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Special Crash Investigations: On-Site Rollover Crash Investigation; Vehicle: 2016 Jeep Compass; Location: California; Crash Date: September 2022

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16. Abstract This report documents the on-site investigation of a single-vehicle rollover crash of a 2016 Jeep Compass driven by an unbelted 30-year-old male in California in September 2022. The crash site was a T-intersection controlled by a stop sign for southbound traffic. The Jeep traveled southbound at a high rate of speed through the intersection, made an end departure, struck a concrete traffic barrier, and overturned in an end-over-end rollover before coming to rest upright, facing north in a field. The driver sustained serious injuries and was pronounced deceased on-scene.			
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**Special Crash Investigations
On-Site Rollover Crash Investigation
Case No. DS22024
Vehicle: 2016 Jeep Compass
Location: California
Crash Date: September 2022**

Background

This report documents the on-site investigation of a single-vehicle rollover crash selected by the Special Crash Investigations (SCI) group of the National Highway Traffic Safety Administration. The SCI team forwarded to SCI headquarters a preliminary traffic crash report, news media release, and vehicle photos in December 2022 when the case was assigned. The vehicle was a 2016 Jeep Compass (Figures 1 and 2) with combination side-impact/roll-sensing inflatable curtain (IC) air bags, which deployed during the crash. The Jeep's air bag control module had event data recorder (EDR) capability supported by the Bosch Crash Data Retrieval (CDR) software/tool. The SCI team imaged the crash data during the inspection in December 2022. The autopsy report was obtained in February 2023 and the police report in March 2023.

The crash occurred at an unknown time of day in unknown light conditions in September 2022 in California. The crash site was a T-intersection of north/south and east/west roadways. The intersection was controlled by a stop sign for southbound traffic. The north/south roadway was straight with a posted speed limit of 80 kmh (50 mph). The Jeep driver was an unbelted 30-year-old male. The Jeep traveled southbound at a high rate of speed through the intersection, made an end departure, struck a concrete traffic barrier, and overturned in an end-over-end rollover before coming to rest upright, facing north in a field. The driver sustained serious injuries and was pronounced deceased on-scene. The Jeep was towed due to disabling damage.



Figure 1. Front-left view of the 2016 Jeep Compass



Figure 2. Front-right view of the 2016 Jeep Compass

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Summary

Crash Site

The crash site was a T-intersection of north/south and east/west roadways in California. The north/south roadway was 9.5 m (31.1 ft) wide and paved with asphalt in worn condition. It was straight with a slight downhill slope of approximately -1 percent over 150 m (492 ft) leading to the intersection (Figure 3). The southbound lane had a superelevation of -1 percent. The intersection was controlled by a stop sign on the northwest corner and a painted stop line with the word “STOP” for southbound traffic turning onto the east/west roadway. The roadway had two lanes and no painted lines or other markings. It had dirt shoulders that measured 4 m (13.1 ft) wide that were bordered by chain link fences on the left and right sides. The posted speed limit was 80 kmh (50 mph).

The east/west roadway was paved with asphalt in worn condition. It had two straight and level lanes totaling 10.1 m (33.1 ft) wide with no lane lines or other markings. The south road edge had a raised concrete curb that was 10 cm (3.9 in) high. The south roadside was dirt and grass, which included a dirt berm with an uphill slope of approximately 10 percent. A concrete traffic barrier measuring 76 cm (29.9 in) tall stood on the south roadside, 8.5 m (27.9 ft) south of the south road edge (Figure 4). A diamond-shaped red reflective sign stood between the road edge and the barrier. South of the barrier, the ground had a downward slope of 2 to 3 percent. The crash occurred at an unknown time of day in unknown light conditions. A crash diagram is included at the end of this report.

Pre-Crash

The Jeep was traveling southbound at an EDR-reported speed of 124 kmh (77 mph) at time stamp -5.0 seconds to algorithm enable of the first prior event. The accelerator pedal was 38 percent full, engine throttle 67 percent full, service brake was off, and engine rpm was 2,896. Cruise control was off. The accelerator input and engine rpm remained constant until time stamp -1.2 seconds, when the accelerator pedal was reduced to 18 percent full and vehicle speed was 125 kmh (78 mph). The Jeep passed through the intersection without slowing or stopping and made an end departure at the south road edge. The coroner's report said no skid marks or evidence of a crash on the roadway were present during his investigation.



Figure 3. Crash site, approach to intersection looking south



Figure 4. Crash site, area of end departure and concrete traffic barrier, looking south

After passing over the curb, the vehicle traveled up the dirt berm on the shoulder. At time stamp -0.1 seconds, the vehicle speed was 124 kmh (77 mph); the pre-crash data showed no service braking input occurred before impact.

Crash

The crash included two events. The Jeep's front plane and undercarriage struck the concrete traffic barrier (Event 1). The concrete barrier's top edge had contact damage where two chunks of concrete were broken away 1.7 m (5.6 ft) apart, roughly matching the vehicle's track width. The WinSMASH barrier algorithm calculated a total delta V of 15 kmh (9 mph), longitudinal delta V of -15 kmh (-9 mph), lateral delta V of 0 kmh, and barrier equivalent speed of 15 kmh (9 mph). The vehicle's EDR captured a frontal air bag and pretensioner deployment event (first prior event) having a maximum longitudinal delta V of -15 kmh (-9 mph) and a maximum lateral delta V of -3 kmh (-2 mph).

The police report said that following the barrier impact, the Jeep became airborne before overturning. Vehicle damage suggested it started a forward rotation along its lateral axis and started an end-over-end rollover (Event 2). Approximate measurements were obtained using physical evidence documented during the crash site inspection. The Jeep struck the ground 39 m (128 ft) south of the south road edge. A debris field including disintegrated glass began 62 m (203 ft) south of the south road edge and ended at a fluid spill 76 m (249 ft) south of the south road edge. While traveling in a southbound trajectory the Jeep overturned along its lateral axis an estimated eight quarter-turns before coming to rest upright, facing north 76 m (249 ft) south of the south road edge. The roll distance was 67 m (220 ft). The EDR captured a side air bag deployment event (most recent event) having a maximum longitudinal delta V of 29 kmh (18 mph) and a maximum lateral delta V of 6 kmh (4 mph). Time between the two events was 0.2 seconds.

Post-Crash

Due to the absence of an independent witness, police could not determine the exact time of the crash. The coroner's report said police patrolled the area daily and the vehicle had not been seen during a morning patrol on the day of the crash. A passing motorist saw the Jeep in the field in the early afternoon. Thinking it was abandoned, he did not report it to police. A bicyclist riding in the area in the early evening saw the Jeep in the field. He approached it and, after seeing the non-responsive driver through a window, called police and reported the crash. Emergency responders arrived 9 minutes after the call and found the unbelted driver lying supine across the front row with his back against the right-front door, his mid-section lying across the center console, and his legs extended toward the driver's side floor. The driver sustained serious injuries and was pronounced deceased on-scene. All the doors were jammed shut due to damage and first responders forced open the right-front door to remove the driver. A drug screen administered during the autopsy was positive for ketamine (a dissociative anesthetic and hallucinogen) and norketamine (a metabolite of ketamine). The Jeep was towed due to disabling damage.

2016 Jeep Compass

Vehicle Description

The 2016 Jeep Compass was identified by police using the Vehicle Identification Number 1C4NJCBA4GDxxxxxx. The manufacture date was unknown, and the EDR-reported odometer reading was 162,766 km (101,138 mi). It was a 4-door SUV with two rows of seats for five occupants. It had a 4-cylinder, 2.0-liter gas engine and front-wheel-drive. The vehicle manufacturer recommended size P215/60R17 tires and a cold tire pressure of 221 kPa (32 psi). The Jeep had a different brand of tire at each position, all the recommended size. The left-side tires were a Lexani LXHT-200 tire manufactured in 2020 and a Continental Procontact manufactured in 2015. They were off the vehicle at the time of the inspection and their original positions were unknown. The right-front tire was a Falken Sincera-SN250 manufactured in 2017 and the right-rear tire was a Solarus Starfire with an unknown manufacture date.

The vehicle had front-row bucket seats with adjustable and supplemental active head restraints. The driver seat was set to the middle-track position. The active head restraint appeared to have deployed and it was bent forward by roof contact that intruded vertically into the front row. The steering column had tilt and telescoping functionality; its adjustable settings were indeterminable due to steering wheel and column damage.

Exterior Damage

Several impacts caused direct and induced damage to the front, back, top, bottom, left, and right planes. All four wheels were fractured; the right-side tires were cut and de-beaded, and the left-side tires were off the vehicle, cut, and de-beaded. The left-front wheel was displaced rearward reducing the left wheelbase by 15 cm (5.9 in); the right-rear wheel was displaced rearward and extended the right wheelbase by 7 cm (2.8 in). The front grille, headlight assemblies, bumper fascia, and bumper bar were detached, and the radiator was out of place. The left and right frame rails were deformed. The right side-view mirror and back bumper fascia were missing.

Event 1 caused damage across the front plane. Two measurements were taken at the left and right frame rails using a Nikon total station. The field L was 95 cm (37.4 in). The Faro 2D program calculated front crush as follows: C1 = 0 cm, C2 = 0 cm, C3 = 0 cm, C4 = 1 cm (0.4 in), C5 = 4 cm (1.6 in), and C6 = 6 cm (2.4 in); and the collision deformation classification for the Jeep in Event 1 was 12FDEW1.

Event 2 caused damage to the top plane. Direct damage to the roof was distributed laterally from roof side rail to roof side rail and measured 104 cm (40.9 in). It was distributed longitudinally from the windshield header to the backlight header and measured 185 cm (72.8 in). The left roof sheet metal was detached from the left roof side rail beginning at the left A-pillar and ending at the left D-pillar. Maximum vertical crush to the greenhouse was located at the top-left A-pillar and left roof side rail, 80 cm (31.5 in) aft of the left front axle. Maximum vertical crush measured 35 cm (13.8 in). Maximum lateral crush to the greenhouse was located at the top-left C-pillar, 63 cm (24.8 in) forward of the left rear axle. Maximum lateral crush measured 32 cm (12.6 in). The collision deformation classification for the Jeep in Event 2 was 00TDDO4 (Figures 5 and 6).

Rollover Discussion

The Jeep had a NHTSA rollover rating of 4 out of a possible 5 stars.¹ A rollover resistance test was used to measure the risk of rollover in a single-vehicle, loss-of-control scenario; the result for this vehicle was a rollover risk of 18.5 percent. An online query found no other ratings concerning rollover risk or roof strength.

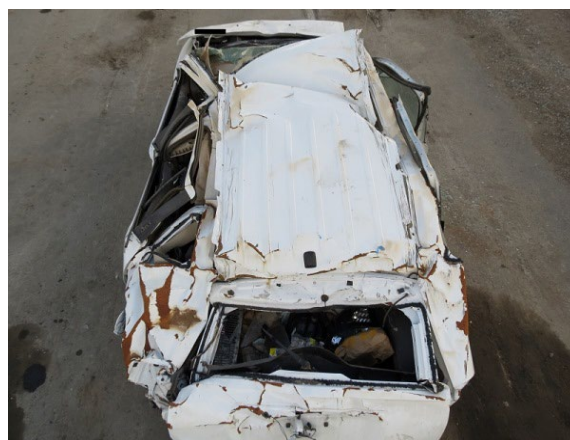
The Jeep had the following passenger restraint, rollover mitigation, and stability control features.

- Front seat belt retractor pretensioners that activate in rollover crashes. The pretensioners actuated in a front crash event prior to the rollover event.
- IC air bags that deploy in rollover crashes. The air bags have an inflation duration of >3 seconds. They deployed in the rollover event.
- Electronic stability control (ESC) system. Stability control activity was captured in the EDR pre-crash data for both recorded events. According to the data limitations, “Off” shows that the ESC system was turned off either by the driver or due to a fault or thermal mode shutdown. “On” shows that the ESC system is functional. And “Engaged” shows an active ESC event. For the first prior event, the system was on continually during the pre-crash phase. For the most recent event, the system was off at time stamp -5.0 seconds, was on for more than 4 seconds, and off at time stamp -0.1 seconds. At no time was the system engaged.

Following the barrier impact, the Jeep started the end-over-end rollover. It rolled an estimated eight quarter-turns and came to rest in an upright orientation. Scene evidence suggested a roll distance of approximately 67 m (220 ft).



*Figure 5. Rollover damage, 2016
Jeep Compass*



*Figure 6. Rollover damage, 2016
Jeep Compass*

¹ National Highway Traffic Safety Administration. (n.d.). 2016 Jeep Compass SUV 2WD [NHTSA recall search engine web page]. www.nhtsa.gov/vehicle/2016/JEEP/COMPASS/SUV/2WD#safety-ratings-rollover

Event Data Recorder

The Jeep had an air bag control module with EDR capability that was imaged during the vehicle inspection. Using the direct-to-module method with the Bosch CDR CANplus tool, the crash data was imaged and reported using software version 23.0.2. The report captured two deployment event records associated with this crash. The EDR report included pre-crash, deployment, post-crash, velocity change, and rollover crash pulse data. The complete EDR report is included in the appendix of this report.

Interior Damage

The Jeep had interior damage caused by impact forces and driver contacts. All four doors were jammed shut. Passenger compartment integrity loss was present on the front, back, left, and right planes. The windshield was holed and out of place; the backlight, all the left-side glass, and half of the right-side glass were disintegrated. All the available air bags deployed, and the driver's seat belt was locked in the stowed position against the left B-pillar by the actuated pretensioner. The steering column was collapsed, and the steering wheel was bent forward until its right quadrant contacted the left instrument panel. The front-row seats had supplemental active head restraints that were contacted by the roof (Figure 7). The driver's head restraint was bent forward and appeared to have deployed; the front half was separated from the back half (Figure 8). The left and middle roof had what appeared to be blood splatter located to the right of the driver's head restraint. The driver's seat back was deformed and twisted clockwise by occupant contact; the left aspect was bent forward and right, and the right aspect was bent rearward. The rear-view mirror and roof-mounted controls were hanging by wires and the right sun visor was detached.

The front-row passenger compartment was reduced by vertical intrusion of the left windshield header 35 cm (13.8 in), middle windshield header 8 cm (3.1 in), left roof 35 cm (13.8 in), middle roof 19 cm (7.5 in), and left roof side rail 38 cm (15.0 in). The left windshield header contacted the steering wheel rim. The left roof side rail was bent downward until level with the bottom of the left-side glass. The front row was reduced by lateral intrusion of the left A-pillar 40 cm (15.7 in), and left B-pillar 30 cm (11.8 in). The second row was reduced by vertical intrusion of the left roof 35 cm (13.8 in), middle roof 5 cm (2.0 in), left roof side rail 40 cm (15.7 in), and right roof side rail 12 cm (4.7 in). It was reduced by lateral intrusion of the left C-pillar 35 cm (13.8 in).



