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**Special Crash Investigations
On-Site Alleged Air Bag
Malfunction Investigation
Vehicle: 2005 Mercury
Mountaineer
Location: Arkansas
Crash Date: August 2016**

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| 16. Abstract This report documents the driver's frontal air bag system in a 2005 Mercury Mountaineer and the sources of the driver's facial injuries. This crash occurred in an urban area on the north roadside of a straight, two-lane State highway. The Mercury was a 4-door sport utility vehicle (SUV) equipped with second-generation frontal air bags. An unbelted 32-year-old male drove the vehicle. The Mercury was traveling northeast in the northeast-bound lane when the vehicle departed the lane and crossed the southwest-bound travel lane. The vehicle then departed the left (north) side of the road near a residential driveway and the front plane struck and displaced a mailbox (Event 1). The vehicle continued across the driveway of the residence and the front plane struck a 39 cm (15.4 in) diameter tree (Event 2) resulting in the deployment of both frontal air bags. The vehicle then came to final rest against the tree heading east. The driver sustained police-reported "A" (incapacitating) injuries and was transported by ambulance to a hospital where he was admitted for treatment of moderate severity facial injuries including the loss of sight in his right eye. The SCI investigation determined that the front plane impact with the tree was of sufficient severity to require the deployment of the driver's frontal air bag and that the unbelted driver was out of position at the time of the impact, resulting in the top cover flap and air bag contacting his face and causing the facial injuries. | | | |
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Special Crash Investigations
On-Site Alleged Air Bag Malfunction Investigation
Case Number: IN16032
Office of Defects Investigation
Vehicle: 2005 Mercury Mountaineer
Location: Arkansas
Crash Date: August 2016

BACKGROUND

This report documents the driver's frontal air bag system in a 2005 Mercury Mountaineer (**Figure 1**) and the sources of the driver's facial injuries. It was alleged by a family member that the driver's frontal air bag cover "flew totally off" during this single-vehicle crash and contacted the driver's face causing serious facial injuries including the loss of sight in his right eye. This crash investigation was initiated by the National Highway Traffic Safety Administration and assigned to the Special Crash Investigation (SCI) team at the Indiana University Transportation Research Center in December 2016. This crash occurred in Arkansas in August 2016 in the morning and was investigated by local police. The crash scene and Mercury were inspected in January 2017. An in-person interview was conducted with the driver's wife in January 2017.



Figure 1. The damaged 2005 Mercury Mountaineer.

This crash occurred in an urban area on the north roadside of a straight, two-lane, State highway. The Mercury was a 4-door sport utility vehicle (SUV) equipped with second-generation frontal air bags. An unbelted 32-year-old male drove the vehicle. The Mercury was traveling in the northeast-bound lane when the vehicle departed the lane and crossed the southwest-bound travel lane. The vehicle then departed the left (north) side of the road near a residential driveway and the front plane struck and displaced a mailbox (Event 1). The vehicle continued across the driveway of the residence and the front plane struck a 39 cm (15.4 in) diameter tree (Event 2), resulting in deployment of both frontal air bags. The vehicle then came to final rest against the tree heading east. The driver sustained police-reported "A" (incapacitating) injuries and was transported by ambulance to a hospital where he was admitted for treatment of moderate severity facial injuries including the loss of sight in his right eye. The SCI investigation determined that the front plane impact with the tree was of sufficient severity to require deployment of the driver's frontal air bag and that the unbelted driver was out of position at the time of the impact resulting in the top cover flap and air bag contacting his face and causing the facial injuries.

SUMMARY

Crash Site

This crash occurred in an urban area in the morning on the north roadside of a straight, two-lane, State highway. The weather conditions were cloudy with no wind, a temperature of 26.1 °C (79 °F), clear visibility and a dew point of -22.8 °C (73 °F), according to local weather reports. The roadway traversed in a northeast/southwest direction and had one bituminous lane in each direction bordered by a bituminous shoulder. A mailbox, residential driveway, and several trees were located on the north side of the road. The speed limit was 72 km/h (45 mph). A crash diagram is included at the end of this report.

Pre-Crash

The driver of the Mercury was on his way to work and was traveling northeast in the northeast-bound lane (**Figure 2**). The vehicle departed the northeast-bound lane for unknown reasons and crossed the southwest-bound lane. The vehicle then departed the north side of the road and traveled toward a mailbox, residential driveway, and 39 cm (15.4 in) tree (**Figure 3**). The unbelted driver was out of position with his head in close proximity to the steering wheel as a result of the vehicle's impact with the mailbox and off-road travel prior to the impact with the tree. The police crash report indicated that drug use was a factor in the crash.

