



TECHNICAL RECONSTRUCTION GROUP
FACTUAL REPORT ATTACHMENT

ATTACHMENT: Chevrolet SDM/EDR Report – Bosch Crash Data Retrieval System

Tishomingo, OK
HWY22FH008

(24 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	KL8CB6S98FC [REDACTED]
User	TRP. JOSHUA CHRISTIAN #807
Case Number	OHP22005908
EDR Data Imaging Date	03/22/2022
Crash Date	03/22/2022
Filename	OHP22005908_KL8CB6S98FC [REDACTED].ACM.CDRX
Saved on	Tuesday, March 22 2022 at 22:17:36
Imaged with CDR version	Crash Data Retrieval Tool 21.4.1
Imaged with Software Licensed to (Company Name)	Oklahoma Highway Patrol - Traffic Homicide Program
Reported with CDR version	Crash Data Retrieval Tool 21.4.1
Reported with Software Licensed to (Company Name)	Oklahoma Highway Patrol - Traffic Homicide Program
EDR Device Type	Airbag Control Module
Event(s) recovered	Deployment

Comments

DTM DOWNLOAD - CABLE F-00K-108-454
 SHANES WRECKER - ARDMORE
 TIRE SIZE ACTUAL IS SAME AS RECOMMENDED
 OWNER CONSENT

Data Limitations

Recorded Crash Events:

There are two types of recorded crash events for Front, Side, and Rear (FSR) Events. The first is the Non-Deployment Event. A Non-Deployment Event records data but does not deploy the air bag(s). The minimum SDM Recorded Vehicle Velocity Change, that is needed to record a Non-Deployment Event, is five MPH [8 km/h]. A Non-Deployment Event contains Pre-Crash and Crash data. The oldest Non-Deployment event can be overwritten by a Deployment Event, if all three records are full and the Non-Deployment Event is not locked. A Non-Deployment Event can be overwritten by a more recent Non-Deployment Event if all three records are full and the Non-Deployment is older than approximately 250 ignition cycles. Also, a Non-Deployment event can be recorded if one of the following occurs without the Deployment of any of the frontal air bags, side air bags, or roll bars:

- Pretensioner(s) only Deployment
- Head Rest Deployment
- Battery Cut-Off Deployment

The second type of SDM recorded crash event for FSR Events is the Deployment Event. It also contains Pre-Crash and Crash data. Deployment Events cannot be overwritten or cleared by the SDM.

Rollover Events contains Pre-Crash and Crash data. Rollover event follow the same rules as FSR Deployment events. The SDM can store up to three Events.

Data:

For FSR Events, SDM Recorded Vehicle Velocity Change reflects the change in velocity that the sensing system experienced during the recorded portion of the event. SDM Recorded Vehicle Velocity Change is the change in velocity during the recording time and is not the speed the vehicle was traveling before the event and is also not the Barrier Equivalent Velocity. For Deployment and Non-Deployment Events, the SDM will record up to 300 milliseconds of data after time zero. The SDM will also record up to 300 milliseconds of Vehicle Acceleration data after time zero.

For Rollover Events, the SDM may record Lateral Acceleration, Vertical Acceleration, and Roll Rate data, if the SDM is rollover capable. This data reflects what the sensing system experienced during the recorded portion of the event. For Rollover Deployment Events, the SDM will record up to 700 milliseconds of data before the Deployment criteria is met and 290 milliseconds after the Deployment criteria is met.

-Deployment loops may be displayed as being deployed in a Non-Deployment event record, if a Deployment event is qualified during the Non-Deployment event. That is, if two or more events are occurring at the same time and one is a Non-Deployment event and one of the others is a Deployment event, and the Deployment event is qualified while the Non-Deployment is still active, the deployed loops may be recorded in the Non-Deployment event record.

-Time between events is recorded in 10 msec intervals and is displayed in seconds for a maximum time of 655.33 seconds. The counter measures the time from the start of one event to the start of the next event if both events occur within the same ignition cycle.

-The Maximum SDM Recorded Vehicle Velocity Change may occur between the recorded 10 millisecond sample points of the SDM Recorded Vehicle Velocity Change.

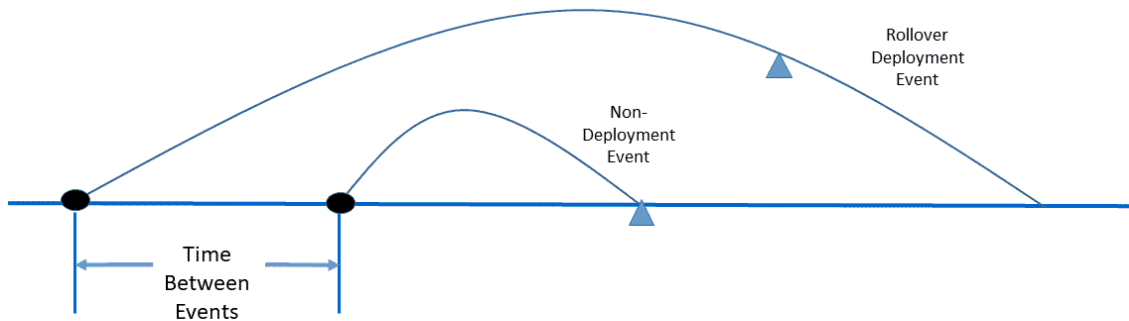
-Event Recording Complete will indicate if data from the recorded event has been fully written to the SDM memory or if it has been

interrupted and not fully written.