*Figure 7. Interior damage, 2016
Jeep Compass*



*Figure 8. Interior damage, 2016
Jeep Compass*

Manual Restraint Systems

The Jeep had lap and shoulder seat belts for all seat positions. The available evidence showed the driver was not belted. The driver's seat belt was locked against the B-pillar by the actuated pretensioner, the EDR report said the belt was "not buckled," and the police report said the belt was not used. The driver was found out of position, with his back against the front-right door.

Supplemental Restraint Systems

The Jeep had frontal and outboard seat-mounted side-impact air bags for the front row, and combination side-impact/roll-sensing IC air bags for both rows. The IC air bags have an inflation duration of >3 seconds. All available air bags deployed in the crash. According to the EDR report, the driver's and passenger's frontal air bags deployed in the first prior event (Event 1 – concrete traffic barrier) at 29 ms. The left and right IC and side-impact air bags deployed in the most recent event (Event 2 – rollover).

NHTSA Recalls and Investigations

Searches in the NHTSA recall database (www.nhtsa.gov/recalls) in December 2022 and October 2024 revealed no unrepaired recalls for this vehicle.

2016 Jeep Compass Occupant

Driver Demographics

Age/sex: 30 years/male
 Height: 173 cm (68 in)
 Weight: 88 kg (194 lb)
 Eyewear: Unknown
 Seat type: Bucket with adjustable head restraint
 Seat track position: Middle-track at inspection
 Manual restraint usage: Lap and shoulder belt available, not used
 Usage source: Vehicle inspection, EDR, police report
 Air bags: Frontal, seat-mounted, and IC air bags available; all deployed
 Alcohol/drug data: Positive for ketamine (0.669 mg/L), norketamine (0.089 mg/L)
 Egress from vehicle: Pronounced deceased prior to removal
 Transport from scene: None
 Type of medical treatment: None

Driver Injuries

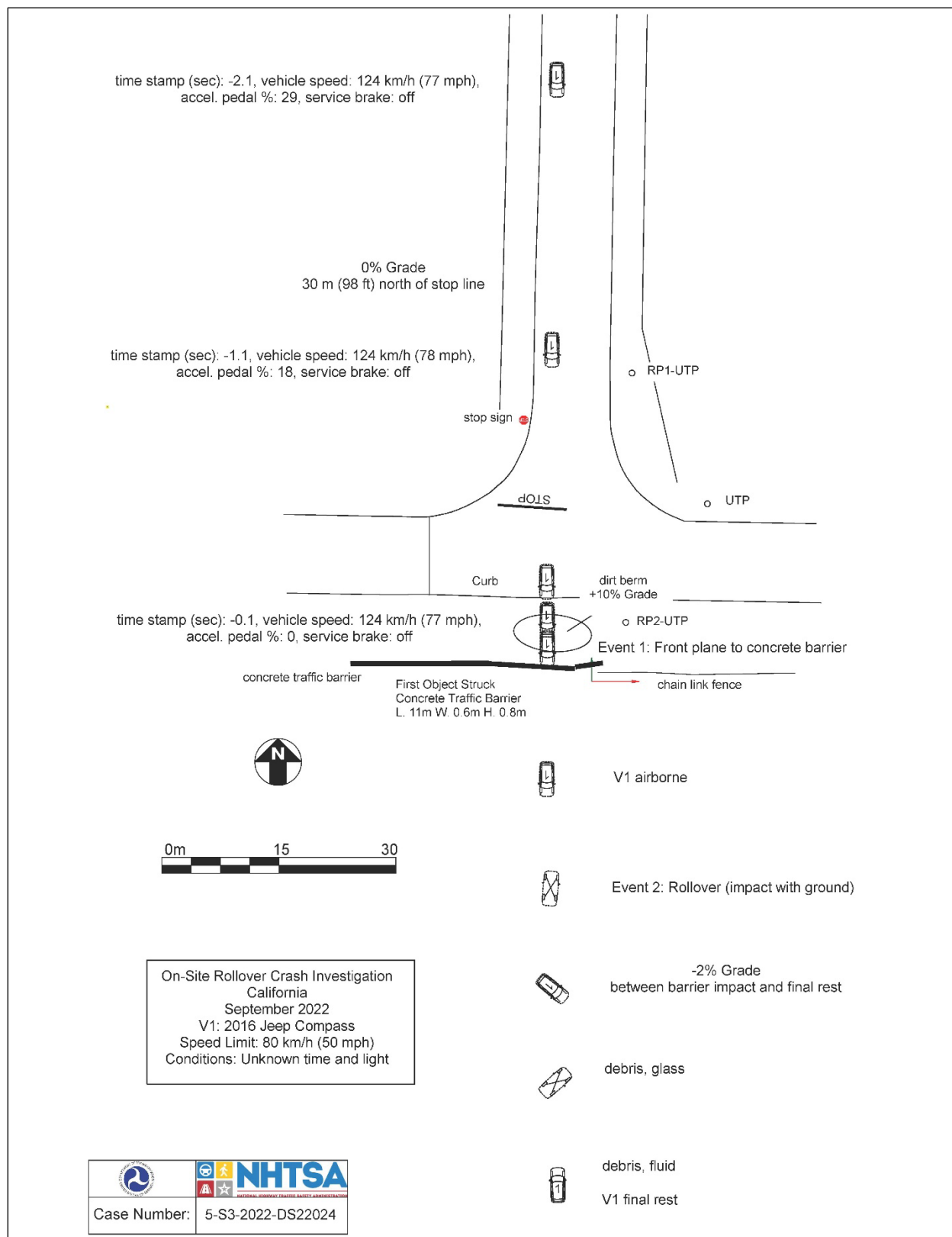
Injury No.	Injury	Injury Severity AIS 2015	Involved Physical Component (IPC)	IPC Confidence Level
1	Lacerations, liver, right lobe 5-15 cm (2.0-2.9 in)	541824.3	Tandem – frontal air bag/steering wheel	Probable
2	Hemothorax, right and left	442200.3	Tandem – frontal air	Probable
3	plural cavities	442200.3	bag/steering wheel	
4	Subarachnoid hemorrhage, left	140693.2	Roof	Probable
5	and right cerebrum	140693.2		
6	Fracture, right clavicle	750511.2	Steering wheel	Probable
7	Fracture, left clavicle	750511.2		
8	Fractures, ribs R1 and L1	450202.2	Tandem – frontal air bag/steering wheel	Probable
9	Fracture, thoracic spine, T1-T2	650416.2	Roof	Probable
10	Subgaleal hematoma, covering majority of scalp	110402.1	Roof	Probable
11	Contusions, left shoulder	710402.1	Steering wheel	Probable
12	Contusions, left upper chest	410402.1	Steering wheel	Probable

Source: Autopsy

Driver Kinematics

The unbelted driver was traveling at a high rate of speed on a straight road. The Jeep departed the roadway, passed over a raised curb, and ascended a dirt berm that acted as a ramp. The driver was possibly displaced from his seated position during this phase due to the change in elevations. At impact with the concrete traffic barrier, the driver's frontal air bag deployed, and the driver was displaced forward in response to the 12 o'clock direction of force. His shoulders, chest, and abdomen loaded the deployed frontal air bag, steering wheel, and steering column, deforming the rim and collapsing the column. Contact with the air bag and steering wheel caused lacerations to the liver, hemothoraces to the right and left plural cavities, fractures to the left and right clavicles, fractures to ribs R1 and L1, and contusions to the left shoulder and left-upper chest. The vehicle started an end-over-end rollover, and the driver was displaced from his seated position, his orientation changing with the vehicle's rotation. During the rollover the Jeep's roof struck the ground an estimated two times and the greenhouse collapsed, intruding vertically and laterally into the front and second rows. The occupant's active head restraint deployed, and it appeared to have been bent forward by roof intrusion. The driver contacted and deformed his seat back. The driver's head likely contacted the roof, causing a hemorrhage to the cerebrum and hematoma covering most of the scalp. Roof contact likely caused a fracture to his thoracic spine at T1 to T2. The vehicle was discovered and emergency responders arrived an unknown length of time after the crash. The driver was unresponsive and out of position with his back against the front-right door, his mid-section across the center console, and his feet extending toward the left floor. He was pronounced deceased on-scene. The cause of death as determined by the medical examiner was blunt force trauma.

Crash Diagram



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Appendix A: Event Data Recorder Report – 2016 Jeep Compass²

² The EDR report in this report was imaged using the current version of the Bosch CDR software at the time of the vehicle inspection. The CDR report 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	1C4NJCBA4GD*****
User	
Case Number	
EDR Data Imaging Date	
Crash Date	
Filename	DS22024_V1_ACM.CDRX
Saved on	
Imaged with CDR version	Crash Data Retrieval Tool 23.0.2
Imaged with Software Licensed to (Company Name)	NHTSA
Reported with CDR version	Crash Data Retrieval Tool 23.0.2
Reported with Software Licensed to (Company Name)	NHTSA
EDR Device Type	Airbag Control Module
Event(s) recovered	Most Recent Event 1st Prior 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.
- If a DLC adapter has to be used with the CDR Tool, the "Read VIN from Vehicle" feature in the CDR Tool will not work. The VIN will have to be manually entered.
- If a 2021 or later MY Dodge Durango was imaged with a CDR Tool version 19.4 or older, the ACM will need to be reimaged as not all the peripheral sensor data will have been retrieved.
- 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.
 - Note that the ignition cycle count in an ACM may differ from the ignition cycle count in a Pedestrian Protection Module (PPM) in the same vehicle due to the fact that the ACM has an energy reserve while the PPM does not.

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 may be stored with activation of the Active Head Restraints. See AHR explanation under System Configuration at Retrieval/Event section.
- A deployment event may be stored in a 2019 MY+ Ram 3500 as the result of a rear impact, even though the Ram 3500 does not deploy any restraint system devices in a rear impact.

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.
- For the 2021MY Jeep Grand Cherokee L, an event may be displayed in the "Event(s) Recovered" section of the report as "End of Line Test event - See Data Limitations". This event is an End of Line test event from the module manufacturing process which will be included in the count for the total number of events, but no data will be displayed in the CDR Report.

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. It is possible that the AHRs may activate after the EDR record has been stored and written, based on achieving the minimum delta V. This condition will result in an EDR but no record of the AHR activation in the CDR report. Activation of only the AHRs, if stored, will be a non-deployment event.

SYSTEM STATUS AT EVENT:

- Frontal Airbag Warning Lamp - In Veoneer modules, the airbag warning lamp may indicate ON at the time of a most recent event without any DTCs present if a deployment event has already occurred in the same ignition cycle. The ABWL will come on due to the deployment but, as there are still algorithms processing data, the actual faults will not be qualified yet and will not show up as DTCs.

- 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.

- For the 2021MY Jeep Grand Cherokee L, the module will contain one, two, or three End of Line test events from the module

manufacturing process which will be included in the count for the total number of events. However, the data from these End of Line test events will not be displayed in the CDR Report.

- 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. "SNA" indicates undetermined;
 - For some non-North American applications, "Empty" indicates an empty seat;
- Odometer at Event - Vehicle odometer at the time of the event
 - For 2014-2016 MY Fiat 500L, the odometer value in miles may be shown in the brackets, labeled as kilometers. If this is the case, the non-bracketed value is not valid.
- 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.
- Safety Belt Status, Outboard Front Passenger - For vehicles sold outside of North America which do not contain a buckle switch for the outboard front passenger, the safety belt status, outboard front passenger will default to "not buckled/unbuckled".
- System Voltage at Event, ACM - Voltage at the ACM as measured by the ACM. This voltage may be approximately 0.7V (one diode drop) below the bused voltage.
- System Voltage at Event, Bused - 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.
 - For 2019 and later MY RAMs, this time is only cumulative for the current ignition cycle.
- Tire Pressure Indicator Lamp at Event- "On" indicates a tire with low pressure or a fault in the tire pressure monitoring system at the time of the event. The TPM module DTC's should be read and recorded for final system interpretation. "Flashing" indicates a recent fault in the tire pressure monitoring system.
- Tire Pressure at Event, LF, RF, RR - See "Tire Information" under Pre-Crash Data section for details.
- 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 N/A.
- A time to deploy value of 0 is valid and indicates that the deployment of the device triggered the EDR t0.
- In vehicles with Bosch and Veoneer ACMs, once a device has been deployed in an ignition cycle, it is possible that the ACM will not attempt to re-deploy any already deployed device during subsequent events in that same ignition cycle.

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.
- For the 2021 MY+ Jeep Grand Cherokee L, the DTCs will not be updated for the subsequent events within the same ignition cycle.

SENSOR DATA:

- The design range for the angular rate data is:
 - +/- 240 deg/sec for Bosch ACMs unless specifically called out below
 - +/- 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
 - - 416.67 deg/sec to +413.41 deg/sec for 2014+ MY Jeep Cherokee

- +/- 300 deg/sec for vehicles with Veoneer ACMS
- 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.
- For the 2010-2012 MY Chrysler Town and Country, Dodge Caravan, Dodge Grand Caravan, and Dodge Journey and the 2010-2011 MY Grand Voyager, the angular rate will only be displayed if it is non-zero.