Crash

The front plane of the Mercury struck the mailbox (Event 1) and displaced it from the ground. The vehicle then traveled 16.2 m (53.1 ft) through the yard and driveway of the residence and the front plane of the vehicle (**Figure 4**) struck a 39 cm (15.4 in) diameter tree (**Figure 5**, Event 2). The impact resulted in deployment of both frontal air bags. The vehicle came to final rest against the tree heading northeast. The force direction was in in the 12 o'clock sector and the damage and trajectory algorithm of the WinSMASH program calculated the impact speed as 44 km/h (27 mph). The total calculated



Figure 2. Northeast-bound approach of the Mercury.



Figure 3. Approach to impact with the mailbox and tree (arrow), view northeast.



Figure 4. Damage to the front plane of the Mercury from the tree impact.

delta V was 41 km/h (26 mph). The longitudinal and lateral velocity changes were -41 km/h (-27 mph) and 0 km/h, respectively. The results appeared reasonable based on the damage to the vehicle.

Post-Crash

The police were notified of the crash at 0738 hours and arrived on scene at 0743 hours. A witness who was traveling in front of the Mercury told the investigating police officer that she saw the crash in her rearview mirror. She stopped her vehicle and went to the crash scene. She told the police that she saw the driver exit the Mercury and throw a can in the bushes. The police found a can of “Air Duster” in the bushes with fresh blood on it. They also found the top of the can in the Mercury on the floor in the driver’s seating position. “Air Duster,” also referred to as “canned air,” is a product that is used to clean delicate computer parts and is also commonly abused as an inhalant drug.¹ It is inhaled for a mind-altering high and short-term effects can include dizziness, fatigue, muscle weakness, clumsiness, tingling in the hands and feet, hallucinations, hearing loss, and delayed reflexes.²



Figure 5. Tree struck by the Mercury.

The police crash report listed “Under the influence of drugs” as a factor in the crash. The driver of the Mercury sustained police-reported “A” (incapacitating) injuries. He was transported by ambulance to a hospital and admitted for 5 days for treatment of moderate severity injuries to his face including the loss of sight in his right eye. The vehicle was towed from the crash scene due to damage.

2005 MERCURY MOUNTAINEER

Description

The Mercury was an all-wheel drive, 7-passenger, 4-door SUV with the VIN 4M2ZU86WX5Zxxxxxx manufactured in December 2004. The vehicle was equipped with a 4.6-liter, V-8 engine, a 5-speed automatic transmission, antilock brakes with brake force distribution, traction control, tire pressure monitoring system, and electronic stability control. The vehicle was also equipped with second-generation frontal air bags and a tilt steering column that was adjusted to the full-up position. The specified wheelbase was 289 cm (113.8 in).

The vehicle manufacturer’s recommended tire size was P245/65R17. The vehicle was equipped with General Grabber tires. The tire size was not determined. The manufacturer’s recommended cold tire pressure for the front and rear tires was 241 kPa (35 psi). The tires were not damaged during the crash and were in good condition.

The front row was equipped with driver and front row passenger leather-covered bucket seats with adjustable head restraints. The second row was equipped with a leather-covered split bench seat

¹ <http://messageboard.inhalant.org/post/Air-Duster-risks-and-effects-5476424>, January 27, 2017.

² <http://oureverydaylife.com/effects-inhaling-air-dusters-8364595.html>, January 27, 2017.

with folding backs and adjustable head restraints. The third row was equipped with a bench seat with folding back. The driver's seat track was adjusted between the middle and rear-most positions and the seat back was reclined 28 degrees aft of vertical. The top of the driver's head restraint was adjusted 18 cm (7.1 in) above the top of the seat back. The remaining seat positions were unoccupied at the time of the crash.

Exterior Damage Event 1

The front plane of the Mercury struck a mailbox during this event; however, any damage that may have resulted was masked by the subsequent impact with the tree.

Damage Classification Events 1

The Collision Deformation Classifications (CDC) was estimated to be 12FCEN1. The WinSMASH program could not be used to calculate delta V for this impact since an impact with a yielding object is out of scope for the program. The severity of the damage was minor.

Exterior Damage Event 2

The front plane also sustained direct damage from the impact with a 39 cm (15.4 in) diameter tree. The damage involved the bumper, grille, and hood. The direct damage began 28 cm (11.0 in) right of the left bumper corner and extended 97 cm (38 in) to the right across the front plane. The Field L was 172 cm (67.7 in). Crush measurements were taken on the bumper bar and the maximum residual crush was 44 cm (17.3 in) occurring 93 cm (36.6 in) right of the left-front bumper corner. (**Figure 6**). The crush values were: $C_1 = 0$ cm, $C_2 = 12$ cm (4.7 in), $C_3 = 30$ cm (11.8 in), $C_4 = 44$ cm (17.3 in), $C_5 = 43$ cm (16.9 in), and $C_6 = 3$ cm (1.2 in).



Figure 6. Crush to the front plane of the Mercury from the tree impact.

