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Special Crash Investigations: On-Site Child Restraint System Investigation; Vehicle: 2014 Dodge Journey; Location: Idaho; Crash Date: May 2016

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Each crash represents a unique sequence of events, and generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicles or their safety systems. This report and associated case data are based on information available to the Special Crash Investigation team on the date this report was published.

16. Abstract

The crash occurred during the afternoon hours in May 2016 on a two-lane State highway in a rural area of Idaho in a hailstorm. The Dodge was being driven southbound by a belted 25-year-old female. A belted 4-year-old male was seated in a forward-facing booster safety seat in the second row right seat position. The other vehicle involved in the crash was a 2002 Chevrolet Suburban being driven northbound by a 62-year-old male. Conditions at the time of the crash were daylight with hail falling, ice present on the roadway. The driver of the Dodge lost control of the vehicle and crossed the centerline into the northbound lane. The two vehicles struck each other head-on. The drivers of both vehicles required extrication. All three occupants of both vehicles sustained police-reported "A" (incapacitating) injuries and were transported by air to area hospitals.

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On-Site Child Restraint System Investigation
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Background

This report documents the investigation of a child restraint system (CRS) used by the 4-year-old male occupant of a 2014 Dodge Journey (Figure 1) and the injuries he sustained in a crash with another vehicle. The crash was identified from an online news article by a crash investigator at Dynamic Science, Inc., who notified the Special Crash Investigations (SCI) group of the National Highway Traffic Safety Administration in June 2016. The case was assigned in August 2016. Permissions were obtained, and the vehicle and CRS inspections were completed in September 2016. Three additional investigators representing the involved parties were present for the inspection. The Dodge was supported by the Bosch Crash Data Retrieval (CDR) system and the vehicle's Event Data Recorder (EDR) was imaged during the inspection. The complete EDR report is included in this report as Appendix A.

Figure 1. The 2014 Dodge Journey

This two-vehicle crash occurred during the afternoon hours in May 2016 on a two-lane, north/south State highway in a rural area of Idaho. The Dodge was being driven southbound by a belted 25-year-old female. A belted 4-year-old male was seated in a forward-facing booster safety seat (BSS) in the second row right seat position. The other vehicle involved in the crash was a 2002 Chevrolet Suburban being driven northbound by a 62-year-old male. Conditions at the time of the crash were daylight with hail falling, ice present on the roadway. The driver of the Dodge lost control of the vehicle and crossed the centerline into the northbound lane. The two vehicles struck each other head-on. The Dodge came to rest in the southbound lane, and the Chevrolet came to rest partially in the northbound lane.

Both drivers required extrication. All three occupants of both vehicles sustained police-reported "A" (incapacitating) injuries and were transported by helicopter to area hospitals. Both vehicles were towed due to damage and later sold for salvage.

Summary

Crash Site

The crash occurred on a two-lane, north/south State highway in a rural area of Idaho (Figure 2). The roadway was asphalt-surfaced and was configured with one lane for each direction. The lanes were separated by a double yellow solid and dashed painted stripe that facilitated passing in the northbound direction, bordered by solid white painted fog lines. Both lanes measured 3.7 m (12.0 ft) in width and were configured with narrow paved shoulders measuring 0.5 m (1.6 ft) in width. The east edge of the roadway was configured with an additional gravel shoulder measuring 1.2 m (3.9 ft) in width. Heading southbound at the area of the crash, the roadway curved right in a radius of 622.5 m (2,042.3 ft) measured from the east fog line. Heading southbound, the roadway ascended at a slope of positive 7.0 percent, and the southbound lane had a super elevation of positive 7.0 percent. The posted speed limit was 105 km/h (65 mph).

Figure 2. Crash site, looking south

Evidence from the crash included scrapes, gouges, tire marks, and fluid spills on the roadway that were used in combination with on-scene images to determine the point of impact and final rest positions for both vehicles. Conditions at the time of the crash as reported by the nearest weather station were a temperature of 14.0 °C (57.2 °F), winds west/northwest at 35.2 km/h (21.9 mph) with gusts to 59.2 km/h (36.8 mph), a visibility of 12.9 km (8.0 mi), and overcast skies. A hailstorm was underway at the time of the crash, and the police reported ice present on the roadway. A crash diagram is included at the end of this report.

Pre-Crash

The Dodge was traveling southbound at an EDR-reported, pre-crash vehicle speed of 105 km/h (65 mph) with cruise control "On" and "Engaged" at Time Stamp -5.0 seconds. The service brake was "Off," stability control was "On," and steering input was -21 degrees (clockwise, steering right). At Time Stamp -4.0 seconds, the service brake was "On," steering input was - 38 degrees, cruise control was "Not Engaged," and ABS activity was "Yes." The driver of the Dodge was negotiating a right curve when she under-steered, causing the vehicle to cross the centerline and enter the northbound lane. At Time Stamp -0.1 seconds, vehicle speed was 44.0 km/h (27.0 mph), and steering input was -546 degrees. The driver indicated that she observed the other vehicle and in response attempted to steer farther right while braking. Apparently, the ice on the roadway made the driver's steering maneuver ineffective.

The Chevrolet was traveling northbound at a calculated speed based on collinear momentum of 86.7 km/h (53.9 mph). The driver was negotiating a slight left curve, and the roadway slope measured negative 7.0 degrees. The pre-crash time and distances for the Dodge calculated using EDR data are reported in the table below.

Time Stamp (seconds)	Vehicle Speed km/h (mph)	Incremental Distance Traveled m (ft)	Cumulative Distance Traveled m (ft)
-5.0	105 (65)	NA	NA
-4.0	97 (60)	27.9 (91.7)	27.9 (91.7)
-3.0	86 (53)	25.3 (82.9)	53.2 (174.6)
-2.0	73 (46)	22.1 (72.6)	75.3 (247.2)
-1.0	56 (35)	18.1 (59.4)	93.4 (306.6)
-0.1	44 (27)	12.4 (40.9)	105.8 (347.5)

Driver input for the Dodge obtained from the EDR report is reported in the table below.

Time (sec) -0.1 at Event	Speed, Vehicle Indicated (km/h [mph])	Accelerator Pedal (%)	Service Brake Activation	ABS Activity
Most Recent Event	44 (27)	0	On	Yes

Crash

The front plane of the Dodge struck the front plane of the Chevrolet in a head-on configuration. The point of impact (POI) was located at the leading edge of a gouge mark in the northbound lane located 1.4 m (4.6 ft) west of the east fog line. The principal direction of force (PDOF) for both vehicles was 350 degrees. Following the impact, the Dodge initiated a counterclockwise rotation and a rearward northwest trajectory. The vehicle's left front and rear tires deposited two tire marks on the roadway measuring 2.5 m and 3.0 m (8.2 ft and 9.8 ft), respectively, when it slid in a left-side-leading lateral trajectory to final rest. Beginning at the POI, it rotated 140 degrees, traveled 11.0 m (36.0 ft), and came to rest facing northeast in the southbound lane (Figure 3). The Chevrolet initiated a slight counterclockwise rotation and was displaced in a northeast trajectory. It rotated 30 degrees, traveled 4.5 m (14.7 ft), and came to rest facing north on the right shoulder.

For the Dodge in Event 1, the WinSMASH CDC-only algorithm calculated a total delta V of 111 km/h (69 mph) with longitudinal and lateral components of -109 km/h (-68 mph) and 19 km/h (12 mph), respectively, and a barrier equivalent speed (BES) of 91 km/h (56 mph). The reconstruction was considered borderline given the EDR-reported velocity changes and impact speed. The vehicle's EDR report captured a maximum longitudinal delta V of -89.0 km/h (-55.2 mph), a maximum lateral delta V of 10.0 km/h (-5.9 mph), and a vehicle-indicated impact speed of 44 km/h (27 mph).

For the Chevrolet in Event 1, WinSMASH calculated a total delta V of 84 km/h (52 mph) with longitudinal and lateral components of -82 km/h (-51 mph) and 15 km/h (9 mph), respectively, and a barrier equivalent speed (BES) of 101 km/h (63 mph). An estimated CDC was used for the Chevrolet. Given the high delta V values reported by WinSMASH, the reconstruction was considered borderline. An impact speed for the Chevrolet was calculated as 86.7 km/h (53.9 mph) using a collinear momentum formula and the known impact speed for the Dodge.

Figure 3. Crash site looking south with the Chevrolet on the left and the Dodge on the right (online photo)

Post-Crash

Following the crash, the driver of the Dodge was entrapped by the damaged instrument panel and steering column. She required an extrication that took an hour, during which the responders removed the vehicle's left side doors, left B-pillar, right front door, and the roof over the first two rows. The driver was then flown to an area hospital where she was admitted with serious injuries. The 4-year-old male occupant of the Dodge was in an incapacitated state of consciousness following the crash. A passerby stopped at the crash site and assisted in holding the child's head and neck in a stable position while he remained seated in the CRS. After responders arrived, the child was transported by helicopter to a local hospital where he was admitted with serious injuries. The driver of the Chevrolet required extrication of an unknown nature. He was transported by air to an area hospital and treated for unspecified injuries. Both vehicles were towed due to damage and sold for salvage.

2014 Dodge Journey

Description

The 2014 Dodge Journey was identified by the Vehicle Identification Number (VIN) 3C4PDCAB8ETxxxxxx. The date of manufacture was unknown. The EDR-reported odometer reading was 118,928.6 km (73,898.8 mi). The Dodge was a 4-door with rear hatch SUV configured with a 4-cylinder, 2.4-liter, gasoline engine; an automatic transmission; a power steering; power brakes; ABS; and tilt and telescopic steering functionality. The vehicle manufacturer's recommended tire size was P225/65R17 with a recommended cold tire pressure of 248 kPa (36 psi) for the front and rear. The vehicle was equipped with Bridgestone Dueller H/L 442 tires of the recommended size for the left front, left rear, and right front positions, and a "For Temporary Use Only" P145/70R17 JK tire at the right rear position. This tire had a maximum speed rating of 80 km/h (50 mph). The maximum EDR-reported, pre-crash speed was 107 km/h (66 mph). Specific tire data obtained during the inspection were as follows:

Position	Measured Pressure	Measured Tread Depth	Restricted	Damage
LR	Tire flat	3 mm (4/32 in)	Yes	De-beaded
LR	Tire flat	2 mm (3/32 in)	No	De-beaded
RR	110 kPa (16 psi)	5 mm (6/32 in)	No	None
RF	Tire flat	3 mm (4/32 in)	No	De-beaded

The Dodge's interior had three rows of seating for seven occupants in a 2-3-2 seat configuration. The front row had two bucket seats with adjustable active head restraints (AHRs). The AHRs are passive, deployable components. An occupant restraint controller (OCR) determines whether the severity or type of impact will require the AHRs to deploy. If the impact requires deployment, both driver and front passenger AHRs will deploy. The AHRs are configured to deploy primarily in rear impacts, but they may deploy in frontal or side impacts. They did not deploy in this frontal crash. The driver's head restraint was adjusted to cm (1.2 in) above the seat back. The driver's seat track was set between middle and full rearward, and the seat back was set to upright. The EDR report indicated that the driver's seat track was not forward.

The second row was configured with a 60/40 split-bench seat with folding backs and adjustable head restraints for three occupants. This row was configured with Lower Anchors and Tethers for CHildren (LATCH) at all three seat positions. The third row was configured with a 50/50 split-bench seat with folding backs for two occupants.

Exterior Damage

The Dodge sustained severe crush damage to the front plane caused during the impact with the Chevrolet (Figure 4). The front bumper fascia, the grille, the right front fender, and the left front fender were displaced from the vehicle. The left front tire was displaced rearward and restricted. The hood was crumpled. Additional damage was sustained during post-crash extrication

activities. The A- and B-pillars were cut through, and the roof was folded backward; the left front, left rear, and right front doors were removed. The front bumper backing bar was used to measure crush damage. Direct damage began at the front left bumper corner and extended 113 cm (44.5 in), and the Field L extended from bumper corner to bumper corner and measured 84.0 cm (33.1 in). Thirteen measurements were taken at bumper level using the Nikon Total Station, and the Faro Blitz program computed crush measurement in six increments as follows: C_1 = 80.0 cm (31.5 in), C_2 = 100.0 cm (39.4 in), C_3 = 110.0 cm (43.3 in), C_4 = 83.0 cm (32.7 in), C_5 = 66.0 cm (26.0 in), and C_6 =45.0 cm (17.7 in). Maximum crush was located 37 cm (14.6 in) right of the front left bumper corner, and the Collision Deformation Classification (CDC) for the Dodge in Event 1 was 12FDEW5.