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.
- In the Pre-Crash Data graph, data transmitted at a rate other than 0.1 seconds will be shown as dots for each available data point. Only data transmitted at a rate of 0.1 seconds will have the dots connected by a line.
- (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.
- Brake Pedal Position - This indicates the percentage of brake pedal depression by the driver.
- Brake Torque - This indicates the calculated amount of brake torque the system is producing at the wheels.
- Brake Torque Driver - This indicates the calculated amount of brake torque that the driver is requesting.
- Braking System, Maximum Braking -- "Yes" indicates that ABS is active on all 4 wheels at the same time.
- Cruise Control:
 - Note that the following two Cruise Control data elements are only valid for vehicles not equipped with Adaptive Cruise Control (ACC). For vehicles equipped with ACC, the ACC data elements are used for both regular Cruise Control and ACC.
 - Cruise Control System/Lamp Status - "On" indicates that the Cruise Control system is turned on.
 - Cruise Control Status - "Off" indicates that all cruise control functionality is disabled; "NCC_On" indicates that the Normal Cruise Control system is turned on; "NCC_Engaged" indicates the Normal Cruise Control is actively controlling vehicle speed; "ACC_On" indicates that ACC is turned on; "ACC_Engaged" indicates that the ACC is actively controlling vehicle speed.
 - 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.
 - Cruise Control Override - "Active" indicates that the driver has overridden the set speed. "Not Active" indicates that the cruise control is either not turned on or is not being overridden.
 - 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.
 - Set Speed (if equip.)- This indicates the desired speed in mph that was input by the driver for the cruise control system.
 - ACC Faulted - "Yes" indicates that the ACC system will not function and the ACC warning lamp is lit; "No" indicates that the ACC system is functional and the ACC warning lamp is off;
 - For new 2017+MY Jeep Compass, cruise control data elements are only available for vehicles 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 brake 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 to disable engine management. "Enabled" is the default state for the ESC system.
 - SRT and some Fiat products have the ability to fully disable the ESC system if the ESC button has been pressed and held for a specific amount of time. Additional system analysis is required.
 - ESP Feature is Completely Disabled - This indicates that the stability control system has turned off engine management, traction control, and stability control.
 - 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 RPM - For the RAM ProMaster City, the minimum resolution for Engine RPM is 32 rpm.
- 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 - If the FCW system is acting on the object, this indicates the actual forward distance to the main object being tracked by the FCW system. "No Object" indicates that the FCW system is not currently acting on an object. If the value is SNA for all time stamps, then the vehicle is not equipped with FCW.
 - FCW System Operating State - "Off" indicates that the FCW system is off and the FCW Warning Lamp will be "On"; "On" indicates that the FCW system is on with the audible and visual warnings enabled.
 - FCW System Status - "Off" indicates that the FCW system is off and the FCW Warning Lamp will be "On". "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 enabled as well as the audible and visual warnings enabled. SNA indicates that the vehicle is not equipped with FCW.
 - FCW Braking Enabled - "Yes" indicates that the FCW system has active braking enabled; "No" indicates that the FCW system does not have active braking enabled.
- Gear Position/Current Gear - For all vehicles except the RAM ProMaster City, this indicates the current transmission gear.
For the RAM ProMaster City, this indicates the status of the gear shift lever.
- Estimate Regenerative Braking Axle Torque - (HEV only) This indicates the calculated braking torque applied by the HEV system to the drive axles in Nm.
- Driver Intended Axle Torque - (HEV only) This indicates the calculated value of torque in Nm being applied to the drive axles based on accelerator pedal position.
- Trans torque request - (HEV only) "Yes" indicates that the transmission controller has requested a torque reduction when shifting from one gear to another.
- Static Axle Torque - (HEV only) This indicates the torque in Nm at the axle when the speed of the axle is constant.
- HEV Battery Pack Contactor State - (HEV only) "Closed" indicates that the HEV battery pack is connected to the vehicle's electrical system. "Open" indicates that the HEV battery pack is disconnected from the vehicle's electrical system. "Pre-Charging" indicates that the inverter internal capacitor is charging. "Pre-Charge Failed" indicates that the attempt to charge an internal capacitor failed. "Pre-Charge Inhibited" indicates that an attempt to charge an internal capacitor was not made.
- HEV Lamp Request - (HEV only) This indicates the HEV indicator lamp status. It will only be "On" when there is a fault in the HEV system. The vehicle DTC's should be read and recorded for final system interpretation.
- Master Cylinder Pressure - This indicates the brake pressure applied to the brakes through the brake pedal.
- PCM MIL - This indicates the PCM fault indicator lamp status. It will only be "On" when there is a fault in the PCM. "Flashing" indicates misfire detection. 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 physically depressed. Braking from the ABS or FCW systems will not be reported in this data element.
- Shift Selector Position - This indicates the status of the gear shift selector.
- Speed, Vehicle Indicated - This indicates the average of the wheel speeds of the drive wheels.
 - The reporting resolution for Speed, Vehicle Indicated is 1 km/h.
 - To display this data element in mph, the CDR Tool converts the km/h to mph and reports a rounded value in mph.
 - The accuracy of the recorded Speed, Vehicle Indicated may be affected by a significant change of the tire size for the drive wheels or the final drive axle ratio of the transmission from the factory build specifications, wheel lockup, wheel slip, or wheel spin.
 - 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 Significantly Under Inflated (TPM lamp will be on), LOW/Under/Under Inflated, NORMAL, HIGH/Over/Over Inflated, 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 of a particular tire as denoted by XX.

- Tire Pressure Monitor Indicator Lamp/Faults - "On" indicates a tire with low pressure or a fault in the tire pressure monitoring system. The TPM module DTC's should be read and recorded for final system interpretation. "Flashing" indicates a recent fault in the tire pressure monitoring system.

- "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:

- Alfa Romeo Giulia, Alfa Romeo Stelvio, Fiat 500L, Fiat 500X, and Jeep Renegade are only CDR supported in the United States, Canada, and Saudi Arabia markets.

- Fiat 500/500e is only CDR supported in the United States, Canada, Mexico, and Brazil markets.

03002_Chrysler_r046

System Status at Retrieval

Original VIN	1C4NJCBA4GD*****
Airbag Control Module Part Number	68232708AC
Airbag Control Module Serial Number	T21MF299502300
Airbag Control Module Supplier	TRW
Ignition Cycle, Download	16713

System Configuration at Retrieval

Configured for Driver Frontal Airbag	Yes
Configured for Passenger Frontal Airbag	Yes
Configured for Left Curtain Airbag	Yes
Configured for Left Seat Airbag	Yes
Configured for Right Curtain Airbag	Yes
Configured for Right Seat Airbag	Yes
Configured for Driver Buckle Pretensioner	No
Configured for Driver Retractor Pretensioner	Yes
Configured for Front Passenger Buckle Pretensioner	No
Configured for Front Passenger Retractor Pretensioner	Yes
Configured for Driver Active Head Restraint	Yes
Configured for Front Passenger Active Head Restraint	Yes
Configured for Front Passenger Occupant Classification System	No
Configured for Driver Seat Track Position Sensor	Yes
Configured for Front Passenger Seat Track Position Sensor	No

System Status at Event (Most Recent Event)

Event Number	3
Event Type	Deployment Event
Complete File Recorded	Yes
Time from Event 1 to 2 (sec)	0.2
Multi-Event, Number of Events (1,2)	2
Maximum Delta-V Longitudinal (MPH [km/h])	18.0 [29]
Time, Maximum Delta-V, Longitudinal (msec)	116
Maximum Delta-V Lateral (MPH [km/h])	3.7 [6]
Time, Maximum Delta-V, Lateral (msec)	152
Safety Belt Status, Driver	Not Buckled
Safety Belt Status, Outboard Front Passenger	Not Buckled
Seat Track Position Switch, Foremost, Status, Driver	Undetermined
Airbag Warning Lamp, On/Off	Off
Ignition Cycle, Crash	16712
Odometer Recorded at Event (miles[km])	101138.1 [162766.0]
VIN at event, Last 8 Digits	GD*****
Vehicle System Voltage Recorded at Event (V)	14.0

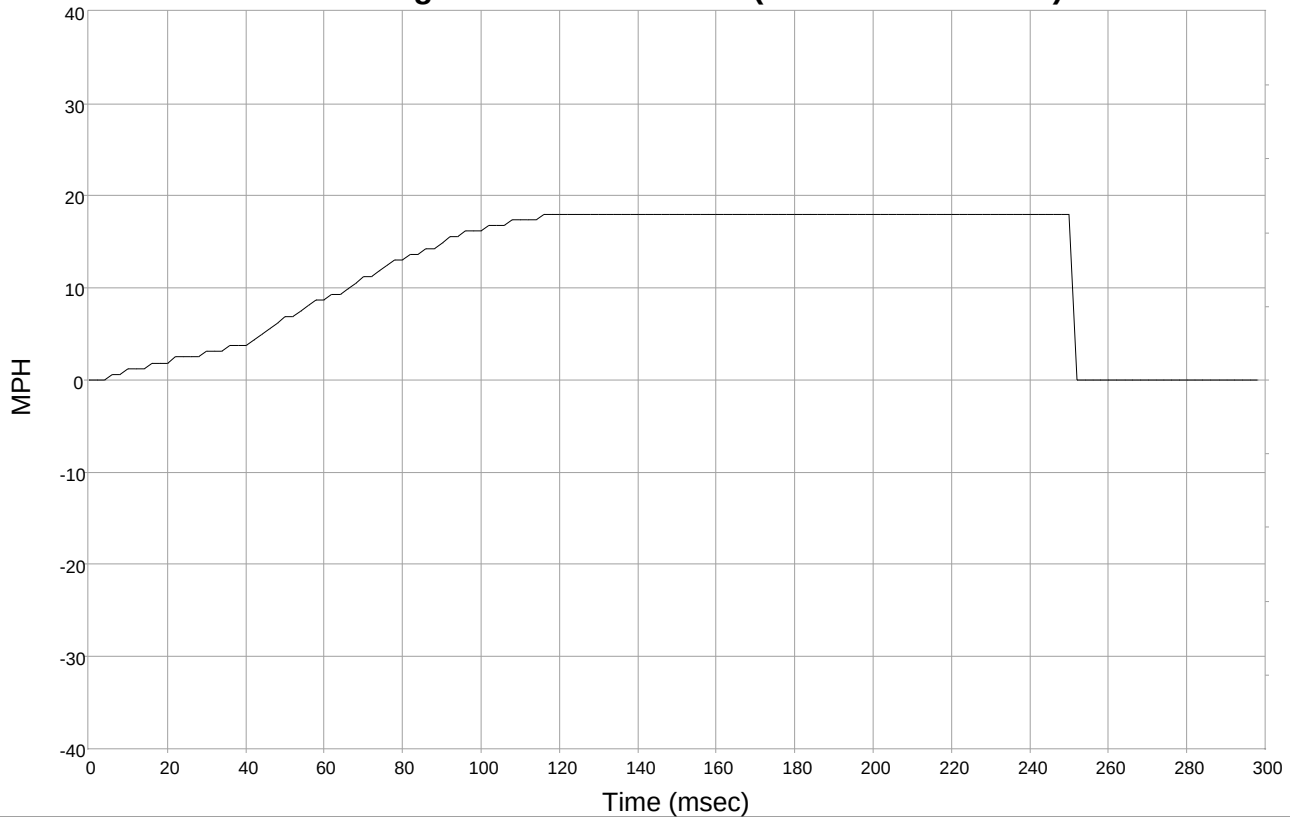
Deployment Command Data (Most Recent Event)

Driver Front Airbag Commanded	No
Driver Front Airbag, Time to 1st Stage (msec)	N/A
Driver Front Airbag, Time to 2nd Stage (msec)	N/A
Passenger Frontal Airbag Commanded	No
Passenger Front Airbag, Time to 1st Stage (msec)	N/A
Passenger Front Airbag, Time to 2nd Stage (msec)	N/A
Commanded Driver Pretensioner(s) Deployment	Yes
Commanded Passenger Pretensioner(s) Deployment	Yes
Commanded Left Side Airbag(s) Deployment	Yes
Commanded Right Side Airbag(s) Deployment	Yes
Commanded Driver Active Head Restraint	No
Commanded Passenger Active Head Restraint	No

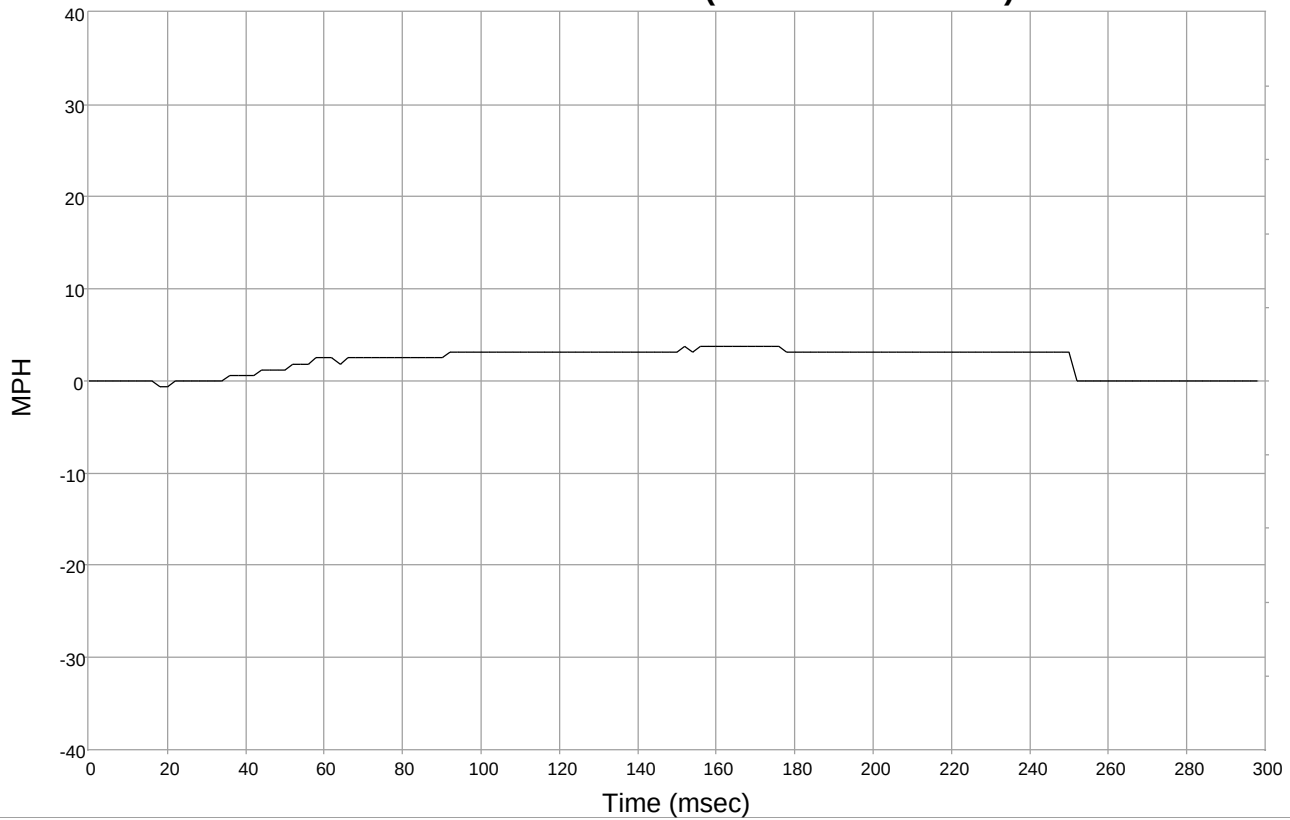
DTCs Present at Start of Event (Most Recent Event)