Damage Classification Event 1

The CDC was 12FDEW2. The severity of the damage was moderate.

Event Data Recorder

The Mercury was equipped only with a powertrain control module (PCM) event data recorder (EDR). The PCM EDR was imaged via connection to the PCM using version 17.1 of the Bosch Crash Data Retrieval software and reported with version 19.1.1. The PCM EDR is designed to record and lock pre-crash data if a restraints deployment signal (RDS) is received from the vehicle's restraint control module (RCM). If no RDS is received from the RCM and there is still power to the PCM, then the data will not lock, and the circular buffer will continuously overwrite itself as long as the vehicle's ignition is in the run position. Both frontal air bags deployed in this crash; however, the PCM EDR report indicated that no RDS was received from the RCM. As a result, no pre-crash data relevant to this crash was recorded. The EDR report is attached at the end of this report as **Appendix A**.

Interior Damage

The interior of the Mercury sustained no occupant compartment intrusions as a result of the crash events. Evidence of occupant contact consisted of a fractured transmission lever, probably from contact by the driver's right hand. The Mercury emblem located at the center of the top cover flap of the air bag module was dented (**Figure 7**), probably by contact with the driver's face. There also was a scuff on the cover flap to the left of the Mercury emblem, also probably from contact by the driver's face. Blood spatter and transfers were present on the bottom and left portions of the deflated driver's frontal air bag. There was no deformation to the steering wheel. All the doors and the back hatch remained closed and operational. The windshield was cracked from impact forces. The remaining glazing was undamaged.



Figure 7. Dent in Mercury emblem located on top cover flap of driver's frontal air bag module.

Manual Restraint Systems

The first, second, and third row seating positions were equipped with lap and shoulder seat belts with sliding latch plates. The front row seat belts were also equipped with retractor-mounted pretensioners and adjustable upper anchors. There was no evidence of pretensioner actuation since both front row seat belt retractors functioned normally. The driver's upper anchor was adjusted to the full-down position. The remaining seating positions were not occupied at the time of the crash.

The SCI inspection of the driver's seat belt assembly revealed no evidence that the driver was belted at the time of the crash. There was no discernable load mark evidence in the plastic of the sliding latch plate belt guide and no evidence of loading to the seat belt webbing or D-ring.

Supplemental Restraint Systems

The Mercury was equipped with second generation frontal air bags. Both frontal air bags deployed as a result of the front plane impact with the tree.

The driver's frontal air bag module was located in the steering wheel hub and the module cover was a two-flap configuration constructed of pliable vinyl with a horizontal tear seam. The top module cover was 25 cm (9.8 in) wide and 13 cm (5.1 in) high. There was a 45 mm (1.8 in) diameter metal Mercury emblem located in the center of the module cover flap. The bottom flap was 18 cm (7.1 in) wide and 5 cm (2.0 in) high. The flaps opened at the designated tear seams. Evidence of damage to the top cover flap consisted of a dent to the right portion of the Mercury emblem from contact by the driver's face. There also was a 4 cm (1.6 in) long, vertical oriented scuff in the vinyl located 9 cm (3.5 in) left of the Mercury emblem, also from contact with the driver's face during the air bag deployment. The driver's deflated frontal air bag was 58 cm (22.8 in) in diameter. There was a large area of blood spatter and transfer on the left half of the air bag as well as some blood spatter and transfer on the bottom, center, and right portions of the air bag.

NHTSA Recalls and Investigations

The website www.nhtsa.gov/recall was searched in November 2019 for recall information pertaining to the 2005 Mercury Mountaineer under investigation. The website indicated that there were no (zero) unrepaired recalls. A “Carfax” report was obtained on the subject Mercury and it reported that the vehicle had five owners, no reported issues, no recalls, nor previous crashes.

Alleged Driver’s Frontal Air Bag Malfunction Discussion

The SCI investigation revealed no evidence of an air bag malfunction in the 2005 Mercury Mountaineer. It was determined that the driver’s frontal air bag deployed when the front plane of the vehicle struck the 39 cm (15.4 in) diameter tree. The damage to the front plane of the vehicle indicated that the impact was severe enough to require deployment of that air bag. It was also determined that the driver’s facial injuries and loss of sight in his right eye were the result of contact with the top cover flap of the driver’s frontal air bag module indicating the unbelted driver was out of position and in close proximity to the air bag module at the time of deployment. The evidence supporting the contact between the driver’s face and the air bag module cover flap is the dent in the Mercury emblem located at the center of the cover flap and the 4 cm (1.6 in) long, vertical oriented scuff in the cover flap vinyl located 9 cm (3.5 in) left of the emblem. In addition, the diagonal laceration extending from the driver’s left forehead onto his right eye is consistent with contact to the bottom edge of the top cover flap. Two probable scenarios as to why the driver was out of position are as follows: The unbelted driver was under the influence of inhaling “Air Duster,” losing consciousness or suffering muscle weakness resulting in his body slumping forward toward the steering wheel prior to the tree impact. Alternatively, the driver was out of position, with his head in close proximity to the steering wheel as a result of the vehicle’s impact with the mail box and its off-road trajectory prior to the tree impact.

