CHIP-LEVEL FORENSICS ATTACHMENT

Exemplar 2 with Subject Nissan's MCU Installed CDR Report

Etna, OH

HWY24MH001

(17 pages)

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	5N1AZ2MHXFN[redacted]
User	Jason Zeitler
Case Number	HWY24MH001
EDR Data Imaging Date	02/23/2024
Crash Date	
Filename	5N1AZ2MHXFN[redacted] ACM.CDRX
Saved on	Friday, February 23 2024 at 15:48:18
Imaged with CDR version	Crash Data Retrieval Tool 23.4.1
Imaged with Software Licensed to (Company Name)	NTSB, Office of Highway Safety
Reported with CDR version	Crash Data Retrieval Tool 23.4.1
Reported with Software Licensed to (Company Name)	NTSB, Office of Highway Safety
EDR Device Type	Airbag Control Module
Event(s) recovered	Event Record 1, Event Record 2

Comments

Exemplar module 2 with subject memory
DTM 387/780

Data Limitations

General Information:
Data limitations are intended to assist in reading event data that has been imaged from the vehicle's Air bag Control Unit (ACU). Event data should be considered in conjunction with other available physical evidence from the vehicle and scene.

Airbag Control Unit (ACU)

- The Air bag Control Unit (ACU) can store two types of events: Non-Deployment Events and Deployment.
  - A Non-Deployment Event is a crash or other physical occurrence which causes the ACU algorithm to be activated, but in which deployment thresholds are not reached.
  - A Deployment Event is a crash or other physical occurrence which causes ACU deployment thresholds to be reached or exceeded. Depending on the vehicle model, one or more of the following may be activated during a Deployment Event: front air bags, seat-mounted side airbags, roof-mounted or door-mounted curtain air bags, pretensioners, or pop-up roll bars.

- The ACU can record up to two events. If additional events occur subsequently, the older of the two events already recorded (i.e. the one which occurred first) is overwritten.
  - A Non-Deployment Event can be overwritten by another Non-Deployment event, or by a Deployment Event.
  - A Deployment Event has higher priority than a Non-Deployment Event, and cannot be interrupted or overwritten by another event.
  - The data pertaining to a Deployment Event is locked after being recorded. However, a second event can still be recorded subsequently in the portion of the event memory which is not locked.

- Event data includes both pre-crash data and crash data.
  - If the power supply to the ACU is lost during an event, all or part of the event data may not be recorded.
  - In addition to the recording of event data, the ACU has the ability to perform diagnostics and record Diagnostic Trouble Codes (DTCs).

Data Element Sign Convention:
The following table provides an explanation of the sign convention for data elements in the CDR report.

Data Element Name	Positive Sign Notation Indicates
Longitudinal Acceleration	Forward
Delta-V, Longitudinal	Forward
Maximum Delta-V, Longitudinal	Forward
Lateral Acceleration	Left to Right
Delta-V, Lateral	Left to Right
Maximum Delta-V, Lateral	Left to Right
Vehicle Roll Angle	Left to Right Rotation
Steering Input	Left Turn

- "Life Time Counter (sec)" indicates the elapsed time, in seconds, from the vehicle's first ignition activation until the start of the first recorded event. The counter is incremented whenever the vehicle's ignition is on. The counter is reset to 0 if the ACU is replaced.
- "Complete File Recorded" indicates whether a complete EDR data set has been stored after the event. "Yes" indicates that a complete data set has been recorded. "No" indicates that only a portion of the data set has been recorded, for example due to the power to the ACU being lost during