Figure 4. Front plane crush damage, the 2014 Dodge Journey

Event Data Recorder

The Dodge's EDR was removed from the vehicle and imaged using the direct-to-module, bench-top method by another investigator present during the inspection. SCI was then given a copy of the report by the investigator. The EDR was imaged using the Bosch CDR Tool version 16.6 and reported using version 17.9.1. The complete EDR report is included in this report as Appendix A.

The EDR was configured to report system status at retrieval, system configuration atretrieval, system status at event, deployment command data, DTCs present at the start of event, longitudinal and lateral crash pulse, rollover crash pulse, and pre-crash data. The EDR events recovered one event, which included deployment of the frontal air bags, driver knee air bag, and actuation of the front row pretensioners.

The EDR report contained several indicators suggesting that power to the air bag control module (ACM) was lost during the crash. In the system status at event section, complete file recorded was "No," and operation via energy reserve only was "Yes." In the pre-crash section, pre-crash recorder status was "Interrupted." However, event signal transmission complete was "Yes," and supply voltage at event, ACM (V), was "14.7." The data suggest that the ACM was operating on sufficient internal power to capture the available crash data.

The EDR reported a maximum longitudinal delta V of -89.0 km/h (-55.2 mph) at 160 ms and a maximum lateral delta V of 10.0 km/h (5.9 mph) at 46 ms.

The pre-crash data revealed the following information at Time Stamp -0.1 seconds:

- Pre-Crash Recorder status: Interrupted
- Speed, Vehicle Indicated (mph [km/h]): 27 [44]
- Accelerator Pedal, % Full: 0
- Engine Throttle, % Full: 0
- Service Brake: On
- Engine RPM: 715
- ABS Activity: Yes
- Stability Control: On
- Steering Input (deg): -546
- Raw Manifold Pressure (kPa): 33
- PCM MIL: Off
- ESC Lamp: Off
- Yaw Rate (deg/sec): SNA
- Wheel Speed LF/RF/LR/RR: SNA
- ETC Lamp: Off
- ETC Lamp Flashing: No
- Engine Torque Applied: Yes
- PRNDL Status: Drive
- Reverse Gear (manual only): No

Interior Damage

The Dodge's interior revealed damage from impact forces, deployed air bags, actuated seat belt pretensioners, occupant contacts, and post-crash extrication. The windshield glazing was fractured; the back light was disintegrated at impact with the other vehicle. The left front and rear doors as well as the right front door were removed during extrication efforts. Additionally, the A- and B-pillars were cut, and the roof was folded back during extrication efforts. The driver's and passenger's frontal air bags as well as the driver's knee air bag deployed, and both front seat belt pretensioners actuated during the crash. Occupant loading evidence was present on the seat belts for the driver and second row right occupant. The front row occupant space was reduced by longitudinal intrusion of the left, center, and right instrument panel, the left toe pan, and the parking brake pedal. The second row occupant space was reduced by longitudinal intrusion of the driver's seat back.

Manual Restraint Systems

The Dodge's interior was equipped with forward seating for seven occupants, and all seats were configured with three-point lap and shoulder seat belts. The front row belts were equipped with retractor and buckle pretensioners, sliding latch plates, and adjustable D-rings. The driver's belt was configured with an emergency locking retractor (ELR), but the left B-pillar was cut and discarded, precluding documentation of the D- ring. The driver's lap and shoulder belt exhibited evidence of historical usage and was used during the crash. The EDR report indicated that the

belt was “Buckled.” The report indicated that the retractor pretensioner actuated, but that the buckle pretensioner was not actuated. The reason for this was not known. On the passenger side, both pretensioners actuated, although this seat was not occupied, and the belt was not buckled. The driver’s belt was cut during post-crash activities. The webbing was still attached at the lower anchorage, and the latch plate was found in the vehicle. Both the latch plate and the webbing exhibited evidence of driver loading. The latch plate was scuffed on the plastic cladding, and the webbing was scuffed beginning 110.0 cm (43.3 in) above the stop button (Figure 5).

The second row was configured with ELR/automatic locking retractor (ALR) seat belts with non-adjustable D-rings and sliding latch plates. The seat belt of the center seat was configured with ALR and a cinching latch plate. This row was configured with LATCH. The left and right seats were equipped with lower anchors, and all three seats were configured with tether anchors.

Figure 5. Driver’s seat belt components, driver loading evidence, the 2014 Dodge Journey

Figure 6. Second row right position seat belt webbing, occupant loading evidence, the 2014 Dodge Journey

The second row right position belt (Figure 6) was used by the 4-year-old male occupant in combination with a forward-facing booster safety seat. Both the latch plate and the webbing exhibited evidence of occupant loading. The latch plate was scuffed on the plastic cladding, and the webbing was scuffed beginning 110.0 cm (43.3 in) above the stop button. During the SCI inspection, the retractor was manipulated, and both ELR and ALR settings were functional. The latch plate was inserted into the buckle that was functional. Aside from the occupant loading evidence, the belt was unremarkable.

The driver stated during the interview that the child occupant had a history of pulling the shoulder belt away from his shoulder, causing it to loosen and rest on his upper arm. She believed he likely did that prior to the crash, causing a fracture to his upper right arm. Loosening the shoulder section can also potentially cause slack in the lap portion of the belt.

Supplemental Restraint Systems

The Dodge had supplemental restraint systems in all three rows. The front row was equipped with dual-stage frontal air bags and seat-mounted side impact air bags for the driver and front passenger. Additionally, a knee air bag was available for the driver. The vehicle was equipped with combination side impact/roll-sensing inflatable curtain (IC) air bags for the outboard-seated

occupants of all three rows. The air bags were original to the vehicle and had not been serviced or recalled. During the crash, both frontal air bags and the driver's knee air bag deployed.

The driver's frontal air bag deployed from the steering wheel hub. This air bag was cut away near the cover flaps, discarded, and not available for inspection. The EDR report indicated that the time to first stage deployment was 12 ms and that the time to second stage deployment from T0 was 3 ms.

The driver's knee air bag deployed from the lower left instrument panel. This air bag exhibited soiled areas caused during post-crash activities, but it was otherwise unremarkable. The EDR was configured to report deployment of this air bag but not deployment time. It likely deployed at impact with the other vehicle.

The passenger's frontal air bag deployed from the top right instrument panel. The EDR report indicated that the time to first stage deployment was 12 ms and that the time to second stage deployment from T0 was 20 ms. This air bag was unremarkable.

Child Restraint System

Graco TurboBooster Booster Safety Seat. The Graco TurboBooster was a backless belt-positioning BSS (Figures 7 and 8). At the time of the crash, it was positioned in a forward-facing orientation in the second row right position and used in combination with the vehicle's lap and shoulder seat belt.

Figure 7. Graco TurboBooster BSS, the 2014 Dodge Journey

Figure 8. Graco TurboBooster BSS shell with padding removed, the 2014 Dodge Journey

The safety seat was purchased new by the driver specifically for the 4-year-old occupant. It had no prior damage before this crash. The model number was 1920048, and the date of manufacture was February 14, 2015. This seat required assembly when new. The parts list included a base, left and right armrests, height adjustment screws, and a shoulder belt positioning clip. The seat was configured with removable padding on the base and armrests as well as on the dual cup holders which stowed inside the base. This seat was not configured with a back support. Models of this style are available with a back support.

The occupant parameters for using the seat without a back support are as follows:

Weight:	40 - 100 lb (18 - 45 kg)
Height:	40 - 57 in (101 - 145 cm); occupant's ears are below top of vehicle seat cushion or headrest
Age:	Approximately 4 - 10 years old

The child using this seat met the weight, height, and age requirements.

The armrests were set to the highest level. The shoulder belt positioning clip remained attached to the shoulder portion of the seat belt and was being used at the time of the crash. It was adjusted to a length of 40.0 cm (15.7 in) from the base. The clip did not reveal evidence of occupant loading or damage. The BSS shell and other components were unremarkable. The Dodge was configured with LATCH at all three seat positions in the second row. The BSS was not configured with LATCH attachments.

The booster seat positioned the child so that the shoulder portion of the seat belt was positioned snugly across his collarbone and shoulder. The shoulder belt positioning clip attached to the BSS helped keep it in place. The child had a habit of pulling extra slack from the shoulder portion of the belt and placing it on or under his arm. The driver stated that she believed the shoulder belt was resting on his right upper arm at the time of the crash.

2014 Dodge Journey Occupants

Driver Demographics

Age/sex:	25 Years/female
Height:	173 cm (68 in)
Weight:	75 kg (165 lb)
Eyewear:	Prescription eyeglasses
Seat type:	Bucket seat with adjustable head restraint
Seat track position:	Middle to full rearward
Manual restraint usage:	Lap and shoulder seat belt used
Usage source:	Vehicle inspection
Air bags:	Frontal air bag deployed
Alcohol/drug data:	Police did not test and reported negative for alcohol and drugs; medical records reported positive for alcohol and benzodiazepine (a tranquilizer), unknown levels of concentration
Egress from vehicle:	Required extrication, exited with assistance through left side door opening
Transport from scene:	Ambulance to a hospital
Type of medical treatment:	Admitted; protracted follow-up treatment

Driver Injuries

Injury No.	Injury	Injury Severity AIS 2015	Involved Physical Components (IPC)	IPC Confidence Level
1	Fracture, right femur, mid-shaft	853221.3	Left lower IP	Probable
2	Fracture, open, left distal tibia (pilon)	854332.3	Floor	Probable
3	Dissection, vertebral artery, neck at C3	321006.2	Seat belt webbing, shoulder portion	Probable
4 5	Fracture, left radius and ulna	752211.2 752213.2	Left IP	Probable
6	Fracture, right tibial plateau	854171.2	Critical IPC 2- point Floor and left lower IP	Probable
7	Fracture, left tibial plateau	854171.2	Critical IPC 2- point Floor and left lower IP	Probable

Injury No.	Injury	Injury Severity AIS 2015	Involved Physical Components (IPC)	IPC Confidence Level
8	Tear, left lateral meniscus, knee	840300.2	Left lower IP	Probable
9	Lacerations, minor, upper scalp	110602.1	Flying glass	Probable
10	Abrasions, face, nose	210202.1	Frontal air bag	Probable
11	Contusions, chest	410402.1	Seat belt webbing, shoulder portion	Certain
12	Contusions, abdomen	510402.1	Seat belt webbing, lap portion	Certain
13	Abrasion, right hand	710202.1	Left IP	Possible
14 15	Abrasions, right and left hip (iliac crest)	810202.1 810202.1	Seat belt webbing, lap portion	Certain

Source: medical records.

Driver Kinematics

The belted female driver of the Dodge was seated in an upright posture and was actively negotiating a right curve. She possibly under-steered or lost control due to ice on the road, which allowed the vehicle to cross the centerline and enter the opposing lane. Prior to impact, she was braking and steering hard right. At impact with the other vehicle, the driver was displaced forward in response to the direction of force. The driver's frontal air bag and knee air bag deployed, and her seat belt pretensioner actuated. She was displaced farther forward and loaded the seat belt and frontal air bag, which caused contusions and abrasions to her face, chest, abdomen, and hips. Her head continued forward in a hyper-extensive motion, causing a dissection of the vertebral artery. The driver's feet contacted the floor, and her knees contacted the left IP, causing fractures to the right femur, right tibia, and left tibia, as well as a tear to the left lateral meniscus. Flying glass contacted her scalp causing minor lacerations.

Following the initial impact, the Dodge was displaced in a trajectory rearward and to the right. It initiated a counterclockwise rotation and a left-side-leading yaw in a path to final rest. The driver remained held in her seated position by the pretensioned seat belt. She remained in her seated position during a prolonged extrication effort that lasted 60 minutes. She was transported by helicopter 103 km (64 mi) to a hospital, where she was admitted with a Glasgow Coma Score (GCS) of 15. She was admitted for 11 days and then transferred to an inpatient rehabilitation center for two additional days. The occupant returned for follow-up treatment which remained ongoing for several months.

