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**Special Crash Investigations:
Remote Vehicle Fire/Child
Restraint System Investigation;
Vehicle: 2011 Jeep Liberty;
Location: Illinois;
Crash Date: December 2017**

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16. Abstract This report documents the remote vehicle fire/child restraint system (CRS) investigation of a crash and post-impact fire involving a 2011 Jeep Liberty occupied by an 11-month-old female. The crash occurred at night in December 2017 at an intersection in a residential area of Illinois. The Jeep was driven by a belted 26-year-old female. The second row right seat was occupied by the 11-month-old female seated in a rear-facing CRS. The Jeep Liberty entered the intersection at an unknown speed. The other vehicle involved in the crash was a 2009 Jeep Compass driven by an unbelted 31-year-old female traveling at high speed while being pursued by local law enforcement. The Compass entered the intersection without stopping, and its front plane struck the left plane of the Liberty. Following the impact, the Liberty struck a utility pole, and the Compass struck a fire hydrant and utility pole. Both vehicles sustained post-impact fires. The driver of the Liberty, who sustained police-reported "K" (fatal) injuries, was transported to a local hospital and declared deceased. The 11-month-old occupant of the Liberty was transported to a local hospital, then to another hospital, and released after an examination that determined she was uninjured. The driver of the Compass was fully ejected during the crash, sustained "K" (fatal) injuries, and was pronounced deceased on-scene.			
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Table of Contents

BACKGROUND	1
SUMMARY	2
Crash Site	2
Pre-Crash	2
Crash	2
Post-Crash	3
2011 JEEP LIBERTY.....	3
Description	3
Exterior Damage	3
Event Data Recorder	3
Child Safety Seat Discussion	4
Vehicle Fire Discussion	4
Interior Damage	4
Manual Restraint Systems.....	5
Supplemental Restraint Systems	5
NHTSA Recalls and Investigations	5
2011 JEEP LIBERTY OCCUPANTS.....	5
Driver Demographics	5
Driver Injuries	5
Driver Kinematics	6
Second Row Right Occupant Demographics.....	6
Second Row Right Occupant Injuries.....	6
Second Row Right Occupant Kinematics.....	6
2009 JEEP COMPASS	7
Description	7
Exterior Damage	7
Event Data Recorder	7
Occupant Data.....	7
CRASH DIAGRAM.....	8
APPENDIX A: Event Data Recorder Report for 2009 Jeep Compass.....	A-1

Special Crash Investigations
Remote Vehicle Fire/Child Restraint System Investigation
Case Number: DS19014
Vehicle: 2011 Jeep Liberty
Location: Illinois
Crash Date: December 2017

BACKGROUND

This report documents the remote vehicle fire/child restraint system (CRS) investigation of a crash and post-impact fire involving a 2011 Jeep Liberty that was occupied by an 11-month-old female seated in a CRS. The investigation was intended to determine the events leading to the fire, how quickly the fire spread to the occupant compartment, the magnitude of the fire, how quickly EMS and other responders arrived on-scene, occupant restraint usage, demographics, injury data, and CRS usage. The crash was identified during a review of Fatality Analysis Reporting System (FARS) crash reports. The criteria for the crash type included an impact not involving the rear plane, fire that spread to the occupant compartment, and at least one occupant seated in a CRS. The Special Crash Investigations (SCI) team obtained the police report and photos, and the case was initiated by the SCI group of the National Highway Traffic Safety Administration in July 2019.

The crash occurred at night in December 2017 in a residential area in Illinois. The crash site was a four-leg intersection of an east/west roadway and a north/south roadway controlled by a flashing red signal and stop signs for all directions. The Liberty was driven westbound by a belted 26-year-old female. The second row right seat was occupied by the 11-month-old female seated in a rear-facing CRS. The Liberty entered the intersection at an unknown speed. The other vehicle involved in the crash was a 2009 Jeep Compass driven by an unbelted 31-year-old female traveling northbound at a high rate of speed while being pursued by local law enforcement. The Compass entered the intersection without stopping, and the front plane of the Compass struck the left plane of the Liberty. Following the impact, the Liberty struck a utility pole, and the Compass struck a fire hydrant and utility pole before coming to rest. Both vehicles sustained post-impact fires.

The driver of the Liberty sustained police-reported “K” (fatal) injuries and was transported to a local hospital, where she was declared deceased. The 11-month-old occupant of the Liberty was not injured and was transported to two hospitals before being released. The driver of the Compass was fully ejected during the crash, sustained “K” (fatal) injuries, and was pronounced deceased on-scene. Both vehicles were towed due to damage. Both vehicles were supported by the Bosch Crash Data Retrieval (CDR) system. The investigating police successfully imaged the Event Data Recorder (EDR) for the Compass, and the report is included as Appendix A in this report. Their efforts to image the EDR for the Liberty were unsuccessful due to fire damage.

SUMMARY

Crash Site

The crash site was a four-leg intersection of an undivided east/west roadway and an undivided north/south roadway in a residential area of Illinois (**Figure 1**). The surface was paved with asphalt in traveled and polished condition. The east/west roadway consisted of one lane for each direction separated by a two-way, left turn lane. The lanes were separated lanes by solid and dashed yellow painted striped, and the roadway was bordered by raised concrete curbs. The north/south roadway consisted of one lane for each direction. This roadway had no stripes delineating or bordering the lanes. It was bordered by raised concrete curbs. The intersection was controlled by an overhead flashing red signal and stop signs for all directions of travel. Both roadways were straight and level. The speed limit was 48 km/h (30 mph). Conditions at the time of the crash were dark with overhead illumination, clear, and dry. A crash diagram is included at the end of this report.

Pre-Crash

The Liberty was traveling westbound at an unknown speed. The driver presumably stopped prior to entering the intersection. The Compass was traveling northbound at an EDR-reported speed of 154 km/h (96 mph) at -1.0 seconds to algorithm enable (AE). Engine throttle was 100 percent full, accelerator pedal was 90.8 percent full, and the service brake was “off.” At -0.3 seconds to AE, the service brake was “on,” and at -0.1 second to AE, the vehicle speed was 149 km/h (93 mph). The driver of the Compass entered the intersection without stopping.

Crash

The front plane of the Compass struck the left plane of the Liberty in an angled configuration (Event 1). For the Compass, the vehicle’s EDR reported a maximum acceleration of -122.55 Gs at 39 ms, and the calculated cumulative delta V was 79.3 km/h (49.3 mph). The calculated delta V for the Liberty was 104.6 km/h (65.0 mph). The Compass initiated a northwest trajectory and traveled through the intersection, where it struck a concrete curb with an unknown plane (Event 2), departed the roadway on the left edge, striking a fire hydrant with its right plane (Event 3), and striking a utility pole with its back plane (Event 4). After coming to rest, the vehicle caught fire that spread to the occupant compartment (Event 5).