the event.
- "Multi-Event, Number of Events (1, 2)" indicates the number of events which are stored during a given ignition cycle. A Multi-Event occurs whenever the time between Event 2 trigger threshold and Event 1 trigger threshold is less than or equal to 5 seconds during the same ignition cycle, and "2" will be recorded in this case. Otherwise, "1" will be recorded.
- "Air Bag Warning Lamp (On, Off)" indicates whether the ACU was in trouble mode or in normal operation mode at the time of the event. "On" indicates that the air bag warning lamp was illuminated at the time of the event, and the ACU was in trouble mode. "Off" indicates that the air bag warning lamp was not illuminated at the time of the event, and the ACU was in normal operation mode.
- "Frontal Air Bag Suppression Switch Status" indicates whether front passenger air bag deployment was suppressed at the time of the event. "On" indicates that the front passenger air bag was suppressed at the time of the event (deployment inhibited). "Off" indicates that the front passenger air bag was not suppressed at the time of the event (deployment enabled). This data will not be available for all vehicles.
- "Delta-V, Longitudinal" indicates the cumulative change in velocity along the longitudinal direction.
- "Acceleration, Longitudinal" indicates the rate of change of velocity with time along the longitudinal direction.
- "Delta-V, Lateral" indicates the cumulative change in velocity along the lateral direction.
- "Acceleration, Lateral" indicates the rate of change of velocity with time along the lateral direction.
- "Engine Throttle, % full" indicates the position of the accelerator pedal as a percentage of the fully depressed position.
- "Service Brake (On, Off)" indicates whether the service brake is activated ("On") or not activated ("Off").
- "Steering Input (deg)" indicates the angular displacement of the steering wheel measured in degrees. -250 deg indicates a 250 degree turn to the right of the steering wheel, 0 deg indicates the straight-ahead steering wheel position, and 250 deg indicates a 250 degree turn to the left of the steering wheel.
- The notation "CLP" indicates that the measurement captured by a sensor exceeded the design range of the sensor.
- "Seat Track Position Switch, Foremost, Status, Driver (Yes/No)" indicates whether the driver's seat is positioned within a designated threshold value of the most forward adjustment position. "Yes" indicates that the driver's seat is positioned within a designated threshold value of the most forward adjustment position. For all other adjustment positions, "No" is displayed. This data will not be available if the seat track position switch is not installed in the vehicle.
- "Occupant Size Classification, Right Front Passenger, Child (Yes/No)" indicates whether or not the right front passenger is classified as a child (as defined in 49 CFR part 572, subpart N or smaller). This data will not be available for all vehicles.
- "e-pedal ON/OFF Status" indicates whether "e-pedal" is activated (ON), or not activated (OFF). This data will not be available for all vehicles.
- "ABS Warning lamp, on/off" indicates whether "Anti-lock Brake System" was in trouble mode or in normal operation mode at the time of the event. This data will not be available for all vehicles.
- "AEB/FCW switch status ON/OFF (from ADAS)" indicates whether the switch of "Automatic Emergency Braking or Forward Collision Warning controlled by ADAS unit" was ON, or OFF at the time of the event. This data will not be available for all vehicles.
- "AEB Warning lamp (from ADAS)" indicates whether "Automatic Emergency Braking controlled by ADAS unit" was in trouble mode or in normal operation mode at the time of the event. This data will not be available for all vehicles.
- "ABS regulation status" indicates whether "Anti-lock Brake System" was activated (ABS in regulation), or not activated (no ABS regulation). This data will not be available for all vehicles.
- "VDC switch status ON/OFF" indicates whether the switch of "Vehicle Dynamic Control" in ON, or OFF. This data will not be available for all vehicles.
- "VDC status/warning" indicates whether "Vehicle Dynamic Control" was in normal operation mode and not activated (No failure and no control), in trouble mode and not activated (Failure), or in normal mode and activated (In active control). This data will not be available for all vehicles.
- "Adaptive Cruise Control status" indicates whether "Intelligent Cruise Control status" was activated (ACC activated), waiting (ACC waiting), suspended (ACC suspended), or not activated (No display request). This data will not be available for all vehicles.
- "AEB operating capability" indicates whether "Automatic Emergency Braking" was in trouble mode (Impossible to execute request) or in normal operation mode (Braking fully operational). This data will not be available for all vehicles.
- "AEB Brake request (from ADAS)" indicates whether "Automatic Emergency Braking controlled by ADAS unit" was activated (Brake Torque AEB Maximum), or not activated (No Brake Request). This data will not be available for all vehicles.
- "VIN retrieval from other ECU " indicates VIN data retrieval from other ECU when CDR connect to vehicle by using OBD system if available.
- "VIN retrieval from ACU " indicates VIN data retrieval from ACU. It will not be available for all vehicles.
- "Engine RPM (Gearbox Input Shaft) " indicates RPM of motor used for vehicle drive on electric or hybr id vehicles. In case of ICE vehicles, this indicates input shaft revolution that is input to Gearbox. This data will not be available for all vehicles.
- "Engine RPM (Front Electrical Motor) " indicates RPM of motor used for vehicle drive on electric vehicle s. This data will not be available for all vehicles.
- "Engine RPM (Rear Electrical Motor)" indicates RPM of motor used for 4WD vehicle drive on electric vehicles. This data will not be available for all vehicles.
- "Engine RPM" indicates RPM of engine used for vehicle drive on electric vehicles. This data will not be available for all vehicles.
- "Airbag Deployment Time" indicates deployment time of each airbag. This data will not be available for all vehicles.
- "Seat Track Position Switch, Foremost, Status, Passenger" indicates whether the passenger's seat is positioned within a designated threshold value of the most forward adjustment position. "Yes" indicates that the passenger's seat is positioned within a designated threshold value of the most forward adjustment position. For all other adjustment positions, "No" is displayed. This data will not be available if the seat track position switch is not installed in the vehicle.

Hexadecimal Data:
All data that has been specified for retrieval is shown in the Hexadecimal Data section of this report. However, the Hexadecimal Data section may contain data that is not translated by the CDR tool.

Data Sources:
- Crash data is measured internally in the ACU.
- Pre-crash data is not measured internally in the ACU, but is transmitted from other control units through the Controller Area Network (CAN).
- Pre-crash data and crash data are asynchronous.

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System Status At Time Of Retrieval

VIN retrieved from ACU	Not Available
VIN Retrieval from other ECU	Not Available

DTCs at Time of Retrieval

DTC	Status	Description
B1421	Current	FRONTAL COLLISION DETECTION
B1422	Current	SIDE COLLISION DETECTION
B1423	Current	ROLLOVER DETECTION
B1401	Current	CONTROL UNIT [UNIT FAIL]
B1406	Current	CONTROL UNIT [UNIT FAIL]
B1402	Current	CONTROL UNIT [UNIT FAIL]
U1000	Current	(CAN COMMUNICATION FAILER)
B00D5	Current	PASSENGER AIRBAG INDICATOR CIRCUIT [OPEN]
B00A0	Current	OCCUPANT DETECTION SENSOR UNIT [NO DATA]
B1414	Current	CONTROL UNIT [UNIT FAIL]
B1421	Past	FRONTAL COLLISION DETECTION
B1422	Past	SIDE COLLISION DETECTION
B1423	Past	ROLLOVER DETECTION
B00A0	Trouble Diag. Record	OCCUPANT DETECTION SENSOR [POWER FAIL]