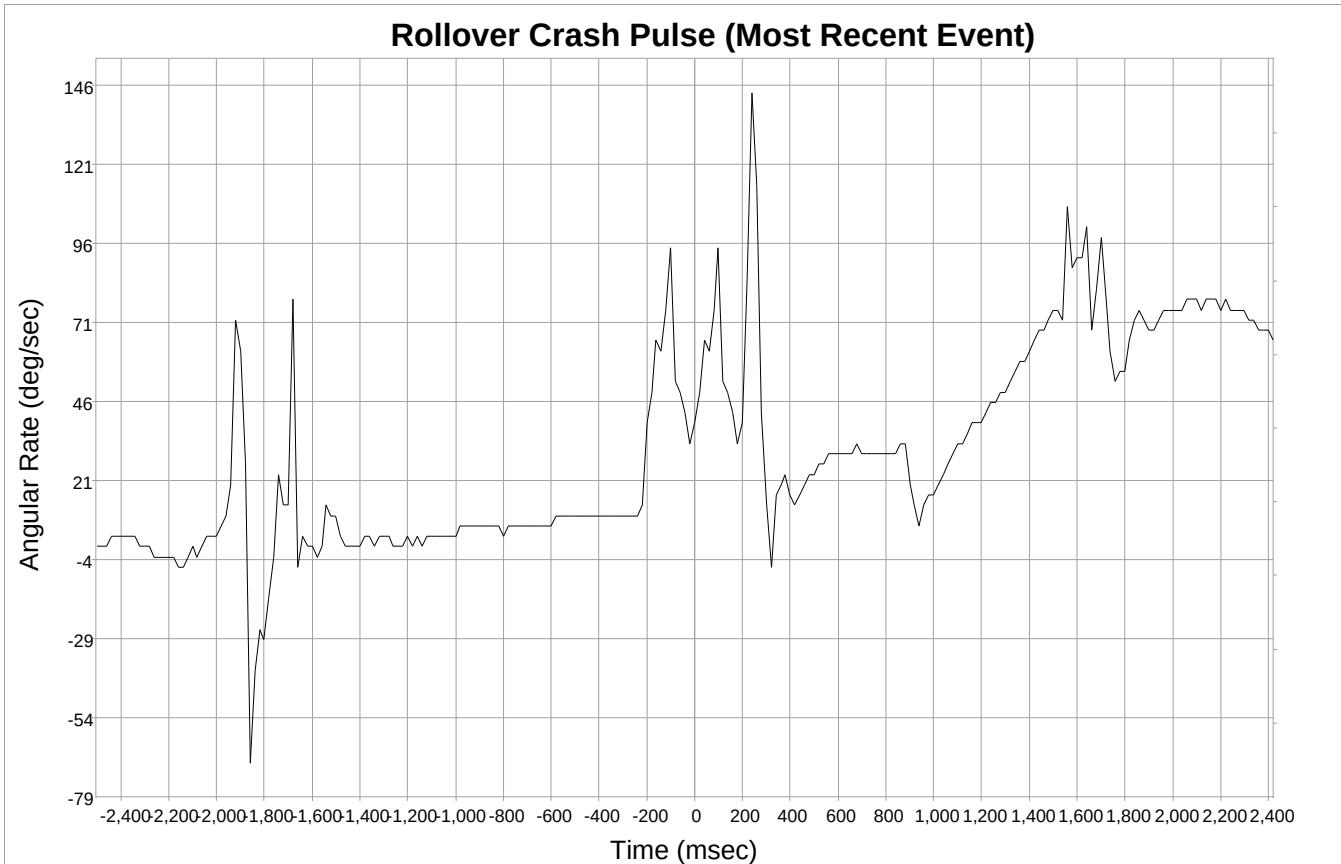
No DTCs Present

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	16.2 [26]	200	18.0 [29]
2	0.0 [0]	102	16.8 [27]	202	18.0 [29]
4	0.0 [0]	104	16.8 [27]	204	18.0 [29]
6	0.6 [1]	106	16.8 [27]	206	18.0 [29]
8	0.6 [1]	108	17.4 [28]	208	18.0 [29]
10	1.2 [2]	110	17.4 [28]	210	18.0 [29]
12	1.2 [2]	112	17.4 [28]	212	18.0 [29]
14	1.2 [2]	114	17.4 [28]	214	18.0 [29]
16	1.9 [3]	116	18.0 [29]	216	18.0 [29]
18	1.9 [3]	118	18.0 [29]	218	18.0 [29]
20	1.9 [3]	120	18.0 [29]	220	18.0 [29]
22	2.5 [4]	122	18.0 [29]	222	18.0 [29]
24	2.5 [4]	124	18.0 [29]	224	18.0 [29]
26	2.5 [4]	126	18.0 [29]	226	18.0 [29]
28	2.5 [4]	128	18.0 [29]	228	18.0 [29]
30	3.1 [5]	130	18.0 [29]	230	18.0 [29]
32	3.1 [5]	132	18.0 [29]	232	18.0 [29]
34	3.1 [5]	134	18.0 [29]	234	18.0 [29]
36	3.7 [6]	136	18.0 [29]	236	18.0 [29]
38	3.7 [6]	138	18.0 [29]	238	18.0 [29]
40	3.7 [6]	140	18.0 [29]	240	18.0 [29]
42	4.3 [7]	142	18.0 [29]	242	18.0 [29]
44	5.0 [8]	144	18.0 [29]	244	18.0 [29]
46	5.6 [9]	146	18.0 [29]	246	18.0 [29]
48	6.2 [10]	148	18.0 [29]	248	18.0 [29]
50	6.8 [11]	150	18.0 [29]	250	18.0 [29]
52	6.8 [11]	152	18.0 [29]	252	0.0 [0]
54	7.5 [12]	154	18.0 [29]	254	0.0 [0]
56	8.1 [13]	156	18.0 [29]	256	0.0 [0]
58	8.7 [14]	158	18.0 [29]	258	0.0 [0]
60	8.7 [14]	160	18.0 [29]	260	0.0 [0]
62	9.3 [15]	162	18.0 [29]	262	0.0 [0]
64	9.3 [15]	164	18.0 [29]	264	0.0 [0]
66	9.9 [16]	166	18.0 [29]	266	0.0 [0]
68	10.6 [17]	168	18.0 [29]	268	0.0 [0]
70	11.2 [18]	170	18.0 [29]	270	0.0 [0]
72	11.2 [18]	172	18.0 [29]	272	0.0 [0]
74	11.8 [19]	174	18.0 [29]	274	0.0 [0]
76	12.4 [20]	176	18.0 [29]	276	0.0 [0]
78	13.0 [21]	178	18.0 [29]	278	0.0 [0]
80	13.0 [21]	180	18.0 [29]	280	0.0 [0]
82	13.7 [22]	182	18.0 [29]	282	0.0 [0]
84	13.7 [22]	184	18.0 [29]	284	0.0 [0]
86	14.3 [23]	186	18.0 [29]	286	0.0 [0]
88	14.3 [23]	188	18.0 [29]	288	0.0 [0]
90	14.9 [24]	190	18.0 [29]	290	0.0 [0]
92	15.5 [25]	192	18.0 [29]	292	0.0 [0]
94	15.5 [25]	194	18.0 [29]	294	0.0 [0]
96	16.2 [26]	196	18.0 [29]	296	0.0 [0]
98	16.2 [26]	198	18.0 [29]	298	0.0 [0]

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	0.0 [0]
18	-0.6 [-1]
20	-0.6 [-1]
22	0.0 [0]
24	0.0 [0]
26	0.0 [0]
28	0.0 [0]
30	0.0 [0]
32	0.0 [0]
34	0.0 [0]
36	0.6 [1]
38	0.6 [1]
40	0.6 [1]
42	0.6 [1]
44	1.2 [2]
46	1.2 [2]
48	1.2 [2]
50	1.2 [2]
52	1.9 [3]
54	1.9 [3]
56	1.9 [3]
58	2.5 [4]
60	2.5 [4]
62	2.5 [4]
64	1.9 [3]
66	2.5 [4]
68	2.5 [4]
70	2.5 [4]
72	2.5 [4]
74	2.5 [4]
76	2.5 [4]
78	2.5 [4]
80	2.5 [4]
82	2.5 [4]
84	2.5 [4]
86	2.5 [4]
88	2.5 [4]
90	2.5 [4]
92	3.1 [5]
94	3.1 [5]
96	3.1 [5]
98	3.1 [5]

Time (msec)	Delta-V, Lateral (MPH [km/h])
100	3.1 [5]
102	3.1 [5]
104	3.1 [5]
106	3.1 [5]
108	3.1 [5]
110	3.1 [5]
112	3.1 [5]
114	3.1 [5]
116	3.1 [5]
118	3.1 [5]
120	3.1 [5]
122	3.1 [5]
124	3.1 [5]
126	3.1 [5]
128	3.1 [5]
130	3.1 [5]
132	3.1 [5]
134	3.1 [5]
136	3.1 [5]
138	3.1 [5]
140	3.1 [5]
142	3.1 [5]
144	3.1 [5]
146	3.1 [5]
148	3.1 [5]
150	3.1 [5]
152	3.7 [6]
154	3.1 [5]
156	3.7 [6]
158	3.7 [6]
160	3.7 [6]
162	3.7 [6]
164	3.7 [6]
166	3.7 [6]
168	3.7 [6]
170	3.7 [6]
172	3.7 [6]
174	3.7 [6]
176	3.7 [6]
178	3.1 [5]
180	3.1 [5]
182	3.1 [5]
184	3.1 [5]
186	3.1 [5]
188	3.1 [5]
190	3.1 [5]
192	3.1 [5]
194	3.1 [5]
196	3.1 [5]
198	3.1 [5]

Time (msec)	Delta-V, Lateral (MPH [km/h])
200	3.1 [5]
202	3.1 [5]
204	3.1 [5]
206	3.1 [5]
208	3.1 [5]
210	3.1 [5]
212	3.1 [5]
214	3.1 [5]
216	3.1 [5]
218	3.1 [5]
220	3.1 [5]
222	3.1 [5]
224	3.1 [5]
226	3.1 [5]
228	3.1 [5]
230	3.1 [5]
232	3.1 [5]
234	3.1 [5]
236	3.1 [5]
238	3.1 [5]
240	3.1 [5]
242	3.1 [5]
244	3.1 [5]
246	3.1 [5]
248	3.1 [5]
250	3.1 [5]
252	0.0 [0]
254	0.0 [0]
256	0.0 [0]
258	0.0 [0]
260	0.0 [0]
262	0.0 [0]
264	0.0 [0]
266	0.0 [0]
268	0.0 [0]
270	0.0 [0]
272	0.0 [0]
274	0.0 [0]
276	0.0 [0]
278	0.0 [0]
280	0.0 [0]
282	0.0 [0]
284	0.0 [0]
286	0.0 [0]
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)

Time (msec)	Angular Rate (deg/sec)
-2500	0.00
-2480	0.00
-2460	0.00
-2440	3.26
-2420	3.26
-2400	3.26
-2380	3.26
-2360	3.26
-2340	3.26
-2320	0.00
-2300	0.00
-2280	0.00
-2260	-3.26
-2240	-3.26
-2220	-3.26
-2200	-3.26
-2180	-3.26
-2160	-6.52
-2140	-6.52
-2120	-3.26
-2100	0.00
-2080	-3.26
-2060	0.00
-2040	3.26
-2020	3.26
-2000	3.26
-1980	6.52
-1960	9.77
-1940	19.55
-1920	71.67
-1900	61.89
-1880	26.06
-1860	-68.41
-1840	-39.09
-1820	-26.06
-1800	-29.32
-1780	-16.29
-1760	-3.26
-1740	22.80
-1720	13.03
-1700	13.03
-1680	78.18
-1660	-6.52
-1640	3.26
-1620	0.00
-1600	0.00
-1580	-3.26
-1560	0.00
-1540	13.03
-1520	9.77

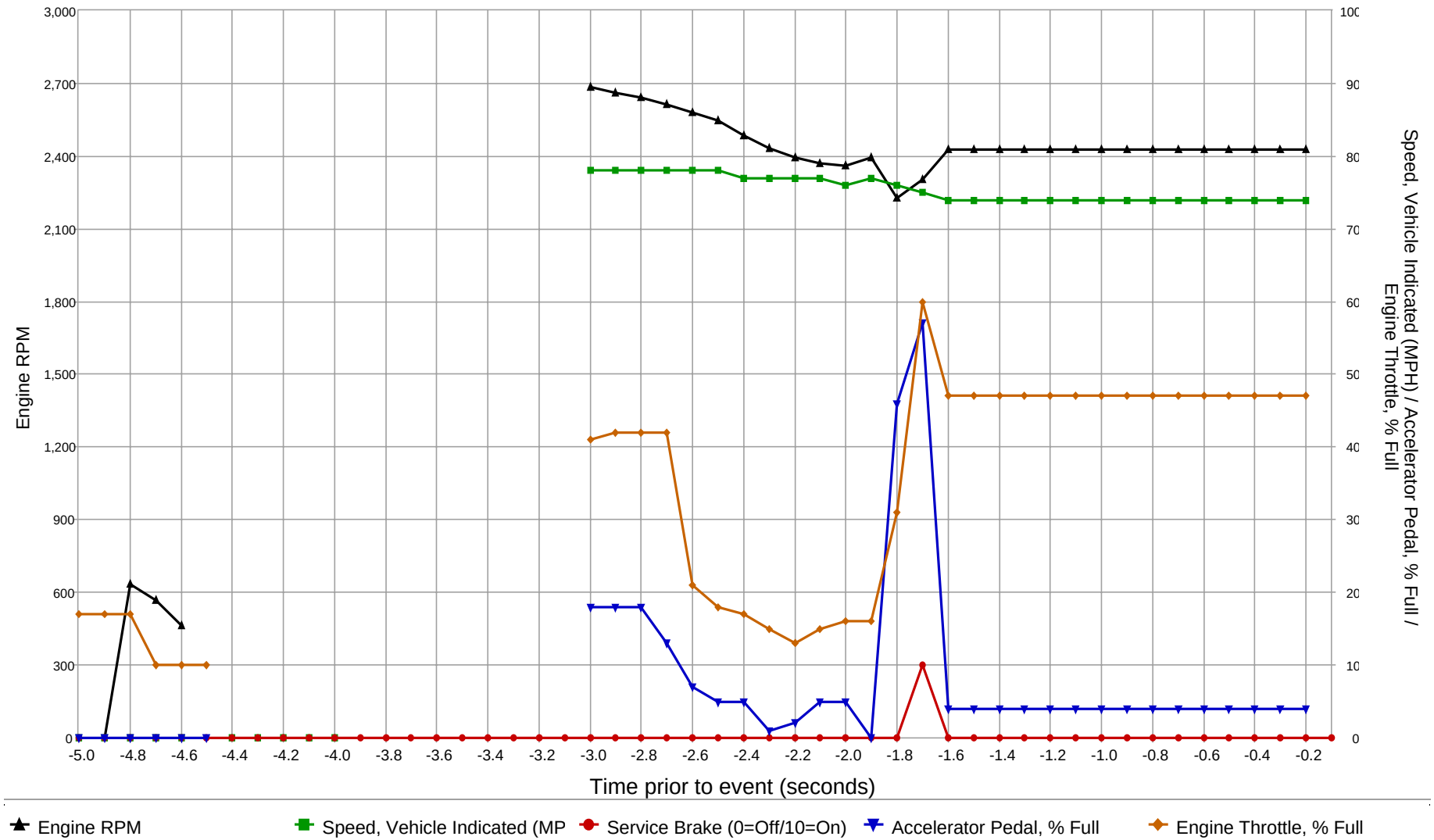
Time (msec)	Angular Rate (deg/sec)
-1500	9.77
-1480	3.26
-1460	0.00
-1440	0.00
-1420	0.00
-1400	0.00
-1380	3.26
-1360	3.26
-1340	0.00
-1320	3.26
-1300	3.26
-1280	3.26
-1260	0.00
-1240	0.00
-1220	0.00
-1200	3.26
-1180	0.00
-1160	3.26
-1140	0.00
-1120	3.26
-1100	3.26
-1080	3.26
-1060	3.26
-1040	3.26
-1020	3.26
-1000	3.26
-980	6.52
-960	6.52
-940	6.52
-920	6.52
-900	6.52
-880	6.52
-860	6.52
-840	6.52
-820	6.52
-800	3.26
-780	6.52
-760	6.52
-740	6.52
-720	6.52
-700	6.52
-680	6.52
-660	6.52
-640	6.52
-620	6.52
-600	6.52
-580	9.77
-560	9.77
-540	9.77
-520	9.77

