKS:

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/11/08
DATA SHEET 33
VEHICLE ACCELEROMETER LOCATION AND MEASUREMENTS

Test Vehicle: 2008 Dodge Charger  NHTSA No.: C80301
Test Program: FMVSS 208 Compliance  Test Date: 6/11/08
Test Technician: Jamie Aide

<table>
<thead>
<tr>
<th>IMPACT ANGLE</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>X 5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>X 5th female</td>
</tr>
</tbody>
</table>

1. Find the location where the vertical plane parallel to the longitudinal centerline of the vehicle and through the center of the left front outboard seating position intersects the left rear seat cross member. Install an accelerometer at this intersection on the rear seat cross member to record x-direction accelerations. Record the location on the following chart.

2. Find the location where the vertical plane parallel to the longitudinal centerline of the vehicle and through the center of the right front outboard seating position intersects the right rear seat cross member. Install an accelerometer at this intersection on the rear seat cross member to record x-direction accelerations. Record the location on the following chart.

3. Find the location where a vertical plane through the longitudinal centerline of the vehicle and a vertical transverse plane through the center of the two wheels on opposite sides of the engine intersect at the top of the engine. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.

4. Find the location where a vertical plane through the longitudinal centerline of the vehicle and a vertical transverse plane through the center of the two wheels on opposite sides of the engine intersect the bottom of the engine. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.

5. Install an accelerometer on the right front brake caliper to record x-direction accelerations. Record the location on the following chart.

6. Find the location where a vertical plane through the longitudinal centerline of the vehicle intersects the top of the instrument panel. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.

7. Install an accelerometer on the left front brake caliper to record x-direction accelerations. Record the location on the following chart.

8. Find the location where a vertical plane through the longitudinal centerline of the vehicle intersects the floor of the trunk. Install an accelerometer on the trunk floor at this intersection to record z-direction accelerations. Record the location on the following chart.

REMARKS:

I certify that I have read and performed each instruction.

Signature: [Signature]
Date: 6/11/08
Dimensions Corresponding To The Letters “A” Through “K” (Excluding “I”) Are Recorded In The Table On The Following Page. Accelerometers Corresponding To The Numbers 1 Through 8 Are Specified On The Preceding Page.
# DATA SHEET 33

## VEHICLE ACCELEROMETER LOCATION AND MEASUREMENTS

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>LENGTH (mm)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRETEST VALUES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (LH Rear Seat Xmbr)</td>
<td>379</td>
<td></td>
</tr>
<tr>
<td>B (RH Rear Seat Xmbr)</td>
<td>405</td>
<td></td>
</tr>
<tr>
<td>C (Engine Top)</td>
<td>4190</td>
<td></td>
</tr>
<tr>
<td>D (Engine Bottom)</td>
<td>4353</td>
<td></td>
</tr>
<tr>
<td>E (Caliper)</td>
<td>Right Side: 3967</td>
<td>Left Side: 3967</td>
</tr>
<tr>
<td>F (Left Caliper)</td>
<td>668</td>
<td></td>
</tr>
<tr>
<td>G (IP)</td>
<td>3206</td>
<td></td>
</tr>
<tr>
<td>H (Seat)</td>
<td>1954</td>
<td></td>
</tr>
<tr>
<td>J (Right Caliper)</td>
<td>668</td>
<td></td>
</tr>
<tr>
<td>K (Trunk)</td>
<td>845</td>
<td></td>
</tr>
<tr>
<td><strong>POST TEST VALUES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (LH Rear Seat Xmbr)</td>
<td>379</td>
<td></td>
</tr>
<tr>
<td>B (RH Rear Seat Xmbr)</td>
<td>405</td>
<td></td>
</tr>
<tr>
<td>C (Engine Top)</td>
<td>4122</td>
<td></td>
</tr>
<tr>
<td>D (Engine Bottom)</td>
<td>4264</td>
<td></td>
</tr>
<tr>
<td>E (Caliper)</td>
<td>Right Side: 3925</td>
<td>Left Side: 3933</td>
</tr>
<tr>
<td>F (Left Caliper)</td>
<td>672</td>
<td></td>
</tr>
<tr>
<td>G (IP)</td>
<td>3201</td>
<td></td>
</tr>
<tr>
<td>H (Seat)</td>
<td>1954</td>
<td></td>
</tr>
<tr>
<td>J (Right Caliper)</td>
<td>665</td>
<td></td>
</tr>
<tr>
<td>K (Trunk)</td>
<td>845</td>
<td></td>
</tr>
</tbody>
</table>
DATA SHEET 34
PHOTOGRAPHIC TARGETS

Test Vehicle: 2008 Dodge Charger  
Test Program: FMVSS 208 Compliance  
Test Technician: Jamie Aide  
NHTSA No.: C80301  
Test Date: 6/11/08

**IMPACT ANGLE:** Zero Degrees

**BELTED DUMMIES (YES/NO):** No

**TEST SPEED:**
- X 32 to 40 kmph
- 0 to 48 kmph
- 0 to 56 kmph

<table>
<thead>
<tr>
<th>DRIVER DUMMY:</th>
<th>5th female</th>
<th>50th male</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASSENGER DUMMY:</td>
<td>5th female</td>
<td>50th male</td>
</tr>
</tbody>
</table>

1. FMVSS 208 vehicle targeting requirements (See Figures 28A and 28B)
   1.1 Targets A1 and A2 are on flat rectangular panels.
   1.2 Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted at the front on the outboard sides of A1 and A2. The center of each circular target is 100 mm from the one next to it.
   Distance between targets (mm): 100 mm
   1.3 Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted at the back on the outboard sides of on A1 and A2. The center of each circular target is 100 mm from the one next to it.
   Distance between targets (mm): 100 mm
   1.4 The distance between the first circular target at the front of A1 and A2 and the last circular target at the back of A1 and A2 is at least 915 mm.
   Distance between the first and last circular targets (mm): 915 mm
   1.5 Firmly fix target A1 on the vehicle roof in the vertical longitudinal plane that is coincident with the midsagittal plane of the driver dummy.
   1.6 Firmly fix target A2 on the vehicle roof in the vertical longitudinal plane that is coincident with the midsagittal plane of the passenger dummy.
   1.7 Two circular targets (C1 and C2) at least 90 mm in diameter and with black and yellow quadrants are mounted on the outside of the driver door. The centers of each circular target are at least 610 mm apart.
   Distance between targets (mm): 610 mm
   1.8 Two circular targets (C1 and C2) at least 90 mm in diameter and with black and yellow quadrants are mounted on the outside of the passenger door. The centers of each circular target are at least 610 mm apart.
   Distance between targets (mm): 610 mm
   1.9 Place tape with squares having alternating colors on the top portion of the steering wheel.
   1.10 Chalk the bottom portion of the steering wheel
   1.11 Is this an offset test?
     - Yes, continue with this section
     - No, go to 2.
1.12 Measure the width of the vehicle.
Vehicle width (mm):

1.13 Find the centerline of the vehicle. (½ of the vehicle width)

1.14 Find the line parallel to the centerline of the vehicle and 0.1 x vehicle width from the centerline of the vehicle.

1.15 Apply 25 mm wide tape with alternating black and yellow squares parallel to and on each side of the line found in 1.14. The edge of each tape shall be 50 mm from the line found in 1.14. The tape shall extend from the bottom of the bumper to the front edge of the windshield. (Figure 28D)

2. Barrier Targeting

2.1 Fix two stationary targets D1 and D2 to the barrier as shown in the Figure 28A. One target is in the vertical longitudinal plane that is coincident with the midsagittal plane of the driver dummy. The other is in the vertical longitudinal plane that is coincident with the midsagittal plane of the passenger dummy

2.2 Targets D1 and D2 are on a rectangular panel.

2.3 Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted on the sides of the rectangular panel away from the longitudinal centerline of the vehicle. The center of each circular target is 100 mm from the one next to it.

Distance between circular targets on D1 (mm): 100 mm
Distance between circular targets on D2 (mm): 100 mm

3. FMVSS 208 Dummy Targeting Requirements

3.1 Place a circular target with black and yellow quadrants on both sides of the driver dummy head as close as possible to the center of gravity of the head in the x and z direction (relative to the measuring directions of the accelerometers).

3.2 Place a circular target with black and yellow quadrants on both sides of the passenger dummy head as close as possible to the center of gravity of the head in the x and z direction (relative to the measuring directions of the accelerometers).

3.3 Place a circular target with black and yellow quadrants on the outboard shoulder of the driver dummy. Place the target as high up on the arm as possible at the intersection of the arm and shoulder. The sleeve of the shirt on the dummy may be cut to make the target visible, but do not remove any material.

3.4 Place a circular target with black and yellow quadrants on the outboard shoulder of the passenger dummy. Place the target as high up on the arm as possible at the intersection of the arm and shoulder. The sleeve of the shirt on the dummy may be cut to make the target visible, but do not remove any material.

4. FMVSS 204 Targeting Requirements

4.1 Is an FMVSS 204 indicant test ordered on the "COTR Vehicle Work Order?"

Yes, continue with this form.

No, this form is complete.

4.2 Resection panel (Figure 28C)

4.2.1 The panel deviates no more than 6 mm from perfect flatness when suspended vertically.

4.2.2 The 8 targets on the panel are circular targets at least 90 mm in diameter and with black and yellow quadrants.

4.2.3 The center of each of the 4 outer targets are placed within 1 mm of the corners of a square measuring 914 mm on each side.
4.2.4 Locate another square with 228 mm sides and with the center of this square coincident with the center of the 914 mm square.

4.2.5 The center of the 4 inner targets are placed at the midpoints of each of the 228 mm sides.

4.3 Place a circular target at least 90 mm in diameter and with black and yellow quadrants on a material (cardboard, metal, etc.) that can be taped to the top of the steering column.