System Status at Event (Event Record 1)

Life Time Counter (sec)	7360474
Complete File Recorded (Yes/No)	Yes (Complete)
Ignition Cycle, Crash	8254
Ignition Cycle, Download	8255
Multi-Event, Number of Events (1, 2)	1
Time from Event 1 to 2 (sec)	0
Safety Belt Status, Driver	On (Fastened)
Safety Belt Status, Right Front Passenger (buckled, not buckled)	On (Fastened)
Frontal Air Bag Warning Lamp (On, Off)	Off
Frontal Air Bag Suppression Switch Status	Off (AS airbag deploy)
Maximum Delta-V, Longitudinal (MPH [km/h])	57 [92]
Time, Maximum Delta-V, Longitudinal (msec)	165
Maximum Delta-V, Lateral (MPH [km/h])	-1 [-1]
Time, Maximum Delta-V, Lateral (msec)	92.5
Maximum Acceleration, Longitudinal (g)	46.5
Time, Maximum Acceleration, Longitudinal (msec)	80
Maximum Acceleration, Lateral (g)	-33.5
Time, Maximum Acceleration, Lateral (msec)	80
Occupant Size Classification, Right Front Passenger, Child (Yes/No)	No

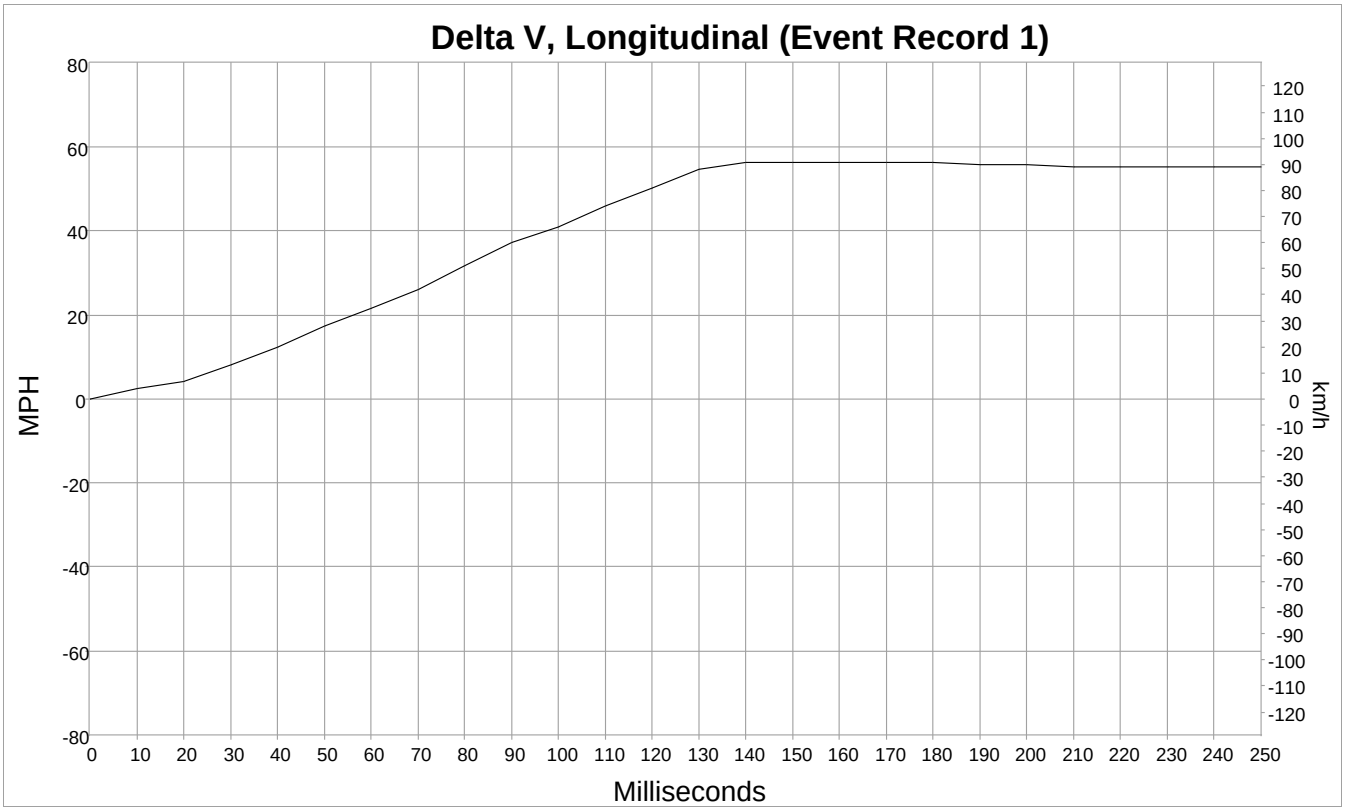
Deployment Command Data (Event Record 1)

Frontal Air Bag Deployment, Time to Deploy/First Stage, Driver (msec)	N/A
Frontal Air Bag Deployment, Time to Deploy/First Stage, Passenger (msec)	N/A
Frontal Air Bag Deployment, Time to 2nd Stage, Driver (msec)	N/A
Frontal Air Bag Deployment, Time to 2nd Stage, Right Front Passenger (msec)	N/A
Side Air Bag Deployment, Time to Deploy, Driver (msec)	N/A
Side Air Bag Deployment, Time to Deploy, Right Front Passenger (msec)	N/A
Side Curtain/Tube Air Bag Deployment, Time to Deploy, Driver Side (msec)	N/A
Side Curtain/Tube Air Bag Deployment, Time to Deploy, Right Side (msec)	N/A
Pretensioner Deployment, Time to Fire, Driver (msec)	N/A
Pretensioner Deployment, Time to Fire, Right Front Passenger (msec)	N/A