2005 MERCURY MOUNTAINEER OCCUPANT

Driver Demographics

| | |
|-------------------------|--|
| Age/sex: | 32 years/male |
| Height: | 188 cm (74 in) |
| Weight: | 82 kg (180 lbs) |
| Eyewear: | None |
| Seat type: | Bucket |
| Seat track position: | Between middle and rear-most |
| Manual restraint usage: | None |
| Usage source: | Vehicle inspection |
| Air bags: | Front available and deployed |
| Alcohol/drug data: | No alcohol, police crash report indicated suspected drug use (“Air Duster” inhalation) |
| Egress from vehicle: | Exited without assistance through left front door |
| Transport from scene: | Transported by ambulance to hospital |
| Medical treatment: | Hospitalized for 5 days |

Driver Injuries

| Injury No. | Injury | Injury Severity AIS 2015 | Involved Physical Components (IPC) | IPC Confidence Level |
|-------------------|--|---------------------------------|--|-----------------------------|
| 1 | Head injury involving only headache, not further specified | 110009.1 | Isolated Left air bag - steering wheel hub compartment cover | Certain |
| 2 | Laceration, rupture, of right sclera (globe) resulting in loss of sight in the right eye and subsequent enucleation of globe | 241200.2 | Isolated Left air bag - steering wheel hub compartment cover | Certain |
| 3 | Laceration, deep, diagonally, 15 cm (5.9 in) left forehead | 210604.2 | Tandem IPC Left air bag - steering wheel hub compartment cover/Left air bag | Possible |
| 4 | Skin/subcutaneous/muscle laceration-> minor; superficial, right eyelid | 210602.1 | Isolated Left air bag - steering wheel hub compartment cover | Certain |
| 5 | Fracture, comminuted, extensive, involving nasal bones, not further specified | 251002.2 | Tandem IPC Left air bag - steering wheel hub compartment cover/Left air bag | Probable |
| 6 | Fracture, comminuted, extensive, paracentral through right maxilla and bony septum and right lateral margin of ethmoid sinus | 250800.2 | Tandem IPC Left air bag - steering wheel hub compartment cover/Left air bag | Probable |
| 7 | Fracture, non-displaced, right lateral orbital rim | 251211.2 | Tandem IPC Left air bag - steering wheel hub compartment cover/Left air bag | Probable |
| 8 | Fracture, Ellis class III, of some teeth, not further specified | 251404.1 | Isolated Left air bag - steering wheel hub compartment cover | Probable |