During the crash sequence, the driver of the Compass was fully ejected and sustained fatal injuries. The Liberty initiated a clockwise rotation before traveling in a northbound trajectory

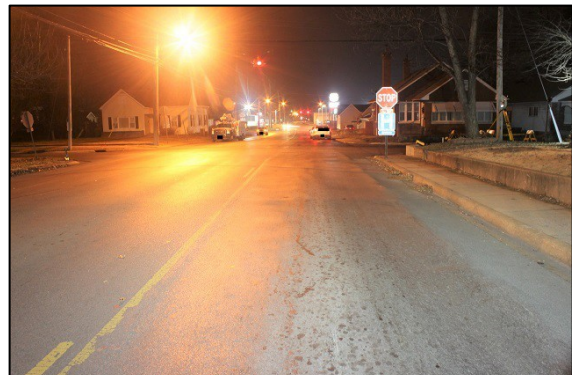


Figure 1. Crash site, looking west (police photo).

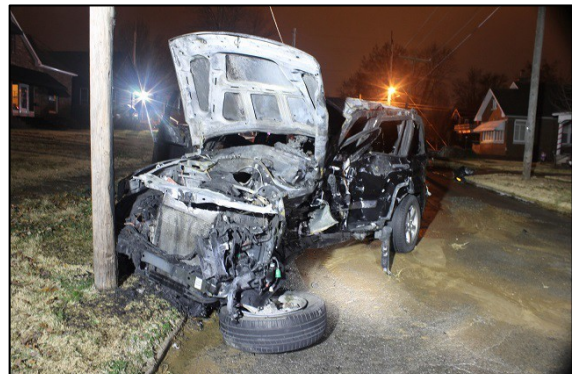


Figure 2. Final rest position looking south, the 2011 Jeep Liberty (police photo).

and departing the northbound lane on the right edge and striking a utility pole with its front plane (Event 6) (**Figure 2**). After coming to rest, the vehicle caught fire that spread to the occupant compartment (Event 7).

Post-Crash

The unresponsive driver of the Liberty was removed from the vehicle through the left front door by emergency responders and transported to a local hospital, where she was pronounced deceased in the ER. According to the ambulance service, the 11-month-old female occupant was removed from the Liberty and transported to a local hospital by a bystander who was on-scene. The occupant arrived at the hospital ER 31 minutes after the crash. After being examined at the hospital, she was transported by air to another hospital, where she was examined and released. According to her medical records, she was not injured. The driver of the Compass was declared deceased on-scene. Both vehicles were towed due to damage.

2011 JEEP LIBERTY

Description

The 2011 Jeep Liberty was a 4-door sport utility vehicle (SUV) identified by the Vehicle Identification Number (VIN) 1J4PN5GK2BWxxxxxx. The electronic odometer reading was unknown. The vehicle was configured with two rows to seat five occupants; a 6-cylinder, 3.7-liter, gasoline engine; 4-wheel drive; and hydraulic brakes. The vehicle manufacturer recommended tire size P235/65R17 for the front and rear and the Liberty was configured with Nokian Entyre 2.0 tires of the recommended size. The front row was configured with bucket seats and adjustable head restraints. The driver's seat track setting was unknown. The second row was configured with a bench seat with adjustable head restraints and folding backs.

Exterior Damage

The Liberty sustained major severity crush to the left plane in the impact with the Compass (**Figure 3**). It sustained undetermined severity damage to the front plane during the pole impact and major severity damage to multiple planes during the fire. Police photos suggested that direct damage caused during the vehicle-to-vehicle impact extended from the left front corner to the left B-pillar. Induced damage was distributed from the left front corner to the left rear corner. Burn damage caused during the fire was present on the left, right front and top planes. The estimated collision deformation classification (CDC) for the Liberty in Event 1 was 10LYAW3. The estimated CDC for the pole impact in Event 6 was 12F99N99. This event likely resulted in minor damage which was overlapped by subsequent fire damage.



Figure 3. Left side view, the 2011 Jeep Liberty (police photo).

Event Data Recorder

The Liberty was equipped with an air bag supplemental restraint system including an electronic control unit that had EDR capability to store crash events. The investigating police attempted to image the vehicle's EDR but were unsuccessful due to fire damage.

Child Safety Seat Discussion

Graco Snugride Click Connect 30 Infant Car Seat

The 11-month-old female was seated in a rear-facing Graco Snugride Click Connect 30 infant car seat (**Figure 4**) in the second row right position. The model number was 1957113, and the date of manufacture was 10/29/2015. It was configured with a removable (optional) base, carry handle, fabric canopy, head pillow, and 5-point harness with chest clip. The base was configured with Lower Anchors and Tethers for Children (LATCH) lower straps and storage. According to the police report, the Snugride was installed using the vehicle's lap and shoulder seat belt. On-scene photos of the CRS did not include the base, and the police report indicated it was removed from the vehicle after removal of the seat belt, suggesting it was installed without the optional base. The harness shoulder straps were positioned in the highest set of slots. The Snugride was configured for rear-facing-only for infants meeting the following parameters:



Figure 4. Graco Snugride Click Connect 30 infant car seat (police photo).

Weight: 1.8-14 kg (4-30 lb)

Height: 76 cm (30 in) or less

Head must be more than 2.5 cm (1 in) from the top of the headrest

The occupant using the CRS met the height and weight parameters. Given her height of 61 cm (24 in), she likely met the head position parameter.

Vehicle Fire Discussion

Both vehicles sustained post-crash fires. The local fire department responded with four apparatuses and 11 personnel. All four apparatuses were involved with fire suppression; they did not provide transport and the personnel did not interact with the occupants. Both vehicles were burning at the time of their arrival and both occupants had been removed from the Liberty. They were notified two minutes after the crash, arrived six minutes after, controlled the incident in 16 minutes, and cleared the last unit from the scene one hour and 26 minutes after the crash. The vehicle fires were extinguished using tank water. The fire incident report indicated that the area of origin for the fire of the Liberty was the engine compartment. The heat source, item first ignited, and type of material first ignited were undetermined. For the Compass, the area of origin for the fire was the engine compartment. The heat source, item first ignited, and type of material first ignited were undetermined. No burn or inhalation injuries were reported for any occupants from either vehicle.

Interior Damage

The Liberty's interior sustained damage caused by impact forces and fire (**Figure 5**). The windshield and left side glass was disintegrated. Police photos revealed lateral intrusion present in the left aspect of the front and second rows.

Manual Restraint Systems

The Liberty was equipped with three-point continuous lap and shoulder seat belts for the front and second rows. The police report stated that the driver was belted at the time of the crash and that an emergency responder cut the belt during efforts to remove the driver from the vehicle. The police report stated that the CRS used by the second row occupant was installed using the Liberty’s lap and shoulder seat belt that was removed from the CRS during efforts to remove the occupant and CRS from the vehicle.



Figure 5. Front row fire damage, the 2011 Jeep Liberty (police photo).