- SDM Recorded Vehicle Speed accuracy can be affected by various factors, including but not limited to the following:
 - Significant changes in the tire's rolling radius
 - Final drive axle ratio changes
 - Wheel lockup and wheel slip
- Brake Switch Circuit Status indicates the open/closed state of the brake switch circuit.
- Pre-Crash data is recorded asynchronously. The 0.5 second Pre-crash data value (most recent recorded data point) is the data point last sampled before Time Zero. That is to say, the last data point may have been captured just before Time Zero but no more than 0.5 second before Time Zero. All subsequent Pre-crash data values are referenced from this data point.
- Pre-Crash Electronic Data Validity Check Status indicates "Data Invalid" if:
 - The SDM receives a message with an "invalid" flag from the module sending the pre-crash data
- Pre-Crash Electronic Data Validity Check Status indicates "Data Not Available" if:
 - No data is received from the module sending the pre-crash data
- For diesel powered vehicles, the data displayed as Throttle Position (%) is actually the data for the Air Inlet Flap Position. This is not the same as the throttle position for a gasoline powered engines.
- Belt Switch Circuit Status indicates the status of the seat belt switch circuit.
- The ignition cycle counter will increment when the power mode cycles from OFF/Accessory to RUN. Applying and removing of battery power to the module will not increment the ignition cycle counter.
- Ignition Cycles Since DTCs Were Last Cleared can record a maximum value of 253 cycles and can only be reset by a scan tool.
- Dynamic Deployment Event Counter tracks the number of Deployment events that have occurred during the SDM's lifetime.
- Dynamic Event Counter tracks the number of qualified events (either Deployments, Non-deploy, or Rollover events) that have occurred during the SDM's lifetime.
- For Deployment Events, DTC B0052 (Deployment commanded) shall be recorded with the remainder of the data for this event even though it occurred after Event Enable.
- Once a firing loop has been commanded to be deployed, it will not be commanded to be deployed again during the same ignition cycle. Firing loop times for subsequent deployment type events, during the same ignition cycle, will record the deployment times as N/A.
- A Concurrent Event is when two events are happening nearly simultaneously. The "Concurrent Event Flag Set" parameter will indicate "Yes" if one event begins, but before that event is qualified, another event begins and is qualified.

Example of a Concurrent Event:

A Rollover event begins. Before the Rollover event is qualified, a Non-Deployment event begins and is qualified. Sometime after the Non-Deployment event is qualified, the Rollover event is qualified. The Non-Deployment event will be recorded in the first open record even though the Rollover event enabled before the Non-Deployment event. The Rollover event will be recorded in the next open record. The "Concurrent Event Flag Set" parameter will indicate "Yes" for the Rollover event. The "Time Between Events" parameter will indicate the time from the start of the Rollover event to the start of the Non-Deployment event.



Event Record #1	Event Record #2
Event Record Type = Non – Deployment	Event Record Type = Rollover
Concurrent Event Flag = No	Concurrent Event Flag = Yes
Time Between Events = NA	Time Between Events = XX seconds

- The GM parameter name is displayed in parentheses after the NHTSA Part 563 parameter name.
- The reported range of the longitudinal and lateral acceleration values is approximately ± 50 g.
- All data should be examined in conjunction with other available physical evidence from the vehicle and scene.

Data Source:

All SDM recorded data is measured, calculated, and stored internally, except for the following:

KL8CB6S98FC [REDACTED]

- Vehicle Status Data (Pre-Crash) is transmitted by the Body Control Module, via the vehicle's communication network.
- The Belt Switch Circuit is wired directly to the SDM.

Data Element Sign Convention:

The following table provides an explanation of the sign notation for data elements that may be included in this CDR report. Directional references to sign notation are all 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
Longitudinal Acceleration	Forward
Longitudinal Velocity Change	Forward
Lateral Acceleration	Left to Right
Lateral Velocity Change	Left to Right
Vertical Acceleration	Downward
Roll Rate	Clockwise Rotation

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 tool.

01043_SDM10P-conti_r017

System Status at Time of Retrieval

Dynamic Deployment Event Counter	1
Multi-Event, Number of Events (Dynamic Event Counter)	1
Dynamic OnStar Notification Event Counter	1
Vehicle Identification Number (VIN)	KL8CB6S98FC [REDACTED]
Ignition Cycle, Download (Ignition Cycles at Investigation)	13655
End Model Part Number	00CF6759
System Type	Continental
Software Module Identifier 1	00CF6754
Software Module Identifier 2	05AAF622
Software Module Identifier 3	00CF2D8A
Manufacturing Traceability Data, Component Identifier	AS
Manufacturing Traceability Data, Part Number/Broadcast Code	2409
Manufacturing Traceability Data, Supplier Code	T
Manufacturing Traceability Data, Traceability Number	143320417
ESS # 1 Traceability Data, Component Identifier	AU
ESS # 1 Traceability Data, Part Number/Broadcast Code	6664
ESS # 1 Traceability Data, Supplier Code	T
ESS # 1 Traceability Data, Traceability Number	1DV6CKV5Q
ESS # 2 Traceability Data, Component Identifier	AT
ESS # 2 Traceability Data, Part Number/Broadcast Code	6664
ESS # 2 Traceability Data, Supplier Code	T
ESS # 2 Traceability Data, Traceability Number	1DVFSSV5Q
ESS # 3 Traceability Data, Component Identifier	AH
ESS # 3 Traceability Data, Part Number/Broadcast Code	2340
ESS # 3 Traceability Data, Supplier Code	T
ESS # 3 Traceability Data, Traceability Number	PBS90T30L
ESS # 4 Traceability Data, Component Identifier	AJ
ESS # 4 Traceability Data, Part Number/Broadcast Code	2340
ESS # 4 Traceability Data, Supplier Code	T
ESS # 4 Traceability Data, Traceability Number	PBT58T30L
ESS # 5 Traceability Data, Component Identifier	DA
ESS # 5 Traceability Data, Part Number/Broadcast Code	2341
ESS # 5 Traceability Data, Supplier Code	T
ESS # 5 Traceability Data, Traceability Number	79N9FCV0N
ESS # 6 Traceability Data, Component Identifier	DB
ESS # 6 Traceability Data, Part Number/Broadcast Code	2341
ESS # 6 Traceability Data, Supplier Code	T
ESS # 6 Traceability Data, Traceability Number	N9MR3CV0N
ESS # 7 Traceability Data, Component Identifier	00
ESS # 7 Traceability Data, Part Number/Broadcast Code	0000
ESS # 7 Traceability Data, Supplier Code	T
ESS # 7 Traceability Data, Traceability Number	000000000
ESS # 8 Traceability Data, Component Identifier	00
ESS # 8 Traceability Data, Part Number/Broadcast Code	0000
ESS # 8 Traceability Data, Supplier Code	T
ESS # 8 Traceability Data, Traceability Number	000000000