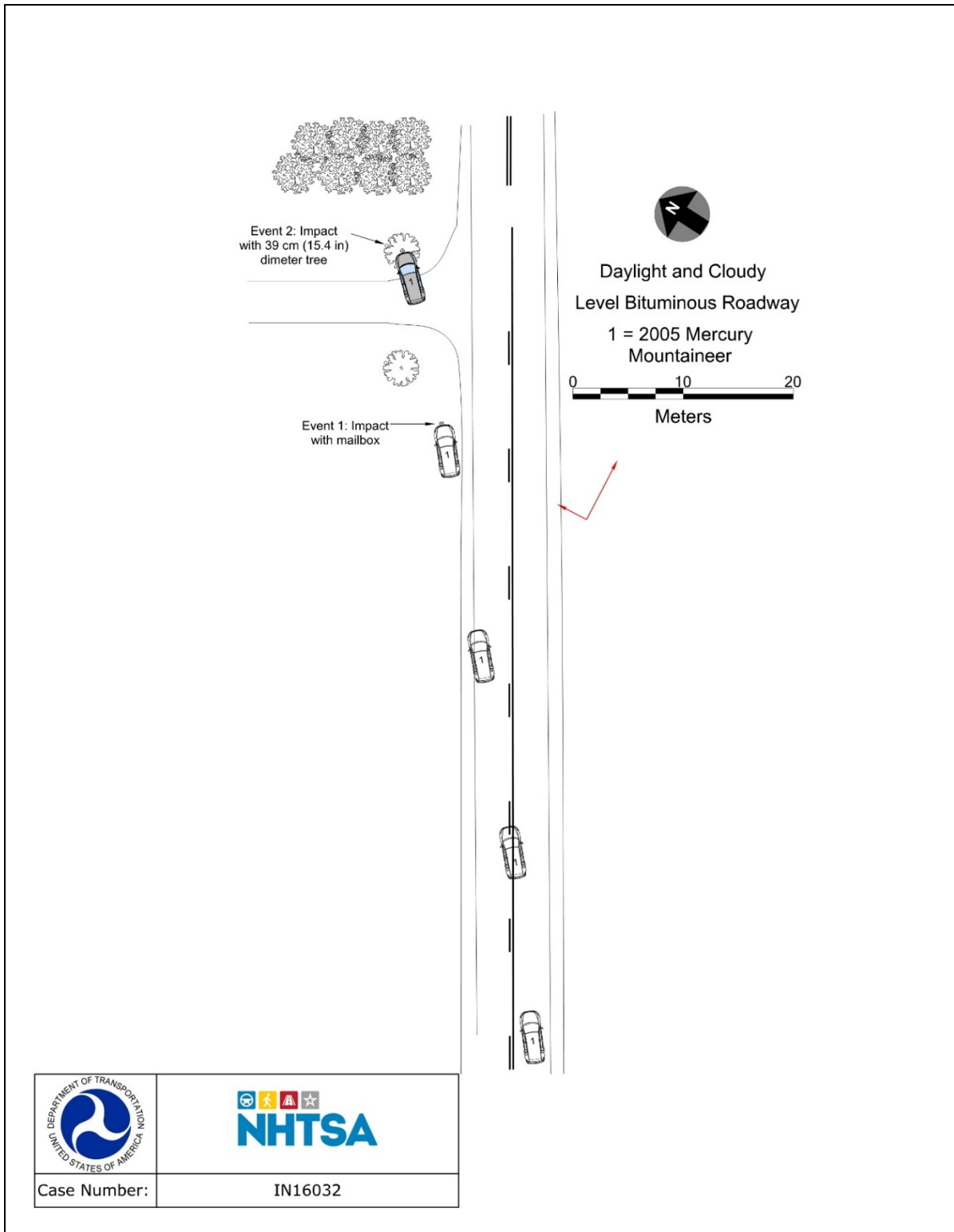
| Injury No. | Injury | Injury Severity AIS 2015 | Involved Physical Components (IPC) | IPC Confidence Level |
|------------|---|--------------------------|---|----------------------|
| 9 | Fracture, compression, anterior superior endplate L4 without cord involvement | 650632.2 | Isolated IPC Interior - This occupant's seat cushion | Probable |
| 10 | Abrasions, few, on face, not further specified | 210202.1 | Isolated Left air bag - steering wheel hub compartment cover | Certain |
| 11 | Contusion (ecchymosis) right forehead, not further specified | 210402.1 | Isolated Left air bag - steering wheel hub compartment cover | Probable |
| 12 | Contusion (ecchymosis) right periorbital area, not further specified | 210402.1 | Isolated Left air bag - steering wheel hub compartment cover | Probable |
| 13 | Skin/subcutaneous/muscle abrasion, Multiple No Further Specificity | 910200.1 | Isolated Injured, Unknown Source- Injured, unknown source | Unknown |

Sources: Emergency room records, hospitalization records, and interviewee data—relative. Injury numbers 8, 10, and 13 came only from Hospitalization records. Injury numbers 1, 5 to 7, 11, and 12 came from a combination of emergency room and hospitalization records. Injury numbers 2 to 4, and 9 came from all sources.

Driver Kinematics

The driver was not restrained by the lap and shoulder seat belt. His seat track was adjusted between the middle and rear-most positions and the seatback was reclined 28 degrees aft of vertical. The Mercury departed the left side of the road and the front plane struck and displaced a mailbox. The impact was minor but possibly displaced the driver forward to some degree. The vehicle then traveled through the front yard and across the driveway of a residence as it approached impact with a 39 cm (15.4 in) diameter tree. The unbelted driver was probably out of position with his head in close proximity to the steering wheel when the front plane struck the tree resulting in deployment of the driver's frontal air bag. The driver was displaced forward and his face contacted the top cover flap of the frontal air bag module and deploying air bag, resulting in a 15 cm (5.9 in) deep laceration that extended from his left forehead to his right eye. Contact with the top cover flap also caused a laceration and rupture to the right eye resulting in the loss of sight and a closed head injury with headache. Contact with the cover flap and air bag also caused a comminuted fracture to the nasal bones, right maxilla, ethmoid sinus, and right orbital rim. The driver also sustained fractures of some of his teeth, and abrasions and contusions to his face from contact with the air bag cover flap. Contact with the seat cushion caused a compression fracture of the end plate of the L4 vertebra. The driver was transported by ambulance to a hospital where he was hospitalized for 5 days.

CRASH DIAGRAM



**APPENDIX A: 2005 Mercury Mountaineer Powertrain Control Module
Event Data Recorder Report³**

³ The EDR report contained in this technical report was imaged using the current version of the Bosch CDR software at the time of the vehicle inspection. The CDR report contained in the associated Crash Viewer application may differ relative to this report.