Supplemental Restraint Systems

The Liberty was originally equipped with frontal and seat-mounted side-impact air bags for the front row and inflatable curtain air bags for both rows. The air bag status at the time of the crash was unknown, and the police indicated deployment status was unknown. If any air bags deployed during the crash, police images suggest that they were destroyed by the subsequent fire.

NHTSA Recalls and Investigations

A VIN search last queried in December 2020 revealed no open recalls for the Liberty.

2011 JEEP LIBERTY OCCUPANTS

Driver Demographics

Age/sex: 26 years/female
 Height: 157 cm (62 in)
 Weight: 84 kg (185 lb)
 Eyewear: Unknown
 Seat type: Bucket with adjustable head restraint
 Seat track position: Unknown
 Manual restraint usage: Lap and shoulder belt used
 Usage source: Police report
 Air bags: Status unknown
 Alcohol/drug data: Blood alcohol concentration .055 c/dL, positive for phentermine, caffeine
 Egress from vehicle: Removed through left side door while unresponsive
 Transport from scene: Ambulance to a hospital
 Type of medical treatment: Declared deceased prior to admission

Driver Injuries

Injury No.	Injury	Injury Severity AIS 2015	Involved Physical Components (IPC)	IPC Confidence Level
1	Injuries to the cervical spine NFS	600999.9	Door panel	Probable

Source: medical records.

Driver Kinematics

The belted 26-year-old female driver was seated in an unknown posture. At impact with the other vehicle, she was displaced sharply left in response to the direction of force, probably contacting the left door, which at the same time intruded laterally right while significantly reducing the space in the front left seat position of the front row. Her neck and head likely hyper-flexed to the left in response to the door contact and high delta V, and, according to her medical record, she sustained an unspecified unstable fracture to the cervical spine. The Liberty initiated a clockwise rotation and a northbound trajectory. The driver remained held in her seated position by the lap and shoulder seat belt. At impact with the utility pole, the driver was displaced forward. Following the crash, her seat belt was cut, and she was removed from the vehicle through the left front door by emergency responders while in respiratory arrest with no vital signs present and a Glasgow Coma Score of 3. The driver was transported by ambulance to a local hospital, where she was declared deceased in the emergency department 17 minutes after the crash.

Second Row Right Occupant Demographics

Age/sex:	11 months/female
Height:	61 cm (24 in)
Weight:	8 kg (17 lb)
Eyewear:	None
Seat type:	Bench with folding backs
Seat track position:	Not adjustable
Manual restraint usage:	Lap and shoulder belt used with rear-facing CRS
Usage source:	Police report
Air bags:	IC air bag, unknown if deployed
Egress from vehicle:	Removed due to age and perceived serious injuries
Transport from scene:	Ambulance to a hospital, air transfer to another hospital
Type of medical treatment:	Examined, transferred to another hospital, released

Second Row Right Occupant Injuries

According to the occupant's medical records, she was not injured.

Second Row Right Occupant Kinematics

The 11-month-old female occupant was seated in a rear-facing CRS in the second row right position. She was presumably restrained by the CRS harness system. At impact with the other vehicle, she was displaced to her right (the vehicle's left) in response to the direction of force and held in the CRS by the harness. The vehicle initiated a clockwise rotation, and she remained held in place in the CRS until the Liberty came to rest. According to the responding ambulance service, the child was removed from the vehicle by an unknown party and transported to a local hospital in a private vehicle by a bystander who was on-scene. In 17 minutes, the occupant was in the hospital ER, awaiting transfer to the second hospital approximately 150 km (93 miles) away. The transfer began 35 minutes after the crash, and she arrived at the second hospital one hour and 20 minutes after the crash. After arriving at the second hospital, she was examined and held for observation in the ER for several hours before being discharged to family members.

2009 JEEP COMPASS

Description

The 2009 Jeep Compass (**Figure 6**) was a standard size 4-door SUV configured with a hatchback; front-wheel drive; a 6-cylinder, 2.9-liter, gasoline engine; and hydraulic brakes. The vehicle manufacturer recommended tire size P225/65R17 for the front and rear and the Compass was configured with a Goodyear Integrity tire of the recommended size at the left front position and Goodyear Assurance Fuel Max tires of the recommended size at the other positions.



Figure 6. The 2009 Jeep Compass (police photo).

Exterior Damage

The Compass sustained damage to all planes caused by multiple impacts and a fully involved post-impact fire. The estimated CDC for the vehicle-to-vehicle impact in Event 1 was 12FDEW3. The estimated CDC for the curb impact in Event 2 was 99U99999, and damage was likely present to wheels or undercarriage only. The estimated CDC for the fire hydrant impact in Event 3 was 99R9999, with likely minor damage. The estimated CDC for the utility pole impact in Event 4 was 06BCAW2.