System Status at Event (Event Record 1)

Event Record Type	Deployment
OnStar Deployment Status Data Sent	Yes
Complete file recorded (Event Recording Complete)	Yes
Crash Record Locked	Yes
OnStar SDM Recorded Vehicle Velocity Change Data Sent	No
Deployment Event Counter	1
Multi-Event, Number of Events (Event Counter)	1
OnStar Notification Event Counter	1
Time From Event 1 to 2 (Time Between Events) (seconds)	Data Not Available
Ignition Cycle, Crash (Ignition Cycles at Event)	13655
Algorithm Active: Frontal	Yes
Algorithm Active: Side	Yes
Algorithm Active: Rollover	No
Algorithm Active: Rear	Yes
Concurrent Event Flag Set	No
Event Severity Status: Frontal Pretensioner	Yes
Event Severity Status: Frontal Stage 1	Yes
Event Severity Status: Frontal Stage 2	Yes
Event Severity Status: Left Side	Yes
Event Severity Status: Right Side	No
Event Severity Status: Rear	No
Event Severity Status: Rollover	No
Safety Belt Status, Driver (Driver Belt Switch Circuit Status)	Buckled
Safety Belt Status, Right Front Passenger (Passenger Belt Switch Circuit Status)	Buckled
Center Front Row Belt Switch Circuit Status (If Equipped)	Data Not Available
Left Row 3 Belt Switch Circuit Status (If Equipped)	Data Not Available
Center Row 3 Belt Switch Circuit Status (If Equipped)	Data Not Available
Right Row 3 Belt Switch Circuit Status (If Equipped)	Data Not Available
Passenger Seat Occupancy Status	Occupied
Occupant Size Right Front Passenger Child (Passenger Classification Status)	No (Adult)
Passenger Air Bag ON Indicator Status	On
Passenger Air Bag OFF Indicator Status	Off
Low Tire Pressure Warning Lamp Status 0.5 Seconds Prior to Time Zero	On
Frontal Air Bag Warning Lamp (SIR Warning Lamp Status 0.5 Seconds Prior to Time Zero)	Off
SIR Warning Lamp ON/OFF Time Continuously (seconds)	655330
Number of Ignition Cycles SIR Warning Lamp was ON/OFF Continuously	2351
Ignition Cycles Since DTCs Were Last Cleared 0.5 Seconds Prior to Time Zero	47
Maximum Delta-V, Longitudinal (Maximum Longitudinal SDM Recorded Vehicle Velocity Change for FSR Event) MPH [km/h]	-55 [-89]
Time, Maximum Delta-V (Time From FSR Time Zero to Maximum Longitudinal SDM Recorded Vehicle Velocity Change)(msec)	160
Maximum Delta-V, Lateral (Maximum Lateral SDM Recorded Vehicle Velocity Change for FSR Event) MPH [km/h]	25 [40]
Time Maximum Delta-V, Lateral (Time From FSR Time Zero to Maximum Lateral SDM Recorded Vehicle Velocity Change)(msec)	132