Pre-Crash Data -5 to 0 sec [2 samples/sec] (Event Record 1)

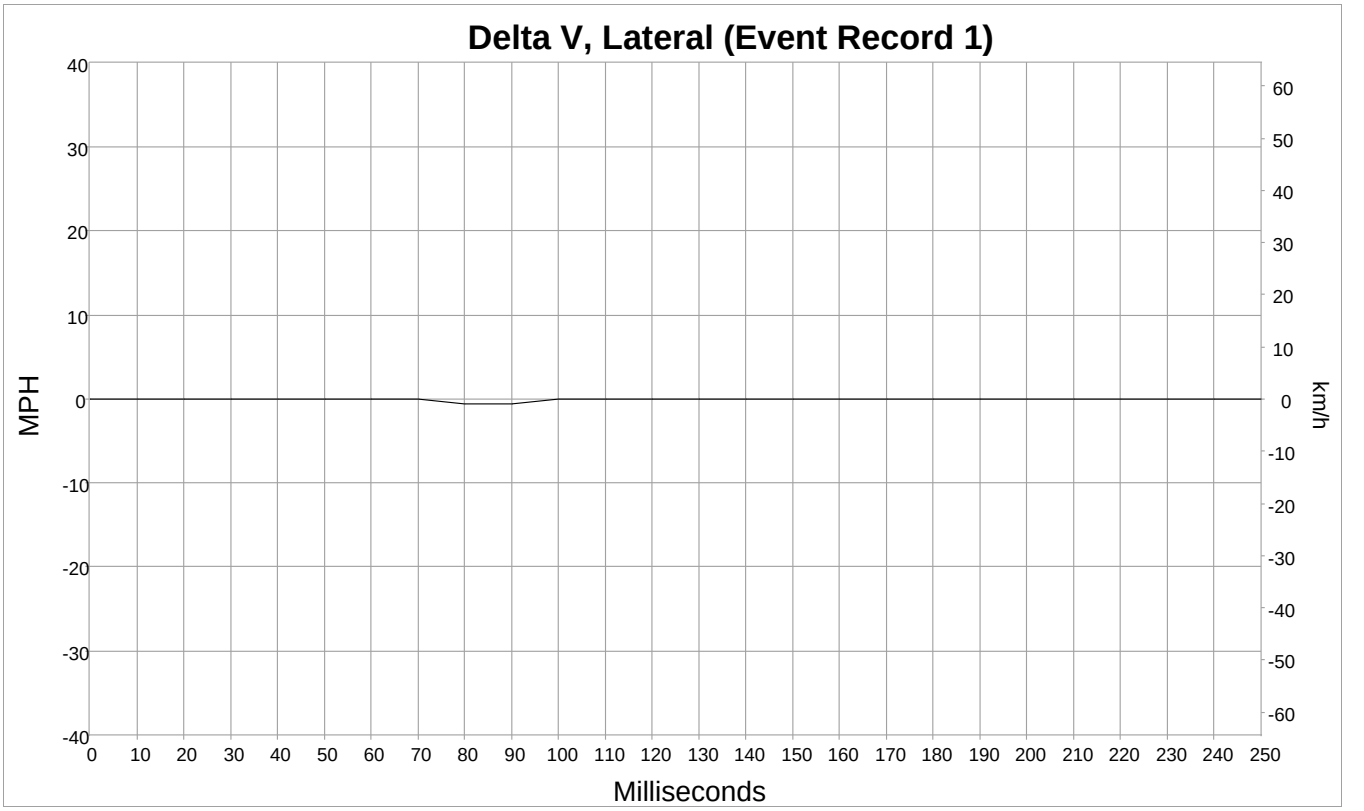
(the most recent sampled values are recorded prior to the event)

Time Stamp (sec)	Speed, Vehicle Indicated (MPH [km/h])	Accelerator Pedal, % full	Engine RPM	Motor RPM	Service Brake (On, Off)	Steering Input (deg)
-5.0	24 [38]	0	1000	1000	On (Brake Activated)	0
-4.5	22 [36]	0	1000	1000	On (Brake Activated)	2.5
-4.0	21 [34]	0	1000	1000	On (Brake Activated)	2.5
-3.5	20 [32]	0	1000	1000	On (Brake Activated)	0
-3.0	19 [31]	0	1000	1000	On (Brake Activated)	0
-2.5	18 [29]	0	1000	1000	On (Brake Activated)	0
-2.0	17 [28]	0	1000	1000	On (Brake Activated)	0
-1.5	17 [27]	0	900	1000	On (Brake Activated)	0
-1.0	16 [26]	0	900	1000	On (Brake Activated)	0
-0.5	16 [25]	0	1000	1000	On (Brake Activated)	2.5
0.0	15 [24]	0	900	900	On (Brake Activated)	0



Longitudinal Delta V (Event Record 1)

Time (msec)	MPH [km/h]
0	0 [0]
10	2 [4]
20	4 [7]
30	8 [13]
40	12 [20]
50	17 [28]
60	22 [35]
70	26 [42]
80	32 [51]
90	37 [60]
100	41 [66]
110	46 [74]
120	50 [81]
130	55 [88]
140	57 [91]
150	57 [91]
160	57 [91]
170	57 [91]
180	57 [91]
190	56 [90]
200	56 [90]
210	55 [89]
220	55 [89]
230	55 [89]
240	55 [89]
250	55 [89]