4.4 Tape the target from 4.3 to the top of the steering column in a manner that does not interfere with the movement of the steering column in a crash.

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 6/11/08
REFERENCE PHOTO TARGETS

CONCRETE BARRIER

COVERED PHOTO PIT

LEFT SIDE VIEW

MONORAIL
RESECTION PANEL TARGETING ALIGNMENT

CAR TOP TARGETS A1 & A2

A1

A2

RESECTION CONTROL POINTS PANEL

STEERING WHEEL

STEERING COLUMN TARGET B

REAR VIEW

TEST RUN STEERING COLUMN CAMERA VIEW OF TYPICAL TIME ZERO VEHICLE POSITION

LEFT SIDE VIEW
PRE-RUN STEERING COLUMN HIGH SPEED CAMERA VIEW

LEFT SIDE VIEW

914 mm
**DATA SHEET 35**

**CAMERA LOCATIONS**

<table>
<thead>
<tr>
<th>CAMERA NO.</th>
<th>VIEW</th>
<th>CAMERAPositions (mm) *</th>
<th>LENS (mm)</th>
<th>SPEED (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Real Time Left Side View</td>
<td></td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>Left Side View (Barrier face to front seat backs)</td>
<td>960</td>
<td>-4790</td>
<td>1140</td>
</tr>
<tr>
<td>3</td>
<td>Left Side View (Driver)</td>
<td>1600</td>
<td>-5990</td>
<td>1250</td>
</tr>
<tr>
<td>4</td>
<td>Left Side View (B-post aimed toward center of steering wheel)</td>
<td>7510</td>
<td>-5740</td>
<td>1990</td>
</tr>
<tr>
<td>5</td>
<td>Left Side View (Steering Column)</td>
<td>1320</td>
<td>-5290</td>
<td>1280</td>
</tr>
<tr>
<td>6</td>
<td>Left Side View (Steering Column)</td>
<td>1280</td>
<td>-5300</td>
<td>920</td>
</tr>
<tr>
<td>7</td>
<td>Right Side View (Overall)</td>
<td>2300</td>
<td>6145</td>
<td>1210</td>
</tr>
<tr>
<td>8</td>
<td>Right Side View (Passenger)</td>
<td>1590</td>
<td>6124</td>
<td>1330</td>
</tr>
<tr>
<td>9</td>
<td>Right Side View (Angle)</td>
<td>7160</td>
<td>5110</td>
<td>2060</td>
</tr>
<tr>
<td>10</td>
<td>Right Side View (Front door)</td>
<td>1040</td>
<td>5320</td>
<td>1080</td>
</tr>
<tr>
<td>11</td>
<td>Front View Windshield</td>
<td>-295</td>
<td>0</td>
<td>2830</td>
</tr>
<tr>
<td>12</td>
<td>Front View Driver</td>
<td>-135</td>
<td>-395</td>
<td>2240</td>
</tr>
<tr>
<td>13</td>
<td>Front View Passenger</td>
<td>-110</td>
<td>505</td>
<td>2240</td>
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<tr>
<td>14</td>
<td>Overhead Barrier Impact View</td>
<td>1190</td>
<td>0</td>
<td>5050</td>
</tr>
<tr>
<td>15</td>
<td>Pit Camera Engine View</td>
<td>1030</td>
<td>0</td>
<td>-3150</td>
</tr>
<tr>
<td>16</td>
<td>Pit Camera Fuel Tank View</td>
<td>2835</td>
<td>0</td>
<td>-3150</td>
</tr>
</tbody>
</table>

*COORDINATES:
  +X - forward of impact plane
  +Y - right of monorail centerline
  +Z - above ground level

Test Vehicle: 2008 Dodge Charger  
NHTSA No.: C80301  
Test Program: FMVSS 208 Compliance  
Test Date: 6/11/08  
Time: 9:11 am
DATA SHEET 36
APPENDIX G
DUMMY POSITIONING PROCEDURES
FOR 5th% DRIVER TEST DUMMY CONFORMING TO SUBPART O OF PART 572

Test Vehicle: 2008 Dodge Charger  NHTSA No.: C80301
Test Program: FMVSS 208 Compliance  Test Date: 6/11/08
Test Technician: Tim Bratz

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
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<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
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<tr>
<td>TEST SPEED:</td>
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<td>DRIVER DUMMY:</td>
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<tr>
<td>PASSENGER DUMMY:</td>
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</tbody>
</table>

1. Using the markings made from data sheet 14.3 (If not done previously or steering repairs have been made, complete data sheet 14.3 at this time.) to position the steering controls in the mid-position or if applicable next lowest detent position. (S16.2.9)

2. Place the SCRP in the full rearward, mid-height position, and mid-seat cushion angle, determined during the completion of Data Sheet 14.1. (S16.3.2.1.1)

3. If the vehicle has an adjustable accelerator pedal, place it in the full forward position. (S16.3.2.2.1)
   X N/A accelerator pedal not adjustable

4. Fully recline the seat back. (S16.3.2.1.2)
   _ N/A seat back not adjustable.

5. Place the dummy in the seat with the legs at an angle of 120 degrees to the thighs. The calves should not be touching the seat cushion. (S16.3.2.1.2)

6. Position the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in Data Sheet 14.1. (S16.3.2.1.3 and S16.3.2.1.4)

7. Hold down the dummy’s thighs and push rearward on the upper torso to maximize the pelvic angle. (S16.3.2.1.5)

8. Set the angle between the legs and the thighs to 120 degrees. (S16.3.2.1.6)

9. Set the transverse distance between the centers of the front of the knees at 160 to 170 mm. (6.3 to 6.7 inches) Center the knee separation with respect to the longitudinal seat cushion marking as determined Data Sheet 14.1. (S16.3.2.1.6)
   Record Knee Separation ___168___

10. Push rearward on the dummy’s knees until the pelvis contacts the seat back, or the backs of the calves contact the seat cushion, whichever occurs first. (S16.3.2.1.6)
    _ Pelvis contacted seat back.
    X Calves contacted seat cushion.

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11. Gently rock the upper torso ± 5 degrees (approximately 51 mm (2 inches)) side-to-side three times. (S16.3.2.1.7)

12. If needed, extend the legs until the feet do not contact the floor pan. The thighs should be resting on the seat cushion. (S16.3.2.1.8)

13. Position the right foot until the foot is in line with a longitudinal vertical plane passing through the center of the accelerator pedal. Maintain the leg and thigh in a vertical plane. (S16.3.2.1.8)

14. Rotate the left leg and thigh laterally to equalize the distance between each knee and the longitudinal seat cushion marking as determined in Data Sheet 14.1. (S16.3.2.1.8)

15. Attempt to return the seat to the foremost fore-aft position, mid-height, and seat cushion mid-angle as determined in Data Sheet 14.2. The foot may contact and depress the accelerator and/or change the angle of the foot with respect to the leg. (S16.3.2.1.8)
   Foremost position achieved. Proceed to step 20.
   Foremost not achieved because of foot interference. Proceed to step 17.
   Foremost not achieved because of steering wheel contact.

16. If either of the dummy's legs contact the steering wheel, move the steering wheel up the minimum amount required to avoid contact. If the steering wheel is not adjustable separate the knees the minimum required to avoid contact. (S16.3.2.1.8)
   N/A - there was no leg contact
   Steering wheel repositioned
   Knees separated

17. If the left foot interferes with the clutch or brake pedals, rotate the left foot about the leg to provide clearance. If this is not sufficient, rotate the thigh outboard at the hip the minimum amount required for clearance. (S16.3.2.1.8)
   N/A, No foot interference with pedals.
   Foot adjusted to provide clearance.
   Foot and Thigh adjusted to provide clearance.

18. Continue to move the seat. Use seat controls to line up the seat markings determined during the completion of Data Sheet 14.1 to set the foremost fore-aft position, mid-height position and the seat cushion mid-angle. If the dummy contacts the interior move the seat rearward until a maximum clearance of 5 mm (0.2 inches) is achieved or the seat is in the closest detent position that does not cause dummy contact. (S16.3.2.1.8)
   Foremost, mid-height position and the seat cushion mid-angle reached
   Dummy contact. Clearance set at maximum of 5mm
   Measured Clearance __________
   Dummy Contact. Seat set at nearest detent position.
   Seat position __ detent positions rearward of foremost
   (foremost is position zero)
_19. If the steering wheel was repositioned in step 16, return the steering wheel to the original position. If the steering wheel contacts the dummy before reaching the original position, position the wheel until a maximum clearance of 5mm (.2 inches) is achieved, or the steering wheel is in the closest detent position that does not cause dummy contact. (S16.3.2.1.8)

- N/A Steering wheel was not repositioned.
- Original position achieved.
- Dummy contact. Clearance set at maximum of 5mm
  Measured Clearance
- Dummy Contact. Steering wheel set at nearest detent position.
  Steering wheel position ___ detent positions upward of original position.
  (Original position is position zero)

_20. If the seat back is adjustable, rotate the seat back forward while holding the thighs in place. Continue rotating the seat back forward until the transverse instrument platform of the dummy head is level ± 0.5 degrees. If the head cannot be leveled using the seat back adjustment, or the seat back is not adjustable, use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, minimize the angle. (S16.3.2.1.9)

- Head Level Achieved. (Check all that apply)
  - Head leveled using the adjustable seat back
  - Head leveled using the neck bracket.
    Head Angle ______ 0.2 ______ degrees
- Head Level NOT Achieved. (Check all that apply)
  - Head adjusted using the adjustable seat back
  - Head adjusted using the neck bracket.
    Head Angle ____________ degrees

_21. Verify the pelvis is not interfering with the seat bight. (S16.3.2.1.9)

- No interference
- Pelvis moved forward the minimum amount so that it is not caught in the seat bight.