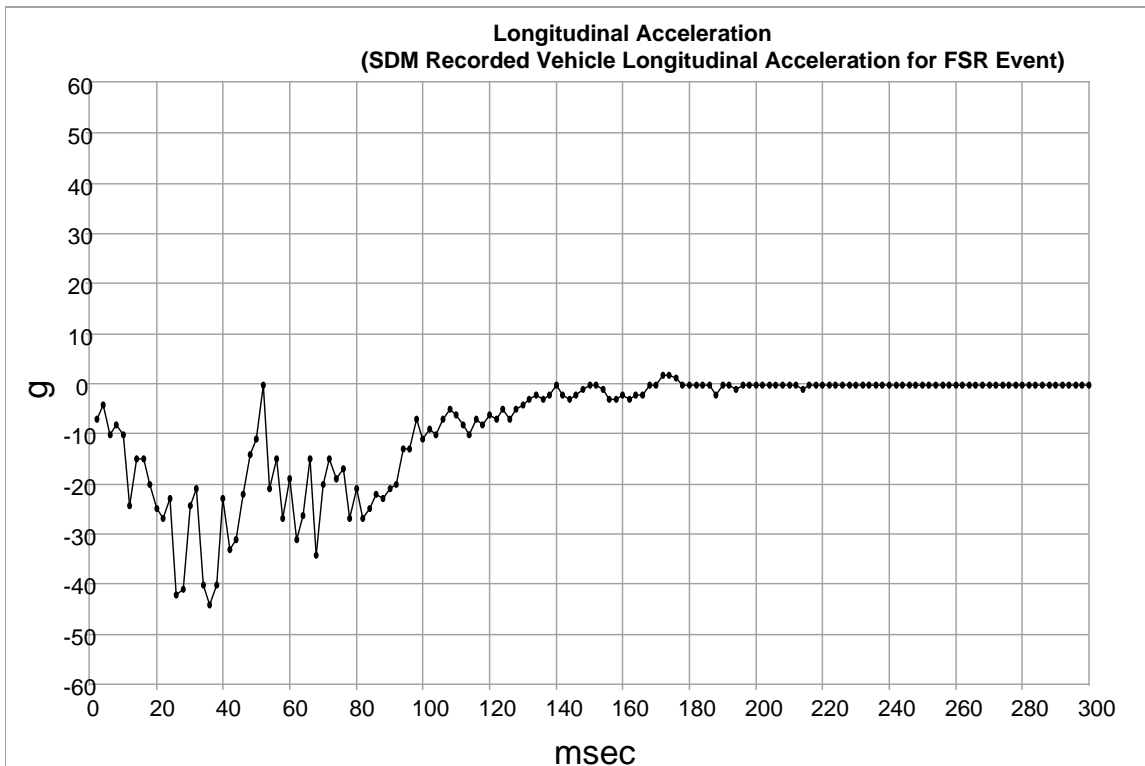
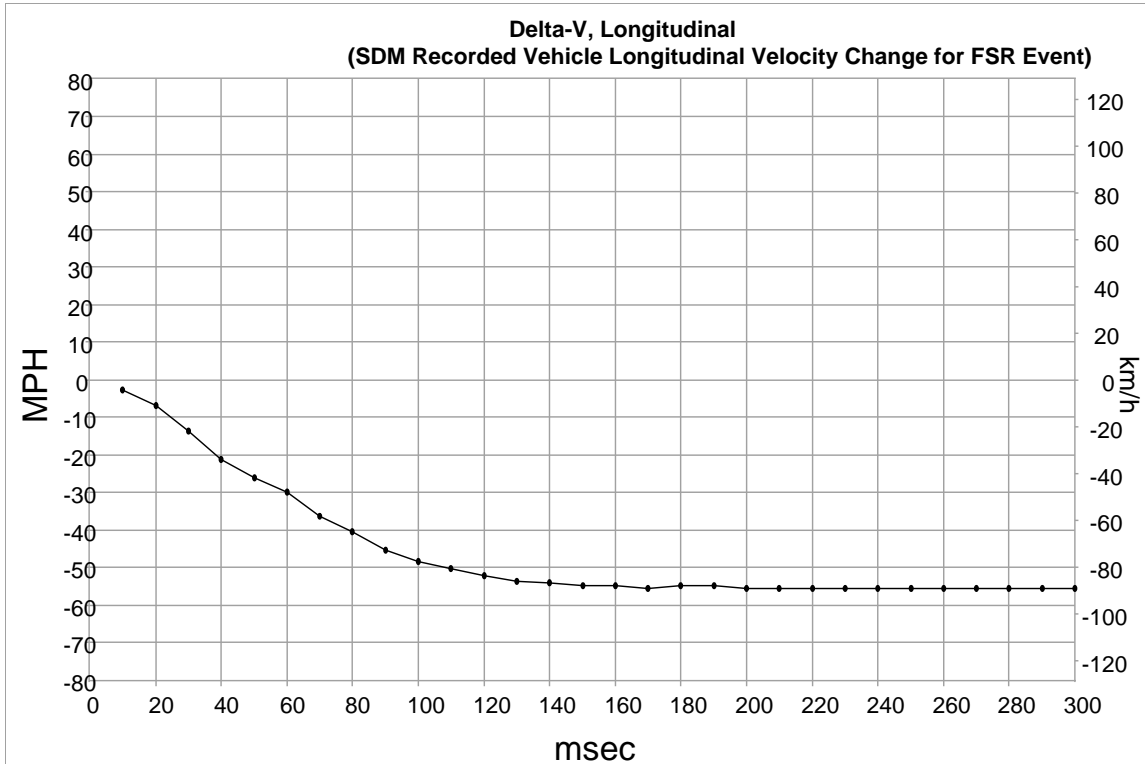
DTCs Present at Time of Event (Event Record 1)

B0052-00

Event Data (Event Record 1)