Lateral Delta V (Event Record 1)

Time (msec)	MPH [km/h]
0	0 [0]
10	0 [0]
20	0 [0]
30	0 [0]
40	0 [0]
50	0 [0]
60	0 [0]
70	0 [0]
80	-1 [-1]
90	-1 [-1]
100	0 [0]
110	0 [0]
120	0 [0]
130	0 [0]
140	0 [0]
150	0 [0]
160	0 [0]
170	0 [0]
180	0 [0]
190	0 [0]
200	0 [0]
210	0 [0]
220	0 [0]
230	0 [0]
240	0 [0]
250	0 [0]

System Status at Event (Event Record 2)

Life Time Counter (sec)	7360474
Complete File Recorded (Yes/No)	Yes (Complete)
Ignition Cycle, Crash	8254
Ignition Cycle, Download	8255
Multi-Event, Number of Events (1, 2)	2
Time from Event 1 to 2 (sec)	0.1
Safety Belt Status, Driver	On (Fastened)
Safety Belt Status, Right Front Passenger (buckled, not buckled)	On (Fastened)
Frontal Air Bag Warning Lamp (On, Off)	Off
Frontal Air Bag Suppression Switch Status	Off (AS airbag deploy)
Maximum Delta-V, Longitudinal (MPH [km/h])	-37 [-60]
Time, Maximum Delta-V, Longitudinal (msec)	297.5
Maximum Delta-V, Lateral (MPH [km/h])	2 [4]
Time, Maximum Delta-V, Lateral (msec)	270
Maximum Acceleration, Longitudinal (g)	-49
Time, Maximum Acceleration, Longitudinal (msec)	237.5
Maximum Acceleration, Lateral (g)	49
Time, Maximum Acceleration, Lateral (msec)	265
Occupant Size Classification, Right Front Passenger, Child (Yes/No)	No

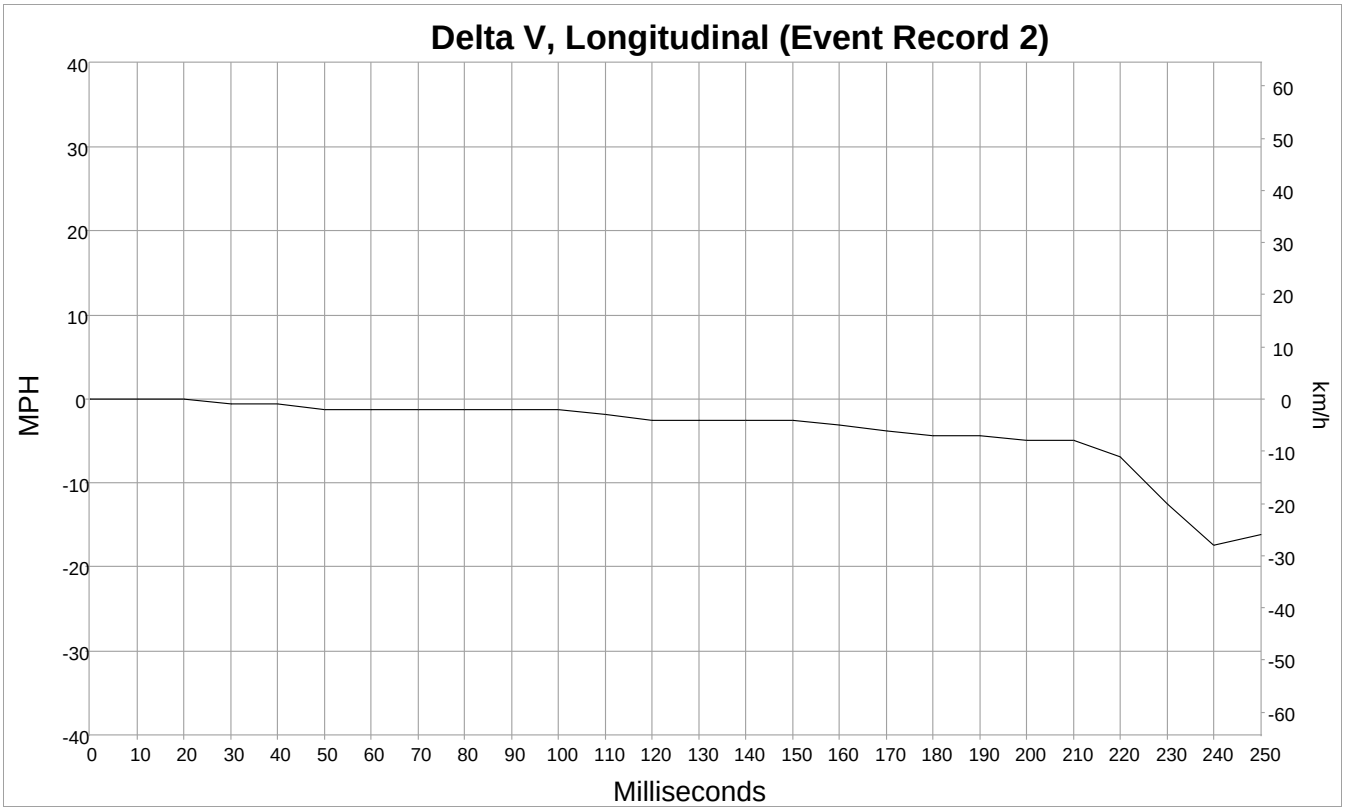
Deployment Command Data (Event Record 2)