Second Row Right Occupant Demographics

Age/sex:	4 years/male
Height:	109 cm (43 in)
Weight:	20 kg (44 lb)
Eyewear:	None
Seat type:	Split bench with folding back and adjustable head restraint
Seat track position:	NA
Manual restraint usage:	Forward-facing BSS used in combination with vehicle's lap and shoulder seat belt
Usage source:	Vehicle inspection
Air bags:	Not deployed
Egress from vehicle:	Removed due to perceived serious injury
Transport from scene:	Ambulance to a hospital; transferred to another hospital
Type of medical treatment:	Admitted 11 days

Second Row Right Occupant Injuries

Injury No.	Injury	Injury Severity AIS 2015	Involved Physical Components (IPC)	IPC Confidence Level
1	Injury involving hemorrhages, brain stem	140210.5	Tandem IPC Primary, other seating position seat back; secondary, seat belt webbing, shoulder portion	Probable Possible
2	hemorrhage NFS, tentorium (cerebrum)	140629.3	Tandem IPC Primary, other seating position seat back; secondary, seat belt webbing, shoulder portion	Probable Possible
3	Contusion, cervical spinal cord with epidural hemorrhage and fracture (chip), condylar, C1	610204.3	Tandem IPC Primary, other seating position seat back; secondary, seat belt webbing, shoulder portion	Probable Possible

Injury No.	Injury	Injury Severity AIS 2015	Involved Physical Components (IPC)	IPC Confidence Level
4	Atlanto-axial dislocation	650206.3	Tandem IPC Primary, other seating position seat back; secondary, seat belt webbing, shoulder portion	Probable Possible
5	Contusions, bilateral lungs	441411.3	Seat belt webbing, shoulder portion	Probable
6	Lacerations, spleen (Grade 3)	544224.3	Seat belt webbing, lap portion	Probable
7	Fractures, right ribs, anterior R2-R4	450203.3	Seat belt webbing, shoulder portion	Probable
8	Atlanto-occipital dislocation	650208.3	Tandem IPC Primary, other seating position seat back; secondary, seat belt webbing, shoulder portion	Probable Possible
9	Fracture, displaced, transverse, right proximal humerus	751151.2	Seat belt webbing, shoulder portion	Probable
10	Abrasion, forehead	210202.1	Other seating position seat back	Probable

Source: medical records.

Second Row Right Occupant Kinematics

The belted 4-year-old male occupant was seated in a forward-facing orientation and an upright posture while using a Graco TurboBooster BBS. At impact with the other vehicle, the occupant was displaced forward in response to the direction of force. He loaded the seat belt with his right shoulder, chest, and abdomen, which caused abrasions and contusions extending from the right chest to the left flank, fractures to the right anterior ribs R2-R4, contusions to the bilateral lungs, and lacerations to the spleen. The occupant's torso and lower extremities were held in the seat by the seat belt, but his head and neck continued to be displaced forward, causing multiple hyper-

extension-related injuries to those regions, including hemorrhages to the cerebrum and brain stem, contusion to the cervical spinal cord, and atlanto-axial and atlanto-occipital dislocation. The occupant's forehead possibly contacted his right thigh in a hyper-extensive motion causing a forehead abrasion. His right arm loaded the shoulder portion of the seat belt, causing a displaced fracture to the right humerus.

Following the impact, the Dodge was displaced reward and traveled in a reverse trajectory for a short distance before coming to rest on the roadway. The occupant remained belted in his seated position until the vehicle came to rest. Following the crash, the child was unresponsive. A passerby stopped to help and held the occupant's head and neck immobilized until paramedics arrived approximately 30 minutes later. The occupant was loaded into an ambulance and transported approximately 0.2 km (0.1 mi) to an awaiting helicopter. He was then transported by helicopter to an area hospital, which was located 108.8 km (67.6 mi) from the crash site. The occupant was admitted with a GCS of 10 and a Pediatric Trauma Score (PTS) of seven (out of a maximum score of 12). He was treated overnight and then transferred by ambulance to a pediatric intensive care unit at another hospital. He was admitted to that hospital and released after 11 days. He required follow-up treatment for approximately four months and made a full recovery.

2002 Chevrolet Suburban

Description

The 2002 Chevrolet Suburban was identified by the VIN 3GNFK16Z82Gxxxxxx. The Chevrolet was a medium-duty, light truck equipped with an 8-cylinder, 5.3-liter, flexible fuel engine; a 4-wheel drive; and hydraulic brakes.

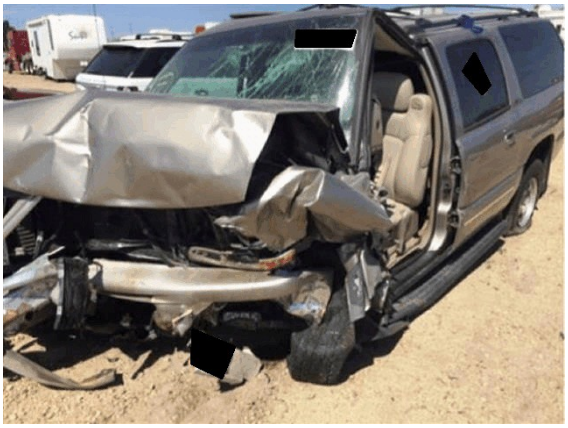


Figure 9. Front plane damage, the 2002 Chevrolet Suburban (insurance photo)

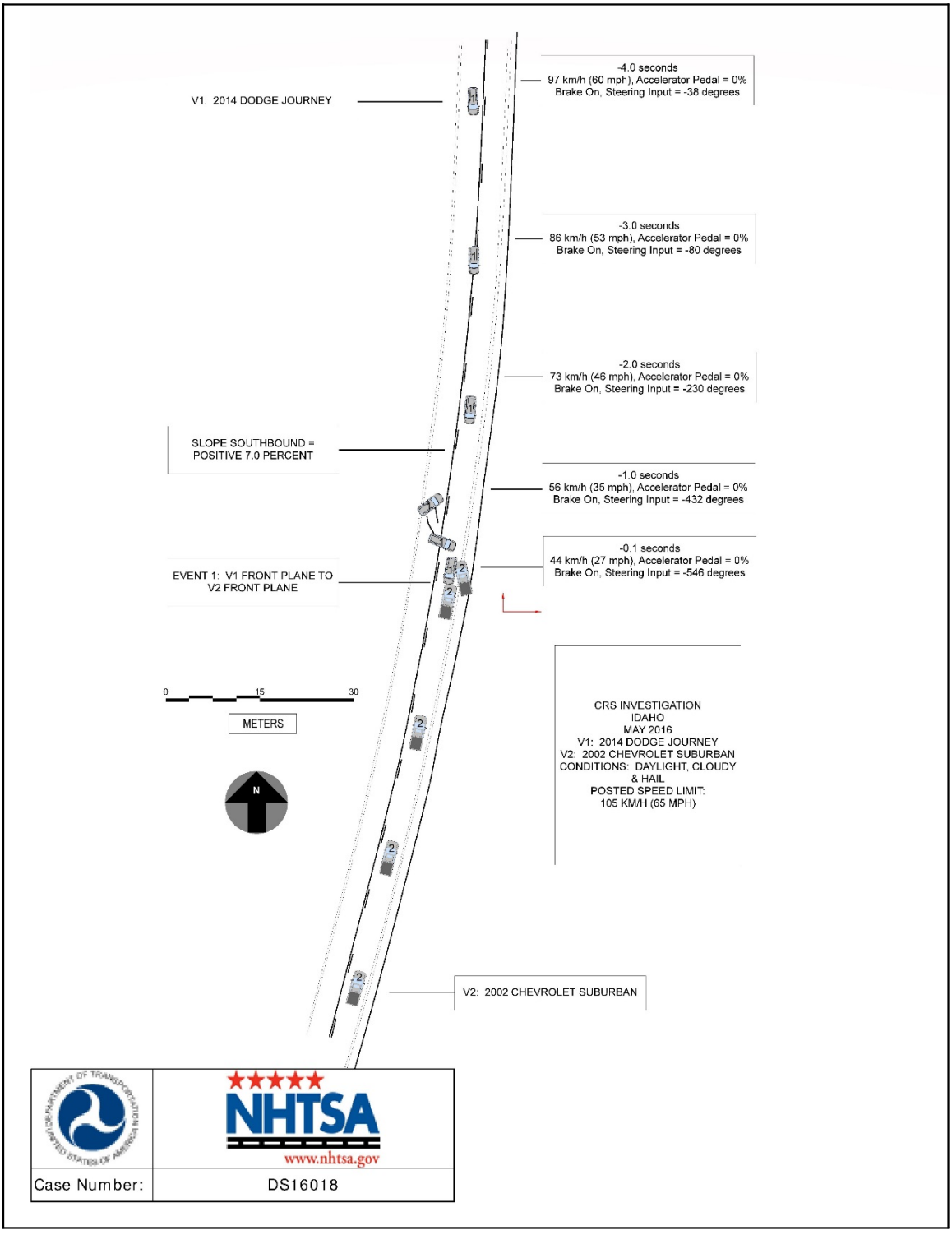
Exterior Damage

On-scene images and insurance images were obtained by SCI and used to conduct a partial exterior vehicle inspection. The Chevrolet sustained crush damage to the front plane during the impact with the Dodge in Event 1 (Figure 9). The front bumper was crushed, and the grille was displaced; the hood, the left front fender, and the right front fender were crumpled. The left front door was removed during post-crash activities. Direct damage on the front plane appeared to be distributed from bumper corner to bumper corner. The estimated CDC for the Chevrolet in Event 1 was 12FDEW4.

Occupant Data

The driver of the Chevrolet was a 62-year-old male. He sustained police-reported incapacitating injuries of an unknown nature and was transported by ambulance to a local hospital. His treatment status was unknown.

Crash Diagram



Appendix A: Event Data Recorder Report for 2014 Dodge Journey[1]

[1] The EDR report contained in this technical report was imaged using the current version of the Bosch CDR software at the time of the vehicle inspection. The CDR report contained in the associated Crash Viewer application may differ relative to this report.

IMPORTANT NOTICE: Robert Bosch LLC and the manufacturers whose vehicles are accessible using the CDR System urge end users to use the latest production release of the Crash Data Retrieval system software when viewing, printing or exporting any retrieved data from within the CDR program. Using the latest version of the CDR software is the best way to ensure that retrieved data has been translated using the most current information provided by the manufacturers of the vehicles supported by this product.

CDR File Information

User Entered VIN	3C4PDCAB8ET******
User	
Case Number	
EDR Data Imaging Date	
Crash Date	
Filename	DS16018_V1_ACM.CDRX
Saved on	
Imaged with CDR version	Crash Data Retrieval Tool 16.6
Reported with CDR version	Crash Data Retrieval Tool 17.9.1
Reported with Software Licensed to (Company Name)	NHTSA
EDR Device Type	Airbag Control Module
Event(s) recovered	Most Recent Event

Comments

No comments entered.

Data Limitations

AIRBAG CONTROL MODULE (ACM) DATA LIMITATIONS:

GENERAL INFORMATION:

CAUTION: During direct-to-module imaging where the Airbag Control Module (ACM) is disconnected and removed from a vehicle, make sure the ACM is not moved, tilted or turned over while connected to and powered by the CDR Interface Module (with appropriate adaptors in place, where required). Also, after a CDR imaging process, wait 2 minutes after power is removed from the ACM before attempting to move the module. Not following these general ACM guidelines for direct-to-module imaging may cause new events to be recorded in the ACM.

- For additional definitions, please refer to the CDR Help File Glossary.
- As the VIN may be used to determine the configuration of the restraint system, it is imperative that the correct VIN be entered into the CDR Tool during the imaging process.
- For Fiat vehicles, the “Read VIN from Vehicle” feature in the CDR Tool will not work. The VIN will have to be manually entered.
- The 2019 MY RAM 1500 may take up to 30 minutes to retrieve the EDR data. The ignition will time out within 20 minutes so the vehicle flashers must be turned on within 20 minutes to keep the ignition and communication bus active.
- Lateral Delta V will not be displayed for the 2013 MY Jeep Compass and Patriot.
- Ignition Cycle, download/crash - For RAMs and Dodge Vipers, there are 2 internal ignition counters in the ACM. It is possible for the ignition cycles at download to be different than the ignition cycles at event due to the 2 different counters.
- The following table provides an explanation of the sign notation for data elements that may be included in this CDR report. All directional references to sign notation are from the perspective of the driver when seated in the vehicle facing the direction of forward vehicle travel.