Driver 1st Stage Deployment Loop Commanded	Yes
Passenger 1st Stage Deployment Loop Commanded	Yes
Driver 2nd Stage Deployment Loop Commanded	Yes
Passenger 2nd Stage Deployment Loop Commanded	Yes
Driver Pretensioner Deployment Loop #1 Commanded	Yes
Passenger Pretensioner Deployment Loop #1 Commanded	Yes
Driver Pretensioner Deployment Loop #2 Commanded	Yes
Passenger Pretensioner Deployment Loop #2 Commanded	Yes
Driver Thorax Loop Commanded	Yes
Passenger Thorax Loop Commanded	No
Left Row 2 Thorax Loop Commanded	Yes
Right Row 2 Thorax Loop Commanded	No
Left Row 1 Roof Rail/Head Curtain Loop Commanded	Yes
Right Row 1 Roof Rail/Head Curtain Loop Commanded	Yes
Driver Knee Deployment Loop Commanded	Yes
Passenger Knee Deployment Loop Commanded	Yes
Frontal Air Bag Deployment, Time to 1st Stage Deployment, Driver (Driver 1st Stage Time From Time Zero to Deployment Command Criteria Met) (msec)	3
Frontal Air Bag Deployment, Time to 2nd Stage, Driver (Driver 2nd Stage Time From Time Zero to Deployment Command Criteria Met) (msec)	5
Frontal Air Bag Deployment, Time to 1st Stage Deployment, Right Front Passenger (Passenger 1st Stage Time From Time Zero to Deployment Command Criteria Met) (msec)	3
Frontal Air Bag Deployment, Time to 2nd Stage, Right Front Passenger (Passenger 2nd Stage Time From Time Zero to Deployment Command Criteria Met) (msec)	5
Side air bag deployment, time to deploy, driver (Driver Thorax/Curtain Time From Time Zero to Deployment Command Criteria Met) (msec)	4
Side air bag deployment, time to deploy, right front passenger (Passenger Thorax/Curtain Time From Time Zero to Deployment Command Criteria Met) (msec)	4
Pretensioner Deployment, Time to Fire, Driver (Driver Pretensioner Time From Time Zero to Deployment Loop #1 or Loop #2 Command Criteria Met) (msec)	3
Pretensioner Deployment, Time to Fire, Right Front Passenger (Passenger Pretensioner Time From Time Zero to Deployment Loop #1 or Loop #2 Command Criteria Met) (msec)	3

Longitudinal Crash Pulse (Event Record 1)



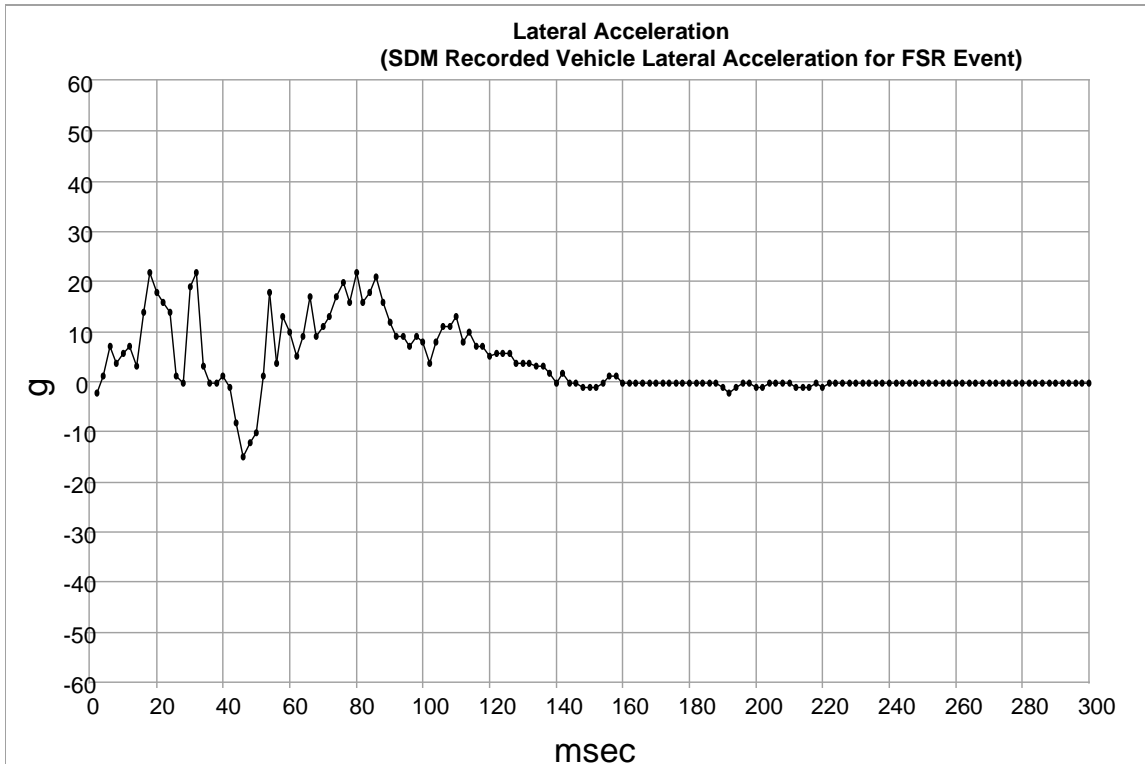
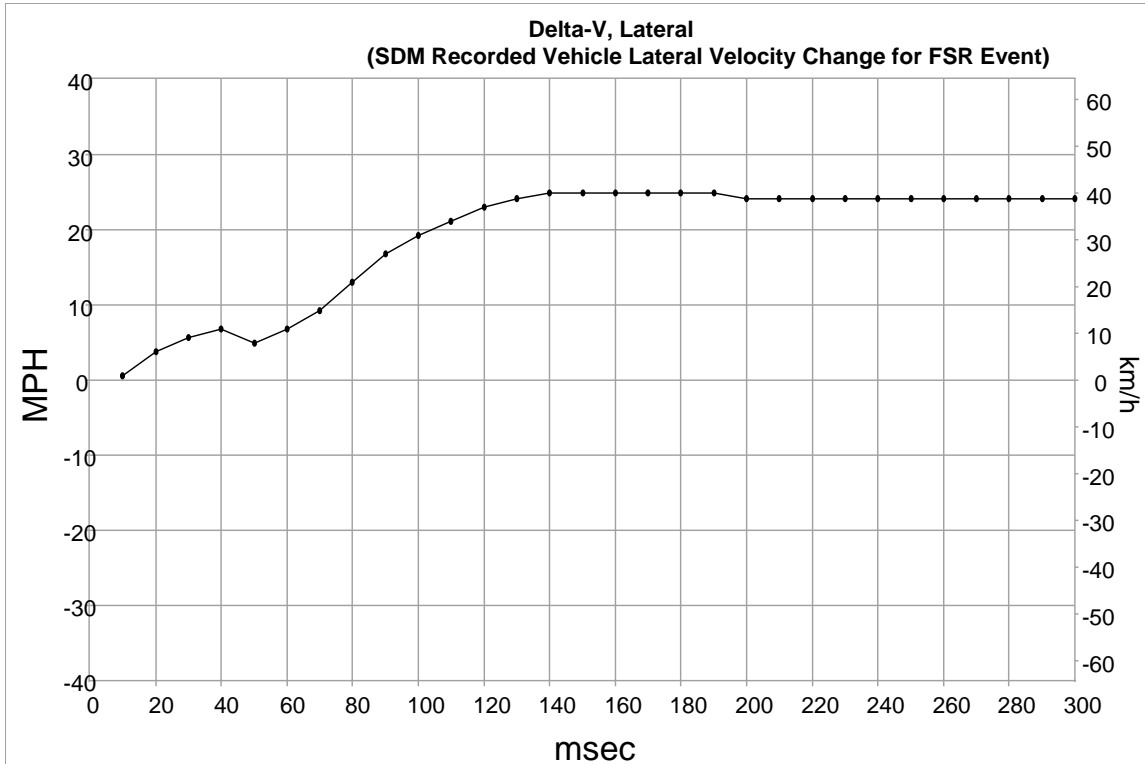
Longitudinal Crash Pulse (Event Record 1)