Time (msec)	Angular Rate (deg/sec)
-500	9.77
-480	9.77
-460	9.77
-440	9.77
-420	9.77
-400	9.77
-380	9.77
-360	9.77
-340	9.77
-320	9.77
-300	9.77
-280	9.77
-260	9.77
-240	9.77
-220	13.03
-200	39.09
-180	48.86
-160	65.15
-140	61.89
-120	74.92
-100	94.47
-80	52.12
-60	48.86
-40	42.35
-20	32.58
0	39.09
20	48.86
40	65.15
60	61.89
80	74.92
100	94.47
120	52.12
140	48.86
160	42.35
180	32.58
200	39.09
220	84.70
240	143.33
260	114.02
280	42.35
300	13.03
320	-6.52
340	16.29
360	19.55
380	22.80
400	16.29
420	13.03
440	16.29
460	19.55
480	22.80

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

Time (msec)	Angular Rate (deg/sec)	Time (msec)	Angular Rate (deg/sec)
500	22.80	1500	74.92
520	26.06	1520	74.92
540	26.06	1540	71.67
560	29.32	1560	107.50
580	29.32	1580	87.96
600	29.32	1600	91.21
620	29.32	1620	91.21
640	29.32	1640	100.99
660	29.32	1660	68.41
680	32.58	1680	81.44
700	29.32	1700	97.73
720	29.32	1720	78.18
740	29.32	1740	61.89
760	29.32	1760	52.12
780	29.32	1780	55.38
800	29.32	1800	55.38
820	29.32	1820	65.15
840	29.32	1840	71.67
860	32.58	1860	74.92
880	32.58	1880	71.67
900	19.55	1900	68.41
920	13.03	1920	68.41
940	6.52	1940	71.67
960	13.03	1960	74.92
980	16.29	1980	74.92
1000	16.29	2000	74.92
1020	19.55	2020	74.92
1040	22.80	2040	74.92
1060	26.06	2060	78.18
1080	29.32	2080	78.18
1100	32.58	2100	78.18
1120	32.58	2120	74.92
1140	35.83	2140	78.18
1160	39.09	2160	78.18
1180	39.09	2180	78.18
1200	39.09	2200	74.92
1220	42.35	2220	78.18
1240	45.61	2240	74.92
1260	45.61	2260	74.92
1280	48.86	2280	74.92
1300	48.86	2300	74.92
1320	52.12	2320	71.67
1340	55.38	2340	71.67
1360	58.64	2360	68.41
1380	58.64	2380	68.41
1400	61.89	2400	68.41
1420	65.15	2420	65.15
1440	68.41		
1460	68.41		
1480	71.67		

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	Engine RPM	Stability Control	Raw Manifold Pressure (kPa)	PCM MIL
-5.0	Complete	0 [0]	0	17	Off	SNA	Off	95	On
-4.9	Complete	0 [0]	0	17	Off	0	Off	95	On
-4.8	Complete	0 [0]	0	17	Off	636	Off	95	On
-4.7	Complete	0 [0]	0	10	Off	566	Off	95	On
-4.6	Complete	0 [0]	0	10	Off	464	Off	95	On
-4.5	Complete	SNA	0	10	Off	SNA	On	95	On
-4.4	Complete	0 [0]	SNA	SNA	Off	SNA	Off	SNA	On
-4.3	Complete	0 [0]	SNA	SNA	Off	SNA	Off	SNA	On
-4.2	Complete	0 [0]	SNA	SNA	Off	SNA	Off	SNA	On
-4.1	Complete	0 [0]	SNA	SNA	Off	SNA	Off	SNA	On
-4.0	Complete	0 [0]	SNA	SNA	Off	SNA	Off	SNA	On
-3.9	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.8	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.7	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.6	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.5	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.4	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.3	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.2	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.1	Complete	SNA	SNA	SNA	Off	SNA	On	SNA	On
-3.0	Complete	78 [125]	18	41	Off	2,686	On	93	Off
-2.9	Complete	78 [125]	18	42	Off	2,663	On	93	Off
-2.8	Complete	78 [125]	18	42	Off	2,643	On	93	Off
-2.7	Complete	78 [125]	13	42	Off	2,614	On	92	Off
-2.6	Complete	78 [125]	7	21	Off	2,579	On	82	Off
-2.5	Complete	78 [125]	5	18	Off	2,548	On	73	Off
-2.4	Complete	77 [124]	5	17	Off	2,485	On	68	Off
-2.3	Complete	77 [124]	1	15	Off	2,431	On	61	Off
-2.2	Complete	77 [123]	2	13	Off	2,396	On	54	Off
-2.1	Complete	77 [123]	5	15	Off	2,372	On	53	Off
-2.0	Complete	76 [123]	5	16	Off	2,361	On	59	Off
-1.9	Complete	77 [124]	0	16	Off	2,394	On	58	Off
-1.8	Complete	76 [122]	46	31	Off	2,229	On	70	Off
-1.7	Complete	75 [120]	57	60	On	2,305	On	95	Off
-1.6	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-1.5	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-1.4	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-1.3	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-1.2	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-1.1	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-1.0	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.9	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.8	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.7	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.6	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.5	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.4	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.3	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.2	Complete	74 [120]	4	47	Off	2,427	On	94	Off
-0.1	Complete	SNA	SNA	SNA	Off	SNA	Off	SNA	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)	ESC MIL	ETC Lamp	Engine Torque Applied	PRND Status
-5.0	On	On	Yes	Drive
-4.9	On	On	Yes	Drive
-4.8	On	On	Yes	Drive
-4.7	On	On	Yes	Drive
-4.6	On	On	Yes	Drive
-4.5	Off	On	Yes	SNA
-4.4	On	Off	No	SNA
-4.3	On	Off	No	SNA
-4.2	On	Off	No	SNA
-4.1	On	Off	No	SNA
-4.0	On	Off	No	SNA
-3.9	Off	Off	No	SNA
-3.8	Off	Off	No	SNA
-3.7	Off	Off	No	SNA
-3.6	Off	Off	No	SNA
-3.5	Off	Off	No	SNA
-3.4	Off	Off	No	SNA
-3.3	Off	Off	No	SNA
-3.2	Off	Off	No	SNA
-3.1	Off	Off	No	SNA
-3.0	Off	Off	Yes	Drive
-2.9	Off	Off	Yes	Drive
-2.8	Off	Off	Yes	Drive
-2.7	Off	Off	Yes	Drive
-2.6	Off	Off	Yes	Drive
-2.5	Off	Off	Yes	Drive
-2.4	Off	Off	Yes	Drive
-2.3	Off	Off	Yes	Drive
-2.2	Off	Off	Yes	Drive
-2.1	Off	Off	Yes	Drive
-2.0	Off	Off	Yes	Drive
-1.9	Off	Off	Yes	Drive
-1.8	Off	Off	Yes	Drive
-1.7	Off	Off	Yes	Drive
-1.6	Off	Off	Yes	Drive
-1.5	Off	Off	Yes	Drive
-1.4	Off	Off	Yes	Drive
-1.3	Off	Off	Yes	Drive
-1.2	Off	Off	Yes	Drive
-1.1	Off	Off	Yes	Drive
-1.0	Off	Off	Yes	Drive
-0.9	Off	Off	Yes	Drive
-0.8	Off	Off	Yes	Drive
-0.7	Off	Off	Yes	Drive
-0.6	Off	Off	Yes	Drive
-0.5	Off	Off	Yes	Drive
-0.4	Off	Off	Yes	Drive
-0.3	Off	Off	Yes	Drive
-0.2	Off	Off	Yes	Drive
-0.1	On	Off	No	Drive

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

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

Time Stamp (sec)	Tire Location 1	Tire Location 2	Tire Location 3	Tire Pressure Status 1	Tire Pressure Status 2	Tire Pressure Status 3	Tire Pressure 1	Tire Pressure 2	Tire Pressure 3
-5.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA

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

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

Time Stamp (sec)	Cruise Control Active (if equip.)	Cruise Control System (if equip.)
-5.0	No	Off
-4.9	No	Off
-4.8	No	Off
-4.7	No	Off
-4.6	No	Off
-4.5	No	Off
-4.4	No	Off
-4.3	No	Off
-4.2	No	Off
-4.1	No	Off
-4.0	No	Off
-3.9	No	Off
-3.8	No	Off
-3.7	No	Off
-3.6	No	Off
-3.5	No	Off
-3.4	No	Off
-3.3	No	Off
-3.2	No	Off
-3.1	No	Off
-3.0	No	Off
-2.9	No	Off
-2.8	No	Off
-2.7	No	Off
-2.6	No	Off
-2.5	No	Off
-2.4	No	Off
-2.3	No	Off
-2.2	No	Off
-2.1	No	Off
-2.0	No	Off
-1.9	No	Off
-1.8	No	Off
-1.7	No	Off
-1.6	No	Off
-1.5	No	Off
-1.4	No	Off
-1.3	No	Off
-1.2	No	Off
-1.1	No	Off
-1.0	No	Off
-0.9	No	Off
-0.8	No	Off
-0.7	No	Off
-0.6	No	Off
-0.5	No	Off
-0.4	No	Off
-0.3	No	Off
-0.2	No	Off
-0.1	No	Off

System Status at Event (1st Prior Event)