Data Element Name	**Positive Sign Notation Indicates**
Delta-V, Longitudinal	Forward
Maximum Delta-V, Longitudinal	Forward
Delta-V, Lateral	Left to Right
Maximum Delta-V, Lateral	Left to Right
Angular Rate	Clockwise rotation around the longitudinal axis
Peripheral Sensors, X and Y	Outside to Inside
Pressure Sensors	Compression of air
Internal Y Acceleration	Left to Right
Low-g Z Acceleration	Downward
Steering Input	Steering wheel turned counter clockwise
Yaw Rate	Counter clockwise rotation

CDR FILE INFORMATION:

- An event will be stored when the delta V is approximately 5 mph (8 km/h) or greater within a 150 ms interval.
- For non-NAFTA ACMs that control pedestrian protection devices, a non-deployment event will be stored when the pedestrian protection devices are activated.
- A non-deployment event will be stored with activation of the Active Head Restraints.

Event(s) Recovered definitions:
- None - There are no stored events in the ACM
- Not Retrievable - Event Data may be stored in the ACM but is not retrievable by the CDR Tool.
- Most Recent Event - Data of the most recent event is displayed in the report
- 1st Prior Event - Two events are stored in the ACM, Data displayed is of the first prior event.
- 2nd Prior Event - Three events are stored in the ACM, Data displayed is of the second prior event.
- For 2013 and 2014 MY Dodge Journey and Fiat Freemont:
    - Event Record 1 - Data from an event is stored in the ACM (not necessarily in chronological order)
    - Event Record 2 - Data from another event is stored in the ACM (not necessarily in chronological order)
- For TRW modules:
    - If there is a side impact, two EDR events may be stored for the one side impact event. The second event may be recorded due to the Lateral Delta V exceeding 5 mph (8 km/h) within a 150 ms interval after the side deployment occurred.
- For some Fiat vehicles:
    - Two EDR events may be stored for one impact event. The second event may be recorded due to the deployment of the frontal airbag, 3rd stage passenger.
- During an event, if power to the ACM is lost, all or part of the event data record may not be recorded. An indication may be observed in the recorded data under this condition: The restraint data is recorded first and then the vehicle data.
    - "None" may be displayed in the "Event(s) Recovered" section of the report indicating no pre-crash vehicle data.
    - An event may be displayed in the "Event(s) Recovered" section of the report and "Interrupted" will be displayed for Pre-Crash Recorder Status.

SYSTEM STATUS AT RETRIEVAL:

- Original VIN - The VIN is captured by the ACM and then recorded as the Original VIN after 10 consecutive ignition cycles of capturing the same number. Once it has been recorded, this number cannot be changed.

SYSTEM CONFIGURATION AT RETRIEVAL/EVENT:

- The System Configuration data tables indicate the components that the ACM for a particular vehicle monitors and/or controls.
- Active Head Restraint (AHR) - This refers to some active head restraint systems that are electronically controlled by the ACM. AHRs may activate but not store an EDR Record if the delta V does not exceed the minimum delta V threshold. Activation of only the AHRs, if stored, will be a non-deployment event.

SYSTEM STATUS AT EVENT:

- Number, Total Events - Cumulative number of events that the ACM has recorded, including those non-deployment events that have been overwritten by a subsequent event.
- Occupant Size Classification, Outboard Front Passenger - "Child" status may be used to indicate anything weighing less than a 5th percentile female adult crash dummy, including an empty seat; "Not Child" indicates anything weighing the same as or more than a 5th percentile female adult crash dummy.
- Odometer at Event - Vehicle odometer at the time of the event
- Operation via Energy Reserve Only -"Yes" indicates that the ACM had lost power at or before T0 and was only operating on energy reserve at T0.
- System Voltage at Event, ACM - Voltage at the ACM as measured by the ACM.
- System Voltage at Event, Bussed - Voltage of the vehicle system, communicated on the communication bus to other electronic modules in the vehicle.
- Temperature, Outside - Ambient Air Temperature.
- Time, Airbag Warning Lamp On - This is a cumulative time. It indicates the total amount of time that the ACM has requested the Airbag Warning Lamp be turned on.
    - This time does not include the warning lamp bulb check time, which occurs at every ignition cycle
        - For 2013 MY Minivans and new 2017+ MY Jeep Compass, this time is only cumulative for the past 10 ignition cycles.
- Time from event 1 to 2 -
    - If only one event is stored, either a value of 0 or >5 may be displayed for this data element.
    - For the 2018+ MY Promaster and 2019+ MY RAM 1500, a value of 0 may be displayed for the first event or for events >5 seconds apart.
    - If multiple events exist in the EDR, the time from event 1 to event 2 is defined as:
        - For Bosch and TRW modules, the time from the prior recorded event (even if it has been overwritten) to the current

recorded event.
- For Continental modules, the time from the prior existing recorded event (as long as it is still displayed in the CDR report) to the current recorded event. If the prior event in a multi-event condition is overwritten by a subsequent event, the multi-event status will no longer be displayed.
- For the 2019+ MY RAM 1500, the time from event 1 to 2 may utilize a non-stored event as event 1. In this case, the total number of events and multi-event data elements will not include the non-stored event in the number of events. However, the time from event 1 to 2 will be shown as time from that non-stored event.

- Time, Operation System Time - This is a cumulative lifetime timer for the ACM. It indicates the total amount of time the ACM has been powered up.
- VIN at Event, Last 8 Digits- Last 8 digits of the VIN of the vehicle at the time the ACM records the event.

DEPLOYMENT COMMAND DATA:

- A “Yes” for a particular item indicates that the ACM commanded the deployment /activation of the associated device.
- The phrase "Exceeded Storage Range" for a particular time to deploy indicates that the deployment time is equal to or greater than the 255 milliseconds that can be stored.
- If a device is not deployed, the “time to deploy” for that device will display 0, SNA, N/A or 255.

DTCs PRESENT AT START OF EVENT:

- If any DTCs (diagnostic trouble codes) are present in the ACM at the start of the event, these will be listed in this section. A dealership service manual can be used to decode the DTCs.
  - DTCs Present at Start of Event are not present in the Alfa Romeo Giulia, Fiat 500X, and the Jeep Renegade.

SENSOR DATA:

- The design range for the angular rate data is:
  - +/- 240 deg/sec for Bosch ACMs
  - +/- 300 deg/sec for TRW ACMs, the 2019 MY RAM 1500, and the 2018+ MY Dodge Journey
  - +/- 290 deg/sec for 2008+ MY minivans and 2009-2017 MY Dodge Journey
  - +/- 340 deg/sec for 2017+ MY Chrysler Pacifica and new 2017+ MY Jeep Compass
- For vehicles that store peripheral sensor data, t0 for the peripheral sensors is the same as the t0 for the delta V.
- Internal y acceleration is stored prior to t0 so the internal y acceleration data will usually be zero unless the rollover sensing algorithm has triggered storage of the EDR event.
- The words “Sensor Design Range Exceeded” and a vertical line will be displayed on the Longitudinal and Lateral Delta-V graphs the first time the applicable sensor range is exceeded.

PRE-CRASH DATA:

- The recorded Event may contain Pre-Crash data. Pre-Crash data from the various electronic control modules in the vehicle is transmitted to the Airbag Control Module via the vehicle’s communication bus.
- (if equip.) - If a parameter name is followed by the words (if equip.), then the parameter is only valid for vehicles equipped with the associated parameter/vehicle system.
- The MIL (Malfunction Indicator Lamp) Status for the various recorded systems indicates the requested state of the applicable malfunction indicator lamp at the time that the data was captured. Note: Some fault codes could be stored due to component/system damage from the accident. The appropriate diagnostic tool should be used to read any stored Diagnostic Trouble Codes (DTC’s) in the various electronic modules (ACM, PCM, ABS, TCM, etc., where applicable) for use in interpretation of some vehicle specific recorded data.
- ABS Activity - “Yes” indicates an active ABS event in which the ABS is actively controlling the brakes.
- ABS MIL- This indicates the ABS fault indicator lamp status. It will only be “On” when there is a fault in the ABS system. The Electronic brake module DTC’s should be read and recorded for final system interpretation.
- Accelerator Pedal, % Full - This indicates the actual position of the accelerator pedal. It will be “SNA” if the vehicle is in the power free mode which limits acceleration.
- Accelerator Pedal (Derived), % Full - This indicates the calculated value of the accelerator pedal for battery electric vehicles only.
- Accelerator Pedal/Engine Throttle, % Full - This indicates the actual position of the accelerator pedal unless the cruise control is engaged. If the cruise control is engaged, this indicates the actual position of the engine throttle blade.
- Braking System, Maximum Braking - “Yes” indicates that ABS is active on all 4 wheels.
- Cruise Control:
  - Cruise Control System/Lamp Status -“On” indicates that the Cruise Control system is turned on.
  - Cruise Control Engaged Status/Active - “Engaged”/”Yes” indicates the Cruise Control system is actively controlling vehicle speed. “Not Engaged”/”No” indicates the system is NOT controlling vehicle speed.
  - Adaptive Cruise Control (ACC) Status (if equip.)- “Off” indicates that all cruise control functionality is disabled; “NCC_On” indicates that the Normal Cruise Control system is turned on; “NCC_Set” indicates the Normal Cruise Control is actively controlling vehicle speed; “ACC_On” indicates that ACC is turned on; “ACC_Set” indicates that the ACC is actively controlling vehicle speed. If the value is SNA for all time stamps, then the vehicle is not equipped with ACC.
  - ACC Speed Set (if equip.)- This indicates the desired speed in mph that was input by the driver for the ACC system. If the value is SNA for all time stamps, then the vehicle is not equipped with ACC.

- Drive Mode - This indicates the driver selected mode of operation (e.g. normal, sport, track, …)
- Electronic Brake/Stability Control information:
    - Stability Control - This is the status of the ESC symbol - “car with squiggly lines” indicator lamp. “On” indicates that the ESC system is functional. “Off” indicates that the ESC system was turned off either by the driver or due to a fault or thermal mode shutdown. “Engaged” indicates an active ESC/TCS event. “Partial Off” indicates that engine management has been turned off but traction control is still functional.
        - For the Jeep Renegade, if the Stability Control is “Off”, the ESC Button Status is “Disabled”, and the vehicle speed exceeds 40 mph, the stability control system will operate in a reduced functionality mode with traction control turned off (“partial off” mode) even though the user disabled it. For all other conditions, when the Stability Control is “Off”, the stability control system will be off.
    - ESC Button Status - This indicates the driver selected mode for the ESC system. “Disabled” indicates that the driver pressed the ESC Button for 5 seconds to disable the ESC System. “Enabled” indicates that the ESC button has not been pressed for 5 seconds and thus the ESC System is enabled.
    - ESC/ESP MIL - This indicates the ESC/ESP fault indication lamp status. It will only be “On” when there is a fault or thermal mode shutdown in the ESC/ESP system. The ESC/ESP module DTC’s should be read and recorded for final system interpretation.
    - Brake Intervention by ESP - “Yes” indicates that the stability control system has engaged the brakes.
    - Engine Torque Applied - “No” indicates no engine torque output was applied (as in Park/Neutral for Automatic transmissions or clutch depressed on manual or during an ESP/Traction Control event). If “Yes”, then engine torque output was applied.
    - Traction Control Active - “Yes” indicates that the traction control system is actively controlling the vehicle’s wheels.
- Electronic Park Brake (EPB):
    - Park Brake Engaged - “Yes” indicates that the park brake is applied.
    - EPB MIL - “On” indicates that there is a fault in the Electronic Park Brake System.
- Engine Throttle, % Full - This indicates the actual position of the Engine Throttle blade. This data element is not supported by vehicles with diesel engines. Thus a value of “SNA” will be displayed if the vehicle has a diesel engine.
- ETC Lamp - Lamp “ON “indicates there is an active Electronic Throttle DTC.
- ETC Lamp Flashing - “Yes” indicates that the ETC is in the limp-in mode.
- Forward Collision Warning (FCW) (if equip.):
    - Object of Interest Distance - This indicates the actual forward distance to the main object being tracked by the FCW system. “FCW present but not tracking” indicates that the FCW system is not currently tracking an object. If the value is SNA for all time stamps, then the vehicle is not equipped with FCW.
    - FCW System Status - “Off” indicates that the FCW system is off and the FCW Warning Lamp will be “On”. “On-braking” indicates that the FCW system is on with active braking enabled but there will no FCW audible or visual warnings in an FCW event. “On-warning” indicates that the FCW system is on but active braking is disabled. In an FCW event, the driver will only receive FCW audible and visual warnings. “On-full” indicates that the FCW system is fully on with active braking as well as the audible and visual warnings enabled. SNA indicates that the vehicle is not equipped with FCW.
- Gear Position - This indicates the current transmission gear.
- Master Cylinder Pressure - This indicates the brake pressure applied to the brakes by the driver.
- PCM MIL - This indicates the PCM fault indicator lamp status. It will only be “On” when there is a fault in the PCM. The Powertrain Control Module DTC’s should be read and recorded for final system interpretation.
- Pre-Crash Recorder Complete - Due to the interruption of data recording in one section, this data element may display “Interrupted” for all sections when some data sections are actually complete.
    - For the 2014 MY Jeep Grand Cherokee and Dodge Durango, if recording of angular rate data is interrupted, the entire EDR record will display “Interrupted” even though the rest of the data may be complete.
- PRND/PRNDL/PRNDS Status - This indicates the status of the Shifter Position.
- Raw Manifold Pressure - This indicates engine load in kPa.
- Reverse Gear - For manual transmission vehicles only, “Yes” indicates the transmission is in the reverse gear.
- Service Brake - “On” indicates that the brake pedal is depressed.
- Speed, Vehicle Indicated - This indicates the average of the drive wheels. The accuracy of the recorded Speed, Vehicle Indicated will be affected if the vehicle had the tire size or the final drive axle ratio changed from the factory build specifications. On some vehicles capable of speeds in excess of 255km/h (about 158mph), the actual vehicle speed may have exceeded the reporting range. It is always prudent to check the reported wheel speeds and other parameters to confirm the Speed, Vehicle Indicated value(s).
- Tire Information:
    - XX where LF = Left Front Tire, RF = Right Front Tire, LR = Left Rear Tire, and RR = Right Rear Tire.
    - Tire X Location - This indicates the location of the tire pressure sensor data being displayed for that time stamp. Default is used to indicate that the location of the tire pressure sensor is unknown or there is no tire pressure sensor in that wheel. Vehicles with Base Tire Pressure Monitoring systems will display SNA for both Tire Locations as these vehicles do not send actual pressure values across the communication bus.
    - Tire X Pressure/Tire Pressure Status, XX -This indicates the actual pressure status of the Tire Location defined in the previous column (Tire X Location) or by the values for XX. Possible values are LOW, NORMAL, HIGH, or SNA for this parameter. Vehicles with Base Tire Pressure Monitoring systems may display NORMAL even though these vehicles do not send actual pressure values across the communication bus.
    - Tire X Pressure/Tire Pressure Value, XX (psi) - This indicates the actual tire pressure value of the Tire Location defined in the previous column (Tire X Location) or by the values for XX. Vehicles with Base Tire Pressure Monitoring systems will display N/A for this parameter as these vehicles do not send actual pressure values across the communication bus.
        - For the following vehicles, the tire location, if displayed, may not be accurate if the tires have been rotated:
            - 2013 MY Ram
            - 2013-2017 MY Jeep Patriot
            - 2013-2014 MY Chrysler 200