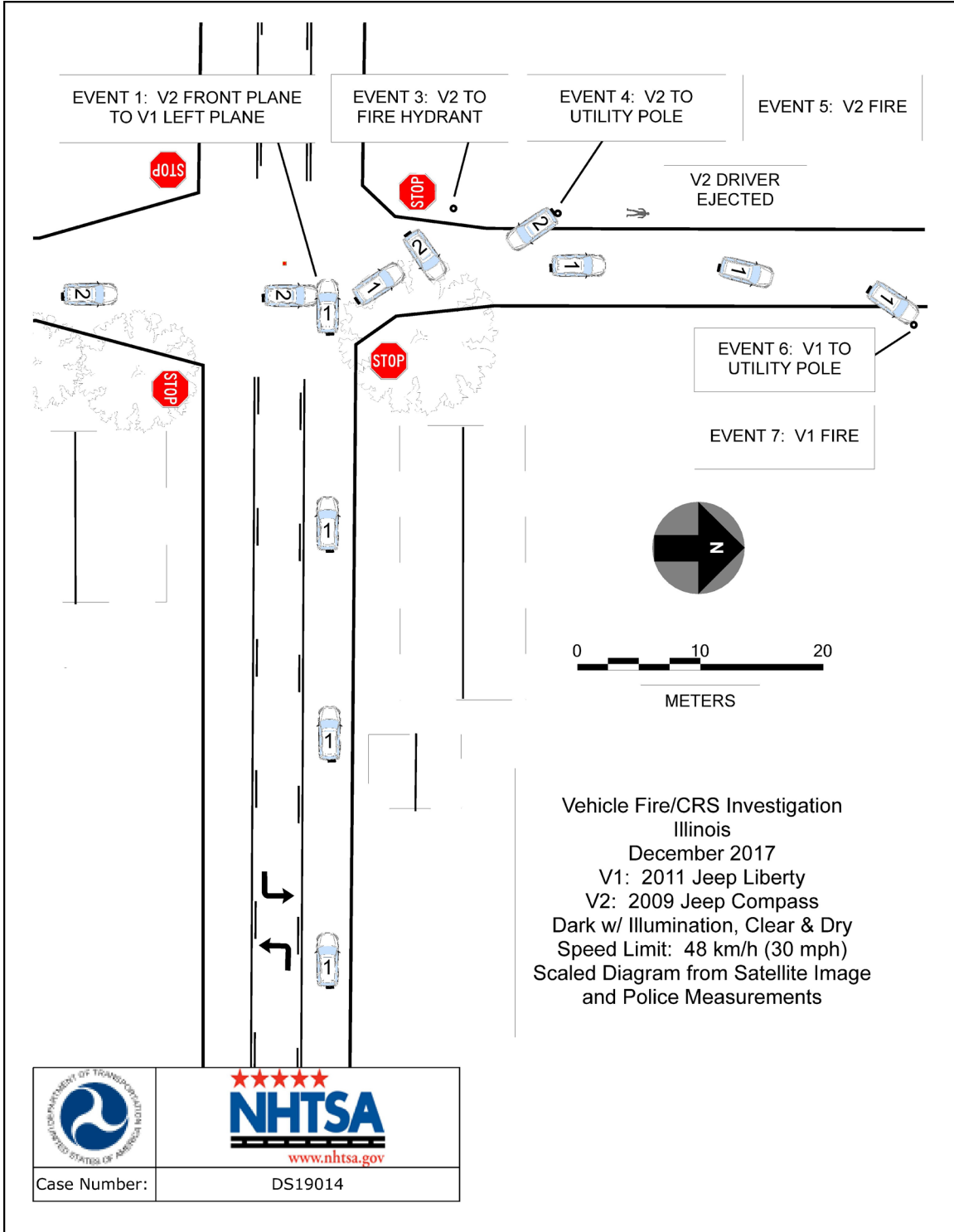
Event Data Recorder

The Compass was equipped with an air bag control module with EDR capability. The EDR was configured with pre-crash data, including the following: engine rpm, vehicle speed, engine throttle %, accelerator pedal %, raw manifold pressure, service brake, brake switch status, ABS, ESP, and cruise control. The EDR report indicated that, at impact with the Liberty, the vehicle speed was approximately 149 km/h (93 mph), the accelerator pedal % was “0,” the service brake was “on,” the brake switch status was “closed,” and the ABS, ESP and cruise control were “off.” The complete EDR report is included in **Appendix A**.

Occupant Data

The unbelted 31-year-old female driver was fully ejected during the crash and sustained fatal injuries of an unknown nature. She was pronounced deceased on-scene. Her toxicology report indicated a blood alcohol concentration of .264 g/dL and positive levels of methamphetamine, amphetamine, norbuprenorphine, and nicotine and cotinine (cigarette smoke).

CRASH DIAGRAM



APPENDIX A: Event Data Recorder Report for 2009 Jeep Compass¹

¹ The Bosch CDR Report contained in this technical report was imaged by the investigating police department. Only a PDF copy of the Bosch CDR Report was provided by the police, and the hexadecimal data contained in the report has been deleted due to the potential personal identifiable information contained (vehicle identification number) in the 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	1..4FT47A79Dxxxxxx
User	
Case Number	
EDR Data Imaging Date	
Crash Date	
Filename	1..4FT47A79Dxxxxxx ACM.CDRX
Saved on	
Imaged with CDR version	Crash Data Retrieval Tool 17.6
Imaged with Software Licensed to (Company Name)	
Reported with CDR version	Crash Data Retrieval Tool 17.6
Reported with Software Licensed to (Company Name)	
EDR Device Type	Airbag Control Module
Event(s) recovered	Most Recent Event

Comments

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 has 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 direct-to-module imaging could cause new events to be recorded in the ACM.

- For additional definitions, please refer to the CDR Help File Glossary.
- As the VIN may be used to determine the configuration of the restraint system, it is imperative that the correct VIN be entered into the CDR Tool during the imaging process.
- For Fiat vehicles, the "Read VIN from Vehicle" feature in the CDR Tool will not work. The VIN will have to be manually entered.
- De la-V is first available starting with some 2009 MY vehicles. On vehicles not equipped with side impact sensing, Latera De la-V will not be available. Latera De la-V is also not available for the 2009 MY Dodge Journey and Fiat Freemont even when equipped with side impact sensing. Longitudina and Latera De la-V are not available for the 2009-2012 MY Chrysler Town and Country, Dodge Grand Caravan, Lancia Voyager.
- The following table provides an explanation of the sign notation for data elements that may be included in this CDR report. A directional reference 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
Longitudina Acceleration	Forward
De la-V, Longitudina	Forward
Maximum De la-V, Longitudina	Forward
Latera Acceleration	Left to Right
De la-V, Latera	Left to Right
Maximum De la-V, Latera	Left to Right
Steering Input*	Steering wheel turned counter clockwise
Angular Rate	Left to Right Rotation Clockwise rotation around the longitudinal axis
Yaw Rate**	Counter clockwise rotation

- * The Steering Input for the following vehicles has a positive sign notation for the steering wheel turned clockwise:
 - o 2003 - 2007 Grand Cherokee
 - o 2003 - 2007 Commander
 - o 2005 - 2009 300, Magnum, and Charger
 - o 2003 - 2009 Charger
- ** The Yaw Rate for the 2011-2012 MY RAM has a positive sign notation for clockwise rotation.

CDR FILE INFORMATION:

- For ACMs that store non-deployment events, 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-NHTSA ACMs that control pedestrian protection devices, a non-deployment event will be stored when the pedestrian protection devices are activated.

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.
- For Continental ACMs:
 - 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)
 - Event Record 3 - Data from another event is stored in the ACM (not necessarily in chronological order) (for modules with 3 stored events)
- For all other ACMs:
 - 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.
 - Etc., (for modules with 3 to 5 stored events)
- 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 front 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:
 - "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 Vehicle Event/Pre-Crash Recorder Status.
- For 2010-2012 MY Dodge Journey and 2010-2012 MY Chrysler Town and Country/Dodge Grand Caravan/Lancia Voyager, a non-deployment event will also display "Interrupted" for the Vehicle Event/Pre-Crash Recorder Status. This non-deployment event can be distinguished from a power loss by:
 - In the System Status at Event and Deployment Command Data section, Event/Deployment Recorder Status will display "Interrupted".
 - In the Deployment Command Data section, a value of "No" will be displayed for each deployment data element.

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:

- 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 the active head restraint systems that are electronically controlled by the ACM. AHRs may activate but not store an EDR Record if the delta V does not exceed the minimum delta V threshold. Activation of any the AHRs, if stored, will be a non-deployment event.