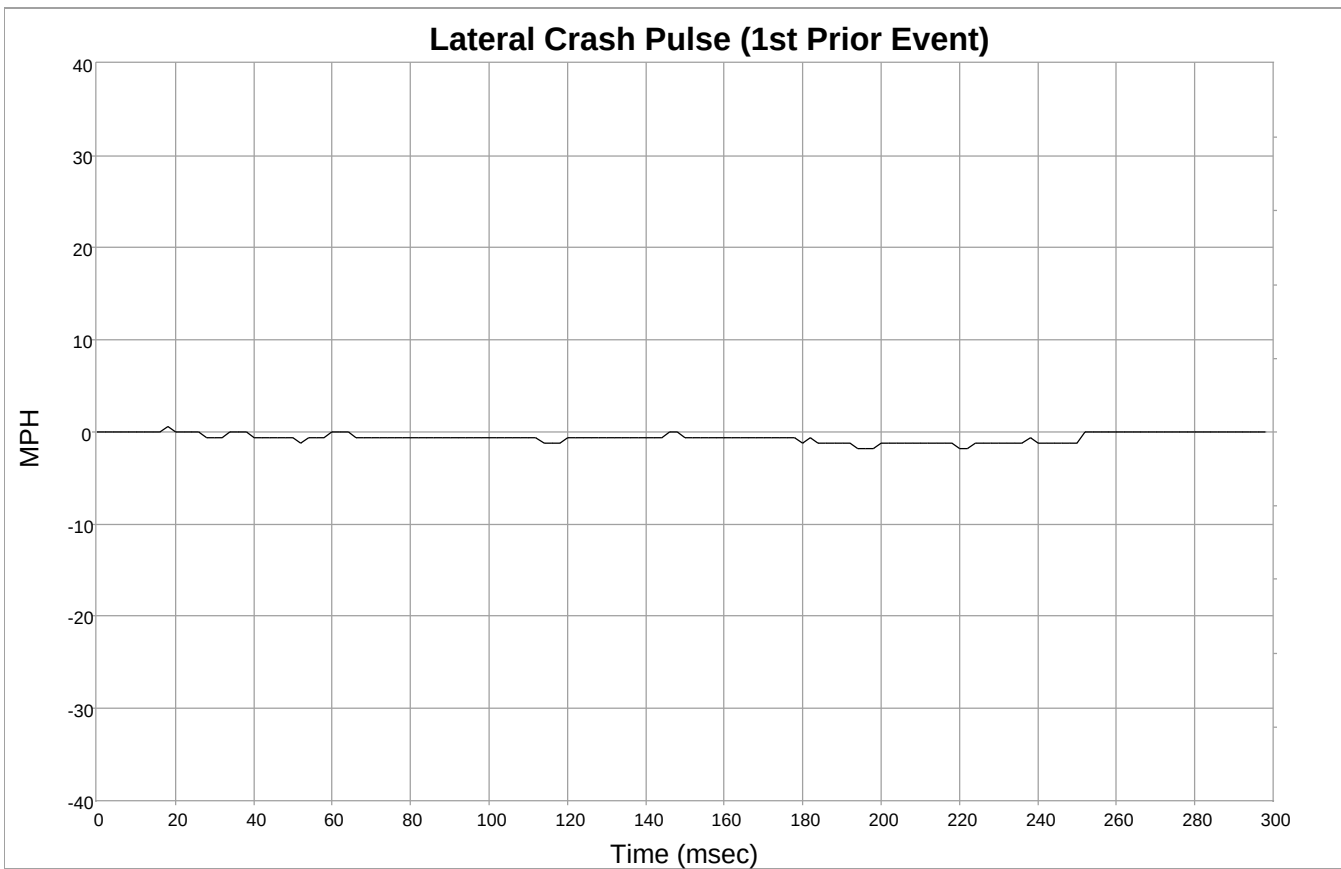
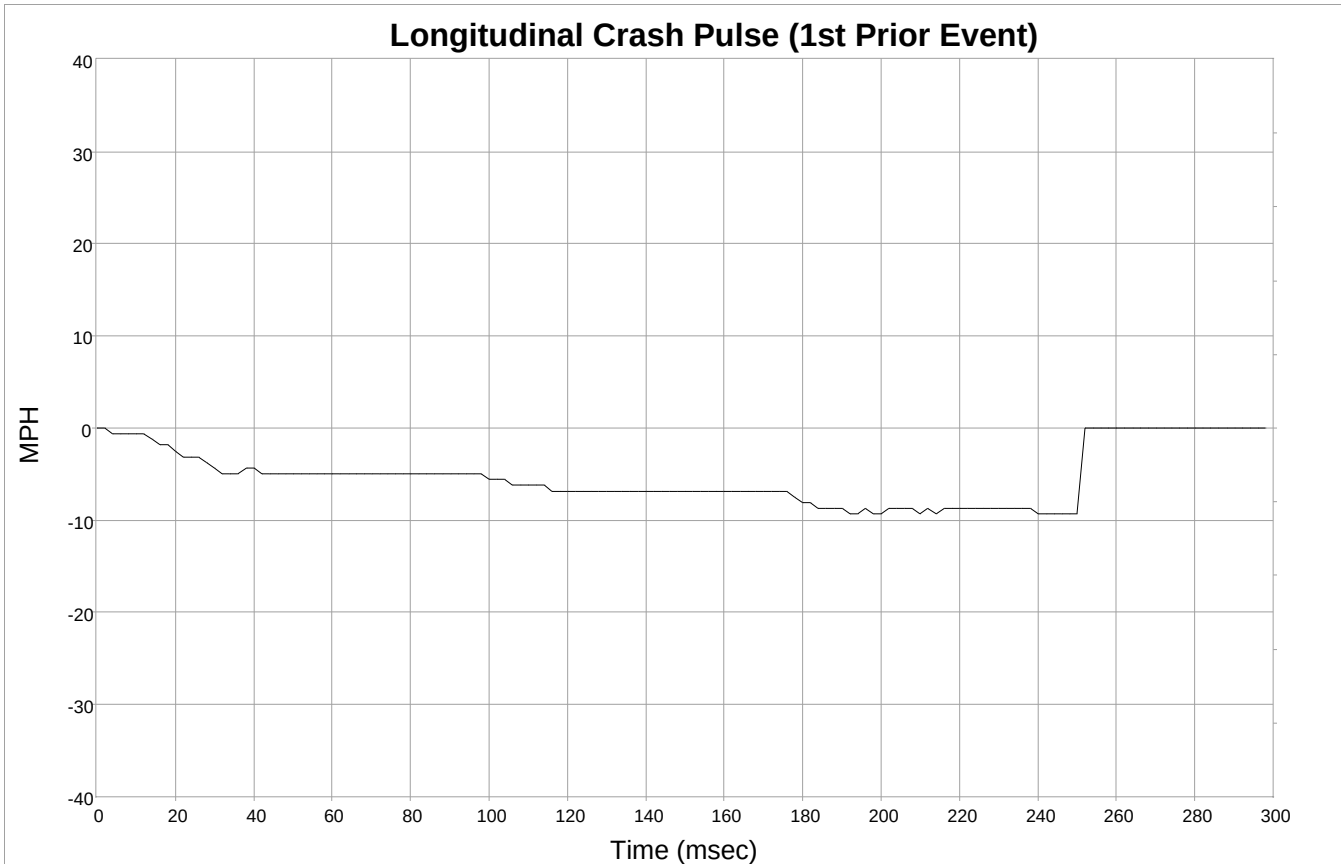
Event Number	1
Event Type	Deployment Event
Complete File Recorded	Yes
Time from Event 1 to 2 (sec)	0.0
Multi-Event, Number of Events (1,2)	1
Maximum Delta-V Longitudinal (MPH [km/h])	-9.3 [-15]
Time, Maximum Delta-V, Longitudinal (msec)	192
Maximum Delta-V Lateral (MPH [km/h])	-1.9 [-3]
Time, Maximum Delta-V, Lateral (msec)	194
Safety Belt Status, Driver	Not Buckled
Safety Belt Status, Outboard Front Passenger	Not Buckled
Seat Track Position Switch, Foremost, Status, Driver	No
Airbag Warning Lamp, On/Off	Off
Ignition Cycle, Crash	16712
Odometer Recorded at Event (miles[km])	101138.1 [162766.0]
VIN at event, Last 8 Digits	GD*****
Vehicle System Voltage Recorded at Event (V)	13.8

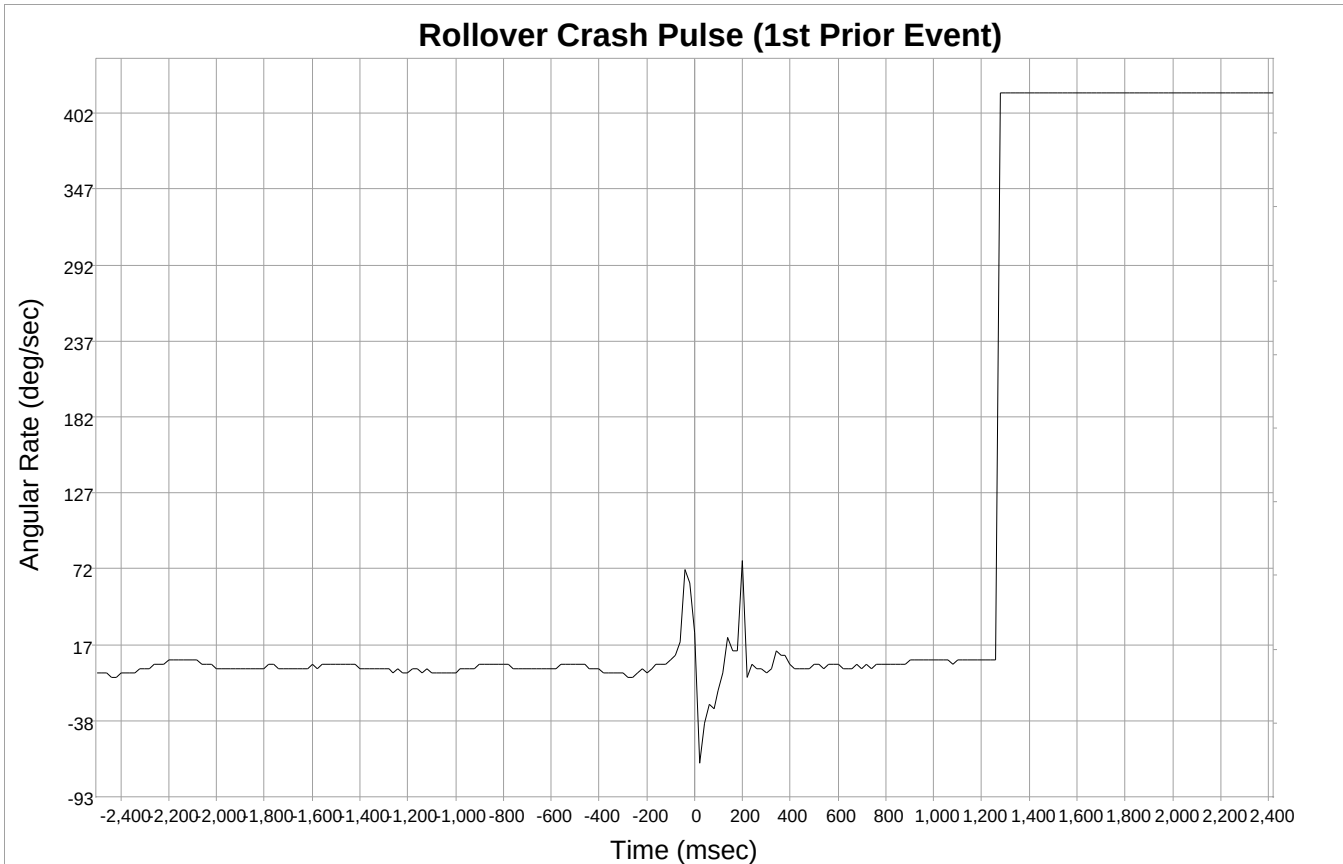
Deployment Command Data (1st Prior Event)

Driver Front Airbag Commanded	Yes
Driver Front Airbag, Time to 1st Stage (msec)	29
Driver Front Airbag, Time to 2nd Stage (msec)	129
Passenger Frontal Airbag Commanded	Yes
Passenger Front Airbag, Time to 1st Stage (msec)	29
Passenger Front Airbag, Time to 2nd Stage (msec)	69
Commanded Driver Pretensioner(s) Deployment	Yes
Commanded Passenger Pretensioner(s) Deployment	Yes
Commanded Left Side Airbag(s) Deployment	No
Commanded Right Side Airbag(s) Deployment	No
Commanded Driver Active Head Restraint	No
Commanded Passenger Active Head Restraint	No

DTCs Present at Start of Event (1st Prior Event)

No DTCs Present





Longitudinal Crash Pulse (1st Prior 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	-5.6 [-9]	200	-9.3 [-15]
2	0.0 [0]	102	-5.6 [-9]	202	-8.7 [-14]
4	-0.6 [-1]	104	-5.6 [-9]	204	-8.7 [-14]
6	-0.6 [-1]	106	-6.2 [-10]	206	-8.7 [-14]
8	-0.6 [-1]	108	-6.2 [-10]	208	-8.7 [-14]
10	-0.6 [-1]	110	-6.2 [-10]	210	-9.3 [-15]
12	-0.6 [-1]	112	-6.2 [-10]	212	-8.7 [-14]
14	-1.2 [-2]	114	-6.2 [-10]	214	-9.3 [-15]
16	-1.9 [-3]	116	-6.8 [-11]	216	-8.7 [-14]
18	-1.9 [-3]	118	-6.8 [-11]	218	-8.7 [-14]
20	-2.5 [-4]	120	-6.8 [-11]	220	-8.7 [-14]
22	-3.1 [-5]	122	-6.8 [-11]	222	-8.7 [-14]
24	-3.1 [-5]	124	-6.8 [-11]	224	-8.7 [-14]
26	-3.1 [-5]	126	-6.8 [-11]	226	-8.7 [-14]
28	-3.7 [-6]	128	-6.8 [-11]	228	-8.7 [-14]
30	-4.3 [-7]	130	-6.8 [-11]	230	-8.7 [-14]
32	-5.0 [-8]	132	-6.8 [-11]	232	-8.7 [-14]
34	-5.0 [-8]	134	-6.8 [-11]	234	-8.7 [-14]
36	-5.0 [-8]	136	-6.8 [-11]	236	-8.7 [-14]
38	-4.3 [-7]	138	-6.8 [-11]	238	-8.7 [-14]
40	-4.3 [-7]	140	-6.8 [-11]	240	-9.3 [-15]
42	-5.0 [-8]	142	-6.8 [-11]	242	-9.3 [-15]
44	-5.0 [-8]	144	-6.8 [-11]	244	-9.3 [-15]
46	-5.0 [-8]	146	-6.8 [-11]	246	-9.3 [-15]
48	-5.0 [-8]	148	-6.8 [-11]	248	-9.3 [-15]
50	-5.0 [-8]	150	-6.8 [-11]	250	-9.3 [-15]
52	-5.0 [-8]	152	-6.8 [-11]	252	0.0 [0]
54	-5.0 [-8]	154	-6.8 [-11]	254	0.0 [0]
56	-5.0 [-8]	156	-6.8 [-11]	256	0.0 [0]
58	-5.0 [-8]	158	-6.8 [-11]	258	0.0 [0]
60	-5.0 [-8]	160	-6.8 [-11]	260	0.0 [0]
62	-5.0 [-8]	162	-6.8 [-11]	262	0.0 [0]
64	-5.0 [-8]	164	-6.8 [-11]	264	0.0 [0]
66	-5.0 [-8]	166	-6.8 [-11]	266	0.0 [0]
68	-5.0 [-8]	168	-6.8 [-11]	268	0.0 [0]
70	-5.0 [-8]	170	-6.8 [-11]	270	0.0 [0]
72	-5.0 [-8]	172	-6.8 [-11]	272	0.0 [0]
74	-5.0 [-8]	174	-6.8 [-11]	274	0.0 [0]
76	-5.0 [-8]	176	-6.8 [-11]	276	0.0 [0]
78	-5.0 [-8]	178	-7.5 [-12]	278	0.0 [0]
80	-5.0 [-8]	180	-8.1 [-13]	280	0.0 [0]
82	-5.0 [-8]	182	-8.1 [-13]	282	0.0 [0]
84	-5.0 [-8]	184	-8.7 [-14]	284	0.0 [0]
86	-5.0 [-8]	186	-8.7 [-14]	286	0.0 [0]
88	-5.0 [-8]	188	-8.7 [-14]	288	0.0 [0]
90	-5.0 [-8]	190	-8.7 [-14]	290	0.0 [0]
92	-5.0 [-8]	192	-9.3 [-15]	292	0.0 [0]
94	-5.0 [-8]	194	-9.3 [-15]	294	0.0 [0]
96	-5.0 [-8]	196	-8.7 [-14]	296	0.0 [0]
98	-5.0 [-8]	198	-9.3 [-15]	298	0.0 [0]

Lateral Crash Pulse (1st Prior 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	0.0 [0]
18	0.6 [1]
20	0.0 [0]
22	0.0 [0]
24	0.0 [0]
26	0.0 [0]
28	-0.6 [-1]
30	-0.6 [-1]
32	-0.6 [-1]
34	0.0 [0]
36	0.0 [0]
38	0.0 [0]
40	-0.6 [-1]
42	-0.6 [-1]
44	-0.6 [-1]
46	-0.6 [-1]
48	-0.6 [-1]
50	-0.6 [-1]
52	-1.2 [-2]
54	-0.6 [-1]
56	-0.6 [-1]
58	-0.6 [-1]
60	0.0 [0]
62	0.0 [0]
64	0.0 [0]
66	-0.6 [-1]
68	-0.6 [-1]
70	-0.6 [-1]
72	-0.6 [-1]
74	-0.6 [-1]
76	-0.6 [-1]
78	-0.6 [-1]
80	-0.6 [-1]
82	-0.6 [-1]
84	-0.6 [-1]
86	-0.6 [-1]
88	-0.6 [-1]
90	-0.6 [-1]
92	-0.6 [-1]
94	-0.6 [-1]
96	-0.6 [-1]
98	-0.6 [-1]