Frontal Air Bag Deployment, Time to Deploy/First Stage, Driver (msec)	229
Frontal Air Bag Deployment, Time to Deploy/First Stage, Passenger (msec)	229
Frontal Air Bag Deployment, Time to 2nd Stage, Driver (msec)	232
Frontal Air Bag Deployment, Time to 2nd Stage, Right Front Passenger (msec)	232
Side Air Bag Deployment, Time to Deploy, Driver (msec)	250
Side Air Bag Deployment, Time to Deploy, Right Front Passenger (msec)	247
Side Curtain/Tube Air Bag Deployment, Time to Deploy, Driver Side (msec)	250
Side Curtain/Tube Air Bag Deployment, Time to Deploy, Right Side (msec)	247
Pretensioner Deployment, Time to Fire, Driver (msec)	229
Pretensioner Deployment, Time to Fire, Right Front Passenger (msec)	229

Pre-Crash Data -5 to 0 sec [2 samples/sec] (Event Record 2)

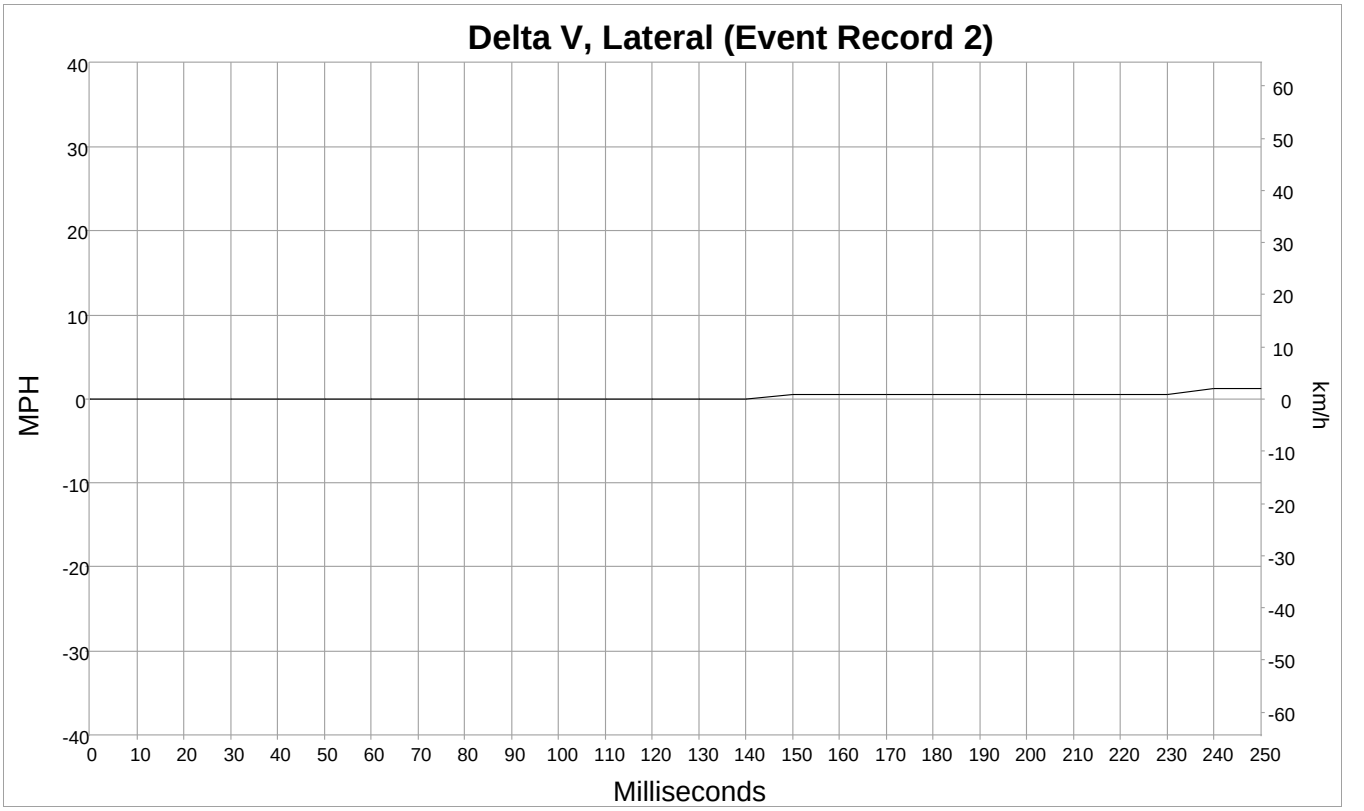
(the most recent sampled values are recorded prior to the event)

Time Stamp (sec)	Speed, Vehicle Indicated (MPH [km/h])	Accelerator Pedal, % full	Engine RPM	Motor RPM	Service Brake (On, Off)	Steering Input (deg)
-5.0	24 [38]	0	1000	1000	On (Brake Activated)	0
-4.5	22 [36]	0	1000	1000	On (Brake Activated)	2.5
-4.0	21 [34]	0	1000	1000	On (Brake Activated)	2.5
-3.5	20 [32]	0	1000	1000	On (Brake Activated)	0
-3.0	19 [31]	0	1000	1000	On (Brake Activated)	0
-2.5	18 [29]	0	1000	1000	On (Brake Activated)	0
-2.0	17 [28]	0	1000	1000	On (Brake Activated)	0
-1.5	17 [27]	0	900	1000	On (Brake Activated)	0
-1.0	16 [26]	0	900	1000	On (Brake Activated)	0
-0.5	16 [25]	0	1000	1000	On (Brake Activated)	2.5
0.0	24 [38]	0	1100	1400	Off (Brake Not Activated)	-22.5