_22. Verify the dummy abdomen is properly installed. (S16.3.2.1.9)

- Abdomen still seated properly into dummy
- Abdomen was adjusted because it was not seated properly into dummy

_23. Head Angle

- N/A, neither the pelvis nor the abdomen were adjusted.

_23.1 Head still level (Go to 24)

- Head level adjusted
  - Head Level Achieved. (Check all that apply)
    - Head leveled using the adjustable seat back
    - Head leveled using the neck bracket.
      Head Angle ____________ degrees
  - Head Level NOT Achieved. (Check all that apply)
    - Head level adjusted using the adjustable seat back
    - Head level adjusted using the neck bracket.
      Head Angle ____________ degrees
24. If the dummy torso contacts the steering wheel while performing step 20, reposition the steering wheel in the following order to eliminate contact. (S16.3.2.1.9)

N/A, No dummy torso contact with the steering wheel.

24.1 Adjust telescoping mechanism.

N/A No telescoping adjustment.
Adjustment performed (fill in appropriate change)
Steering wheel moved ____ detent positions in the forward direction.
Steering wheel moved ____ mm in the forward direction.

24.2 Adjust tilt mechanism.

N/A No tilt adjustment.
No adjustment performed.
Adjustment performed.
Steering wheel moved ____ detent positions Upward/Downward.
(circle one)
Steering wheel moved ____ degrees Upward/Downward

24.3 Adjust Seat in the aft direction.

No Adjustment performed.
Seat moved aft ____ mm from original position.
Seat moved aft ____ detent positions from the original position.

25. Measure and set the pelvic angle using the pelvic angle gage TE-2504. The pelvic angle should be 20.0 degrees ± 2.5 degrees. If the pelvic angle cannot be set to the specified range because the head will not be level or because the dummy will have need major repositioning, adjust the pelvis as closely as possible to the angle range, but keep the head level. (S16.3.2.1.11)

Pelvic angle set to 20.0 degrees ± 2.5 degrees.
Pelvic angle of 20.0 degrees not achieved, the angular difference was minimized.
Record the pelvic angle. ____ degrees

26. Check the dummy for contact with the interior after completing adjustments. (S16.3.2.1.12)

No contact.
Dummy in contact with interior.
Seat moved aft ____ mm from the previous position.
Seat moved aft ____ detent positions from the previous position.

27. Check the dummy to see if additional interior clearance is obtained, allowing the seat to be moved forward. (S16.3.2.1.12)

N/A, Seat already at foremost position.
Clearance unchanged. No adjustments required.
Additional clearance available
Seat moved Forward ____ mm from the previous position.
Seat moved Forward ____ detent positions from the previous position.

28. Driver’s foot positioning, right foot. Place the foot perpendicular to the leg and determine if the heel contacts the floor pan at any leg position. If the heel contacts the floor pan proceed to step 29 otherwise, proceed to step 30. (S16.3.2.2.1)
Perform the following steps until either all steps are completed, or the foot contacts the accelerator pedal. Step 29.6 shall be completed in all cases. (S16.3.2.2.1(a))

**29.1** With the rear of the heel contacting the floor pan, move the foot forward until pedal contact occurs or the foot is at the full forward position.

**29.2** If the vehicle has an adjustable accelerator pedal, move the pedals rearward until pedal contact occurs or the pedals reach the full rearward position.

**29.3** Extend the leg, allowing the heel to lose contact with the floor until the foot contacts the pedal. Do not raise the toe of the foot higher than the top of the accelerator pedal. If the foot does not contact the pedal, proceed to the next step. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)

**29.4** Angle the foot to achieve contact between the foot and the pedal. If the foot does not contact the pedal, return the foot to the perpendicular orientation. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)

**29.5** Align the centerline of the foot with the vertical-longitudinal plane passing through the center of the accelerator pedal. Place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)

**29.6** Record foot position

- Pedal Contact achieved. Contact occurred at step 29.1.
- Heel contacts floor pan
  - Heel set _____ mm from floor pan.
- Pedal Contact not achieved. Heel set _____ mm from the floor pan.
FIGURE G1

__30. Perform the following steps until either all steps are completed, or the foot contacts the accelerator pedal. Step 30.5 shall be completed in all cases.

__30.1 Extend the leg until the foot contacts the pedal. Do not raise the toe of the foot higher than the top of the accelerator pedal. If the foot does not contact the pedal, proceed to the next step. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.1(b) & S16.3.2.2.3)

__30.2 If the vehicle has an adjustable accelerator pedal, move the pedals rearward until pedal contact occurs or the pedals reach the full rearward position. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.1(b) & S16.3.2.2.3)

__N/A No pedal adjustment

__30.3 Angle the foot to achieve contact between the foot and the pedal. If the foot does not contact the pedal, return the foot to the perpendicular orientation. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.2 & S16.3.2.2.3)

__30.4 Align the centerline of the foot in the same horizontal plane as the centerline of the accelerator pedal. Place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)
30.5 Record foot position
   __Pedal Contact achieved. Contact occurred at step ________.
   __Heel set _____ mm from floor pan.
   __Pedal Contact not achieved. Heel set _____ mm from the floor pan.

X 31. Driver’s foot positioning, left foot.

X 31.1 Place the foot perpendicular to the leg and determine if the heel contacts the floor pan at any leg position. If the heel contacts the floor pan proceed to step 31.2, otherwise position the leg as perpendicular to the thigh as possible with the foot parallel to the floor pan. (S16.2.2.6)

X 31.2 Place the foot on the toe board with the heel resting on the floor pan as close to the intersection of the floor pan and the toe board as possible. Adjust the angle of the foot if necessary to contact the toe board. If the foot will not contact the toe board, set the foot perpendicular to the leg, and set the heel on the floor pan as far forward as possible. Avoid contact with the brake pedal, clutch pedal, wheel well projection, and footrest. To avoid this contact use the following three manipulations in the order listed, with each subsequent option incorporating the previous, until contact is avoided: rotate the foot about the lower leg (abduction/adduction), plantar flex the foot, rotate the leg outboard about the hip. Movement should be the minimum amount necessary. If it is not possible to avoid all foot contact, give priority to avoiding brake or clutch pedal contact. (S16.2.2.4 & S16.2.2.5 & S16.2.2.7)

X No contact
   ___Foot rotated about the leg (abduction/adduction)
   ___Foot rotated about the leg, and foot plantar flexed
   ___Foot rotated about the leg, foot plantar flexed, and the leg rotated about the hip.

X 31.3 Record foot position.
   ___Heel does not contact floor pan.
   ___Heel on floor pan and foot on toe board.
   X Heel on floor pan and foot not on toe board.

X 32. Driver arm/hand positioning.

X 32.1 Place the dummy’s upper arms adjacent to the torso with the arm centerlines as close to a vertical longitudinal plane as possible. (S16.3.2.3.1)

X 32.2 Place the palms of the dummy in contact with the outer part of the steering wheel rim at its horizontal centerline with the thumbs over the steering wheel rim. (S16.3.2.3.2)

X 32.3 If it is not possible to position the thumbs inside the steering wheel rim at its horizontal centerline, then position them above and as close to the horizontal centerline of the steering wheel rim as possible. (S16.3.2.3.3)

X 32.4 Lightly tape the hands to the steering wheel rim so that if the hand of the test dummy is pushed upward by a force of not less than 9 N (2 lb) and not more than 22 N (5 lb), the tape releases the hand from the steering wheel rim. S16.3.2.3.4

X 33. Adjustable head restraints
   ___N/A, there is no head restraint adjustment
__33.1 If the head restraint has an automatic adjustment, leave it where the system positions the restraint after the dummy is placed in the seat. (S16.3.4.1) Go to 34.

__33.2 Adjust each head restraint vertically so that the mid-horizontal plane determined in Data Sheet 14.1 is aligned with the center of gravity (CG) of the dummy head. (S16.3.4.3)

X 33.3 If the above position is not attainable, move the vertical center of the head restraint to the closest detent below the center of the head CG. (S16.3.4.3)

  _N/A midpoint position attained in previous step
  _Headrest set at nearest detent below the head CG

__33.4 If the head restraint has a fore and aft adjustment, place the restraint in the foremost position or until contact with the head is made, whichever occurs first. (S16.3.4.4)

__34. Driver and passenger manual belt adjustment (for tests conducted with a belted dummy). (S16.3.5) UNBELTED TEST

__34.1 If an adjustable seat belt D-ring anchorage exists, place it in the manufacturer’s design position for a 5th percentile adult female. (S16.3.5.1) This information will be supplied by the COTR.

  Manufacturer’s specified position ________________________________
  Actual Position_________________________________________________

__34.2 Place the Type 2 manual belt around the test dummy and fasten the latch. (S16.3.5.2)

__34.3 Ensure that the dummy’s head remains as level as possible. (S16.3.5.3)

__34.4 Remove all slack from the lap belt. Pull the upper torso webbing out of the retractor and allow it to retract; repeat this operation four times. Apply a 9 N (2 lbf) to 18 N (4 lbf) tension load to the lap belt. If the belt system is equipped with a tension-relieving device, introduce the maximum amount of slack into the upper torso belt that is recommended by the manufacturer. If the belt system is not equipped with a tension-relieving device, allow the excess webbing in the shoulder belt to be retracted by the retractive force of the retractor. (S16.3.5.4)

REMARKS:

I certify that I have read and performed each instruction.

Signature: ___________________________ Date: 6/11/08
APPENDIX G

DUMMY POSITIONING PROCEDURES
FOR 5th% PASSenger TEST DUMMY CONFORMING TO SUBPART O OF PART 572

<table>
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<th>IMPACT ANGLE:</th>
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<td>BELTED DUMMIES (YES/NO):</td>
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<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
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<tr>
<td>DRIVER DUMMY:</td>
<td>X 5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>X 5th female</td>
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</tbody>
</table>

(Check this item ONLY if it applies to this vehicle.)