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

CDR File Information

| | |
|---|--|
| User Entered VIN | 4M2ZU86WX5Z***** |
| User | |
| Case Number | |
| EDR Data Imaging Date | |
| Crash Date | |
| Filename | 201650S2IN16032_V1_PCM.CDRX |
| Saved on | |
| Imaged with CDR version | Crash Data Retrieval Tool 17.1 |
| Imaged with Software Licensed to (Company Name) | NHTSA |
| Reported with CDR version | Crash Data Retrieval Tool 19.1.1 |
| Reported with Software Licensed to (Company Name) | NHTSA |
| EDR Device Type | Powertrain Control Module |
| Restraint Deployment Signal Received | No. Analyst evaluation of PCM EDR data is needed. Refer to CSV export of PCM EDR data to perform further analysis. |

Comments

No comments entered.

The retrieval of this data has been authorized by the vehicle's owner, or other legal authority such as a court order or search warrant, as indicated by the CDR tool user on .

Data Limitations

FORD POWERTRAIN CONTROL MODULE EVENT DATA INTERPRETATION GUIDE

1. This document is intended to assist you in reading the data that has been retrieved from a Powertrain Control Module ("PCM") contained in a Ford vehicle. This document is further intended to provide general guidelines and is not intended to provide information regarding the interpretation of a specific read-out.
2. The data points in the "PCM EDR Data" tables shown in this report are recorded in the PCM approximately every 0.2 seconds. Where a time element is shown in the report under the heading "Relative Time (calc.)," that is a value calculated by the CDR Tool software based on the indication of the receipt of a "Restraint Deployment Signal" or "RDS" which is a function of communication between the RCM and PCM. While the recording time interval shown is based on the function of the PCM, the "Relative Time (calc.," is not a data element which is retrieved from the PCM.
3. In the event that one of the vehicle's restraint devices (e.g., an airbag or belt pretensioner) have been commanded for deployment by the Restraint Control Module (RCM), it is designed to indicate that deployment as a function of a Restraints Deployment Signal (RDS). If the PCM "receives" an RDS, the PCM will lock data internally in the PCM. The RCM and PCM both require power for some period of time after the collision and after a deployment in order for that signal or flag to reach the PCM.
4. If no RDS flag has been received from the RCM and there is still power to the PCM, the PCM data will not lock and the circular buffer will continuously overwrite itself when the vehicle's ignition is in the run position. In this event, data contained in the PCM that was relevant to the collision may be lost. However, if power was lost as a result of the collision, or the ignition key was turned off shortly after the event, there may still be data relating to the collision in the PCM.
5. Finding the data closest to impact:
 - a.) Where a Restraint Deployment Signal is received by the PCM, the data is displayed based on the "Relative Time (calc.," parameter beginning with the oldest recorded frame of data displayed first in the data table. When an RDS has been received by the PCM, the indication will be associated with a frame of data reported as "RDS = Received" which would follow a series of data elements showing "RDS=NOT RECEIVED." To calculate relative time, the CDR program adopts a "time zero" (for the time element shown in the column "Relative Time (calc.," associated with the sample where the RDS was received. The CDR Tool software then assigns "negative time" relative to that point moving "back in time" to the oldest sample in the loop of data and "positive time" going forward from that assigned time zero.
 - b.) Where a Restraint Deployment Signal is NOT received at any point in the data set, the data is displayed in order of the "Buffer Address" parameter data beginning with the lowest address value. The PCM buffer is circular and the data point of the first address listed in the PCM EDR Data tables does not necessarily signify the beginning of the PCM recording loop. The start and stop time of the PCM recording could be in the middle of the table. An indication that there has been an impact will often correlate with a discontinuity of the data listed in the table. If a single, significant discontinuity in the data is found, the data point immediately preceding the

discontinuity is likely to be the last data point recorded. If there is no single significant discontinuity, the data must be examined in detail to determine the largest discontinuity in the largest number of data elements. If no single largest discontinuity can be determined, it may not be possible to determine whether or not this data is associated with an impact.

c.) The Restraint Deployment Signal may not be recorded on the PCM immediately at impact. Time lags within the system may result in the Restraint Deployment Signal being recorded a few data samples after impact has occurred. The Restraint Deployment Signal is a guide, but the analyst must examine all of the data to determine when impact has occurred.

6. The PCM Data Tables further show a column labeled as the 'Key on Timer - 63.75 Max (sec)' or PUTMR. The PUTMR shows the length of time that the PCM was functioning for the most recent key cycle. The timer ascends to a maximum value of 63.75 seconds. If the data was not locked by an RDS flag and the ignition key was turned off and on again, the PCM will begin to write new data starting at the beginning of the data table. While it is not common, there are instances where the first portion of the data table has subsequent-key-on, post-crash data, while the latter portion of the data table has data from the key cycle in which the crash occurred. In other rare cases, an event has occurred in less than 25 seconds after key on and older data from prior key cycles has been left in the latter part of the buffer. Review the Key on Timer - 63.75 Max (sec) (PUTMR) data for discontinuities to determine if this has occurred.