SYSTEM STATUS AT EVENT (if applicable):

- Event Number -
 - Indicates the event number per vehicle ignition cycle for 2010-2012 Sebring, Avenger, Caliber, Nitro, Compass, Liberty, Patriot, Wrangler, and Ram
 - Indicates the overall order of the events for all other applicable vehicles.
- Event Signal Transmission, Complete - "Yes" indicates that the ACM has sent the automatic collision notification (ACN) message.
- Odometer at Event - Vehicle odometer at the time of the event.
- Operation via Energy Reserve Only - "Yes" indicates that the ACM had lost power at or before T0 and was only operating on energy reserve at T0.
- Side Face Cutoff, Activated - Applicable to the Fiat 500. "Yes" indicates that the ACM has sent the automatic collision notification (ACN) message.
- System Voltage at Event, ECU - Voltage at the ACM as measured by the ACM.
- System Voltage at Event, Bussed - Voltage of the vehicle system, communicated on the communication bus to other electronic modules in the vehicle.
- Temperature, Outside - Ambient Air Temperature.
- Time, Airbag Warning Lamp On - This is a cumulative timer. 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.
- Time From event 1 to 2 -
 - If only one event is stored, either a value of 0 or 255 may be displayed for this data element.
 - 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.
- 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.
- Total Number of Events -
 - Stops incrementing whenever each event record is recorded by the ACM for 2010 - 2012 Scoring, Avenger, Cavalier, Nitro, Compass, Liberty, Patriot, Wrangler, and Ram
 - Indicates the total number of events that the ACM has recorded, including those non-deployment events that have been overwritten by a subsequent event, for all other applicable vehicles.
- VIN at Event, Last 3 Digits - Last 3 digits of the VIN of the vehicle at the time the ACM records the event.

STATUS OF THE DATA IN THE MOST RECENT EVENT (if applicable):

Definitions for Data Blocks 1 - 7 and Overall Data Record Complete:

1. Crash Record (system status and DTCs)
2. NHTSA Table #1 Vehicle System data
3. NHTSA Table #1 Longitudinal delta-V
4. NHTSA Table #2 Vehicle System Data
5. NHTSA Table #2 Lateral delta-V - will be a NO if vehicle is not equipped with side sensing
6. ACM angular rate data - will be a NO if vehicle is not equipped with rollover sensing
7. Other Vehicle System Data - Chrysler Specific Data

Overall Data Record Complete - Yes, No is defined based on the specific vehicle configuration. For example, a NO may be present for a non-applicable data block but a YES may be present for overall data record complete as a portion of the applicable data is complete.

DEPLOYMENT COMMAND DATA (if applicable):

- A "Yes" for a particular item in the Deployment Command Data section of the report indicates that the ACM commanded the deployment/activation of the associated device.

DTCs PRESENT AT START OF EVENT (if applicable):

- 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.

PRE-CRASH DATA:

- The recorded Event may contain Pre-Crash data. Pre-Crash data from the various electronic control modules in the vehicle is transmitted to the Airbag Control Module via the vehicle's communication bus.
- If a recorded event has Engine RPM equal to SNA and Speed, Vehicle Indicated equals SNA for each time stamp, then the data is default data and the event stored in the ACM is not valid.
- (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, % Fd - This indicates the actual position of the accelerator pedal.
- Brakes:
 - Brake Lamps On - "On" indicates that the brake lamps/CM-MSL are illuminated.
 - Brake Switch #2 Status - "On" indicates that the brake pedal is depressed.
 - Braking System, Intervention by ESP - "Yes" indicates that the stability control system has engaged the brakes.
 - Braking System, Intervention Enabled - "Yes" indicates that the ESC system is functional.
 - Braking System, Emergency Braking - "Yes" indicates that panic brake assist is active.
 - Braking System, Maximum Braking - "Yes" indicates that ABS is active on all 4 wheels.
 - Panic Brake Assist Active - "Yes" indicates that all four of the brake circuits are undergoing ABS control.
 - Service Brake - "On" indicates that the brake pedal is depressed.
- Cruise Control:
 - Cruise Control System/Status - "On" indicates that the Cruise Control system is turned on.
 - Cruise Control Engaged/Active - "Engaged"/"Yes" indicates the Cruise Control system is actively controlling vehicle speed. "Not Engaged"/"No" indicates the system is NOT controlling vehicle speed.
- Electronic Brake/Stability Control information:
 - 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.

- ESP Lamp - This is the status of the ESP symbol - "car with squiggly lines" indicator lamp. "On" indicates ESP has been turned off by the driver or has reduced performance and is not an indication of a fault in the system.
- ESP Lamp Flashing Requested - If "Yes", then an ESP, Traction Control or Trailer Sway Control (if equipped) event was active at the time of data capture.
- ESP Disabled - "Yes" indicates that ABS & ESP have been disabled by the driver or due to system performance.
- ESP/ESC Functional/Active - "YES" indicates that the ESP system is functional and has no faults.
- ESC System Status - "OK" indicates no faults in the ABS or ESC system that affect the system functionality. "ABS Fault" indicates a fault in the ABS system and "ESC Fault" indicates a fault in the ESC system.
- 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.
- 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.
- Traction Control Intervention Active - "Yes" indicates that the traction control system is actively controlling the vehicle's wheels.
- Engine RPM - On 2005-2009 Ram 2500/3500, the Engine RPM recorded is limited to a maximum of 4000 RPM. On the 2003 - 2010 Dodge Grand Caravan, 2003-2010 Chysler Town and Country and 2009-2010 Dodge Journey, the engine RPM resolution is 250 rpm. On all other vehicles, the resolution is 32 rpm.
- Engine Throttle % Full - This indicates the actual position of the Engine Throttle pedal.
- ETC -
 - On vehicles equipped with ETC, "Accelerator Pedal % Full" and "Engine Throttle % Full" are relative values - relative pedal position and relative engine throttle. These parameters may record values of less than 100% when the pedal/throttle is actually at its maximum. (Max. = 77%)
 - 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.
- PCM MIL - This indicates the PCM fault indicator status. It will only be "On" when there is a fault in the PCM. The Powertrain Control Module DTC's should be read and recorded for final system interpretation.
- Raw Manifold Pressure - This indicates engine load in kPa.
- Speed, Vehicle Indicated - This indicates the average of the drive wheels. The accuracy of the recorded Speed, Vehicle Indicated will be affected if the vehicle had the tire size or the final drive axle ratio changed from the factory build specifications. On the 2003 - 2009 Dodge Grand Caravan, 2003-2009 Chysler Town and Country and 2009 Dodge Journey, the speed resolution is 2 kph. On all other vehicles, the resolution is 1 kph.
- Tire Information:
 - XX where LF = Left Front Tire, RF = Right Front Tire, LR = Left Rear Tire, and RR = Right Rear Tire.
 - Tire X Location - This indicates the location of the tire pressure sensor data being displayed for that time stamp. Default is used to indicate that the location of the tire pressure sensor is unknown or there is no tire pressure sensor in that wheel. Vehicles with Base Tire Pressure Monitoring systems will display SNA for both Tire Locations as these vehicles do not send actual pressure values across the communication bus.
 - Tire X Pressure/Tire Pressure Status, XX - This indicates the actual pressure status of the Tire Location defined in the previous column (Tire X Location) or by the values for XX. Possible values are LOW, NORMAL, HIGH, or SNA for this parameter. Vehicles with Base Tire Pressure Monitoring systems may display NORMAL even though these vehicles do not send actual pressure values across the communication bus.
 - Tire X Pressure/Tire Pressure, 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 NA for this parameter as these vehicles do not send actual pressure values across the communication bus.
 - Wheel Speed, XX - This indicates the speed value (in revolutions per minute) of a particular tire as denoted by XX.
 - For the following vehicles, the tire location, if displayed, may not be accurate if the tires have been rotated:
 - 2011-2012 MY Jeep Wrangler
 - 2010-2012 MY Jeep Patriot
 - 2010-2012 MY Chysler 200
 - 2010-2012 MY Jeep Compass
 - Tire pressure is not stored in the EPR for the following vehicles. If a value is displayed, it may not be accurate:
 - 2011-2012 MY Jeep Grand Cherokee
 - 2011-2012 MY Dodge Durango
 - 2010-2012 MY Dodge Challenger
 - 2011-2012 MY Chysler Town and Country
 - 2011-2012 MY Dodge Grand Caravan
 - 2010-2012 MY Ram
- Tire Pressure Monitor Indicator Lamp - "On" indicates a fault in the tire pressure monitoring system. The TPM module DTC's should be read and recorded for final system interpretation.
- "T0" ("Time zero" where '0' is seen as subscript) is defined as "beginning of the crash event". T0 is the time at which the ACM algorithm is activated, a specific Delta-V is exceeded, or a non-reversible restraint device is deployed. T0 may be defined differently for front, side, rear and rollover events.
 - If multiple algorithm decisions (i.e.: front, 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" represents the last set of data captured in the buffer prior to "T0."
- Transmission/Shift Position -
 - Gear Status - This indicates the current transmission gear.
 - PRND/PRNDL Status - This indicates the status of the Shifter Position.
 - Reverse Gear - For manual transmission vehicles only "Yes" indicates the transmission is in the reverse gear.
 - Shift Gear Position - This indicates the current transmission gear/Shift Position.
- Vehicle Data Recorder Complete - Due to the interruption of data recording in one section, this data element may display "Interrupted" for a sections when some data sections are actually complete.