- The passenger seat adjustments are controlled by the adjustments made to the driver’s seat. Therefore, positioning of the passenger dummy is made simultaneously with the driver dummy. Adjustments made to the seat to position the driver will over ride any adjustments that would normally be made to position the passenger. (S16.2.10.3)

X 1. Place the SCRP in the full rearward, mid-height position, and mid-seat cushion angle, determined during the completion of Data Sheet 14.1. (S16.3.3.1.1)

X 2. Fully recline the seat back. (S16.3.3.1.2)
   __ N/A seat back not adjustable.

X 3. Place the dummy in the seat with the legs at an angle of 120 degrees to the thighs. The calves should not be touching the seat cushion. (S16.3.3.1.2)

X 4. Position the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion marking that was determined in Data Sheet 14.1. (S16.3.3.1.3 and S16.3.3.1.4)

X 5. Hold down the dummy’s thighs and push rearward on the upper torso to maximize the pelvic angle. (S16.3.3.1.5)

X 6. Set the angle between the legs and the thighs to 120 degrees. (S16.3.3.1.6)

X 7. Set the transverse distance between the centers of the front of the knees at 160 to 170 mm. (6.3 to 6.7 inches). Center the knee separation with respect to the longitudinal seat cushion marking that was determined Data Sheet 14.1. (S16.3.3.1.6)
   Record Knee Separation __165

X 8. Push rearward on the dummy’s knees until the pelvis contacts the seat back, or the backs of the calves contact the seat cushion, whichever occurs first. (S16.3.3.1.6)
   __Pelvis contacted seat back.
   X Calves contacted seat cushion.

Test Vehicle: 2008 Dodge Charger
Test Program: FMVSS 208 Compliance
Test Technician: Joe Fleck
NHTSA No.: C80301
Test Date: 6/11/08
X 9. Gently rock the upper torso ± 5 degrees (approximately 51 mm (2 inches)) side-to-side three times. (S16.3.3.1.7)

X 10. If needed, extend the legs until the feet do not contact the floor pan. The thighs should be resting on the seat cushion. (S16.3.3.1.8)

X 11. Use seat controls to line up the seat markings determined during the completion of Data Sheet 14.1 to set the foremost fore-aft position, mid-height position and the seat cushion mid-angle. If the dummy contacts the interior move the seat rearward until a maximum clearance of 5 mm (0.2 inches) is achieved or the seat is in the closest detent position that does not cause dummy contact. (S16.3.3.1.8)

X Foremost, mid-height position and the seat cushion mid-angle reached
__Dummy contact. Clearance set at maximum of 5mm
   Measured Clearance _______________
__Dummy Contact. Seat set at nearest detent position.
   Seat position ___ detent positions rearward of foremost
   (foremost is position zero)

X 12. If the seat back is adjustable, rotate the seat back forward while holding the thighs in place. Continue rotating the seat back forward until the transverse instrument platform of the dummy head is level ± 0.5 degrees. If head cannot be leveled using the seat back adjustment, or the seat back is not adjustable, use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, adjust the head as closely as possible to the ± 0.5 degree range. (S16.3.3.1.9 and S16.3.3.1.10)
   (Check All That Apply)
   __Seat back not adjustable
   __Seat back not independent of driver side seat back
X Head Level Achieved. (Check all that apply)
   X Head leveled using the adjustable seat back
   ___Head leveled using the neck bracket.
   ___Head Angle _______ 0.1 ______ degrees
__Head Level NOT Achieved. (Check all that apply)
   ___ Head adjusted using the adjustable seat back
   ___ Head adjusted using the neck bracket.
   ___ Head Angle ______________ degrees

X 13. Verify the pelvis is not interfering with the seat bight. (S16.3.3.1.9)
X No interference
   __Pelvis moved forward the minimum amount so that it is not caught in the seat bight.

X 14. Verify the dummy abdomen is properly installed. (S16.3.3.1.9)
X Abdomen still seated properly into dummy
   __Abdomen was adjusted because it was not seated properly into dummy

X 15. Head Angle
   X N/A, neither the pelvis nor the abdomen were adjusted.

X 15.1 Head still level (Go to 16)
15.2 Head level adjusted
   _Head Level Achieved. (Check all that apply)_
   _Head leveled using the adjustable seat back
   _Head leveled using the neck bracket.
   Head Angle ____________ degrees
   _Head Level NOT Achieved. (Check all that apply)_
   _Head adjusted using the adjustable seat back
   _Head adjusted using the neck bracket.
   Head Angle ____________ degrees

16. Measure and set the pelvic angle using the pelvic angle gage TE-2504. The pelvic angle should be 20.0 degrees ± 2.5 degrees. If the pelvic angle cannot be set to the specified range because the head will not be level or because the dummy will have need major repositioning, adjust the pelvis as closely as possible to the angle range, but keep the head level.
   X Pelvic angle set to 20.0 degrees ± 2.5 degrees.
   _Pelvic angle of 20.0 degrees not achieved, the angular difference was minimized._
   X Record the pelvic angle. ____21.8 ____ degrees

17. Check the dummy for contact with the interior after completing adjustments.
   X No contact.
   _Dummy in contact with interior._
   _Seat moved aft ___ mm from the previous position.
   _Seat moved aft ___ detent positions from the previous position.

18. Verify the transverse instrument platform of the dummy head is level +/- 0.5 degrees. Use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, minimize the angle. (S16.3.3.1.9, S16.3.3.1.10, and S16.3.3.1.11)
   X Head Level Achieved
   Head Angle ____0.2____ degrees
   _Head Level NOT Achieved._
   Head Angle ____________ degrees

19. Check the dummy to see if additional interior clearance is obtained, allowing the seat to be moved forward. (S16.3.3.1.12)
   _N/A Bench Seat
   X N/A Seat already at full forward position.
   _Clearance unchanged. No adjustments required._
   _Additional clearance available
   _Seat moved Forward ___ mm from the previous position.
   _Seat moved Forward ___ detent positions from the previous position.
   _Seat moved Forward, Full Forward position reached._

20. Passenger foot positioning. (Indicate final position achieved) (S16.3.3.2)
   _20.1 Place feet flat on the toe board; OR (S16.3.3.2.1)
   X 20.2 If the feet cannot be placed flat on the toe board, set the feet perpendicular to the lower leg, and rest the heel as far forward on the floor pan as possible; OR (S16.3.3.2.2)
   _20.3 If the heels do not touch the floor pan, set the legs as perpendicular to the thighs as possible and set the feet parallel to the floor pan. (S16.3.3.2.2)
21. Passenger arm/hand positioning. (S16.3.3.3)

21.1 Place the dummy's upper arms adjacent to the torso with the arm centerlines as close to a vertical longitudinal plane as possible. (S16.3.3.3.1)

21.2 Place the palms of the dummy in contact with the outer part of the thighs (S16.3.3.3.2)

21.3 Place the little fingers in contact with the seat cushion. (S16.3.3.3.3)

22. Adjustable head restraints (S16.3.4)

22.1 If the head restraint has an automatic adjustment, leave it where the system positions the restraint after the dummy is placed in the seat. (S16.3.4.1) Go to 23.

22.2 Adjust each head restraint vertically so that the horizontal plane determined in Data Sheet 14.1 is aligned with the center of gravity (CG) of the dummy head. (S16.3.4.3)

22.3 If the above position is not attainable, move the vertical center of the head restraint to the closest detent below the center of the head CG. (S16.3.4.3)

22.4 If the head restraint has a fore and aft adjustment, place the restraint in the foremost position or until contact with the head is made, whichever occurs first. (S16.3.4.4)

23. Manual belt adjustment (for tests conducted with a belted dummy) S16.3.5

23.1 If an adjustable seat belt D-ring anchorage exists, place it in the manufacturer’s design position for a 5th percentile adult female. **This information will be supplied by the COTR.** (S16.3.5.1)

23.2 Place the Type 2 manual belt around the test dummy and fasten the latch. (S16.3.5.2)

23.3 Ensure that the dummy’s head remains as level as possible. (S16.3.5.3)

23.4 Remove all slack from the lap belt. Pull the upper torso webbing out of the retractor and allow it to retract; repeat this operation four times. Apply a 9 N (2 lbf) to 18 N (4 lbf) tension load to the lap belt. If the belt system is equipped with a tension-relieving device, introduce the maximum amount of slack into the upper torso belt that is recommended by the manufacturer. If the belt system is not equipped with a tension-relieving device, allow the excess webbing in the shoulder belt to be retracted by the retractive force of the retractor. (S16.3.5.4)

REMARKS:
I certify that I have read and performed each instruction.