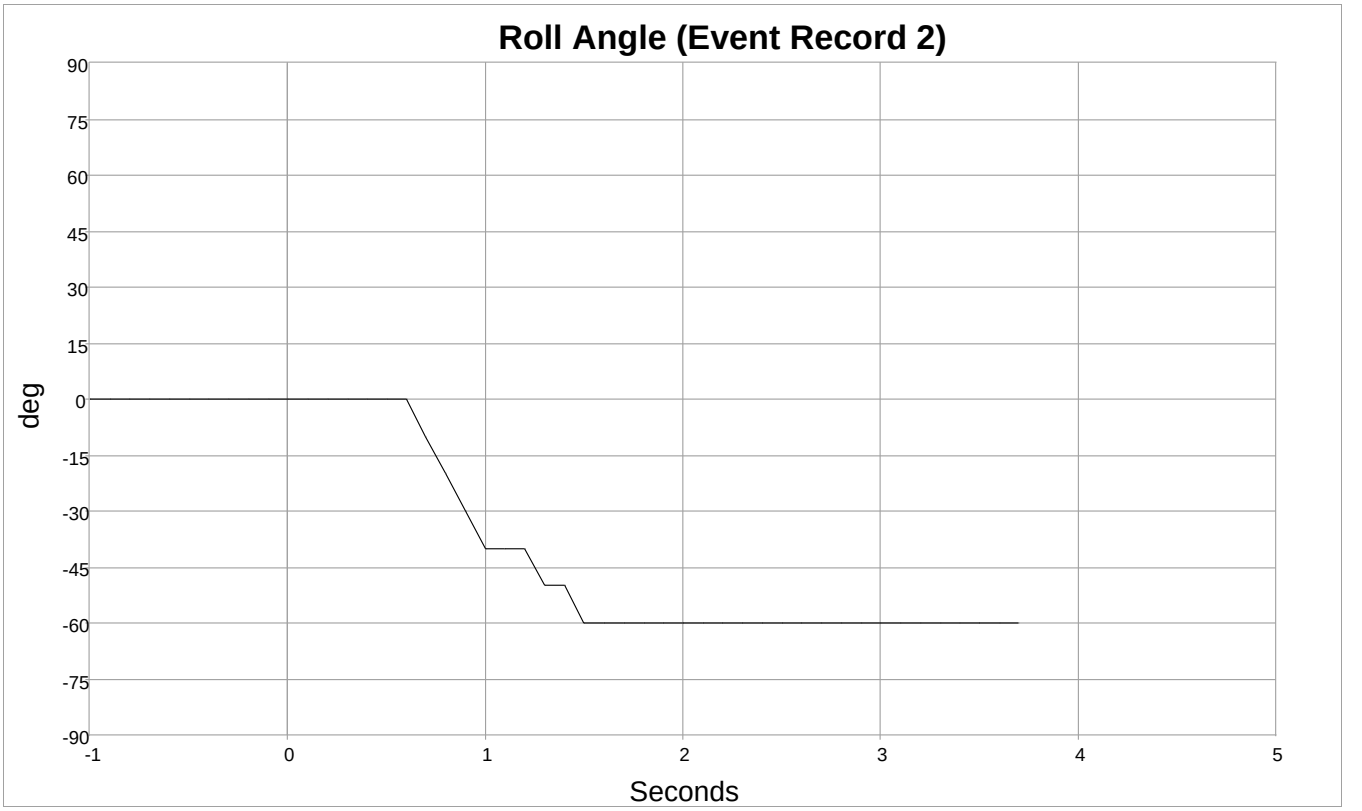
Longitudinal Delta V (Event Record 2)

Time (msec)	MPH [km/h]
0	0 [0]
10	0 [0]
20	0 [0]
30	-1 [-1]
40	-1 [-1]
50	-1 [-2]
60	-1 [-2]
70	-1 [-2]
80	-1 [-2]
90	-1 [-2]
100	-1 [-2]
110	-2 [-3]
120	-2 [-4]
130	-2 [-4]
140	-2 [-4]
150	-2 [-4]
160	-3 [-5]
170	-4 [-6]
180	-4 [-7]
190	-4 [-7]
200	-5 [-8]
210	-5 [-8]
220	-7 [-11]
230	-12 [-20]
240	-17 [-28]
250	-16 [-26]



Lateral Delta V (Event Record 2)

Time (msec)	MPH [km/h]
0	0 [0]
10	0 [0]
20	0 [0]
30	0 [0]
40	0 [0]
50	0 [0]
60	0 [0]
70	0 [0]
80	0 [0]
90	0 [0]
100	0 [0]
110	0 [0]
120	0 [0]
130	0 [0]
140	0 [0]
150	1 [1]
160	1 [1]
170	1 [1]
180	1 [1]
190	1 [1]
200	1 [1]
210	1 [1]
220	1 [1]
230	1 [1]
240	1 [2]
250	1 [2]



Roll Angle (Event Record 2)