APPLICATION INFORMATION:

- 2005 - 2009 Durango's equipped with side airbags have EDR data that can be imaged by the CDR tool. Durango's not equipped with side airbags have EDR Data that might be imaged by the CDR tool and may be imaged by the supplier.
- For 2005 & 2006 MY, some Chrysler 300, Dodge Magnum, Dodge Charger, Jeep Grand Cherokee, and Jeep Commander models may contain EDR data that cannot be imaged by the CDR tool, but may be imaged by the supplier.
- For 2005 & 2007 MY, some PT Cruiser models may contain EDR data that cannot be imaged by the CDR tool, but may be imaged by the supplier.
- EDR Data is only recorded for frontal deployments in the following vehicles:
 - 2005-2007 Durango
 - 2005-2007 Ram 1500
 - 2005-2009 Ram 2500/3500 Heavy Duty
 - 2007 Aspen, Caliber, Compass, Patriot, Nitro, Sebring, Wrangler

0000 Chrysler 300

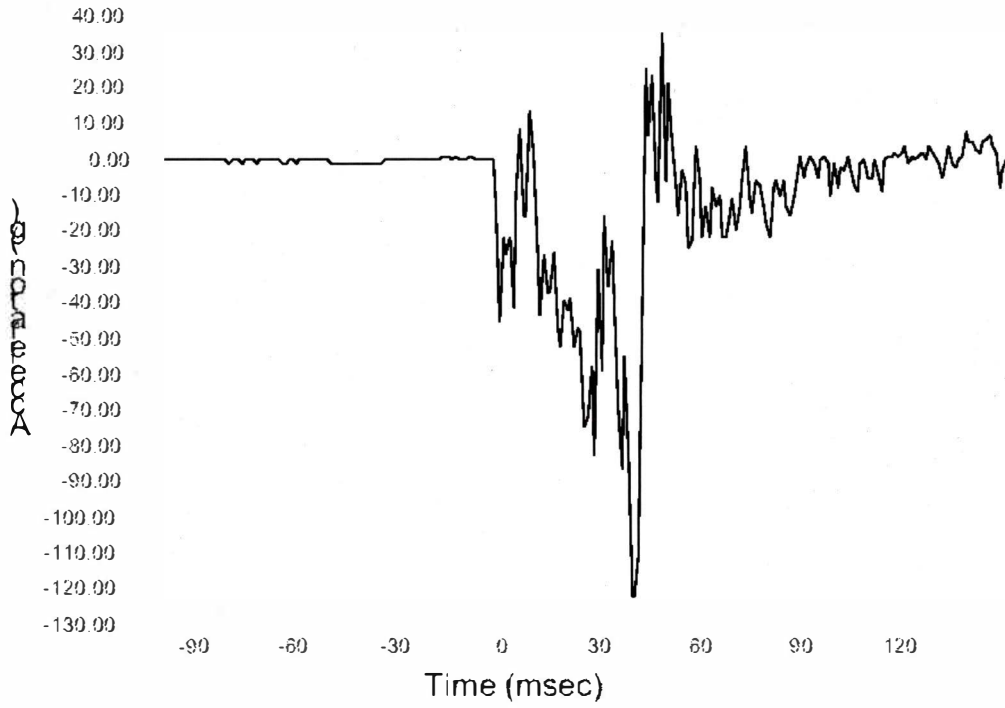
System Status at Retrieval

Original VIN	1.4FT47A73Dxxxxxx
Airbag Control Module Part Number	04896623AE
Airbag Control Module Serial Number	TELMF193800341e
Airbag Control Module Supplier	TRW

System Configuration at Retrieval

Configured for Driver Seatbelt Switch	No
Configured for Front Center Seatbelt Switch	No
Configured for Front Passenger Seatbelt Switch	No
Configured for 2nd Row Left Seatbelt Switch	No
Configured for 2nd Row Center Seatbelt Switch	No
Configured for 2nd Row Right Seatbelt Switch	No
Configured for 3rd Row Left Seatbelt Switch	No
Configured for 3rd Row Center Seatbelt Switch	No
Configured for 3rd Row Right Seatbelt Switch	No
Configured for Driver Knee Airbag	No
Configured for Left Curtain #1	Yes
Configured for Right Curtain #1	Yes
Configured for Left Curtain #2	No
Configured for Right Curtain #2	No
Configured for Front Driver Seatbelt Pretensioner	Yes
Configured for Front Center Seatbelt Pretensioner	No
Configured for Front Passenger Seatbelt Pretensioner	Yes
Configured for 2nd Row Left Seatbelt Pretensioner	No
Configured for 2nd Row Center Seatbelt Pretensioners	No
Configured for 2nd Row Right Seatbelt Pretensioners	No
Configured for 3rd Row Left Seatbelt Pretensioner	No
Configured for 3rd Row Center Seatbelt Pretensioner	No
Configured for 3rd Row Right Seatbelt Pretensioner	No
Configured for Left Side Sensor #1	Yes
Configured for Left Side Sensor #2	Yes
Configured for Left Side Sensor #3	No
Configured for Right Side Sensor #1	Yes
Configured for Right Side Sensor #2	Yes
Configured for Right Side Sensor #3	No
Configured for Left Up Front Sensor	Yes
Configured for Right Up Front Sensor	Yes
Configured for Front Driver Degressive Load Limiter	No
Configured for Front Passenger Degressive Load Limiter	No
Configured for Driver Seat Track Position Sensor	Yes
Configured for Front Passenger Seat Track Position Sensor	Yes
Configured for Passenger Airbag Disable Switch	No
Configured for Front Passenger Occupant Classification System	No