Signature: ___________________________ Date: 6/11/08
DATA SHEET 37

DUMMY MEASUREMENTS

Test Vehicle: 2008 Dodge Charger
Test Program: FMVSS 208 Compliance
Test Technician: Joe Fleck

DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Description</th>
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<tbody>
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<tr>
<td>CS</td>
<td>Chest to Steering Wheel Hub</td>
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<td>Head to Header</td>
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<td>NA</td>
<td>Nose to Rim Angle</td>
</tr>
<tr>
<td>NR</td>
<td>Nose to Rim</td>
</tr>
<tr>
<td>PA</td>
<td>Pelvic Angle</td>
</tr>
<tr>
<td>RA</td>
<td>Rim to Abdomen</td>
</tr>
<tr>
<td>SA</td>
<td>Seat Back Angle</td>
</tr>
<tr>
<td>SCA</td>
<td>Steering Column Angle</td>
</tr>
<tr>
<td>SH</td>
<td>Striker to H-Point</td>
</tr>
<tr>
<td>SK</td>
<td>Striker to Knee</td>
</tr>
<tr>
<td>ST</td>
<td>Striker to Head</td>
</tr>
<tr>
<td>SWA</td>
<td>Steering Wheel Angle</td>
</tr>
<tr>
<td>TA</td>
<td>Tibial Angle</td>
</tr>
<tr>
<td>WA</td>
<td>Windshield Angle</td>
</tr>
</tbody>
</table>

Test Vehicle: 2008 Dodge Charger
Test Program: FMVSS 208 Compliance
Test Technician: Joe Fleck
NHTSA No.: C80301
Test Date: 6/11/08
# DATA SHEET 37
## DUMMY MEASUREMENTS

- **Test Vehicle:** 2008 Dodge Charger
- **Test Program:** FMVSS 208 Compliance
- **Test Technician:** Joe Fleck
- **NHTSA No.:** C80301
- **Test Date:** 6/11/08

## TEST DUMMY POSITION MEASUREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Measurement Description</th>
<th>Driver SN 511</th>
<th>Passenger SN 516</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Length (mm)</td>
<td>Angle (°)</td>
</tr>
<tr>
<td>WA</td>
<td>Windshield Angle</td>
<td>30.1</td>
<td>236</td>
</tr>
<tr>
<td>SWA</td>
<td>Steering Wheel Angle</td>
<td>69.0</td>
<td>441</td>
</tr>
<tr>
<td>SCA</td>
<td>Steering Column Angle</td>
<td>21.2</td>
<td>742</td>
</tr>
<tr>
<td>SA</td>
<td>Seat Back Angle (On Headrest Post)</td>
<td>3.5</td>
<td>224</td>
</tr>
<tr>
<td>HZ</td>
<td>Head to Roof (Z)</td>
<td>236</td>
<td>235</td>
</tr>
<tr>
<td>HH</td>
<td>Head to Header</td>
<td>441</td>
<td>438</td>
</tr>
<tr>
<td>HW</td>
<td>Head to Windshield</td>
<td>742</td>
<td>734</td>
</tr>
<tr>
<td>HR</td>
<td>Head to Side Header (Y)</td>
<td>224</td>
<td>228</td>
</tr>
<tr>
<td>NR</td>
<td>Nose to Rim</td>
<td>236</td>
<td>236</td>
</tr>
<tr>
<td>CD</td>
<td>Chest to Dash</td>
<td>438</td>
<td>438</td>
</tr>
<tr>
<td>CS</td>
<td>Chest to Steering Hub</td>
<td>197</td>
<td>197</td>
</tr>
<tr>
<td>RA</td>
<td>Rim to Abdomen</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>KDL</td>
<td>Left Knee to Dash</td>
<td>103</td>
<td>85</td>
</tr>
<tr>
<td>KDR</td>
<td>Right Knee to Dash</td>
<td>90</td>
<td>98</td>
</tr>
<tr>
<td>PA</td>
<td>Pelvic Angle</td>
<td>21.5</td>
<td>21.5</td>
</tr>
<tr>
<td>TA</td>
<td>Tibia Angle</td>
<td>49.4</td>
<td>49.7</td>
</tr>
<tr>
<td>KK</td>
<td>Knee to Knee (Y)</td>
<td>255</td>
<td>220</td>
</tr>
<tr>
<td>SK</td>
<td>Striker to Knee</td>
<td>658</td>
<td>663</td>
</tr>
<tr>
<td>ST</td>
<td>Striker to Head</td>
<td>484</td>
<td>490</td>
</tr>
<tr>
<td>SH</td>
<td>Striker to H-Point</td>
<td>321</td>
<td>332</td>
</tr>
<tr>
<td>SHY</td>
<td>Striker to H-Point (Y)</td>
<td>320</td>
<td>340</td>
</tr>
<tr>
<td>HS</td>
<td>Head to Side Window</td>
<td>366</td>
<td>358</td>
</tr>
<tr>
<td>HD</td>
<td>H-Point to Door (Y)</td>
<td>253</td>
<td>280</td>
</tr>
<tr>
<td>AD</td>
<td>Arm to Door (Y)</td>
<td>201</td>
<td>212</td>
</tr>
<tr>
<td>AA</td>
<td>Ankle to Ankle</td>
<td>244</td>
<td>184</td>
</tr>
</tbody>
</table>
### SEAT BELT POSITIONING DATA

**DUMMY'S CENTERLINE**

- **'D' RING**
- **SHOULDER BELT PORTION**
- **LAP BELT PORTION**
- **1/8" THICK ALUMINUM PLATE**
- **EMERGENCY LOCKING RETRACTOR**
- **OUTBOARD ANCHORAGE**
- **INBOARD ANCHORAGE**
- **BUCKET ASSEMBLY**
- **MALE BLADE**
- **FLOORPAN**

### FRONT VIEW OF DUMMY

#### SEAT BELT POSITIONING MEASUREMENTS

<table>
<thead>
<tr>
<th>Measurement Description</th>
<th>Units</th>
<th>Driver</th>
<th>Passenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBU - Top surface of reference to belt upper edge</td>
<td>mm</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PBL - Top surface of reference to belt lower edge</td>
<td>mm</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Test Vehicle: 2008 Dodge Charger  
Test Program: FMVSS 208 Compliance  
Test Technician: Joe Fleck  

**IMPACT ANGLE:** Zero Degrees  
**BELTED DUMMIES (YES/NO):** No  
**TEST SPEED:**  
- X 32 to 40 kmph  
- __ 0 to 48 kmph  
- __ 0 to 56 kmph  
**DRIVER DUMMY:**  
- X 5th female  
- __ 50th male  
**PASSENGER DUMMY:**  
- X 5th female  
- __ 50th male  

1. Vehicle underbody painted  
2. The speed measuring devices are in place and functioning.  
3. The speed measuring devices are _1.0_ m from the barrier (spec. 1.5m) and _30_ cm from the barrier (spec. is 30 cm)  
4. Convertible top is in the closed position.  
5. Instrumentation and wires are placed so the motion of the dummies during impact is not affected.  
6. Tires inflated to pressure on tire placard or if it does not have a tire placard because it is not a passenger car, then inflated to the tire pressure specified in the owner information.  
   - 210 kpa front left tire  
   - 210 kpa front right tire  
   - 210 kpa rear left tire  
   - 210 kpa rear right tire  
7. Time zero contacts on barrier in place.  
8. Pre test zero and shunt calibration adjustments performed and recorded  
9. Dummy temperature meets requirements of section 12.2 of the test procedure.  
10. Vehicle hood closed and latched  
11. Transmission placed in neutral  
12. Parking brake off  
13. Ignition in the ON position  
14. Doors closed and latched but not locked  
15. Posttest zero and shunt calibration checks performed and recorded  
16. Actual test speed _39.9_ kmph  
17. Vehicle rebound from the barrier _456_ cm  
18. Describe whether the doors open after the test and what method is used to open the doors.  
   - X Left Front Door: Door remained closed and latched; Door opened without tools  
   - X Right Front Door: Door remained closed and latched; Door opened without tools  
   - X Left Rear Door: Door remained closed and latched; Door opened without tools  
   - X Right Rear Door: Door remained closed and latched; Door opened without tools
19. Describe the contact points of the dummy with the interior of the vehicle.

   - Driver Dummy: Head to Air Bag, Visor, and Headrest; Chest to Air Bag; Knees to Knee Bolster
   - Passenger Dummy: Head to Air Bag, Visor, Header, Windshield, and Headrest; Chest to Air Bag; Knees to Glove Box

REMARKS:

I certify that I have read and performed each instruction.

Signature: [Signature]          Date: 6/11/08
## DATA SHEET NO. 40
### ACCIDENT INVESTIGATION MEASUREMENTS

<table>
<thead>
<tr>
<th>Test Vehicle:</th>
<th>2008 Dodge Charger</th>
<th>NHTSA No.:</th>
<th>C80301</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Program:</td>
<td>FMVSS 208 Compliance</td>
<td>Test Date:</td>
<td>6/11/08</td>
</tr>
<tr>
<td>Test Technician:</td>
<td>Jamie Aide</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
</tr>
<tr>
<td></td>
<td>___ 0 to 48 kmph</td>
</tr>
<tr>
<td></td>
<td>___ 0 to 56 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>X 5th female</td>
</tr>
<tr>
<td></td>
<td>___ 50th male</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>X 5th female</td>
</tr>
<tr>
<td></td>
<td>___ 50th male</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vehicle Year/Make/Model/Body Style:</th>
<th>2008 Dodge Charger Passenger Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIN:</td>
<td>2B3KA43R88H161597</td>
</tr>
<tr>
<td>Wheelbase:</td>
<td>3048 mm</td>
</tr>
<tr>
<td>Build Date:</td>
<td>12/07</td>
</tr>
<tr>
<td>Vehicle Size Category:</td>
<td>5</td>
</tr>
<tr>
<td>Test Weight:</td>
<td>1819.3 kg</td>
</tr>
<tr>
<td>Front Overhang:</td>
<td>945 mm</td>
</tr>
<tr>
<td>Overall Width:</td>
<td>1876 mm</td>
</tr>
<tr>
<td>Overall Length Center:</td>
<td>5045 mm</td>
</tr>
</tbody>
</table>

### Accelerometer Data

<table>
<thead>
<tr>
<th>Location:</th>
<th>As per measurements on Data Sheet 33</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linearity:</td>
<td>&gt;99.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Integration Algorithm:</th>
<th>Trapezoidal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Impact Speed:</td>
<td>39.9 kmph</td>
</tr>
<tr>
<td>Time of Separation:</td>
<td>116.2 ms</td>
</tr>
<tr>
<td>Velocity Change:</td>
<td>47.1 kmph</td>
</tr>
</tbody>
</table>
## CRUSH PROFILE

Collision Deformation Classification: 12FDEW6  
Midpoint of Damage: Vehicle Longitudinal Centerline  
Damage Region Length (mm): 1430  
Impact Mode: Frontal Barrier

<table>
<thead>
<tr>
<th>No.</th>
<th>Measurement Description</th>
<th>Units</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Crush zone 1 at left side</td>
<td>mm</td>
<td>4871</td>
<td>4823</td>
<td>48</td>
</tr>
<tr>
<td>C2</td>
<td>Crush zone 2 at left side</td>
<td>mm</td>
<td>4947</td>
<td>4900</td>
<td>47</td>
</tr>
<tr>
<td>C3</td>
<td>Crush zone 3 at left side</td>
<td>mm</td>
<td>5005</td>
<td>4941</td>
<td>64</td>
</tr>
<tr>
<td>C4</td>
<td>Crush zone 4 at right side</td>
<td>mm</td>
<td>5007</td>
<td>4935</td>
<td>72</td>
</tr>
<tr>
<td>C5</td>
<td>Crush zone 5 at right side</td>
<td>mm</td>
<td>4945</td>
<td>4848</td>
<td>97</td>
</tr>
<tr>
<td>C6</td>
<td>Crush zone 6 at right side</td>
<td>mm</td>
<td>4868</td>
<td>4743</td>
<td>125</td>
</tr>
</tbody>
</table>

**REMARKS:**

I certify that I have read and performed each instruction.