Time (msec)	Delta-V, Longitudinal (SDM Recorded Vehicle Longitudinal Velocity Change for FSR Event) (MPH)	Delta-V, Longitudinal (SDM Recorded Vehicle Longitudinal Velocity Change for FSR Event) (km/h)
10	-2.5	-4.0
20	-6.8	-11.0
30	-13.7	-22.0
40	-21.1	-34.0
50	-26.1	-42.0
60	-29.8	-48.0
70	-36.0	-58.0
80	-40.4	-65.0
90	-45.4	-73.0
100	-48.5	-78.0
110	-50.3	-81.0
120	-52.2	-84.0
130	-53.4	-86.0
140	-54.1	-87.0
150	-54.7	-88.0
160	-54.7	-88.0
170	-55.3	-89.0
180	-54.7	-88.0
190	-54.7	-88.0
200	-55.3	-89.0
210	-55.3	-89.0
220	-55.3	-89.0
230	-55.3	-89.0
240	-55.3	-89.0
250	-55.3	-89.0
260	-55.3	-89.0
270	-55.3	-89.0
280	-55.3	-89.0
290	-55.3	-89.0
300	-55.3	-89.0

Longitudinal Crash Pulse (Event Record 1)

Time (msec)	Longitudinal Acceleration (SDM Recorded Vehicle Longitudinal Acceleration for FSR Event) (g)	Time (msec)	Longitudinal Acceleration (SDM Recorded Vehicle Longitudinal Acceleration for FSR Event) (g)	Time (msec)	Longitudinal Acceleration (SDM Recorded Vehicle Longitudinal Acceleration for FSR Event) (g)
2	-7.0	102	-9.0	202	-0.2
4	-4.2	104	-10.2	204	-0.2
6	-10.2	106	-7.0	206	-0.2
8	-8.2	108	-5.0	208	-0.2
10	-10.2	110	-6.2	210	-0.2
12	-24.2	112	-8.2	212	-0.2
14	-15.0	114	-10.2	214	-1.0
16	-15.0	116	-7.0	216	-0.2
18	-20.2	118	-8.2	218	-0.2
20	-25.0	120	-6.2	220	-0.2
22	-27.0	122	-7.0	222	-0.2
24	-23.0	124	-5.0	224	-0.2
26	-42.2	126	-7.0	226	-0.2
28	-41.0	128	-5.0	228	-0.2
30	-24.2	130	-4.2	230	-0.2
32	-21.0	132	-3.0	232	-0.2
34	-40.2	134	-2.2	234	-0.2
36	-44.2	136	-3.0	236	-0.2
38	-40.2	138	-2.2	238	-0.2
40	-23.0	140	-0.2	240	-0.2
42	-33.0	142	-2.2	242	-0.2
44	-31.0	144	-3.0	244	-0.2
46	-22.2	146	-2.2	246	-0.2
48	-14.2	148	-1.0	248	-0.2
50	-11.0	150	-0.2	250	-0.2
52	-0.2	152	-0.2	252	-0.2
54	-21.0	154	-1.0	254	-0.2
56	-15.0	156	-3.0	256	-0.2
58	-27.0	158	-3.0	258	-0.2
60	-19.0	160	-2.2	260	-0.2
62	-31.0	162	-3.0	262	-0.2
64	-26.2	164	-2.2	264	-0.2
66	-15.0	166	-2.2	266	-0.2
68	-34.2	168	-0.2	268	-0.2
70	-20.2	170	-0.2	270	-0.2
72	-15.0	172	1.8	272	-0.2
74	-19.0	174	1.8	274	-0.2
76	-17.0	176	1.0	276	-0.2
78	-27.0	178	-0.2	278	-0.2
80	-21.0	180	-0.2	280	-0.2
82	-27.0	182	-0.2	282	-0.2
84	-25.0	184	-0.2	284	-0.2
86	-22.2	186	-0.2	286	-0.2
88	-23.0	188	-2.2	288	-0.2
90	-21.0	190	-0.2	290	-0.2
92	-20.2	192	-0.2	292	-0.2
94	-13.0	194	-1.0	294	-0.2
96	-13.0	196	-0.2	296	-0.2
98	-7.0	198	-0.2	298	-0.2
100	-11.0	200	-0.2	300	-0.2