- 2013-2017 MY Jeep Compass
- 2013-2016 MY Dodge Dart
- For the 2013 MY Ram, if the values for tire pressure status and the tire pressure are SNA, the EDR does not store tire pressure monitoring data.

- Tire pressure is not stored in the EDR for the following vehicles:
  - 2014-2018 MY RAM 1500
  - 2014+ MY RAM (all but 1500)
  - 2013+ MY Jeep Wrangler
  - 2013 MY Jeep Grand Cherokee
  - 2013 MY Dodge Durango
  - 2013-2014 MY Dodge Challenger
  - 2013-2016 MY Chrysler Town and Country
  - 2013+ MY Dodge Grand Caravan
  - 2015+ MY Fiat 500

- Wheel Speed, XX - This indicates the speed value (in revolutions per minute) of a particular tire as denoted by XX.

- Tire Pressure Monitor Indicator Lamp/Faults - “On” indicates a fault in the tire pressure monitoring system. The TPM module DTC’s should be read and recorded for final system interpretation.
- "T0" ("Time zero" where ‘0’ is seen as subscript) is defined as "beginning of the crash event". T0 is the time at which the ACM algorithm is activated, a specific Delta-V is exceeded, or a non-reversible restraint device is deployed. T0 may be defined differently for front, side, rear and roll-over events.
  - If multiple algorithm decisions (i.e.: frontal, side, rear and/or rollover) are made before the first recorded event ends, all of those events are part of the same event record and "T0" is defined as the "T0" from the first recorded event.
  - In the Pre-Crash data tables, the relative time marker "-0.1s" or “-0.25s” respectively represents the last set of data captured in the buffer prior to "T0."
- Torque Information:
  - Axle Torque - This indicates the E-Motor Torque multiplied by the gear ratio for battery electric vehicles only.
  - E-Motor Torque - This indicates the calculated torque from the output shaft of the electric motor in battery electric vehicles only.
- Traction Control Intervention Active - “Active” indicates wheel slippage was occurring during vehicle acceleration.

APPLICATION INFORMATION:

- Jeep Renegade and Alfa Romeo Giulia are only CDR supported in the NAFTA market.

03002_Chrysler_ r036

System Status at Retrieval

Original VIN	3C4PDCAB8ET******
Ignition Cycle, Download	4229
Airbag Control Module Serial Number	T02JF1833280BW
Airbag Control Module Part Number	68163807AB
Airbag Control Module Supplier	Continental Corporation
ACM Supply Voltage at Time of Retrieval	11.8

System Configuration at Retrieval

Configured for Driver Frontal Airbag	Yes
Configured for Driver Knee Airbag	Yes
Configured for Driver Buckle Pretensioner	Yes
Configured for Driver Retractor Pretensioner	Yes
Configured for Driver Active Head Restraints	Yes
Configured for Passenger Frontal Airbag	Yes
Configured for Passenger Buckle Pretensioner	Yes
Configured for Passenger Retractor Pretensioner	Yes
Configured for Passenger Active Head Restraints	Yes
Configured for Right Side Seat Airbag	Yes
Configured for Right Side Curtain Airbag	Yes
Configured for Left Side Seat Airbag	Yes
Configured for Left Side Curtain Airbag	Yes
Configured for Driver Seat Track Position Sensor	Yes
Configured for Passenger Seat Seatbelt Switch	Yes
Configured for Passenger Seat Track Position Sensor	Yes
Configured for Pedestrian Protection Hood Actuators	No
Configured for Up Front Sensors	Yes
Configured for Side Sensing	Yes

System Status at Event (Most Recent Event)

Complete File Recorded	No
Ignition Cycle, Crash	4228
Safety Belt Status, Driver	Buckled
Safety Belt Status, Passenger	Not Buckled
Airbag Warning Lamp, On/Off	Off
Seat Track Position Switch, Foremost, Status, Driver	No
Seat Track Position Switch, Foremost, Status, Passenger	No
Maximum Delta-V Longitudinal (MPH [km/h])	-55.2 [-89]
Time, Maximum Delta-V, Longitudinal (msec)	160
Maximum Delta-V Lateral (MPH [km/h])	5.9 [10]
Time, Maximum Delta-V, Lateral (msec)	46
Time, Operation System Time (sec)	6074618.9
Time, Airbag Warning Lamp On (min)	0
Event Number	1
Total Number of Events	1
Time from Event 1 to 2 (sec)	0.0
Multi-Event, Number of Events (1,2)	1
Operation Via Energy Reserve Only (Yes, No)	Yes
Supply Voltage at Event, ACM (V)	14.7
Event Signal Transmission, Complete (if equip.)	Yes
Odometer at Event (km)	118928.6
VIN, Original	3C4PDCAB8ET******
VIN at event, Last 8 Digits	ET******

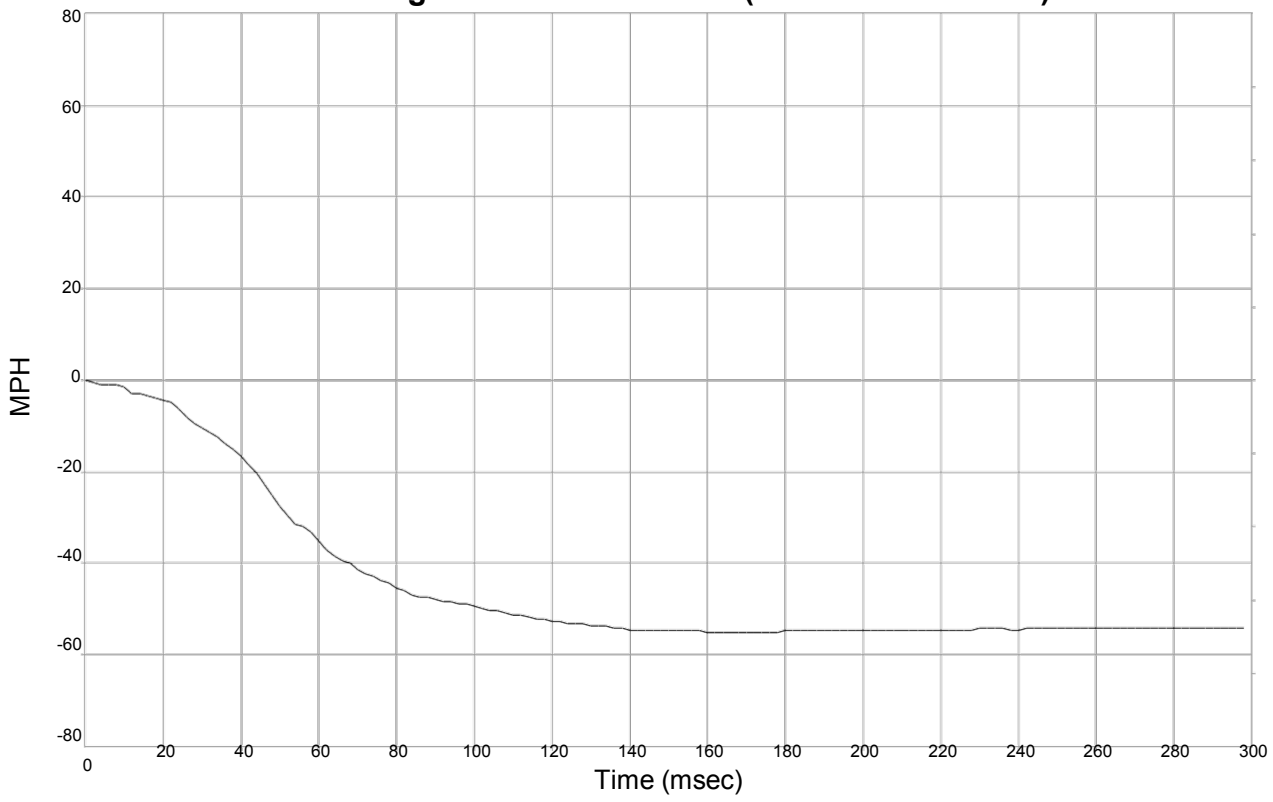
Deployment Command Data (Most Recent Event)

Frontal Airbag Deployment, 1st Stage, Driver	Yes
Frontal Airbag Deployment, 2nd Stage, Driver	Yes
Frontal Airbag Deployment, Time to First Stage Deployment, Driver (msec)	12
Frontal Airbag Deployment, Time to 2nd Stage Deployment from T0, Driver (msec)	3
Frontal Airbag Deployment, 1st Stage, Passenger	Yes
Frontal Airbag Deployment, 2nd Stage, Passenger	Yes
Frontal Airbag Deployment, Time to First Stage Deployment, Passenger (msec)	12
Frontal Airbag Deployment, Time to 2nd Stage Deployment from T0, Passenger (msec)	20
Knee Airbag Deployment, Driver	Yes
Buckle Pretensioner, Driver	No
Retractor Pretensioner, Driver	Yes
Frontal Airbag Deployment, Passenger 3rd Squib	Yes
Buckle Pretensioner, Passenger	Yes
Retractor Pretensioner, Passenger	Yes
Side Seat Airbag Deployment, Left	No
Side Seat Airbag Deployment, Right	No
Side Curtain Airbag Deployment, Left	No
Side Curtain Airbag Deployment, Right	No
Active Head Restraint, Driver	No
Active Head Restraint, Passenger	No