Signature:  
Date: 6/11/08
1. Pre-Crash

1.1 Describe from visual inspection how the windshield is mounted and describe any trim material.

Retained with glue
Plastic trim

1.2 Mark the longitudinal centerline of the windshield

1.3 Measure pre-crash A, B, and C for the left side and record in the chart below.

1.4 Measure pre-crash C, D, and E for the right side and record in the chart below.

1.5 Measure from the edge of the retainer or molding to the edge of the windshield.

Dimension G (mm): 15 mm

2. Post Crash

2.1 Can a single thickness of copier type paper (as small a piece as necessary) slide between the windshield and the vehicle body?

- No - Pass. Skip to the table of measurements, complete it by repeating the pre-crash measurements in the post crash column, and calculate the retention percentage, which will be 100%.

- Yes, go to 2.2

2.2 Visibly mark the beginning and end of the portions of the periphery where the paper slides between the windshield and the vehicle body.

2.3 Measure and record post-crash A, B, C, D, E, and F such that the measurements do not include any of the parts of the windshield where the paper slides between the windshield and the vehicle body.

2.4 Calculate and record the percent retention for the right and left side of the windshield.

2.5 Is total right side percent retention less than 75%?

- Yes, Fail
- No, Pass

2.6 Is total left side percent retention less than 75%?

- Yes, Fail
- No, Pass
## Windshield Retention Measurements

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Pre-Crash (mm)</th>
<th>Post-Crash (mm)</th>
<th>Percent Retention (Post-Test + Pre-Crash)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Left Side</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>653</td>
<td>653</td>
<td>100%</td>
</tr>
<tr>
<td>B</td>
<td>725</td>
<td>725</td>
<td>100%</td>
</tr>
<tr>
<td>C</td>
<td>825</td>
<td>825</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>2203</td>
<td>2203</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Right Side</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>653</td>
<td>653</td>
<td>100%</td>
</tr>
<tr>
<td>E</td>
<td>725</td>
<td>725</td>
<td>100%</td>
</tr>
<tr>
<td>F</td>
<td>825</td>
<td>825</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>2203</td>
<td>2203</td>
<td>100%</td>
</tr>
</tbody>
</table>

Indicate area of mounting failure. NONE

**Front View of Windshield**

- **Zero Point (0,0)**

**Remarks:**

I certify that I have read and performed each instruction.

**Signature:**

**Date:** 6/11/08
DATA SHEET 42
WINDSHIELD ZONE INTRUSION (FMVSS 219)

Test Vehicle: 2008 Dodge Charger  
Test Program: FMVSS 208 Compliance  
Test Technician: Jamie Aide  
NHTSA No.: C80301  
Test Date: 6/11/08

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>X 5\textsuperscript{th} female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>X 5\textsuperscript{th} female</td>
</tr>
</tbody>
</table>

1. Place a 165 mm diameter rigid sphere, with a mass of 6.8 kg on the instrument panel so that it is simultaneously touching the instrument panel and the windshield. (571.219 S6.1(a))

2. Roll the sphere from one side of the windshield to the other while marking on the windshield where the sphere contacts the windshield. (571.219 S6.1(b))

3. From the outermost contactable points on the windshield draw a horizontal line to the edges of the windshield. (571.219 S6.1(b))

4. Draw a line on the inner surface of the windshield that is 13 mm below the line determined in items 2 and 3

5. After the crash test, record any points where a part of the exterior of the vehicle has marked, penetrated, or broken the windshield.

Provide all dimensions necessary to reproduce the protected area.

FRONT VIEW OF WINDSHIELD
WINDSHIELD DIMENSIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>mm</td>
<td>1306</td>
</tr>
<tr>
<td>B</td>
<td>mm</td>
<td>418</td>
</tr>
<tr>
<td>C</td>
<td>mm</td>
<td>1650</td>
</tr>
<tr>
<td>D</td>
<td>mm</td>
<td>725</td>
</tr>
<tr>
<td>E</td>
<td>mm</td>
<td>420</td>
</tr>
<tr>
<td>F</td>
<td>mm</td>
<td>474</td>
</tr>
</tbody>
</table>

AREA OF PROTECTED ZONE FAILURES:

B. Provide coordinates of the area that the protected zone was penetrated more than 0.25 inches by a vehicle component other than one which is normally in contact with the windshield.

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
</tr>
</tbody>
</table>

C. Provide coordinates of the area beneath the protected zone template that the inner surface of the windshield was penetrated by a vehicle component.

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
</tr>
</tbody>
</table>

REMARKS:

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 6/11/08
DATA SHEET 43
FUEL SYSTEM INTEGRITY (FMVSS 301)

Test Vehicle: 2008 Dodge Charger  NHTSA No.: C80301
Test Program: FMVSS 208 Compliance  Test Date: 6/11/08
Test Technician: Daniel Sienko

TYPE OF IMPACT: 25 mph Unbelted Flat Frontal

Stoddard Solvent Spillage Measurements

A. From impact until vehicle motion ceases: 0.0 grams
   (Maximum Allowable = 28 grams)
B. For the 5 minute period after motion ceases: 0.0 grams
   (Maximum Allowable = 142 grams)
C. For the following 25 minutes: 0.0 grams
   (Maximum Allowable = 28 grams/minute)
D. Spillage: NONE

REMARKS: NO SPILLAGE
1. The specified fixture rollover rate for each 90° of rotation is 60 to 180 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations: None

<table>
<thead>
<tr>
<th>Test Phase</th>
<th>Rotation Time (sec.)</th>
<th>Hold Time (sec.)</th>
<th>Spillage (grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0° to 90°</td>
<td>117</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>90° to 180°</td>
<td>119</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>180° to 270°</td>
<td>116</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>270° to 360°</td>
<td>117</td>
<td>300</td>
<td>0.0</td>
</tr>
</tbody>
</table>
APPENDIX A

CRASH TEST DATA
<table>
<thead>
<tr>
<th>Figure No.</th>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Driver Head X Acceleration vs. Time</td>
<td>A-1</td>
</tr>
<tr>
<td>2</td>
<td>Driver Head Y Acceleration vs. Time</td>
<td>A-1</td>
</tr>
<tr>
<td>3</td>
<td>Driver Head Z Acceleration vs. Time</td>
<td>A-1</td>
</tr>
<tr>
<td>4</td>
<td>Driver Head Resultant Acceleration vs. Time</td>
<td>A-1</td>
</tr>
<tr>
<td>5</td>
<td>Driver Head X Velocity vs. Time</td>
<td>A-2</td>
</tr>
<tr>
<td>6</td>
<td>Driver Head Y Velocity vs. Time</td>
<td>A-2</td>
</tr>
<tr>
<td>7</td>
<td>Driver Head Z Velocity vs. Time</td>
<td>A-2</td>
</tr>
<tr>
<td>8</td>
<td>Driver Neck Force X vs. Time</td>
<td>A-3</td>
</tr>
<tr>
<td>9</td>
<td>Driver Neck Force Y vs. Time</td>
<td>A-3</td>
</tr>
<tr>
<td>10</td>
<td>Driver Neck Force Z vs. Time</td>
<td>A-3</td>
</tr>
<tr>
<td>11</td>
<td>Driver Neck Force Resultant vs. Time</td>
<td>A-3</td>
</tr>
<tr>
<td>12</td>
<td>Driver Neck Moment X vs. Time</td>
<td>A-4</td>
</tr>
<tr>
<td>13</td>
<td>Driver Neck Moment Y vs. Time</td>
<td>A-4</td>
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25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)
Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

Max: 9.3 G's
Tmax: 217.0 ms
Min: -34.8 G's
Tmin: 59.7 ms
CFC 1000

Max: 7.9 G's
Tmax: 162.8 ms
Min: -11.6 G's
Tmin: 98.7 ms
CFC 1000

Max: 9.9 G's
Tmax: 81.5 ms
Min: -11.6 G's
Tmin: 91.7 ms
CFC 1000

Max: 34.9 G's
Tmax: 59.7 ms
Min: 0.0 G's
Tmin: 0.0 ms
CFC 1000
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

Max: 40.1 kph
Tmax: 38.1 ms
Min: -8.7 kph
Tmin: 300.0 ms

Max: 0.3 kph
Tmax: 41.1 ms
Min: -13.0 kph
Tmin: 149.4 ms

Max: 1.7 kph
Tmax: 271.9 ms
Min: -7.8 kph
Tmin: 107.7 ms
Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