Lateral Crash Pulse (Event Record 1)



Lateral Crash Pulse (Event Record 1)

Time (msec)	Delta-V, Lateral (SDM Recorded Vehicle Lateral Velocity Change for FSR Event) (MPH)	Delta-V, Lateral (SDM Recorded Vehicle Lateral Velocity Change for FSR Event) (km/h)
10	0.6	1.0
20	3.7	6.0
30	5.6	9.0
40	6.8	11.0
50	5.0	8.0
60	6.8	11.0
70	9.3	15.0
80	13.0	21.0
90	16.8	27.0
100	19.3	31.0
110	21.1	34.0
120	23.0	37.0
130	24.2	39.0
140	24.9	40.0
150	24.9	40.0
160	24.9	40.0
170	24.9	40.0
180	24.9	40.0
190	24.9	40.0
200	24.2	39.0
210	24.2	39.0
220	24.2	39.0
230	24.2	39.0
240	24.2	39.0
250	24.2	39.0
260	24.2	39.0
270	24.2	39.0
280	24.2	39.0
290	24.2	39.0
300	24.2	39.0

Lateral Crash Pulse (Event Record 1)

Time (msec)	Lateral Acceleration (SDM Recorded Vehicle Lateral Acceleration for FSR Event) (g)	Time (msec)	Lateral Acceleration (SDM Recorded Vehicle Lateral Acceleration for FSR Event) (g)	Time (msec)	Lateral Acceleration (SDM Recorded Vehicle Lateral Acceleration for FSR Event) (g)
2	-2.2	102	3.8	202	-1.0
4	1.0	104	7.8	204	-0.2
6	7.0	106	11.0	206	-0.2
8	3.8	108	11.0	208	-0.2
10	5.8	110	13.0	210	-0.2
12	7.0	112	7.8	212	-1.0
14	3.0	114	9.8	214	-1.0
16	13.8	116	7.0	216	-1.0
18	21.8	118	7.0	218	-0.2
20	17.8	120	5.0	220	-1.0
22	15.8	122	5.8	222	-0.2
24	13.8	124	5.8	224	-0.2
26	1.0	126	5.8	226	-0.2
28	-0.2	128	3.8	228	-0.2
30	19.0	130	3.8	230	-0.2
32	21.8	132	3.8	232	-0.2
34	3.0	134	3.0	234	-0.2
36	-0.2	136	3.0	236	-0.2
38	-0.2	138	1.8	238	-0.2
40	1.0	140	-0.2	240	-0.2
42	-1.0	142	1.8	242	-0.2
44	-8.2	144	-0.2	244	-0.2
46	-15.0	146	-0.2	246	-0.2
48	-12.2	148	-1.0	248	-0.2
50	-10.2	150	-1.0	250	-0.2
52	1.0	152	-1.0	252	-0.2
54	17.8	154	-0.2	254	-0.2
56	3.8	156	1.0	256	-0.2
58	13.0	158	1.0	258	-0.2
60	9.8	160	-0.2	260	-0.2
62	5.0	162	-0.2	262	-0.2
64	9.0	164	-0.2	264	-0.2
66	17.0	166	-0.2	266	-0.2
68	9.0	168	-0.2	268	-0.2
70	11.0	170	-0.2	270	-0.2
72	13.0	172	-0.2	272	-0.2
74	17.0	174	-0.2	274	-0.2
76	19.8	176	-0.2	276	-0.2
78	15.8	178	-0.2	278	-0.2
80	21.8	180	-0.2	280	-0.2
82	15.8	182	-0.2	282	-0.2
84	17.8	184	-0.2	284	-0.2
86	21.0	186	-0.2	286	-0.2
88	15.8	188	-0.2	288	-0.2
90	11.8	190	-1.0	290	-0.2
92	9.0	192	-2.2	292	-0.2
94	9.0	194	-1.0	294	-0.2
96	7.0	196	-0.2	296	-0.2
98	9.0	198	-0.2	298	-0.2
100	7.8	200	-1.0	300	-0.2

**Rollover Crash Pulse (Event Record 1)
SDM Recorded Vehicle Roll Rate**

Contains No Recorded Data

**Rollover Crash Pulse (Event Record 1)
Lateral Acceleration (SDM Recorded Vehicle Lateral Acceleration for Rollover
Event)**

Contains No Recorded Data

**Vertical Crash Pulse (Event Record 1)
Normal Acceleration (SDM Recorded Vehicle Vertical Acceleration for Rollover
Event)**

Contains No Recorded Data

Pre-Crash Data -5.0 to -0.5 sec (Event Record 1)