7. Data displayed in the Key on Timer - 63.75 Max (sec) column has a resolution of 0.25 seconds and rounds actual data to the nearest 0.25 seconds. The data points occur every 0.2 seconds.

| Actual time | Key on Timer display |
|-------------|----------------------|
| 0.0 | 0.0 |
| 0.2 | 0.25 |
| 0.4 | 0.50 |
| 0.6 | 0.50 |
| 0.8 | 0.75 |
| 1.0 | 1.00 |

8. Recorded Vehicle Speed is proportional to transmission output shaft speed and accuracy can be affected if the vehicle has had the tire size or inflation pressure or the final drive axle ratio changed from the factory build specifications.

9. ABS_EVENT=1 occurs when the ABS is active. This can occur with or without the brake pedal being applied. The ABS module may or may not be taking an action. (For Example, if the brake pedal is not depressed, the ABS cannot modulate brake pressure if it detects wheel slippage)

PCM Data Source:

All PCM recorded data is fed directly from sensors to the PCM where raw signals are processed, and stored internally, except for the following parameters which are transmitted via the vehicle's communication network:

- Stability Control (if equipped)
- Traction Control (if equipped)
- ABS
- Restraint Deployment Signal

02005_PCM-1-2_r002

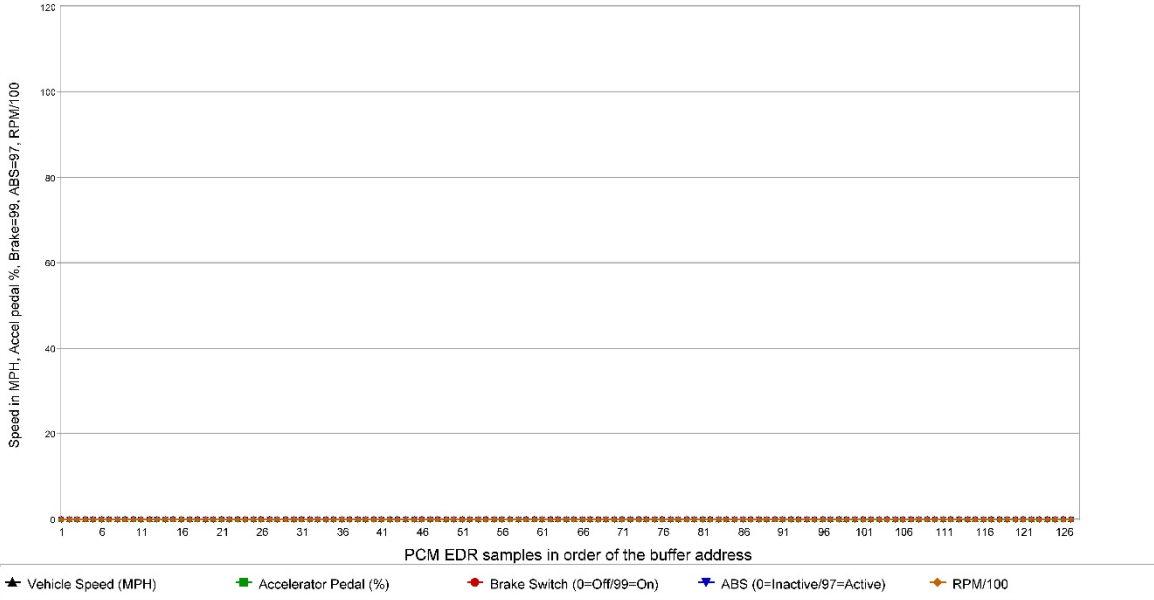


PCM Module Information

| | |
|--|------------------|
| Vehicle Identification Number (from PCM) | 4M2ZU86WX5Z***** |
| PCM File Name (calibration level) | JMAJDC3.HEX* |
| PCM Part Number | 4L2A-12A650-AEF |