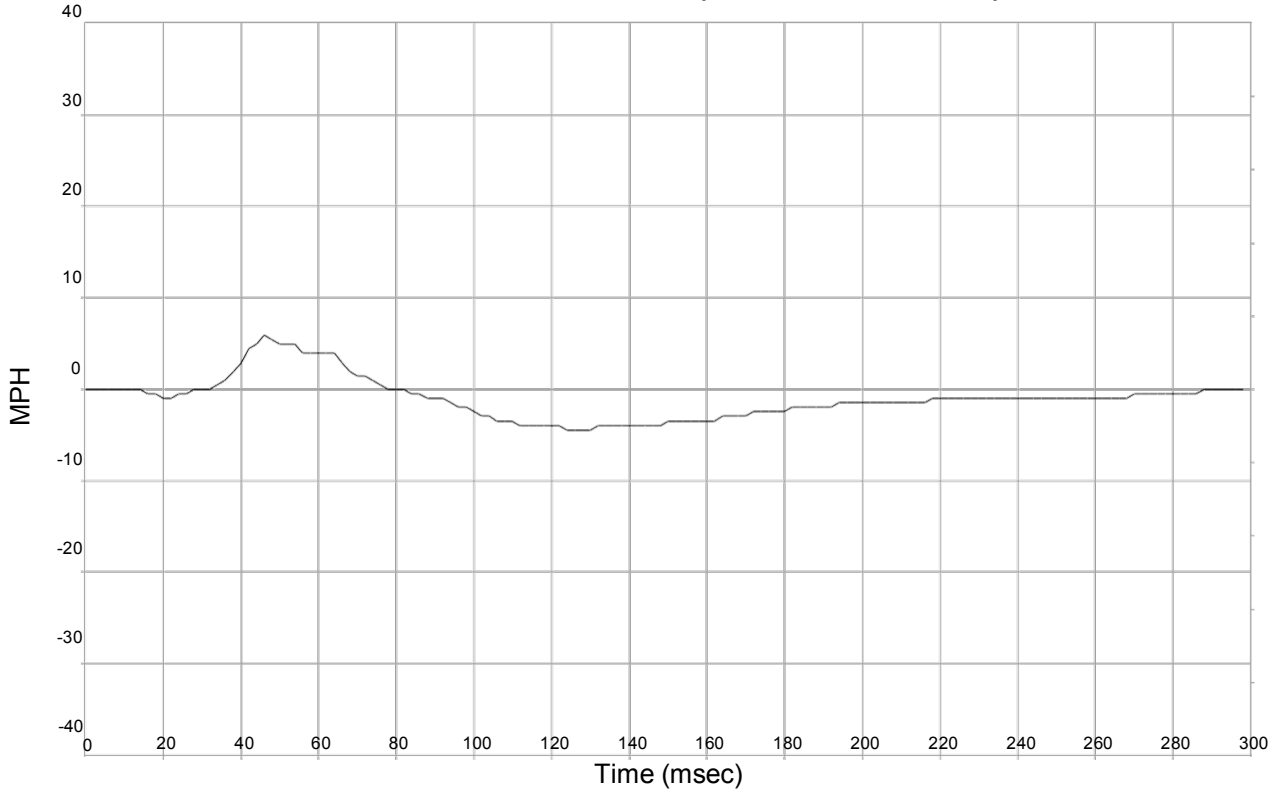
DTCs Present at Start of Event (Most Recent Event)

No DTCs Present

Longitudinal Crash Pulse (Most Recent Event)



Lateral Crash Pulse (Most Recent Event)



Longitudinal Crash Pulse (Most Recent Event)

Time (msec)	Delta-V, Longitudinal (MPH [km/h])	Time (msec)	Delta-V, Longitudinal (MPH [km/h])	Time (msec)	Delta-V, Longitudinal (MPH [km/h])
0	0.0 [0]	100	-49.3 [-79]	200	-54.7 [-88]
2	-0.5 [-1]	102	-49.8 [-80]	202	-54.7 [-88]
4	-1.0 [-2]	104	-50.2 [-81]	204	-54.7 [-88]
6	-1.0 [-2]	106	-50.2 [-81]	206	-54.7 [-88]
8	-1.0 [-2]	108	-50.7 [-82]	208	-54.7 [-88]
10	-1.5 [-2]	110	-51.2 [-82]	210	-54.7 [-88]
12	-3.0 [-5]	112	-51.2 [-82]	212	-54.7 [-88]
14	-3.0 [-5]	114	-51.7 [-83]	214	-54.7 [-88]
16	-3.4 [-6]	116	-52.2 [-84]	216	-54.7 [-88]
18	-3.9 [-6]	118	-52.2 [-84]	218	-54.7 [-88]
20	-4.4 [-7]	120	-52.7 [-85]	220	-54.7 [-88]
22	-4.9 [-8]	122	-52.7 [-85]	222	-54.7 [-88]
24	-6.4 [-10]	124	-53.2 [-86]	224	-54.7 [-88]
26	-7.9 [-13]	126	-53.2 [-86]	226	-54.7 [-88]
28	-9.4 [-15]	128	-53.2 [-86]	228	-54.7 [-88]
30	-10.3 [-17]	130	-53.7 [-86]	230	-54.2 [-87]
32	-11.3 [-18]	132	-53.7 [-86]	232	-54.2 [-87]
34	-12.3 [-20]	134	-53.7 [-86]	234	-54.2 [-87]
36	-13.8 [-22]	136	-54.2 [-87]	236	-54.2 [-87]
38	-15.3 [-25]	138	-54.2 [-87]	238	-54.7 [-88]
40	-16.7 [-27]	140	-54.7 [-88]	240	-54.7 [-88]
42	-18.7 [-30]	142	-54.7 [-88]	242	-54.2 [-87]
44	-20.2 [-33]	144	-54.7 [-88]	244	-54.2 [-87]
46	-22.7 [-36]	146	-54.7 [-88]	246	-54.2 [-87]
48	-25.1 [-40]	148	-54.7 [-88]	248	-54.2 [-87]
50	-27.6 [-44]	150	-54.7 [-88]	250	-54.2 [-87]
52	-29.6 [-48]	152	-54.7 [-88]	252	-54.2 [-87]
54	-31.5 [-51]	154	-54.7 [-88]	254	-54.2 [-87]
56	-32.0 [-52]	156	-54.7 [-88]	256	-54.2 [-87]
58	-33.0 [-53]	158	-54.7 [-88]	258	-54.2 [-87]
60	-35.0 [-56]	160	-55.2 [-89]	260	-54.2 [-87]
62	-36.9 [-59]	162	-55.2 [-89]	262	-54.2 [-87]
64	-38.4 [-62]	164	-55.2 [-89]	264	-54.2 [-87]
66	-39.4 [-63]	166	-55.2 [-89]	266	-54.2 [-87]
68	-39.9 [-64]	168	-55.2 [-89]	268	-54.2 [-87]
70	-41.4 [-67]	170	-55.2 [-89]	270	-54.2 [-87]
72	-42.4 [-68]	172	-55.2 [-89]	272	-54.2 [-87]
74	-42.9 [-69]	174	-55.2 [-89]	274	-54.2 [-87]
76	-43.8 [-71]	176	-55.2 [-89]	276	-54.2 [-87]
78	-44.3 [-71]	178	-55.2 [-89]	278	-54.2 [-87]
80	-45.3 [-73]	180	-54.7 [-88]	280	-54.2 [-87]
82	-45.8 [-74]	182	-54.7 [-88]	282	-54.2 [-87]
84	-46.8 [-75]	184	-54.7 [-88]	284	-54.2 [-87]
86	-47.3 [-76]	186	-54.7 [-88]	286	-54.2 [-87]
88	-47.3 [-76]	188	-54.7 [-88]	288	-54.2 [-87]
90	-47.8 [-77]	190	-54.7 [-88]	290	-54.2 [-87]
92	-48.3 [-78]	192	-54.7 [-88]	292	-54.2 [-87]
94	-48.3 [-78]	194	-54.7 [-88]	294	-54.2 [-87]
96	-48.8 [-78]	196	-54.7 [-88]	296	-54.2 [-87]
98	-48.8 [-78]	198	-54.7 [-88]	298	-54.2 [-87]

Lateral Crash Pulse (Most Recent Event)

Time (msec)	Delta-V, Lateral (MPH [km/h])
0	0.0 [0]
2	0.0 [0]
4	0.0 [0]
6	0.0 [0]
8	0.0 [0]
10	0.0 [0]
12	0.0 [0]
14	0.0 [0]
16	-0.5 [-1]
18	-0.5 [-1]
20	-1.0 [-2]
22	-1.0 [-2]
24	-0.5 [-1]
26	-0.5 [-1]
28	0.0 [0]
30	0.0 [0]
32	0.0 [0]
34	0.5 [1]
36	1.0 [2]
38	2.0 [3]
40	3.0 [5]
42	4.4 [7]
44	4.9 [8]
46	5.9 [10]
48	5.4 [9]
50	4.9 [8]
52	4.9 [8]
54	4.9 [8]
56	3.9 [6]
58	3.9 [6]
60	3.9 [6]
62	3.9 [6]
64	3.9 [6]
66	3.0 [5]
68	2.0 [3]
70	1.5 [2]
72	1.5 [2]
74	1.0 [2]
76	0.5 [1]
78	0.0 [0]
80	0.0 [0]
82	0.0 [0]
84	-0.5 [-1]
86	-0.5 [-1]
88	-1.0 [-2]
90	-1.0 [-2]
92	-1.0 [-2]
94	-1.5 [-2]
96	-2.0 [-3]
98	-2.0 [-3]

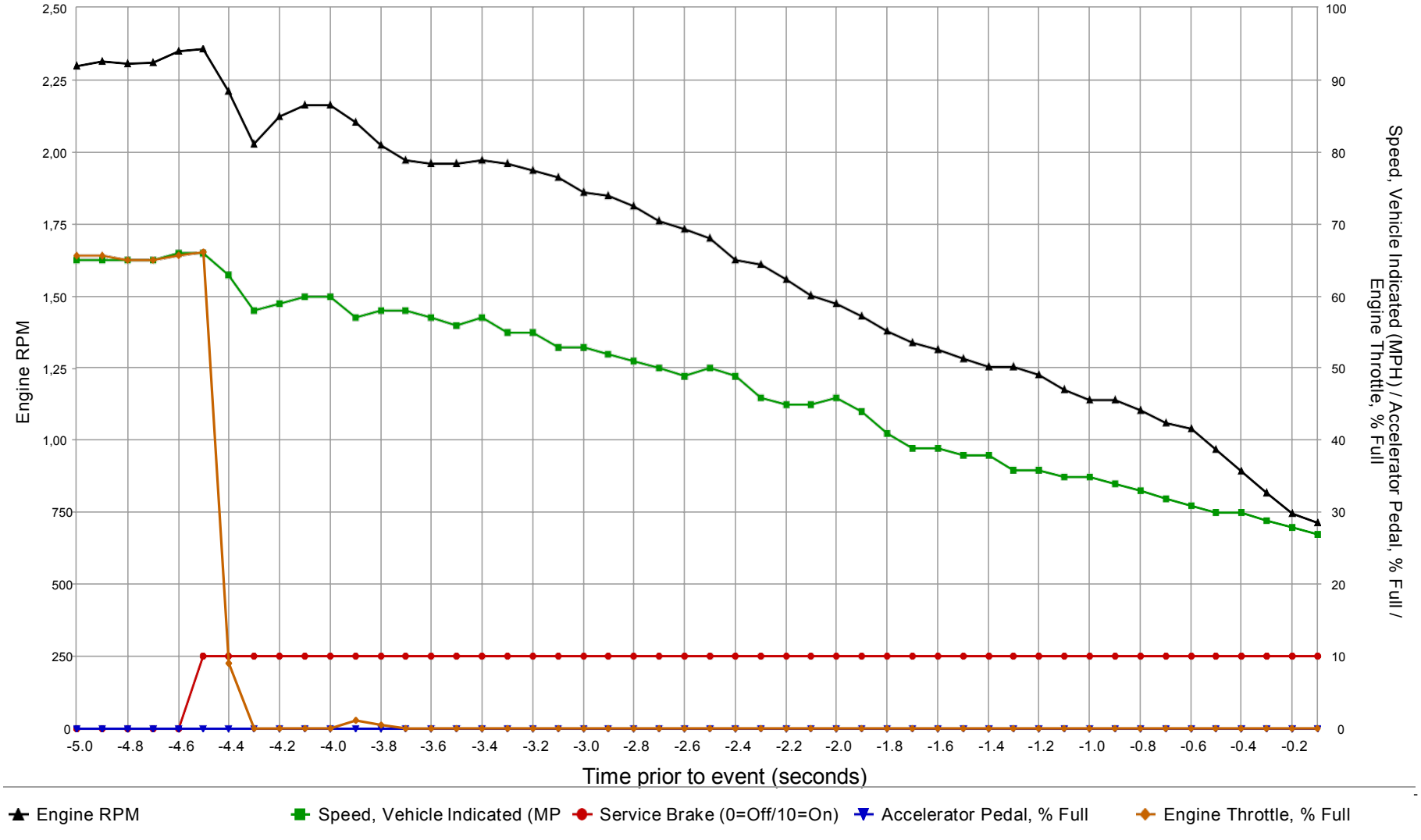
Time (msec)	Delta-V, Lateral (MPH [km/h])
100	-2.5 [-4]
102	-3.0 [-5]
104	-3.0 [-5]
106	-3.4 [-6]
108	-3.4 [-6]
110	-3.4 [-6]
112	-3.9 [-6]
114	-3.9 [-6]
116	-3.9 [-6]
118	-3.9 [-6]
120	-3.9 [-6]
122	-3.9 [-6]
124	-4.4 [-7]
126	-4.4 [-7]
128	-4.4 [-7]
130	-4.4 [-7]
132	-3.9 [-6]
134	-3.9 [-6]
136	-3.9 [-6]
138	-3.9 [-6]
140	-3.9 [-6]
142	-3.9 [-6]
144	-3.9 [-6]
146	-3.9 [-6]
148	-3.9 [-6]
150	-3.4 [-6]
152	-3.4 [-6]
154	-3.4 [-6]
156	-3.4 [-6]
158	-3.4 [-6]
160	-3.4 [-6]
162	-3.4 [-6]
164	-3.0 [-5]
166	-3.0 [-5]
168	-3.0 [-5]
170	-3.0 [-5]
172	-2.5 [-4]
174	-2.5 [-4]
176	-2.5 [-4]
178	-2.5 [-4]
180	-2.5 [-4]
182	-2.0 [-3]
184	-2.0 [-3]
186	-2.0 [-3]
188	-2.0 [-3]
190	-2.0 [-3]
192	-2.0 [-3]
194	-1.5 [-2]
196	-1.5 [-2]
198	-1.5 [-2]