Longitudinal Crash Pulse (Most Recent Event)



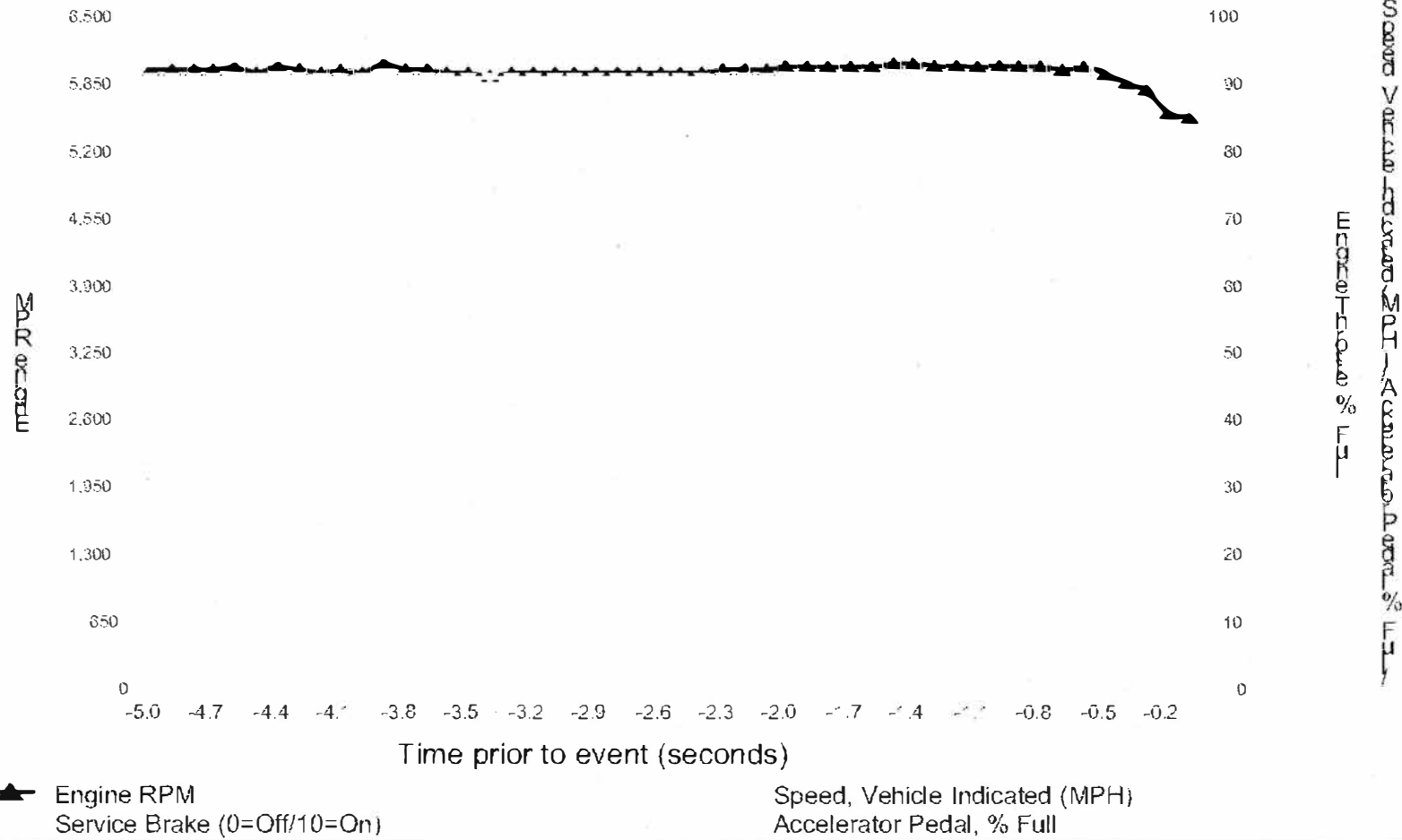
Longitudinal Crash Pulse (Most Recent Event)

Time (msec)	Longitudinal Acceleration (g)	Time (msec)	Longitudinal Acceleration (g)	Time (msec)	Longitudinal Acceleration (g)
-100	-0.98	-50	-1.98	0	-22.55
-99	-0.98	-49	-1.98	1	-27.45
-98	-0.98	-48	-1.98	2	-22.55
-97	-0.98	-47	-1.98	3	-42.16
-96	-0.98	-46	-1.98	4	-10.78
-95	-0.98	-45	-1.98	5	7.84
-94	-0.98	-44	-1.98	6	-16.67
-93	-0.98	-43	-1.98	7	-16.67
-92	-0.98	-42	-1.98	8	12.75
-91	-0.98	-41	-1.98	9	0.98
-90	-0.98	-40	-1.98	10	-27.45
-89	-0.98	-39	-1.98	11	-44.12
-88	-0.98	-38	-1.98	12	-27.45
-87	-0.98	-37	-1.98	13	-38.24
-86	-0.98	-36	-1.98	14	-37.26
-85	-0.98	-35	-0.98	15	-26.47
-84	-0.98	-34	-0.98	16	-48.04
-83	-0.98	-33	-0.98	17	-52.94
-82	-0.98	-32	-0.98	18	40.20
-81	-1.98	-31	-0.98	19	-43.14
-80	-0.98	-30	-0.98	20	-39.22
-79	-0.98	-29	-0.98	21	-52.94
-78	-0.98	-28	-0.98	22	-48.04
-77	-1.98	-27	-0.98	23	-49.02
-76	-0.98	-26	-0.98	24	-75.49
-75	-0.98	-25	-0.98	25	-72.55
-74	-0.98	-24	-0.98	26	-58.82
-73	-1.98	-23	-0.98	27	-83.33
-72	-0.98	-22	-0.98	28	-31.37
-71	-0.98	-21	-0.98	29	-59.80
-70	-0.98	-20	-0.98	30	-16.67
-69	-0.98	-19	-0.98	31	-36.27
-68	-0.98	-18	0.00	32	-23.53
-67	-0.98	-17	0.00	33	40.20
-66	-0.98	-16	0.00	34	-70.59
-65	-1.98	-15	-0.98	35	-87.26
-64	-1.98	-14	0.00	36	-55.88
-63	-0.98	-13	-0.98	37	-82.35
-62	-0.98	-12	-0.98	38	-122.55
-61	-1.98	-11	-0.98	39	-122.55
-60	-0.98	-10	0.00	40	-111.77
-59	-0.98	-9	0.00	41	-44.12
-58	-0.98	-8	-0.98	42	24.51
-57	-0.98	-7	-0.98	43	5.88
-56	-0.98	-6	-0.98	44	22.55
-55	-0.98	-5	-0.98	45	-6.86
-54	-0.98	-4	-0.98	46	-12.75
-53	-0.98	-3	-0.98	47	34.31
-52	-0.98	-2	-11.76	48	-6.86
-51	-1.98	-1	-46.08	49	20.59