Max: 195.7 N
Tmax: 50.3 ms
Min: -607.4 N
Tmin: 96.5 ms
CFC 1000

Max: 168.5 N
Tmax: 55.9 ms
Min: -164.8 N
Tmin: 115.8 ms
CFC 1000

Max: 1244.4 N
Tmax: 81.2 ms
Min: -246.6 N
Tmin: 32.8 ms
CFC 1000

Max: 1289.2 N
Tmax: 81.2 ms
Min: 0.6 N
Tmin: 0.0 ms
CFC 1000
Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

**2008 DODGE CHARGER (C80301)**

Max: 5.7 G's
Tmax: 45.2 ms
Min: -56.0 G's
Tmin: 80.1 ms
CFC 180

Max: 8.8 G's
Tmax: 84.0 ms
Min: -4.6 G's
Tmin: 56.5 ms
CFC 180

Max: 14.8 G's
Tmax: 85.0 ms
Min: -9.0 G's
Tmin: 52.5 ms
CFC 180

Max: 56.8 G's
Tmax: 80.1 ms
Min: 0.0 G's
Tmin: 0.0 ms
CFC 180
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

Max: 200.0 N
Tmax: 55.3 ms
Min: -3090.9 N
Tmin: 41.8 ms
CFC 600

Driver Left Femur (N) vs Time (ms)

Max: 331.3 N
Tmax: 103.2 ms
Min: -3759.0 N
Tmin: 41.8 ms
CFC 600

Driver Right Femur (N) vs Time (ms)
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

Speed: 24.8 mph (39.9 km/h)

Max: 25.6 G's
Tmax: 197.7 ms
Min: -54.1 G's
Tmin: 88.5 ms
CFC 1000

Max: 3.0 G's
Tmax: 151.5 ms
Min: -10.5 G's
Tmin: 79.3 ms
CFC 1000

Max: 18.2 G's
Tmax: 137.6 ms
Min: -16.2 G's
Tmin: 93.3 ms
CFC 1000

Max: 54.5 G's
Tmax: 88.5 ms
Min: 0.0 G's
Tmin: 8.3 ms
CFC 1000
Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

2008 DODGE CHARGER (C80301)

PASSENGER HEAD X Velocity (kph) vs TIME (ms)
Max: 42.7 kph
Tmax: 61.2 ms
Min: -12.7 kph
Tmin: 191.1 ms
CFC 180

PASSENGER HEAD Y Velocity (kph) vs TIME (ms)
Max: 0.0 kph
Tmax: 0.0 ms
Min: -8.8 kph
Tmin: 212.3 ms
CFC 180

PASSENGER HEAD Z Velocity (kph) vs TIME (ms)
Max: 3.1 kph
Tmax: 300.0 ms
Min: -8.2 kph
Tmin: 118.0 ms
CFC 180
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER NECK FX (N) vs TIME (ms)
Max: 1225.3 N
Tmax: 91.3 ms
Min: -337.1 N
Tmin: 157.2 ms
CFC 1000

PASSENGER NECK FY (N) vs TIME (ms)
Max: 243.0 N
Tmax: 96.9 ms
Min: -131.1 N
Tmin: 70.5 ms
CFC 1000

PASSENGER NECK FZ (N) vs TIME (ms)
Max: 683.2 N
Tmax: 84.2 ms
Min: -1518.0 N
Tmin: 145.5 ms
CFC 1000

PASSENGER NECK FResultant (N) vs TIME (ms)
Max: 1531.8 N
Tmax: 145.5 ms
Min: 0.6 N
Tmin: 0.0 ms
CFC 1000
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER NECK MX (Nm) vs TIME (ms)
Max: 10.1 Nm
Tmax: 83.3 ms
Min: -14.1 Nm
Tmin: 151.6 ms
CFC 600

PASSENGER NECK MY (Nm) vs TIME (ms)
Max: 63.4 Nm
Tmax: 91.8 ms
Min: -18.0 Nm
Tmin: 150.8 ms
CFC 600

PASSENGER NECK MZ (Nm) vs TIME (ms)
Max: 10.2 Nm
Tmax: 93.4 ms
Min: -3.5 Nm
Tmin: 70.5 ms
CFC 600

PASSENGER NECK MResultant (Nm) vs TIME (ms)
Max: 64.2 Nm
Tmax: 91.8 ms
Min: 0.0 Nm
Tmin: 14.0 ms
CFC 600
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER CHEST X (G's) vs TIME (ms)
Max: 3.4 G's
Tmax: 158.4 ms
Min: -42.1 G's
Tmin: 92.4 ms
CFC 180

PASSENGER CHEST Y (G's) vs TIME (ms)
Max: 3.7 G's
Tmax: 38.0 ms
Min: -3.5 G's
Tmin: 90.5 ms
CFC 180

PASSENGER CHEST Z (G's) vs TIME (ms)
Max: 24.0 G's
Tmax: 88.7 ms
Min: -5.2 G's
Tmin: 56.7 ms
CFC 180

PASSENGER CHEST Resultant (G's) vs TIME (ms)
Max: 46.5 G's
Tmax: 90.6 ms
Min: 0.0 G's
Tmin: 0.0 ms
CFC 180
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER CHEST X Velocity (kph) vs TIME (ms)
Max: 39.9 kph
Tmax: 0.0 ms
Min: -9.0 kph
Tmin: 117.3 ms
CFC 180

PASSENGER CHEST Y Velocity (kph) vs TIME (ms)
Max: 0.9 kph
Tmax: 45.2 ms
Min: -2.6 kph
Tmin: 270.5 ms
CFC 180

PASSENGER CHEST Z Velocity (kph) vs TIME (ms)
Max: 21.6 kph
Tmax: 300.0 ms
Min: -5.1 kph
Tmin: 72.9 ms
CFC 180

PASSENGER CHEST DISPLACEMENT (mm) vs TIME (ms)
Max: 1.6 mm
Tmax: 57.3 ms
Min: -4.2 mm
Tmin: 97.8 ms
CFC 600
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

Drv. nij (NTF) vs TIME (ms)
Max: 0.1
Tmax: 203.3 ms
Min: 0.0
Tmin: 0.0 ms
CFC 600

Drv. nij (NTE) vs TIME (ms)
Max: 0.8
Tmax: 88.0 ms
Min: 0.0
Tmin: 0.0 ms
CFC 600

Drv. nij (NCF) vs TIME (ms)
Max: 0.1
Tmax: 178.4 ms
Min: 0.0
Tmin: 0.0 ms
CFC 600

Drv. nij (NCE) vs TIME (ms)
Max: 0.1
Tmax: 32.3 ms
Min: 0.0
Tmin: 0.0 ms
CFC 600
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

Max: 8.7 Nm
Tmax: 224.4 ms
Min: -40.2 Nm
Tmin: 88.9 ms
CFC 600

Max: 41.6 Nm
Tmax: 91.8 ms
Min: -13.7 Nm
Tmin: 146.1 ms
CFC 600
2008 DODGE CHARGER (C80301)

Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

Max: 8.3 G's
Tmax: 70.3 ms
Min: -69.3 G's
Tmin: 47.0 ms
CFC 60

Max: 39.9 kph
Tmax: 0.0 ms
Min: -7.3 kph
Tmin: 165.9 ms
CFC 180

Max: 52.0 G's
Tmax: 35.5 ms
Min: -65.8 G's
Tmin: 47.2 ms
CFC 60

Max: 39.9 kph
Tmax: 0.0 ms
Min: 4.5 kph
Tmin: 59.2 ms
CFC 180
25 MPH FRONTAL UNBELTED
2008 DODGE CHARGER (C80301)
Test Date: 06/11/2008
Speed: 24.8 mph (39.9 km/h)

BARRIER FORCE - UPPER LEFT (KN) vs TIME (ms)
Max: 4.0 KN
Tmax: 8.5 ms
Min: -36.1 KN
Tmin: 61.5 ms
CFC 60

BARRIER FORCE - UPPER CENTER (KN) vs TIME (ms)
Max: 1.7 KN
Tmax: 4.2 ms
Min: -67.0 KN
Tmin: 51.2 ms
CFC 60