Time (sec)	deg
-1.0	0
-0.9	0
-0.8	0
-0.7	0
-0.6	0
-0.5	0
-0.4	0
-0.3	0
-0.2	0
-0.1	0
0.0	0
0.1	0
0.2	0
0.3	0
0.4	0
0.5	0
0.6	0
0.7	-10
0.8	-20
0.9	-30
1.0	-40
1.1	-40
1.2	-40
1.3	-50
1.4	-50
1.5	-60
1.6	-60
1.7	-60
1.8	-60
1.9	-60

2.0	-60
2.1	-60
2.2	-60
2.3	-60
2.4	-60
2.5	-60
2.6	-60
2.7	-60
2.8	-60
2.9	-60
3.0	-60
3.1	-60
3.2	-60
3.3	-60
3.4	-60
3.5	-60
3.6	-60
3.7	-60
3.8	N/A
3.9	N/A
4.0	N/A
4.1	N/A
4.2	N/A
4.3	N/A
4.4	N/A
4.5	N/A
4.6	N/A
4.7	N/A
4.8	N/A
4.9	N/A
5.0	N/A

Hexadecimal Data

```
DID    Data

2001  FF C0 1C 94 21 00 94 22 00 94 23 00 94 01 00 94
      06 00 94 02 00 D0 00 01 80 D5 13 80 A0 88 94 14
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 14 FF FF FF FF 00 08 60 00

2002  80 A0 00 03 03 02 04 00 66 7A 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

2003  94 21 00 00 00 01 3F 01 FC C8 01 01 94 22 00 00
      00 01 3F 01 FC C8 01 01 94 23 00 00 00 01 3F 01
      FC C8 01 01 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

2004  00 00 01 C9 1C 00 00 FF FC CC 40 00 00 00 00

2006  11 00 AD E3 E3 E3 E3 E3 E7 E3 E3 E3 E3 E3 E7 E5
      E8 E5 FF E5 E8 E5 E8 FF FF E5 EA EA EA EA FF FF
      FF F4 F4 F4 EA EA EA FA FA FA FA FA FA F7 F7 FA
      FA 47 47 47 FA FF FF FF B1 DC 7F 7F 00 00 00 00
      00 00 00 00 00 00 FF FA FF FF FF FF FA 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00

2019  00 00 00 01 00 00 00 01 00 00 00 01 00 00 00 01
      00 00 00 01 00 00 00 01 00 00 00 01 00 00 00 01
      00 00 00 01 00 00 00 01 00 00 00 01 00 00 00 01
      00 00 00 01 00 00 00 01

201A  00 FC F9 F3 EC E4 DD D6 CD C4 BE B6 AF A8 A5 A5
      A5 A5 A5 A6 A6 A7 A7 A7 A7 A7 A4 42 00 26 00 24
      00 22 00 20 00 1F 00 1D 00 1C 00 1B 00 1A 00 19
      00 18 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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      FF FF FF FF FF FF FF FF 80 80 80 80 80 80 80 80
      80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80
      80 80

201B  80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80
      80 80 80 80 80 80 80 80 80 80 00 00 00 00 00 00
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      00 00 00 00 FF 25 00 0A 00 0A 00 0A 00 0A 00 0A
      00 0A 00 0A 00 09 00 09 00 0A 00 09

201C  7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F
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      7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 00 00 00
      01 00 01 00 00 00 00 00 00 00 00 00 00 00 00
      01 00 00 A3 20 BD 20 00 0A 00 0A 00 0A 00 0A 00
      0A 00 0A 00 0A 00 0A 00 0A 00 0A 00 09 FF FF 01
      FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
      FF FF FF 00 70 4F DA

201D  00 00 00 01 01 02 02 02 02 02 02 03 04 04 04 04
      05 06 07 07 08 08 0B 14 1C 1A 3C 77 00 26 00 24
      00 22 00 20 00 1F 00 1D 00 1C 00 1B 00 1A 00 19
      00 26 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 00 01 20 3E 20 3F 00 01 E5 E5 02 01 00 00 01
      E8 E8 FA F7 FA F7 E5 E5 80 80 80 80 80 80 80 80
      80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80
      80 80

201E  80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80
      80 80 80 80 80 80 80 80 80 80 00 00 00 00 00 00
      00 00 00 00 00 00 00 00 00 01 01 01 01 01 01 01
      01 01 02 02 04 6C 00 0A 00 0A 00 0A 00 0A 00 0A
      00 0A 00 0A 00 09 00 09 00 0A 00 0B

201F  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
      00 FF FE FD FC FC FC FB FB FA FA FA FA FA FA FA
      FA FA FA FA FA FA FA FA FA FA FA FA FA FA FA FA
      7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 00 00 00
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      01 FF F7 62 5F 62 6A 00 0A 00 0A 00 0A 00 0A 00
      0A 00 0A 00 0A 00 0A 00 0A 00 0A 00 0E 01 FF 01
      FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
      FF FF FF 00 70 4F DA

F1A0  20


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      01 00 09 94 06 00 09 94 02 00 09 D0 00 01 09 80
      D5 13 09 80 A0 88 09 94 14 00 09


      59 02 09 94 21 00 09 94 22 00 09 94 23 00 09


      59 0F 08 80 A0 00 08


      30 01 BF FF FB C1 98 07 FF FF FF FF 45 FF 19 FF
      FF C3 FF 1F DF FF FF BF FF D7 FF 08 86 32 10 00
      00 3F FF FF FF FF 04 7F FF FF 00 FF FF FF FF FF
      FF FF FF FF
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