Time (msec)	Delta-V, Lateral (MPH [km/h])
200	-1.5 [-2]
202	-1.5 [-2]
204	-1.5 [-2]
206	-1.5 [-2]
208	-1.5 [-2]
210	-1.5 [-2]
212	-1.5 [-2]
214	-1.5 [-2]
216	-1.5 [-2]
218	-1.0 [-2]
220	-1.0 [-2]
222	-1.0 [-2]
224	-1.0 [-2]
226	-1.0 [-2]
228	-1.0 [-2]
230	-1.0 [-2]
232	-1.0 [-2]
234	-1.0 [-2]
236	-1.0 [-2]
238	-1.0 [-2]
240	-1.0 [-2]
242	-1.0 [-2]
244	-1.0 [-2]
246	-1.0 [-2]
248	-1.0 [-2]
250	-1.0 [-2]
252	-1.0 [-2]
254	-1.0 [-2]
256	-1.0 [-2]
258	-1.0 [-2]
260	-1.0 [-2]
262	-1.0 [-2]
264	-1.0 [-2]
266	-1.0 [-2]
268	-1.0 [-2]
270	-0.5 [-1]
272	-0.5 [-1]
274	-0.5 [-1]
276	-0.5 [-1]
278	-0.5 [-1]
280	-0.5 [-1]
282	-0.5 [-1]
284	-0.5 [-1]
286	-0.5 [-1]
288	0.0 [0]
290	0.0 [0]
292	0.0 [0]
294	0.0 [0]
296	0.0 [0]
298	0.0 [0]

Rollover Crash Pulse (Most Recent Event) (if equipped)

Contains No Recorded data

Pre-Crash Data (Most Recent Event)



SNA values will not be plotted on the graph

Pre-Crash Data (Most Recent Event - table 1 of 4)

(the most recent sampled values are recorded prior to the event)

Time Stamp (sec)	Pre-Crash Recorder Status	Speed, Vehicle Indicated (MPH [km/h])	Accelerator Pedal, % Full	Engine Throttle, % Full	Service Brake (On, Off)	Engine RPM	ABS Activity	Stability Control
-5.0	Interrupted	65 [105]	0	66	Off	2,297	No	On
-4.9	Interrupted	65 [105]	0	66	Off	2,312	No	On
-4.8	Interrupted	65 [104]	0	65	Off	2,305	No	On
-4.7	Interrupted	65 [104]	0	65	Off	2,308	No	On
-4.6	Interrupted	66 [106]	0	66	Off	2,350	No	On
-4.5	Interrupted	66 [107]	0	66	On	2,357	No	On
-4.4	Interrupted	63 [102]	0	9	On	2,211	No	On
-4.3	Interrupted	58 [93]	0	0	On	2,027	Yes	On
-4.2	Interrupted	59 [95]	0	0	On	2,123	Yes	On
-4.1	Interrupted	60 [96]	0	0	On	2,162	Yes	On
-4.0	Interrupted	60 [97]	0	0	On	2,164	Yes	On
-3.9	Interrupted	57 [92]	0	1	On	2,103	Yes	On
-3.8	Interrupted	58 [94]	0	1	On	2,022	Yes	On
-3.7	Interrupted	58 [94]	0	0	On	1,971	Yes	On
-3.6	Interrupted	57 [92]	0	0	On	1,958	Yes	On
-3.5	Interrupted	56 [91]	0	0	On	1,959	Yes	On
-3.4	Interrupted	57 [91]	0	0	On	1,972	Yes	On
-3.3	Interrupted	55 [89]	0	0	On	1,961	Yes	On
-3.2	Interrupted	55 [88]	0	0	On	1,936	Yes	On
-3.1	Interrupted	53 [85]	0	0	On	1,912	Yes	On
-3.0	Interrupted	53 [86]	0	0	On	1,860	Yes	On
-2.9	Interrupted	52 [84]	0	0	On	1,849	Yes	On
-2.8	Interrupted	51 [82]	0	0	On	1,814	Yes	On
-2.7	Interrupted	50 [81]	0	0	On	1,762	Yes	On
-2.6	Interrupted	49 [79]	0	0	On	1,734	Yes	On
-2.5	Interrupted	50 [80]	0	0	On	1,702	Yes	On
-2.4	Interrupted	49 [79]	0	0	On	1,625	Yes	On
-2.3	Interrupted	46 [74]	0	0	On	1,608	Yes	On
-2.2	Interrupted	45 [73]	0	0	On	1,557	Yes	On
-2.1	Interrupted	45 [73]	0	0	On	1,503	Yes	On
-2.0	Interrupted	46 [73]	0	0	On	1,476	Yes	On
-1.9	Interrupted	44 [71]	0	0	On	1,432	Yes	On
-1.8	Interrupted	41 [65]	0	0	On	1,381	Yes	On
-1.7	Interrupted	39 [63]	0	0	On	1,340	Yes	On
-1.6	Interrupted	39 [62]	0	0	On	1,316	Yes	On
-1.5	Interrupted	38 [61]	0	0	On	1,283	Yes	On
-1.4	Interrupted	38 [60]	0	0	On	1,257	Yes	On
-1.3	Interrupted	36 [58]	0	0	On	1,256	Yes	On
-1.2	Interrupted	36 [58]	0	0	On	1,229	Yes	On
-1.1	Interrupted	35 [57]	0	0	On	1,177	Yes	On
-1.0	Interrupted	35 [56]	0	0	On	1,142	Yes	On
-0.9	Interrupted	34 [55]	0	0	On	1,142	Yes	On
-0.8	Interrupted	33 [53]	0	0	On	1,104	Yes	On
-0.7	Interrupted	32 [51]	0	0	On	1,061	Yes	On
-0.6	Interrupted	31 [50]	0	0	On	1,043	Yes	On
-0.5	Interrupted	30 [49]	0	0	On	971	Yes	On
-0.4	Interrupted	30 [48]	0	0	On	896	Yes	On
-0.3	Interrupted	29 [46]	0	0	On	818	Yes	On
-0.2	Interrupted	28 [45]	0	0	On	749	Yes	On
-0.1	Interrupted	27 [44]	0	0	On	715	Yes	On

Pre-Crash Data (Most Recent Event - table 2 of 4)

(the most recent sampled values are recorded prior to the event)

Time Stamp (sec)	Steering Input (deg)	Raw Manifold Pressure (kPa)	PCM MIL	ESC Lamp (if equip.)	Yaw Rate (deg/sec) (if equip.)	Wheel Speed LF (RPM) (if equip.)	Wheel Speed RF (RPM) (if equip.)	Wheel Speed LR (RPM) (if equip.)	Wheel Speed RR (RPM) (if equip.)
-5.0	-21	87	Off	Off	-2	782	798	768	766
-4.9	-22	87	Off	Off	-1	790	775	766	763
-4.8	-23	87	Off	Off	SNA	SNA	SNA	SNA	SNA
-4.7	-24	87	Off	Off	SNA	SNA	SNA	SNA	SNA
-4.6	-26	87	Off	Off	SNA	SNA	SNA	SNA	SNA
-4.5	-27	86	Off	Off	SNA	SNA	SNA	SNA	SNA
-4.4	-29	66	Off	Off	SNA	SNA	SNA	SNA	SNA
-4.3	-32	48	Off	Off	SNA	SNA	SNA	SNA	SNA
-4.2	-35	34	Off	Off	SNA	SNA	SNA	SNA	SNA
-4.1	-36	27	Off	Off	SNA	SNA	SNA	SNA	SNA
-4.0	-38	24	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.9	-44	23	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.8	-50	23	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.7	-46	23	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.6	-49	23	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.5	-54	23	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.4	-56	22	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.3	-62	22	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.2	-68	22	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.1	-74	22	Off	Off	SNA	SNA	SNA	SNA	SNA
-3.0	-80	22	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.9	-84	21	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.8	-96	21	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.7	-113	21	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.6	-137	20	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.5	-159	20	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.4	-166	20	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.3	-178	20	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.2	-192	19	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.1	-219	19	Off	Off	SNA	SNA	SNA	SNA	SNA
-2.0	-230	19	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.9	-243	19	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.8	-254	19	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.7	-261	20	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.6	-275	20	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.5	-306	20	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.4	-319	21	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.3	-319	22	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.2	-354	22	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.1	-396	22	Off	Off	SNA	SNA	SNA	SNA	SNA
-1.0	-432	23	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.9	-499	25	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.8	-551	25	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.7	-527	25	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.6	-552	25	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.5	-551	26	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.4	-552	26	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.3	-551	26	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.2	-550	30	Off	Off	SNA	SNA	SNA	SNA	SNA
-0.1	-546	33	Off	Off	SNA	SNA	SNA	SNA	SNA

Pre-Crash Data (Most Recent Event - table 3 of 4)

(the most recent sampled values are recorded prior to the event)

Time Stamp (sec)	ETC Lamp (if equip.)	ETC Lamp Flashing (if equip.)	Engine Torque Applied	PRNDL Status (if equip.)	Reverse Gear (Manual Only)
-5.0	Off	No	Yes	Drive	No
-4.9	Off	No	Yes	Drive	No
-4.8	Off	No	Yes	Drive	No
-4.7	Off	No	Yes	Drive	No
-4.6	Off	No	Yes	Drive	No
-4.5	Off	No	Yes	Drive	No
-4.4	Off	No	Yes	Drive	No
-4.3	Off	No	Yes	Drive	No
-4.2	Off	No	Yes	Drive	No
-4.1	Off	No	Yes	Drive	No
-4.0	Off	No	Yes	Drive	No
-3.9	Off	No	Yes	Drive	No
-3.8	Off	No	Yes	Drive	No
-3.7	Off	No	Yes	Drive	No
-3.6	Off	No	Yes	Drive	No
-3.5	Off	No	Yes	Drive	No
-3.4	Off	No	Yes	Drive	No
-3.3	Off	No	Yes	Drive	No
-3.2	Off	No	Yes	Drive	No
-3.1	Off	No	Yes	Drive	No
-3.0	Off	No	Yes	Drive	No
-2.9	Off	No	Yes	Drive	No
-2.8	Off	No	Yes	Drive	No
-2.7	Off	No	Yes	Drive	No
-2.6	Off	No	Yes	Drive	No
-2.5	Off	No	Yes	Drive	No
-2.4	Off	No	Yes	Drive	No
-2.3	Off	No	Yes	Drive	No
-2.2	Off	No	Yes	Drive	No
-2.1	Off	No	Yes	Drive	No
-2.0	Off	No	Yes	Drive	No
-1.9	Off	No	Yes	Drive	No
-1.8	Off	No	Yes	Drive	No
-1.7	Off	No	Yes	Drive	No
-1.6	Off	No	Yes	Drive	No
-1.5	Off	No	Yes	Drive	No
-1.4	Off	No	Yes	Drive	No
-1.3	Off	No	Yes	Drive	No
-1.2	Off	No	Yes	Drive	No
-1.1	Off	No	Yes	Drive	No
-1.0	Off	No	Yes	Drive	No
-0.9	Off	No	Yes	Drive	No
-0.8	Off	No	Yes	Drive	No
-0.7	Off	No	Yes	Drive	No
-0.6	Off	No	Yes	Drive	No
-0.5	Off	No	Yes	Drive	No
-0.4	Off	No	Yes	Drive	No
-0.3	Off	No	Yes	Drive	No
-0.2	Off	No	Yes	Drive	No
-0.1	Off	No	Yes	Drive	No