Longitudinal Crash Pulse (Most Recent Event)

Time (msec)	Longitudinal Acceleration (g)	Time (msec)	Longitudinal Acceleration (g)
50	3.92	100	-2.94
51	-7.84	101	-3.92
52	-16.67	102	0.00
53	-3.92	103	-2.94
54	-7.84	104	-7.84
55	-25.49	105	-9.80
56	-23.53	106	-1.96
57	2.94	107	-0.98
58	-5.88	108	-5.88
59	-22.55	109	-5.88
60	-13.73	110	-0.98
61	-22.55	111	-4.90
62	-8.82	112	-9.80
63	-13.73	113	-0.98
64	-10.78	114	0.00
65	-22.55	115	0.00
66	-22.55	116	0.98
67	-15.69	117	0.00
68	-11.76	118	0.98
69	-20.59	119	2.94
70	-13.73	120	-1.96
71	-6.86	121	0.00
72	2.94	122	-0.98
73	-11.76	123	0.00
74	-15.69	124	0.98
75	-6.86	125	-0.98
76	-7.84	126	2.94
77	-14.71	127	0.98
78	-18.63	128	-0.98
79	-22.55	129	-1.96
80	-7.84	130	-5.88
81	-6.86	131	-0.98
82	-10.78	132	2.94
83	-6.86	133	-1.96
84	-13.73	134	-2.94
85	-16.67	135	-0.98
86	-11.76	136	0.00
87	-7.84	137	6.86
88	0.00	138	3.92
89	-5.88	139	3.92
90	-2.94	140	1.96
91	0.00	141	0.98
92	-1.96	142	3.92
93	-5.88	143	4.90
94	-0.98	144	5.88
95	0.00	145	2.94
96	-1.96	146	0.98
97	-10.78	147	-8.82
98	-1.96	148	-3.92
99	-8.82	149	-0.98

Pre-Crash Data (Most Recent Event)



SNA values will not be plotted on the graph

Pre-Crash Data (Most Recent Event - table 1 of 3)

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

Time Stamp (sec)	Vehicle Event Recorder Status	Engine RPM	Speed, Vehicle Indicated (MPH [km/h])	Engine Throttle, % Full	Accelerator Pedal, % Full	Raw Manifold Pressure (kPa)	Service Brake	Brake Switch #2 Status
-5.0	Complete	5,984	93 [150]	100.0	90.8	97	Off	Open
-4.9	Complete	5,984	94 [151]	100.0	90.8	98	Off	Open
-4.8	Complete	5,984	94 [151]	100.0	90.8	97	Off	Open
-4.7	Complete	5,984	94 [151]	100.0	90.8	97	Off	Open
-4.6	Complete	6,016	94 [151]	100.0	90.8	97	Off	Open
-4.5	Complete	5,952	94 [151]	100.0	90.8	97	Off	Open
-4.4	Complete	6,016	94 [151]	100.0	90.8	98	Off	Open
-4.3	Complete	5,984	94 [152]	100.0	90.8	97	Off	Open
-4.2	Complete	5,952	94 [151]	100.0	90.8	98	Off	Open
-4.1	Complete	5,984	94 [151]	100.0	90.8	97	Off	Open
-4.0	Complete	5,952	94 [151]	100.0	90.8	97	Off	Open
-3.9	Complete	6,048	94 [152]	100.0	90.8	97	Off	Open
-3.8	Complete	5,984	94 [152]	100.0	90.8	97	Off	Open
-3.7	Complete	5,984	94 [152]	100.0	90.8	97	Off	Open
-3.6	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-3.5	Complete	5,952	94 [151]	100.0	90.8	97	Off	Open
-3.4	Complete	5,920	94 [151]	100.0	90.8	97	Off	Open
-3.3	Complete	5,952	94 [152]	100.0	90.8	98	Off	Open
-3.2	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-3.1	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-3.0	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-2.9	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-2.8	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-2.7	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-2.6	Complete	5,952	94 [152]	100.0	90.8	98	Off	Open
-2.5	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-2.4	Complete	5,952	94 [152]	100.0	90.8	97	Off	Open
-2.3	Complete	5,984	94 [152]	100.0	90.8	97	Off	Open
-2.2	Complete	5,984	94 [152]	100.0	90.8	97	Off	Open
-2.1	Complete	5,984	94 [152]	100.0	90.8	97	Off	Open
-2.0	Complete	6,016	95 [153]	100.0	90.8	97	Off	Open
-1.9	Complete	6,016	95 [153]	100.0	90.3	97	Off	Open
-1.8	Complete	6,016	95 [153]	100.0	90.3	97	Off	Open
-1.7	Complete	6,016	95 [153]	100.0	90.3	97	Off	Open
-1.6	Complete	6,016	95 [153]	100.0	90.3	97	Off	Open
-1.5	Complete	6,048	95 [153]	100.0	90.3	97	Off	Open
-1.4	Complete	6,048	95 [153]	100.0	90.3	98	Off	Open
-1.3	Complete	6,016	95 [153]	100.0	90.3	97	Off	Open
-1.2	Complete	6,016	95 [153]	100.0	90.3	97	Off	Open
-1.1	Complete	6,016	96 [154]	100.0	90.3	97	Off	Open
-1.0	Complete	6,016	96 [154]	100.0	90.8	97	Off	Open
-0.9	Complete	6,016	96 [154]	100.0	90.3	97	Off	Open
-0.8	Complete	6,016	96 [154]	100.0	90.3	97	Off	Open
-0.7	Complete	5,984	96 [154]	100.0	90.3	97	Off	Open
-0.6	Complete	6,016	96 [154]	100.0	89.8	97	Off	Open
-0.5	Complete	5,920	96 [154]	78.1	25.0	96	Off	Open
-0.4	Complete	5,856	96 [154]	17.3	0.0	63	Off	Open
-0.3	Complete	5,792	95 [153]	14.8	0.0	26	On	Closed
-0.2	Complete	5,568	93 [150]	14.8	0.0	21	On	Closed
-0.1	Complete	5,536	93 [149]	14.8	0.0	20	On	Closed

Pre-Crash Data (Most Recent Event - table 2 of 3)

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

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

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

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

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

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May 2021



U.S. Department
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**National Highway
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