Times (sec)	Accelerator Pedal, % Full (Accelerator Pedal Position)	Service Brake (Brake Switch Circuit State)	Engine RPM (Engine Speed)	Engine Throttle, % Full (Throttle Position)	Speed, Vehicle Indicated (Vehicle Speed) (MPH [km/h])
-5.0	17	Off	1408	30	1 [2]
-4.5	25	Off	1920	39	3 [5]
-4.0	0	Off	2176	33	6 [10]
-3.5	0	On	1856	22	7 [11]
-3.0	47	Off	1728	30	7 [12]
-2.5	54	Off	2624	75	9 [14]
-2.0	54	Off	3264	83	12 [19]
-1.5	58	Off	3840	99	15 [24]
-1.0	99	Off	4480	99	17 [28]
-0.5	99	Off	4928	99	21 [33]

Pre-Crash Data -2.0 to -0.5 sec (Event Record 1)

Times (sec)	Cruise Control Active	Cruise Control Resume Switch Active	Cruise Control Set Switch Active	Engine Torque (lb-ft [N-m])	Reduced Engine Power Mode Indicator
-2.0	No	No	No	68 [92]	Off
-1.5	No	No	No	71 [96]	Off
-1.0	No	No	No	74 [100]	Off
-0.5	No	No	No	70 [94]	Off

Hexadecimal Data

DPID \$11
FF FD 40 FC C0 7C 00

DPID \$15
01 02 03 04 05 06 07

DPID \$16
08 09 0A 0D 0E 13 14

DPID \$17
00 0C 00 0B 00 00 00

DPID \$32
00 FF 35 57 00 00 00

DPID \$35
78 00 00 00 00 00 00

DID \$01
41 55 36 36 36 34 54 31 44 56 36 43 4B 56 35 51

DID \$03
41 54 36 36 36 34 54 31 44 56 46 53 53 56 35 51

DID \$05
41 48 32 33 34 30 54 50 42 53 39 30 54 33 30 4C

DID \$07
41 4A 32 33 34 30 54 50 42 54 35 38 54 33 30 4C

DID \$09
44 41 32 33 34 31 54 37 39 4E 39 46 43 56 30 4E

DID \$0B
44 42 32 33 34 31 54 4E 39 4D 52 33 43 56 30 4E

DID \$0D
30 30 30 30 30 30 54 30 30 30 30 30 30 30 30 30

DID \$0F
30 30 30 30 30 30 54 30 30 30 30 30 30 30 30 30

DID \$30
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DID \$90
4B 4C 38 43 42 36 53 39 38 46 43 37 34 37 31 31 31

DID \$9A
03 01

DID \$B4
41 53 32 34 30 39 54 31 34 33 33 32 30 34 31 37

DID \$C1
00 CF 67 54

DID \$C2
05 AA F6 22

DID \$C3
00 CF 2D 8A

DID \$CB
KL8CB6S98FC [REDACTED]

00 CF 67 59

DID §31

0000 A5 E0 01 00 01 01 0B 35 57 FF
0010 FF 00 FF FF 1E EB EB 0C 00 00
0020 5C FC FC F0 20 60 C0 40 63 63
0030 3A 36 36 2F 00 00 19 11 00 04
0040 00 00 00 00 00 4D 46 3C 33 29
0050 1B 1D 22 1E 16 07 5D 07 69 07
0060 61 07 59 63 63 63 53 4B 1E 16
0070 21 27 1E 21 1C 18 13 0E 0C 0B
0080 0A 05 02 40 FF FD 09 2F 2F FF
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0110 FF FF FF 80 52 00 26 50 A7 42
0120 03 05 03 05 04 04 03 03 7B 80
0130 74 85 69 88 5D 8A 55 87 4F 8A
0140 45 8E 3E 94 36 9A 31 9E 2E A1
0150 2B A4 29 A6 28 A7 27 A7 27 A7
0160 26 A7 27 A7 27 A7 26 A6 26 A6
0170 26 A6 26 A6 26 A6 26 A6 26 A6
0180 26 A6 26 A6 26 A6 26 A6 6E 7A
0190 75 82 66 91 6B 89 66 8E 43 91
0200 5A 87 5A A2 4D B6 41 AC 3C A7
0210 46 A2 16 82 19 7F 43 AF 4B B6
0220 1B 87 11 7F 1B 7F 46 82 2D 7D
0230 32 6B 48 5A 5C 61 64 66 7F 82
0240 4B AC 5A 89 3C A0 50 98 32 8C
0250 3E 96 5A AA 2A 96 4D 9B 5A A0
0260 50 AA 55 B1 3C A7 4B B6 3C A7
0270 41 AC 48 B4 46 A7 4B 9D 4D 96
0280 5F 96 5F 91 6E 96 64 93 69 89
0290 66 93 6E 9B 73 9B 70 A0 6B 93
0300 66 98 6E 91 6B 91 70 8C 6E 8E
0310 73 8E 6E 8E 73 89 75 89 78 89
0320 7A 87 78 87 7A 84 7F 7F 7A 84
0330 78 7F 7A 7F 7D 7D 7F 7D 7F 7D
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0830 AA AA 07 01 FF 00 00 00 00
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0960 29 1D 25 10 1B 02 0F 0B 0D
0970 4D 4A 03 14 0B 38 6B C9 02
0980 11 1A 25 33 04 28 08 35 A1
0990 0E 20 14 3A 5F 78 41 62 2C
1000 2E 00 10 18 13 2E F3 6C EF
1010 F1 64 17 1E 0F 64 1F 64 09
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1030 64 64 60 61 58 5A 3B 36 58
1040 64 15 55 0D 2C 0A 2A ED F3
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