Time (msec)	Delta-V, Lateral (MPH [km/h])
100	-0.6 [-1]
102	-0.6 [-1]
104	-0.6 [-1]
106	-0.6 [-1]
108	-0.6 [-1]
110	-0.6 [-1]
112	-0.6 [-1]
114	-1.2 [-2]
116	-1.2 [-2]
118	-1.2 [-2]
120	-0.6 [-1]
122	-0.6 [-1]
124	-0.6 [-1]
126	-0.6 [-1]
128	-0.6 [-1]
130	-0.6 [-1]
132	-0.6 [-1]
134	-0.6 [-1]
136	-0.6 [-1]
138	-0.6 [-1]
140	-0.6 [-1]
142	-0.6 [-1]
144	-0.6 [-1]
146	0.0 [0]
148	0.0 [0]
150	-0.6 [-1]
152	-0.6 [-1]
154	-0.6 [-1]
156	-0.6 [-1]
158	-0.6 [-1]
160	-0.6 [-1]
162	-0.6 [-1]
164	-0.6 [-1]
166	-0.6 [-1]
168	-0.6 [-1]
170	-0.6 [-1]
172	-0.6 [-1]
174	-0.6 [-1]
176	-0.6 [-1]
178	-0.6 [-1]
180	-1.2 [-2]
182	-0.6 [-1]
184	-1.2 [-2]
186	-1.2 [-2]
188	-1.2 [-2]
190	-1.2 [-2]
192	-1.2 [-2]
194	-1.9 [-3]
196	-1.9 [-3]
198	-1.9 [-3]

Time (msec)	Delta-V, Lateral (MPH [km/h])
200	-1.2 [-2]
202	-1.2 [-2]
204	-1.2 [-2]
206	-1.2 [-2]
208	-1.2 [-2]
210	-1.2 [-2]
212	-1.2 [-2]
214	-1.2 [-2]
216	-1.2 [-2]
218	-1.2 [-2]
220	-1.9 [-3]
222	-1.9 [-3]
224	-1.2 [-2]
226	-1.2 [-2]
228	-1.2 [-2]
230	-1.2 [-2]
232	-1.2 [-2]
234	-1.2 [-2]
236	-1.2 [-2]
238	-0.6 [-1]
240	-1.2 [-2]
242	-1.2 [-2]
244	-1.2 [-2]
246	-1.2 [-2]
248	-1.2 [-2]
250	-1.2 [-2]
252	0.0 [0]
254	0.0 [0]
256	0.0 [0]
258	0.0 [0]
260	0.0 [0]
262	0.0 [0]
264	0.0 [0]
266	0.0 [0]
268	0.0 [0]
270	0.0 [0]
272	0.0 [0]
274	0.0 [0]
276	0.0 [0]
278	0.0 [0]
280	0.0 [0]
282	0.0 [0]
284	0.0 [0]
286	0.0 [0]
288	0.0 [0]
290	0.0 [0]
292	0.0 [0]
294	0.0 [0]
296	0.0 [0]
298	0.0 [0]

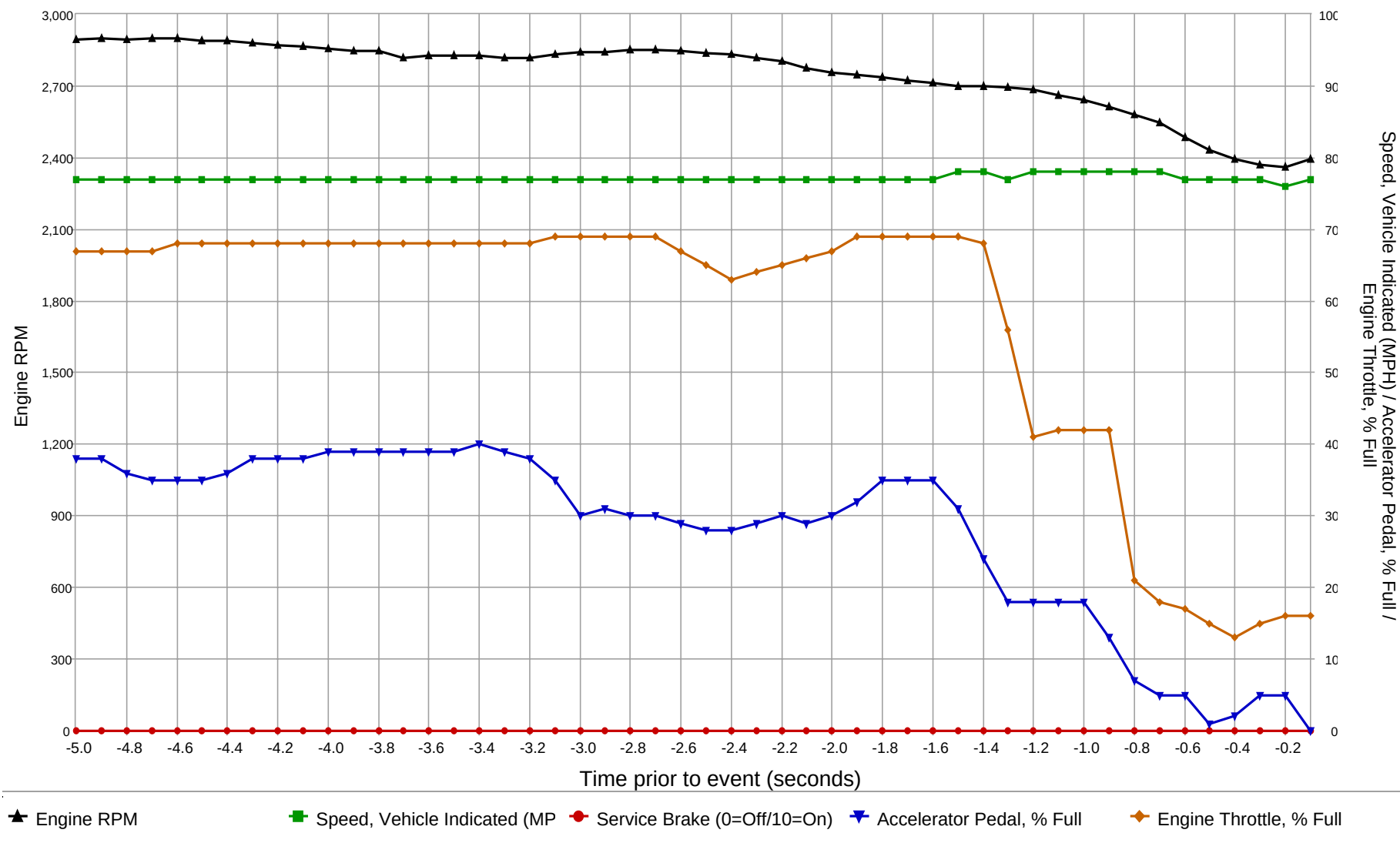
Rollover Crash Pulse (1st Prior Event) (if equipped)

Time (msec)	Angular Rate (deg/sec)	Time (msec)	Angular Rate (deg/sec)	Time (msec)	Angular Rate (deg/sec)
-2500	-3.26	-1500	3.26	-500	3.26
-2480	-3.26	-1480	3.26	-480	3.26
-2460	-3.26	-1460	3.26	-460	3.26
-2440	-6.52	-1440	3.26	-440	0.00
-2420	-6.52	-1420	3.26	-420	0.00
-2400	-3.26	-1400	0.00	-400	0.00
-2380	-3.26	-1380	0.00	-380	-3.26
-2360	-3.26	-1360	0.00	-360	-3.26
-2340	-3.26	-1340	0.00	-340	-3.26
-2320	0.00	-1320	0.00	-320	-3.26
-2300	0.00	-1300	0.00	-300	-3.26
-2280	0.00	-1280	0.00	-280	-6.52
-2260	3.26	-1260	-3.26	-260	-6.52
-2240	3.26	-1240	0.00	-240	-3.26
-2220	3.26	-1220	-3.26	-220	0.00
-2200	6.52	-1200	-3.26	-200	-3.26
-2180	6.52	-1180	0.00	-180	0.00
-2160	6.52	-1160	0.00	-160	3.26
-2140	6.52	-1140	-3.26	-140	3.26
-2120	6.52	-1120	0.00	-120	3.26
-2100	6.52	-1100	-3.26	-100	6.52
-2080	6.52	-1080	-3.26	-80	9.77
-2060	3.26	-1060	-3.26	-60	19.55
-2040	3.26	-1040	-3.26	-40	71.67
-2020	3.26	-1020	-3.26	-20	61.89
-2000	0.00	-1000	-3.26	0	26.06
-1980	0.00	-980	0.00	20	-68.41
-1960	0.00	-960	0.00	40	-39.09
-1940	0.00	-940	0.00	60	-26.06
-1920	0.00	-920	0.00	80	-29.32
-1900	0.00	-900	3.26	100	-16.29
-1880	0.00	-880	3.26	120	-3.26
-1860	0.00	-860	3.26	140	22.80
-1840	0.00	-840	3.26	160	13.03
-1820	0.00	-820	3.26	180	13.03
-1800	0.00	-800	3.26	200	78.18
-1780	3.26	-780	3.26	220	-6.52
-1760	3.26	-760	0.00	240	3.26
-1740	0.00	-740	0.00	260	0.00
-1720	0.00	-720	0.00	280	0.00
-1700	0.00	-700	0.00	300	-3.26
-1680	0.00	-680	0.00	320	0.00
-1660	0.00	-660	0.00	340	13.03
-1640	0.00	-640	0.00	360	9.77
-1620	0.00	-620	0.00	380	9.77
-1600	3.26	-600	0.00	400	3.26
-1580	0.00	-580	0.00	420	0.00
-1560	3.26	-560	3.26	440	0.00
-1540	3.26	-540	3.26	460	0.00
-1520	3.26	-520	3.26	480	0.00

Rollover Crash Pulse (1st Prior Event) (if equipped)

Time (msec)	Angular Rate (deg/sec)	Time (msec)	Angular Rate (deg/sec)
500	3.26	1500	416.97
520	3.26	1520	416.97
540	0.00	1540	416.97
560	3.26	1560	416.97
580	3.26	1580	416.97
600	3.26	1600	416.97
620	0.00	1620	416.97
640	0.00	1640	416.97
660	0.00	1660	416.97
680	3.26	1680	416.97
700	0.00	1700	416.97
720	3.26	1720	416.97
740	0.00	1740	416.97
760	3.26	1760	416.97
780	3.26	1780	416.97
800	3.26	1800	416.97
820	3.26	1820	416.97
840	3.26	1840	416.97
860	3.26	1860	416.97
880	3.26	1880	416.97
900	6.52	1900	416.97
920	6.52	1920	416.97
940	6.52	1940	416.97
960	6.52	1960	416.97
980	6.52	1980	416.97
1000	6.52	2000	416.97
1020	6.52	2020	416.97
1040	6.52	2040	416.97
1060	6.52	2060	416.97
1080	3.26	2080	416.97
1100	6.52	2100	416.97
1120	6.52	2120	416.97
1140	6.52	2140	416.97
1160	6.52	2160	416.97
1180	6.52	2180	416.97
1200	6.52	2200	416.97
1220	6.52	2220	416.97
1240	6.52	2240	416.97
1260	6.52	2260	416.97
1280	416.97	2280	416.97
1300	416.97	2300	416.97
1320	416.97	2320	416.97
1340	416.97	2340	416.97
1360	416.97	2360	416.97
1380	416.97	2380	416.97
1400	416.97	2400	416.97
1420	416.97	2420	416.97
1440	416.97		
1460	416.97		
1480	416.97		

Pre-Crash Data (1st Prior Event)



SNA values will not be plotted on the graph

Pre-Crash Data (1st Prior 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	Engine RPM	Stability Control	Raw Manifold Pressure (kPa)	PCM MIL
-5.0	Complete	77 [124]	38	67	Off	2,896	On	94	Off
-4.9	Complete	77 [124]	38	67	Off	2,900	On	94	Off
-4.8	Complete	77 [124]	36	67	Off	2,897	On	94	Off
-4.7	Complete	77 [124]	35	67	Off	2,902	On	95	Off
-4.6	Complete	77 [124]	35	68	Off	2,900	On	94	Off
-4.5	Complete	77 [124]	35	68	Off	2,890	On	94	Off
-4.4	Complete	77 [124]	36	68	Off	2,891	On	94	Off
-4.3	Complete	77 [124]	38	68	Off	2,882	On	94	Off
-4.2	Complete	77 [124]	38	68	Off	2,873	On	95	Off
-4.1	Complete	77 [124]	38	68	Off	2,867	On	94	Off
-4.0	Complete	77 [124]	39	68	Off	2,855	On	94	Off
-3.9	Complete	77 [124]	39	68	Off	2,846	On	94	Off
-3.8	Complete	77 [124]	39	68	Off	2,848	On	94	Off
-3.7	Complete	77 [124]	39	68	Off	2,821	On	95	Off
-3.6	Complete	77 [124]	39	68	Off	2,829	On	95	Off
-3.5	Complete	77 [124]	39	68	Off	2,830	On	95	Off
-3.4	Complete	77 [124]	40	68	Off	2,829	On	95	Off
-3.3	Complete	77 [124]	39	68	Off	2,818	On	94	Off
-3.2	Complete	77 [124]	38	68	Off	2,818	On	94	Off
-3.1	Complete	77 [124]	35	69	Off	2,832	On	95	Off
-3.0	Complete	77 [124]	30	69	Off	2,844	On	94	Off
-2.9	Complete	77 [124]	31	69	Off	2,842	On	94	Off
-2.8	Complete	77 [124]	30	69	Off	2,851	On	95	Off
-2.7	Complete	77 [124]	30	69	Off	2,853	On	95	Off
-2.6	Complete	77 [124]	29	67	Off	2,845	On	95	Off
-2.5	Complete	77 [124]	28	65	Off	2,836	On	94	Off
-2.4	Complete	77 [124]	28	63	Off	2,835	On	94	Off
-2.3	Complete	77 [125]	29	64	Off	2,818	On	95	Off
-2.2	Complete	77 [125]	30	65	Off	2,806	On	94	Off
-2.1	Complete	77 [124]	29	66	Off	2,775	On	94	Off
-2.0	Complete	77 [125]	30	67	Off	2,756	On	95	Off
-1.9	Complete	77 [125]	32	69	Off	2,746	On	95	Off
-1.8	Complete	77 [125]	35	69	Off	2,738	On	94	Off
-1.7	Complete	77 [125]	35	69	Off	2,722	On	94	Off
-1.6	Complete	77 [125]	35	69	Off	2,716	On	95	Off
-1.5	Complete	78 [125]	31	69	Off	2,699	On	95	Off
-1.4	Complete	78 [125]	24	68	Off	2,699	On	94	Off
-1.3	Complete	77 [125]	18	56	Off	2,693	On	93	Off
-1.2	Complete	78 [125]	18	41	Off	2,686	On	93	Off
-1.1	Complete	78 [125]	18	42	Off	2,663	On	93	Off
-1.0	Complete	78 [125]	18	42	Off	2,643	On	93	Off
-0.9	Complete	78 [125]	13	42	Off	2,614	On	92	Off
-0.8	Complete	78 [125]	7	21	Off	2,579	On	82	Off
-0.7	Complete	78 [125]	5	18	Off	2,548	On	73	Off
-0.6	Complete	77 [124]	5	17	Off	2,485	On	68	Off
-0.5	Complete	77 [124]	1	15	Off	2,431	On	61	Off
-0.4	Complete	77 [123]	2	13	Off	2,396	On	54	Off
-0.3	Complete	77 [123]	5	15	Off	2,372	On	53	Off
-0.2	Complete	76 [123]	5	16	Off	2,361	On	59	Off
-0.1	Complete	77 [124]	0	16	Off	2,394	On	58	Off