Pre-Crash Data (Most Recent Event - table 4 of 4)

(the most recent sampled values are recorded prior to the event)

Time Stamp (sec)	Tire Pressure Monitor Ind. Lamp (if equip.)	Tire Pressure, LF	Tire Pressure, RF	Tire Pressure, LR	Tire Pressure, RR	Cruise Control Engaged (if equip.)	Cruise Control Status (if equip.)
-5.0	Off	38	38	38	37	Engaged	On
-4.9	Off	38	38	38	37	Engaged	On
-4.8	SNA	SNA	SNA	SNA	SNA	Engaged	On
-4.7	SNA	SNA	SNA	SNA	SNA	Engaged	On
-4.6	SNA	SNA	SNA	SNA	SNA	Engaged	On
-4.5	SNA	SNA	SNA	SNA	SNA	Engaged	On
-4.4	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-4.3	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-4.2	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-4.1	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-4.0	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.9	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.8	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.7	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.6	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.5	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.4	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.3	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.2	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.1	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-3.0	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-2.9	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-2.8	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-2.7	SNA	SNA	SNA	SNA	SNA	Not_Engaged	On
-2.6	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-2.5	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-2.4	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-2.3	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-2.2	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-2.1	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-2.0	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.9	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.8	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.7	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.6	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.5	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.4	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.3	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.2	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.1	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-1.0	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.9	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.8	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.7	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.6	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.5	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.4	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.3	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.2	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off
-0.1	SNA	SNA	SNA	SNA	SNA	Not_Engaged	Off

Hexadecimal Data

Data that the vehicle manufacturer has specified for data retrieval is shown in the hexadecimal data section of the CDR report. The hexadecimal data section of the CDR report may contain data that is not translated by the CDR program. The control module contains additional data that is not retrievable by the CDR system.

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5A 87 03 79 41 02 FF 10 12 12 32 00 36 38 31 36 33 38 30 37 41 42

5A 88 33 43 34 50 44 43 41 42 38 45 54 2A 2A 2A 2A 2A 2A

5A 90 33 43 34 50 44 43 41 42 38 45 54 2A 2A 2A 2A 2A 2A

5A 9C 01 03 79 41 02 FF 12 32 00 30 30 31 32 33 32 30 30 41 41

61 E1 54 30 32 4A 46 31 38 33 33 32 38 30 42 57

61 EA 05 9A 02 FF C0 9F C9 07 38 00 00 00 00 00 00 00 00 00 00

61 02 F1 65 00 00 EE 5A 18 C8 F0 04 B0 C1 00 00 00 00 00 00 00

61 10 3F FF 03 10 85

61 13 00 00 01 94

61 30 1F 00

61 31 01 CC 01 01 13 00 00 09 01 07 3D D3 9A 00 00 00 00 10 84 12 25 A6 61 90 55 0C 17 0C
0C 00 00 00 00 00 00 00 00 00 00 00 00 10 00 3F 80 08 00 03 14 00 EC 18 12 32 00 5C 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 45 54 2A 2A 2A 2A 2A 2A

61 32 00 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 2A 2A 2A 2A 2A 2A

71 02 01 00 66 0E 02 CB 3C 00 FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 26 D9 2E
17 29 0C 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0B BC 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 16 20 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 10 C8 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 01 66 0E 02 ED 3C 00 FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 24 DB 2E
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00 00 00 00 00 00 16 A1 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 10 00 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 02 66 0E 03 32 3C 00 FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 21 DE 2E
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71 02 01 03 66 0E 03 80 3C 00 FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 20 DF 2E
17 20 07 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0B B1 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 17 C8 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 10 00 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 04 66 0E 03 CB 3C 00 FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 20 DF 2E
17 20 07 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0B B3 1E 00 00 00 00 FF 00 00
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71 02 01 05 66 0E 04 13 3C 00 FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 20 DF 2E
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17 1F 07 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0B B0 1E 00 00 00 00 FF 00 00
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00 00 00 00 00 00 00 00 00 00 00

71 02 01 06 66 0E 04 25 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 20 DF 2E
17 1F 08 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0B E3 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 19 BC 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 10 00 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 07 66 0E 04 50 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 21 DE 2E
17 1F 08 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0B B2 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 1A 82 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 38 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 08 66 0E 04 76 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 20 DF 2E
17 1F 09 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0C 1A 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 1B 58 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0A 24 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 09 66 0E 04 76 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 23 DC 2E
17 1D 0A 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0C A1 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 1B EA 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0C 18 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 0A 66 0E 04 99 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 22 DD 2E
17 1B 08 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0C E8 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 1C 63 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0D A8 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 0B 66 0E 04 CD 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 20 DF 2E
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00 00 00 00 00 00 1C E1 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0C 7C 00
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00 00 00 00 00 00 1E 2E 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 10 00 00
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71 02 01 0E 66 0E 05 03 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 21 DE 2E
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00 00 00 00 00 00 00 00 00 00 00

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00 00 00 00 00 00 1F 82 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 9C 00
00 00 00 00 00 00 00 00 00 00 00

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00 00 00 00 00 00 00 00 00 00 00

71 02 01 12 66 0E 05 98 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 20 DF 2E
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17 18 07 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0E 1A 1E 00 00 00 00 FF 00 00
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71 02 01 13 66 0E 05 C4 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 20 DF 2E
17 18 07 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0E 34 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 24 BC 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 38 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 14 66 0E 05 DF 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 21 DE 2E
17 18 08 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0E 4A 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 24 63 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0E 70 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 15 66 0E 06 15 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 21 DE 2E
17 18 08 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0E 80 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 24 5A 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0E 0C 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 16 66 0E 06 48 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 21 DE 2E
17 19 08 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0E 9C 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 25 3A 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 38 00
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71 02 01 17 66 0E 06 59 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 23 DD 2E
17 19 0A 00 C4 01 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0E B4 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 27 66 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 9C 00
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00 00 00 00 00 00 28 11 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0E D4 00
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00 00 00 00 00 00 27 42 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0D A8 00
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17 1A 0A 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 1F 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 28 A0 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0E D4 00
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71 02 01 1B 66 0E 07 16 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 23 DC 2E
17 1A 0A 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 41 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 28 F8 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0E D4 00
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71 02 01 1C 66 0E 07 39 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 24 DC 2E
17 1A 0B 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 59 1E 00 00 00 00 FF 00 00
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71 02 01 1D 66 0E 07 44 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 24 DB 2E
17 1B 0B 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 61 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 2A DC 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 9C 00
00 00 00 00 00 00 00 00 00 00 00

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00 00 00 00 00 00 2A 9D 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 38 00
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71 02 01 1F 66 0E 07 90 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 25 DB 2E
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17 1B 0B 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 79 1E 00 00 00 00 FF 00 00
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17 1C 0C 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 85 1E 00 00 00 00 FF 00 00
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17 1C 0C 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 90 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 2D A3 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 9C 00
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17 1D 0C 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 95 1E 00 00 00 00 FF 00 00
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00 00 00 00 00 00 00 00 00 00 00

71 02 01 23 66 0E 07 A6 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 25 DA 2E
17 1D 0C 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 9E 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 2E 2B 00 00 20 00 FF 00 FF 36 FF FF FF FF FF FF FF FF FF FF FF 0F 9C 00
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71 02 01 24 66 0E 07 B3 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 25 DA 2E
17 1D 0C 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F A4 1E 00 00 00 00 FF 00 00
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71 02 01 25 66 0E 07 E6 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 25 DA 2E
17 1D 0D 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F 9D 1E 00 00 00 00 FF 00 00
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71 02 01 26 66 0E 08 37 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 27 D9 2E
17 1D 0E 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F A8 1E 00 00 00 00 FF 00 00
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71 02 01 27 66 0E 08 74 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 26 DA 2E
17 1E 0C 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F B4 1E 00 00 00 00 FF 00 00
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71 02 01 28 66 0E 08 72 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 25 DA 2E
17 22 0B 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F B9 1E 00 00 00 00 FF 00 00
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71 02 01 29 66 0E 08 4B 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 24 DB 2E
17 2B 0B 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F BA 1E 00 00 00 00 FF 00 00
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71 02 01 2A 66 0E 07 EB 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 23 DC 2E
17 3C 0A 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F C0 1E 00 00 00 00 FF 00 00
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71 02 01 2B 66 0E 08 A3 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 32 CD 2E
17 52 1D 00 C6 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F C7 1E 00 00 00 00 FF 00 00
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71 02 01 2C 66 0E 09 35 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 00 00 00 56 A9 2E
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17 6C 89 00 C7 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F CA 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 35 6F 00 00 20 00 FF 00 FF 22 FF FF FF FF FF FF FF FF FF FF FF 10 00 00
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71 02 01 2D 66 0E 09 2E 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 00 00 00 00 00 00 A1 5E 2E
17 6D 88 00 C3 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F CD 1E 00 00 00 00 FF 00 00
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71 02 01 2E 66 0E 09 04 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 00 00 00 00 00 00 A0 5F 2E
17 6D 87 00 C3 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F D0 1E 00 00 00 00 FF 00 00
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71 02 01 2F 66 0E 09 01 3C 00 FF FF FF FF FF FF FF FF FF FF FF 00 00 00 00 00 00 00 A1 5F 2E
17 6D 87 00 C3 00 00 00 60 00 FF C0 00 00 FF C0 00 00 FF 00 0F D2 1E 00 00 00 00 FF 00 00
00 00 00 00 00 00 33 FE 00 00 20 00 FF 00 FF 22 FF FF FF FF FF FF FF FF FF FF FF 10 00 00
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71 02 01 30 66 04 09 08 00 00 05 F5 05 FC 06 2C 06 0D 7F 84 00 00 00 00 00 00 00 A2 5D 2E
17 6D 88 00 C3 00 00 00 00 00 26 00 00 00 26 00 00 00 25 00 0F D4 00 00 00 00 00 0F 00 00
00 00 00 00 00 00 34 A0 00 00 20 00 26 00 FF 22 80 FF FF 73 89 6F 00 6C 00 09 C2 10 00 00
00 00 00 00 00 00 00 00 00 00 00

71 02 01 31 66 04 08 F9 00 00 05 FC 05 FF 06 1B 06 3B 7E E6 00 00 00 00 00 00 00 A1 5E 2E
17 6D 88 00 C3 00 00 00 00 00 26 00 00 00 26 00 00 00 25 00 0F D6 00 00 00 00 00 0F 00 00
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71 02 02 00 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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71 02 02 03 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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71 02 02 05 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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71 02 02 06 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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71 05 01 CC 00 00 FF FE FE FE FD FA FA F9 F8 F7 F6 F3 F0 ED EB E9 E7 E4 E1 DE DA D7 D2 CD
C8 C4 C0 BF BD B9 B5 B2 B0 AF AC AA A9 A7 A6 A4 A3 A1 A0 A0 9F 9E 9E 9D 9D 9C 9B 9A 9A 99
98 98 97 96 96 95 95 94 94 94 93 93 93 92 92 91 91 91 91 91 91 91 91 91 91 90 90 90 90 90
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71 0E 01 CC 00 00 00 00 00 00 00 00 00 FF FF FE FE FF FF 00 00 00 01 02 04 06 09 0A 0C 0B
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58 1F D4 2A E0 D4 15 E0 9B 51 E0 D4 14 E0 9C 19 E0 9C 13 E0 C1 74 E0 C1 77 E0 C1 75 E0 C1
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94 E0 9B 8E E0

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57 01 D4 15 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 9B 51 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 D4 14 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 9C 19 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 9C 13 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 C1 74 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 C1 77 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

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57 01 C1 71 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 C1 70 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 D1 B0 E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

57 01 D1 AD E0 00 FF FF FF FF 01 00 00 00 FF FF FF FF FF FF

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U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

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