BARRIER FORCE - UPPER RIGHT (KN) vs TIME (ms)
Max: 3.7 KN
Tmax: 7.0 ms
Min: -33.6 KN
Tmin: 64.1 ms
CFC 60
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<td>23</td>
<td>Pre-Test Fuel Filler Cap View</td>
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<td>24</td>
<td>Post-Test Fuel Filler Cap View</td>
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<tr>
<td>25</td>
<td>Pre-Test Front Underbody View</td>
<td>B-25</td>
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<td>26</td>
<td>Post-Test Front Underbody View</td>
<td>B-26</td>
</tr>
<tr>
<td>27</td>
<td>Pre-Test Mid Underbody View</td>
<td>B-27</td>
</tr>
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<td>28</td>
<td>Post-Test Mid Underbody View</td>
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<td>29</td>
<td>Pre-Test Fuel Tank View</td>
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<td>30</td>
<td>Post-Test Fuel Tank View</td>
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<td>Pre-Test Rear Underbody View</td>
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<td>Post-Test Rear Underbody View</td>
<td>B-32</td>
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<tr>
<td>33</td>
<td>Pre-Test Driver Dummy Front View (head position)</td>
<td>B-33</td>
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<td>Post-Test Driver Dummy Front View (head position)</td>
<td>B-34</td>
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<td>35</td>
<td>Pre-Test Driver Dummy Position Left Side View</td>
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<td>36</td>
<td>Post-Test Driver Dummy Position Left Side View</td>
<td>B-36</td>
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<td>37</td>
<td>Pre-Test Driver Dummy Position Left Side View (Door Open)</td>
<td>B-37</td>
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<td>Post-Test Driver Dummy Position Left Side View (Door Open)</td>
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<tr>
<td>39</td>
<td>Pre-Test Driver Dummy Seat Position</td>
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<td>Post-Test Driver Dummy Seat Position</td>
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<td>41</td>
<td>Pre-Test Driver Dummy Feet Position</td>
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<td>42</td>
<td>Post-Test Driver Dummy Feet Position</td>
<td>B-42</td>
</tr>
<tr>
<td>43</td>
<td>Pre-Test Driver Side Knee Bolster View</td>
<td>B-43</td>
</tr>
<tr>
<td>44</td>
<td>Post-Test Driver Side Knee Bolster View</td>
<td>B-44</td>
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<td>45</td>
<td>Post-Test Driver Dummy Airbag Contact</td>
<td>B-45</td>
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<td>46</td>
<td>Post-Test Driver Dummy Head Contact (visor and header)</td>
<td>B-46</td>
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<td>47</td>
<td>Post-Test Driver Dummy Knee Contact (left side)</td>
<td>B-47</td>
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<td>48</td>
<td>Post-Test Driver Dummy Knee Contact (right side)</td>
<td>B-48</td>
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<td>49</td>
<td>Pre-Test Passenger Dummy Front View (head position)</td>
<td>B-49</td>
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<td>Post-Test Passenger Dummy Front View (head position)</td>
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<td>51</td>
<td>Pre-Test Passenger Dummy Position Right Side View</td>
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<td>52</td>
<td>Post-Test Passenger Dummy Position Right Side View</td>
<td>B-52</td>
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<tr>
<td>Photo No.</td>
<td>Description</td>
<td>Page No.</td>
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<tr>
<td>----------</td>
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</tr>
<tr>
<td>53</td>
<td>Pre-Test Passenger Dummy Position Right Side View (Door Open)</td>
<td>B-53</td>
</tr>
<tr>
<td>54</td>
<td>Post-Test Passenger Dummy Position Right Side View (Door Open)</td>
<td>B-54</td>
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<tr>
<td>55</td>
<td>Pre-Test Passenger Dummy Seat Position</td>
<td>B-55</td>
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<tr>
<td>56</td>
<td>Post-Test Passenger Dummy Seat Position</td>
<td>B-56</td>
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<tr>
<td>57</td>
<td>Pre-Test Passenger Dummy Feet Position</td>
<td>B-57</td>
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<td>58</td>
<td>Post-Test Passenger Dummy Feet Position</td>
<td>B-58</td>
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<tr>
<td>59</td>
<td>Pre-Test Passenger Side Knee Bolster View</td>
<td>B-59</td>
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<td>60</td>
<td>Post-Test Passenger Side Knee Bolster View</td>
<td>B-60</td>
</tr>
<tr>
<td>61</td>
<td>Post-Test Passenger Dummy Head Contact (visor, header &amp; windshield)</td>
<td>B-61</td>
</tr>
<tr>
<td>62</td>
<td>Post-Test Passenger Dummy Head Contact (headrest)</td>
<td>B-62</td>
</tr>
<tr>
<td>63</td>
<td>Post-Test Passenger Dummy Knee Contact</td>
<td>B-63</td>
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<tr>
<td>64</td>
<td>Post-Test Passenger Dummy Airbag Contact</td>
<td>B-64</td>
</tr>
<tr>
<td>65</td>
<td>Rollover 90 Degrees</td>
<td>B-65</td>
</tr>
<tr>
<td>66</td>
<td>Rollover 180 Degrees</td>
<td>B-66</td>
</tr>
<tr>
<td>67</td>
<td>Rollover 270 Degrees</td>
<td>B-67</td>
</tr>
<tr>
<td>68</td>
<td>Rollover 360 Degrees</td>
<td>B-68</td>
</tr>
<tr>
<td>69</td>
<td>Temperature Plot</td>
<td>B-69</td>
</tr>
<tr>
<td>70</td>
<td>Vehicle in Relation to The Load Cell Grid</td>
<td>B-70</td>
</tr>
</tbody>
</table>
Vehicle Certification Label

MFD BY CHRYSLER LLC

DATE OF MFR: 12-07

GUWR 2225 KG
      04905 LB
GAWR 1275 KG
    FRONT 2810 LB
   REAR 2810 LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S.A. FEDERAL MOTOR VEHICLE SAFETY, BUMPER AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: 2B3KA43R88H161597

MDH: 121303 970AA PNT:PKR VEHICLE MADE IN CANADA TRM:E17DU

TYPE: PASSENGER CAR

4648104
<table>
<thead>
<tr>
<th>TIRE</th>
<th>FRONT</th>
<th>REAR</th>
<th>SPARE</th>
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<tbody>
<tr>
<td>ORIGINAL TIRE SIZE</td>
<td>P215/65R17</td>
<td>P215/65R17</td>
<td>T135/90D17</td>
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<tr>
<td>COLD TIRE INFLATION PRESSURE</td>
<td>210 kPa / 30 PSI</td>
<td>210 kPa / 30 PSI</td>
<td>420 kPa / 60 PSI</td>
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SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

8H161597
Post-Test Front View of Test Vehicle
Pre-Test Left Side View of Test Vehicle
Post-Test Left Side View of Test Vehicle
Pre-Test Right Side View of Test Vehicle
Pre-Test Left Front Three-Quarter View of Test Vehicle
Post-Test Left Front Three-Quarter View of Test Vehicle
Pre-Test Right Rear Three-Quarter View of Test Vehicle
Post-Test Right Rear Three-Quarter View of Test Vehicle
Pre-Test Left Rear Three-Quarter View of Test Vehicle
Post-Test Left Rear Three-Quarter View of Test Vehicle
Pre-Test Rear View of Test Vehicle
Pre-Test Engine Compartment View
Pre-Test Fuel Filler Cap View
Post-Test Mid Underbody View
Pre-Test Rear Underbody View
Post-Test Rear Underbody View
Pre-Test Driver Dummy Front View (head position)
Post-Test Driver Dummy Front View (head position)
Pre-Test Driver Dummy Position Left Side View (Door Open)
Post-Test Driver Dummy Position Left Side View (Door Open)
Pre-Test Driver Dummy Seat Position
Post-Test Driver Dummy Seat Position
Pre-Test Driver Dummy Feet Position
Post-Test Driver Dummy Feet Position
Post-Test Driver Dummy Airbag Contact
Post-Test Driver Dummy Head Contact (visor and header)
Post-Test Driver Dummy Knee Contact (left side)
Post-Test Driver Dummy Knee Contact (right side)
Pre-Test Passenger Dummy Front View (head position)
Pre-Test Passenger Dummy Position Right Side View
Post-Test Passenger Dummy Position Right Side View
Pre-Test Passenger Dummy Position Right Side View (Door Open)
Post-Test Passenger Dummy Position Right Side View (Door Open)
Post-Test Passenger Dummy Seat Position
Pre-Test Passenger Dummy Feet Position
Post-Test Passenger Dummy Feet Position
Pre-Test Passenger Side Knee Bolster View
Post-Test Passenger Side Knee Bolster View
Post-Test Passenger Dummy Head Contact (visor, header & windshield)
Post-Test Passenger Dummy Head Contact (headrest)
Post-Test Passenger Dummy Knee Contact
Post-Test Passenger Dummy Airbag Contact
Rollover 90 Degrees
Rollover 180 Degrees
Rollover 270 Degrees
Rollover 360 Degrees
APPENDIX C

INSTRUMENTATION CALIBRATION
### INSTRUMENTS FOR DRIVER DUMMY NO. 511

<table>
<thead>
<tr>
<th>SERIAL NO.</th>
<th>MANUFACTURER</th>
<th>CALIBRATION DATE</th>
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<tbody>
<tr>
<td>Head X</td>
<td>ET21246</td>
<td>Entran</td>
</tr>
<tr>
<td>Head Y</td>
<td>ET21255</td>
<td>Entran</td>
</tr>
<tr>
<td>Head Z</td>
<td>ET21245</td>
<td>Entran</td>
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<tr>
<td>Neck Load Cell</td>
<td>1748</td>
<td>Denton</td>
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<tr>
<td>Chest X</td>
<td>ET21217</td>
<td>Entran</td>
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<tr>
<td>Chest Y</td>
<td>ET21196</td>
<td>Entran</td>
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<td>Chest Z</td>
<td>ET21259</td>
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<tr>
<td>Chest Displacement</td>
<td>511</td>
<td>Servo</td>
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<td>Left Femur Load Cell</td>
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<td>Right Femur Load Cell</td>
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### INSTRUMENTS FOR PASSENGER DUMMY NO. 516

<table>
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<th>MANUFACTURER</th>
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<tbody>
<tr>
<td>Head X</td>
<td>G04-Z09</td>
<td>Entran</td>
</tr>
<tr>
<td>Head Y</td>
<td>G04-Z26</td>
<td>Entran</td>
</tr>
<tr>
<td>Head Z</td>
<td>J14-J20</td>
<td>Entran</td>
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<tr>
<td>Neck Load Cell</td>
<td>1703</td>
<td>Denton</td>
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<tr>
<td>Chest X</td>
<td>G16-Z03</td>
<td>Entran</td>
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<td>Chest Y</td>
<td>A28-H02</td>
<td>Entran</td>
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<td>Chest Z</td>
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<td>Chest Displacement</td>
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### VEHICLE INSTRUMENTS

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<td>Endevco</td>
</tr>
<tr>
<td>Right Rear Seat Crossmember X</td>
<td>P47820</td>
<td>Endevco</td>
</tr>
<tr>
<td>Top of Engine X</td>
<td>P47826</td>
<td>Endevco</td>
</tr>
<tr>
<td>Bottom of Engine X</td>
<td>P24154</td>
<td>Endevco</td>
</tr>
<tr>
<td>Left Brake Caliper X</td>
<td>J12471</td>
<td>Endevco</td>
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<td>Right Brake Caliper X</td>
<td>A008123</td>
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<td>Instrument Panel X</td>
<td>P48173</td>
<td>Endevco</td>
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<tr>
<td>Trunk Z</td>
<td>P48182</td>
<td>Endevco</td>
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