4M2ZU86WX5Z***** PCM EDR Crash Data - RDS Not Received





PCM EDR Data (1)

| Buffer Address (Hex) | Relative Time (calc.) (Seconds) | Restraint Deployment Signal (Received / Not Received) | Speed, Vehicle Indicated (MPH [km/h]) | Accelerator Pedal % Full (%) | Engine Throttle % Full (%) | Brake Switch (On / Off) | Brake SC De-ac (On / Off) | ABS (Active / Inactive) | Transmission - Neutral (Neutral / Not Neutral) |
|----------------------|---------------------------------|---|---------------------------------------|------------------------------|----------------------------|-------------------------|---------------------------|-------------------------|--|
| EA000010 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000020 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000030 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000040 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000050 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000060 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000070 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000080 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000090 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0000A0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0000B0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0000C0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0000D0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0000E0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0000F0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000100 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000110 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000120 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000130 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000140 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000150 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000160 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000170 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000180 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000190 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0001A0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0001B0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0001C0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0001D0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0001E0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0001F0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000200 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000210 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000220 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000230 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000240 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000250 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000260 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000270 | N/A | Not Received | 0 [0] | 0 | 3 | OFF | OFF | Not Active | Not Neutral |
| EA000280 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000290 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0002A0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0002B0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0002C0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0002D0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0002E0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0002F0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000300 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000310 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000320 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000330 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000340 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000350 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000360 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000370 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000380 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000390 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0003A0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0003B0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0003C0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0003D0 | N/A | Not Received | 0 [0] | 0 | 3 | OFF | OFF | Not Active | Not Neutral |
| EA0003E0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0003F0 | N/A | Not Received | 0 [0] | 0 | 3 | OFF | OFF | Not Active | Not Neutral |



| Buffer Address (Hex) | Relative Time (calc.) (Seconds) | Restraint Deployment Signal (Received / Not Received) | Speed, Vehicle Indicated (MPH [km/h]) | Accelerator Pedal % Full (%) | Engine Throttle % Full (%) | Brake Switch (On / Off) | Brake SC De-ac (On / Off) | ABS (Active / Inactive) | Transmission - Neutral / Not Neutral |
|----------------------|---------------------------------|---|---------------------------------------|------------------------------|----------------------------|-------------------------|---------------------------|-------------------------|--------------------------------------|
| EA000400 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000410 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000420 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000430 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000440 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000450 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000460 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000470 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000480 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000490 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0004A0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0004B0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0004C0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0004D0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0004E0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0004F0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000500 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000510 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000520 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000530 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000540 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000550 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000560 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000570 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000580 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000590 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0005A0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0005B0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0005C0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0005D0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0005E0 | N/A | Not Received | 0 [0] | 0 | 3 | OFF | OFF | Not Active | Not Neutral |
| EA0005F0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000600 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000610 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000620 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000630 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000640 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000650 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000660 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000670 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000680 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000690 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0006A0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0006B0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0006C0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0006D0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0006E0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0006F0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000700 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000710 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000720 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000730 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000740 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000750 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000760 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000770 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000780 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA000790 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0007A0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0007B0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0007C0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0007D0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0007E0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |
| EA0007F0 | N/A | Not Received | 0 [0] | 0 | 2.5 | OFF | OFF | Not Active | Not Neutral |



PCM EDR Data (2)

| Buffer Address (Hex) | Relative Time (calc.) (Seconds) | Transmission - Reverse (Reverse / Not Reverse) | Speed Control (On / Off) | Engine RPM (RPM) | Engine Output Torque Calculated (N-m) | Driveline Output Torque Calculated (N-m) | Traction Control (Active / Inactive) | Stability Control (Active / Inactive) | Key On Timer 63.75 Max (sec) (Seconds) |
|----------------------|---------------------------------|--|--------------------------|------------------|---------------------------------------|--|--------------------------------------|---------------------------------------|--|
| EA000010 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000020 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000030 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000040 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000050 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000060 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000070 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000080 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000090 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0000A0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0000B0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0000C0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0000D0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0000E0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0000F0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000100 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000110 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000120 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000130 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000140 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000150 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000160 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000170 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000180 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000190 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0001A0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0001B0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0001C0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0001D0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0001E0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0001F0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000200 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000210 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000220 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000230 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000240 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000250 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000260 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000270 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000280 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000290 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0002A0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0002B0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0002C0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0002D0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0002E0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0002F0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000300 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000310 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000320 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000330 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000340 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000350 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000360 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000370 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000380 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA000390 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0003A0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0003B0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0003C0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0003D0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0003E0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |
| EA0003F0 | N/A | Not Reverse | OFF | 0 | 266 | 1512 | Not Active | Not Active | 63.75 |



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.

```
0000100C0: 34 4D 32 5A 55 38 36 57 58 35 5A 2A 2A 2A 2A 2A
0000100D0: 2A FF FF FF
```

```
000010046: 4A 4D 41 4A 44 43 33 2E 48 45 58 2A
```

```
000010054: 34 4C 32 41 41 45 46 2A
```

```
0EA000000: FF 00 00 01 00 00 00 00 00 00 00 00 00 00 00
0EA000010: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000020: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000030: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000040: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000050: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000060: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000070: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000080: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000090: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA0000A0: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA0000B0: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA0000C0: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA0000D0: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA0000E0: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA0000F0: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000100: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000110: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000120: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000130: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
0EA000140: 00 04 05 00 00 03 0A 00 00 07 E8 00 F8 FF 00 04
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