Pre-Crash Data (1st Prior Event - table 2 of 4)

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

Time Stamp (sec)	ESC MIL	ETC Lamp	Engine Torque Applied	PRND Status
-5.0	Off	Off	Yes	Drive
-4.9	Off	Off	Yes	Drive
-4.8	Off	Off	Yes	Drive
-4.7	Off	Off	Yes	Drive
-4.6	Off	Off	Yes	Drive
-4.5	Off	Off	Yes	Drive
-4.4	Off	Off	Yes	Drive
-4.3	Off	Off	Yes	Drive
-4.2	Off	Off	Yes	Drive
-4.1	Off	Off	Yes	Drive
-4.0	Off	Off	Yes	Drive
-3.9	Off	Off	Yes	Drive
-3.8	Off	Off	Yes	Drive
-3.7	Off	Off	Yes	Drive
-3.6	Off	Off	Yes	Drive
-3.5	Off	Off	Yes	Drive
-3.4	Off	Off	Yes	Drive
-3.3	Off	Off	Yes	Drive
-3.2	Off	Off	Yes	Drive
-3.1	Off	Off	Yes	Drive
-3.0	Off	Off	Yes	Drive
-2.9	Off	Off	Yes	Drive
-2.8	Off	Off	Yes	Drive
-2.7	Off	Off	Yes	Drive
-2.6	Off	Off	Yes	Drive
-2.5	Off	Off	Yes	Drive
-2.4	Off	Off	Yes	Drive
-2.3	Off	Off	Yes	Drive
-2.2	Off	Off	Yes	Drive
-2.1	Off	Off	Yes	Drive
-2.0	Off	Off	Yes	Drive
-1.9	Off	Off	Yes	Drive
-1.8	Off	Off	Yes	Drive
-1.7	Off	Off	Yes	Drive
-1.6	Off	Off	Yes	Drive
-1.5	Off	Off	Yes	Drive
-1.4	Off	Off	Yes	Drive
-1.3	Off	Off	Yes	Drive
-1.2	Off	Off	Yes	Drive
-1.1	Off	Off	Yes	Drive
-1.0	Off	Off	Yes	Drive
-0.9	Off	Off	Yes	Drive
-0.8	Off	Off	Yes	Drive
-0.7	Off	Off	Yes	Drive
-0.6	Off	Off	Yes	Drive
-0.5	Off	Off	Yes	Drive
-0.4	Off	Off	Yes	Drive
-0.3	Off	Off	Yes	Drive
-0.2	Off	Off	Yes	Drive
-0.1	Off	Off	Yes	Drive

Pre-Crash Data (1st Prior Event - table 3 of 4)

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

Time Stamp (sec)	Tire Location 1	Tire Location 2	Tire Location 3	Tire Pressure Status 1	Tire Pressure Status 2	Tire Pressure Status 3	Tire Pressure 1	Tire Pressure 2	Tire Pressure 3
-5.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA

Pre-Crash Data (1st Prior Event - table 4 of 4)

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

Time Stamp (sec)	Cruise Control Active (if equip.)	Cruise Control System (if equip.)
-5.0	No	Off
-4.9	No	Off
-4.8	No	Off
-4.7	No	Off
-4.6	No	Off
-4.5	No	Off
-4.4	No	Off
-4.3	No	Off
-4.2	No	Off
-4.1	No	Off
-4.0	No	Off
-3.9	No	Off
-3.8	No	Off
-3.7	No	Off
-3.6	No	Off
-3.5	No	Off
-3.4	No	Off
-3.3	No	Off
-3.2	No	Off
-3.1	No	Off
-3.0	No	Off
-2.9	No	Off
-2.8	No	Off
-2.7	No	Off
-2.6	No	Off
-2.5	No	Off
-2.4	No	Off
-2.3	No	Off
-2.2	No	Off
-2.1	No	Off
-2.0	No	Off
-1.9	No	Off
-1.8	No	Off
-1.7	No	Off
-1.6	No	Off
-1.5	No	Off
-1.4	No	Off
-1.3	No	Off
-1.2	No	Off
-1.1	No	Off
-1.0	No	Off
-0.9	No	Off
-0.8	No	Off
-0.7	No	Off
-0.6	No	Off
-0.5	No	Off
-0.4	No	Off
-0.3	No	Off
-0.2	No	Off
-0.1	No	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.

5A 87 02 27 03 05 FF 0D 27 0E 0F 01 36 38 32 33 32 37 30 38 41 43

5A 88 31 43 34 4E 4A 43 42 41 34 47 44 2A 2A 2A 2A 2A

61 E1 54 32 31 4D 46 32 39 39 35 30 32 33 30 30

61 EA 04 18 00 DB 40 9D 08 01 38 00 00 00 00 00 00 00 00 00

61 02 E1 25 00 00 6A 92 18 00 00 00 20 01 00 00 00 00 00 00

61 31 01 CC 03 03 80 08 08 13 39 12 81 63 68 00 08 07 76 41 48 18 D6 0C 00 1D 3A 06 4C 00 00 00
00 00 00 00 00 00 00 00 00 00 00 83 02 00 66 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00
00
2A 2A 2A 2A 2A 2A

61 32 02 CC 01 03 10 00 00 11 39 12 81 63 40 00 08 00 00 41 48 18 D6 0C 00 ED 8B FD 61 1D 1D 00
00 00 00 00 00 00 00 00 00 00 00 80 02 0F 00 00 00 64 28 00 00 00 0E 0F 01 58 00 00 00 00 00 00
00
00
2A 2A 2A 2A 2A 2A

71 02 01 00 CC 00 FF FF 2A FF FF FF FF FF FF FF FF 00 03 00 01 00 FF FF FF FF FF FF FF 48
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 FF FF 02 00
04 00
00 00 00 00 00

71 02 01 01 CC 00 09 7B 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 50 AF 52 2A 75 5F 07 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3B E5 00 00
04 00
00 00 00 00 00

71 02 01 02 CC 00 09 7B 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 50 AF 52 2A 75 5F 07 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3B E5 00 00
04 00
00 00 00 00 00

71 02 01 03 CC 00 09 7B 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 50 AF 52 2A 75 5F 07 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3B E5 00 00
04 00
00 00 00 00 00

71 02 01 04 CC 00 09 7B 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 50 AF 52 2A 75 5F 07 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3B E5 00 00
04 00
00 00 00 00 00

71 02 01 05 CC 00 09 7B 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 50 AF 52 2A 75 5F 07 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3B E5 00 00
04 00
00 00 00 00 00

71 02 01 06 CC 00 09 7B 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 50 AF 52 2A 75 5F 07 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3B E5 00 00
04 00
00 00 00 00 00

71 02 01 07 CC 00 09 7B 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 50 AF 52 2A 75 5F 07 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3B E5 00 00
04 00

00 00 00 00 00

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71 02 01 15 CC 00 09 5C 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 33 CC 3D 1F 44 1A 03 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3D BE 00 00
04 00
00 00 00 00 00

71 02 01 16 CC 00 09 7F 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 36 C9 3C 1E 4C 1F 02 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3D D4 00 00
04 00
00 00 00 00 00

71 02 01 17 CC 00 09 B5 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 3C C3 41 20 55 23 08 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 22 00 00
04 00
00 00 00 00 00

71 02 01 18 CC 00 09 F4 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 3D C2 43 21 5B 24 09 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 70 00 00
04 00
00 00 00 00 00

71 02 01 19 CC 00 0A 13 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 44 BC 45 00 67 2B 0D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 7C 00 00
04 00
00 00 00 00 00

71 02 01 1A CC 00 0A 36 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 64 9B 4E 27 73 55 17 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 6A 00 00
04 00
00 00 00 00 00

71 02 01 1B CC 00 0A 53 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 6E 91 59 2C 74 54 1F C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 60 00 00
04 00
00 00 00 00 00

71 02 01 1C CC 00 0A 67 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 6D 92 59 2C 74 54 1F C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 63 00 00
04 00
00 00 00 00 00

71 02 01 1D CC 00 0A 7E 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 6C 93 59 2C 74 53 1F C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 5D 00 00
04 00
00 00 00 00 00

71 02 01 1E CC 00 FF FF 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 FF FF FF FF FF FF FF 00
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 FF FF 02 00
07 00
00 00 00 00 00

71 02 01 1F CC 00 FF FF 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 FF FF FF FF FF FF FF 00
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 FF FF 02 00
07 00
00 00 00 00 00

71 02 01 20 CC 00 FF FF 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 FF FF FF FF FF FF FF 00
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 FF FF 02 00
07 00
00 00 00 00 00

71 02 01 21 CC 00 FF FF 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 FF FF FF FF FF FF FF 00
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 FF FF 02 00
07 00
00 00 00 00 00

71 02 01 22 CC 00 FF FF 00 FF FF FF FF FF FF FF FF 00 03 00 00 00 FF FF FF FF FF FF FF 00
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 FF FF 02 00

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71 02 01 30 CC 00 00 00 2E FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3D C2 30 18 77 23 00 D0
01 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 02 00
04 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

71 02 01 31 CC 00 FF FF 2E FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3D C2 30 18 77 23 00 D0
01 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 02 00
04 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

71 02 02 00 CC 00 09 5A 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 35 CB 38 1C 49 21 00 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 07 00 00
04 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

71 02 02 01 CC 00 09 39 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3A C5 43 21 4A 21 09 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3D 75 00 00
04 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

71 02 02 02 CC 00 09 44 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3A C5 43 21 42 1E 09 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3D 9E 00 00
04 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

71 02 02 03 CC 00 09 5C 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 33 CC 3D 1F 44 1A 03 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3D BE 00 00
04 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

71 02 02 04 CC 00 09 7F 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 36 C9 3C 1E 4C 1F 02 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3D D4 00 00
04 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

71 02 02 05 CC 00 09 B5 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3C C3 41 20 55 23 08 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 22 00 00
04 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

71 02 02 06 CC 00 09 F4 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3D C2 43 21 5B 24 09 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 70 00 00
04 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

71 02 02 07 CC 00 0A 13 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 44 BC 45 00 67 2B 0D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 7C 00 00
04 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

71 02 02 08 CC 00 0A 36 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 64 9B 4E 27 73 55 17 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 6A 00 00
04 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

71 02 02 09 CC 00 0A 53 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 6E 91 59 2C 74 54 1F C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 60 00 00
04 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

71 02 02 0A CC 00 0A 67 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 6D 92 59 2C 74 54 1F C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 63 00 00
04 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

71 02 02 0B CC 00 0A 7E 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 6C 93 59 2C 74 53 1F C0

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00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 5D 00 00
04 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

71 02 02 0C CC 00 0A 85 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 6E 92 59 2C 74 72 1F C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 55 00 00
04 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

71 02 02 0D CC 00 0A 8B 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 9B 64 60 30 76 89 2B C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 5E 00 00
04 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

71 02 02 0E CC 00 0A 8B 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 A4 5B 6D 36 77 8B 36 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 5D 00 00
04 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

71 02 02 0F CC 00 0A 9C 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 A5 5A 77 3B 77 8C 3D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 59 00 00
04 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

71 02 02 10 CC 00 0A A2 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 A5 5A 77 3B 76 8C 3D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 59 00 00
04 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

71 02 02 11 CC 00 0A B2 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 A5 5A 77 3B 76 8C 3D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 55 00 00
04 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

71 02 02 12 CC 00 0A BA 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 A5 5A 72 39 77 8B 38 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 4F 00 00
04 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

71 02 02 13 CC 00 0A C4 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 A1 5E 6F 37 77 87 34 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 40 00 00
04 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

71 02 02 14 CC 00 0A D7 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 A0 5F 6E 37 76 86 33 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 37 00 00
04 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

71 02 02 15 CC 00 0A F6 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 9E 61 6E 37 76 84 34 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 43 00 00
04 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

71 02 02 16 CC 00 0B 02 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 9D 63 6D 36 77 82 33 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 4F 00 00
04 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

71 02 02 17 CC 00 0B 13 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 99 66 6B 35 76 80 31 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 3D 00 00
04 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

71 02 02 18 CC 00 0B 14 00 FF FF FF FF FF FF FF FF FF 00 03 00 00 00 9B 64 6B 00 76 84 31 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 3E 2C 00 00
04 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

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F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5 F5
F3 F2 F2 F2 F2 F1 F1 F2 F1 F1 F2 F2 F2 F2 F1 F2 F1 F2 F2 F2 F2 F2 F2 F2 F2 F2 F2 F2 F2 F2 F2 F2 F2
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58 17 D1 EB E0 D1 EA E0 D1 EE E0 D1 ED E0 9C 2D E0 9C 29 E0 9C 49 E0 9C 3A E0 9B 1A E0 9B 22 E0
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E0 D1 F1 E0 9B C7 E0

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