



STATE OF MICHIGAN
DEPARTMENT OF STATE POLICE
LANSING

GRETCHEN WHITMER
GOVERNOR

COL. JOSEPH M. GASPER
DIRECTOR

12/22/2020

STEVEN HARRY
3125 TECUMSEH RIVER ROAD
LANSING, MICHIGAN 48906

Subject: CR-31214239

Dear STEVEN HARRY:

The Michigan State Police (MSP) has received your request for public records under the Michigan Freedom of Information Act (FOIA), MCL 15.231 *et seq.*

Your request is granted. The documents you requested are provided. Under the FOIA, Section 10a, you have the right to appeal the fee to the head of this public body.

For requests that were granted or granted in part and for which a balance is owed:

If your request was submitted via the Records Request Portal, you can make payment in the portal by selecting "Request Details" for the request number (CR) indicated in the subject line above. All other requestors can make payment using the online payment center (<http://mistatepolicepmts.state.mi.us/crsearch>). You will need to provide the request number (CR) listed above. Please note there is a \$2.00 processing fee for online payments.

If you prefer, you can mail a check or money order made payable to the State of Michigan to Michigan State Police, Cashiers Unit, P.O. Box 30266, Lansing, MI 48909. To ensure proper credit, please enclose a copy of this letter with your payment.

The MSP's FOIA procedures and guidelines and written public summary can be accessed by visiting www.michigan.gov/msp.

Sincerely,

Records Resource Section

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 | 2G1WS57M991315528 |
| User | Spl/Sgt Allan Avery |
| Case Number | 11-6126-14 |
| EDR Data Imaging Date | 12/07/2014 |
| Crash Date | 12/07/2014 |
| Filename | INGHAM09 IMPALA 2G1WS57M991315528 ACM.CDRX |
| Saved on | Sunday, December 7 2014 at 09:02:11 |
| Collected with CDR version | Crash Data Retrieval Tool 14.2 |
| Reported with CDR version | Crash Data Retrieval Tool 14.0 |
| EDR Device Type | Airbag Control Module |
| Event(s) recovered | Deployment |
| | Non-Deployment |

Comments

2009 Chevrolet Impala Patrol Car
Desktop download
frontal impact

Data Limitations

Recorded Crash Events:

There are two types of recorded crash 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. A Non-Deployment Event may contain Pre-Crash and Crash data. The SDM can store up to one Non-Deployment Event. This event will be cleared by the SDM, after approximately 250 ignition cycles. This event can be overwritten by a second Deployment Event, referred to as Deployment Event #2, if the Non-Deployment Event is not locked. A locked Non Deployment Event can not be overwritten by the SDM. The second type of SDM recorded crash event is the Deployment Event. It also may contain Pre-Crash and Crash data. The SDM can store up to two different Deployment Events. If a second Deployment Event occurs any time after the Deployment Event, the Deployment Event #2 will overwrite any non-locked Non-Deployment Event. Deployment Events cannot be overwritten or cleared by the SDM. Once the SDM has deployed an air bag, the SDM must be replaced.

Data:

- 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 Events, the SDM can record 220 milliseconds of data after Deployment criteria is met and up to 70 milliseconds before Deployment criteria is met. For Non-Deployment Events, the SDM can record up to the first 300 milliseconds of data after algorithm enable. Velocity Change data is displayed in SAE sign convention.
- The CDR tool displays time from Algorithm Enable (AE) to time of Deployment command in a Deployment event and AE to time of maximum SDM recorded vehicle velocity change in a Non-Deployment event. Time from AE begins when the first air bag system enable threshold is met and ends when Deployment command criteria is met or at maximum SDM recorded vehicle velocity change. Air bag systems such as frontal, side, or rollover, may be a source of an enable. The time represented in a CDR report can be that of the enable of one air bag system to the Deployment time of another air bag system.
- Maximum Recorded Vehicle Velocity Change is the maximum square root value of the sum of the squares for the vehicle's combined "X" and "Y" axis change in velocity.
- 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 status 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 AE. That is to say, the last data point may have been captured just before AE but no more than 0.5 second before AE. 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
- No data is received from the module sending the pre-crash data
- No module present to send the pre-crash data
- Driver's and Passenger's Belt Switch Circuit Status indicates the status of the seat belt switch circuit.
- The Time Between Non-Deployment to Deployment Events is displayed in seconds. If the time between the two events is greater than five seconds, "N/A" is displayed in place of the time. If the value is negative, then the Deployment Event occurred first. If the value is positive, then the Non-Deployment Event occurred first.
- If power to the SDM is lost during a crash event, all or part of the crash record may not be recorded.
- The ignition cycle counter relies upon the transitions through OFF->RUN->CRANK power-moding messages, on the GMLAN communication bus, to increment the counter. Applying and removing of battery power to the module will not increment the ignition cycle counter.
- 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.
- If more than one event is recorded, use the follow to determine which event the Multiple Event Data is associated with:
 - If a Deployment event and not locked Non-Deployment event are recorded, the Multiple Event Data is associated with the Deployment event.
 - If a Deployment event and a locked Non-Deployment event are recorded, then the Multiple Event Data is associated with both events.
 - If a Deployment event and Deployment event #2 are recorded, then the Multiple Event Data is associated with both events.
- 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:

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

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.

01004_SDMC-autoliv_r004

Multiple Event Data

| | |
|---|----|
| Associated Events Not Recorded | 0 |
| Event(s) was an Extended Concatenated Event | No |
| An Event(s) was in Between the Recorded Event(s) | No |
| An Event(s) Followed the Recorded Event(s) | No |
| The Event(s) Not Recorded was a Deployment Event(s) | No |
| The Event(s) Not Recorded was a Non-Deployment Event(s) | No |

System Status At AE

| | |
|--|----------|
| Low Tire Pressure Warning Lamp (If Equipped) | Invalid |
| Vehicle Power Mode Status | Run |
| Remote Start Status (If Equipped) | Inactive |
| Run/Crank Ignition Switch Logic Level | Active |

Pre-crash data

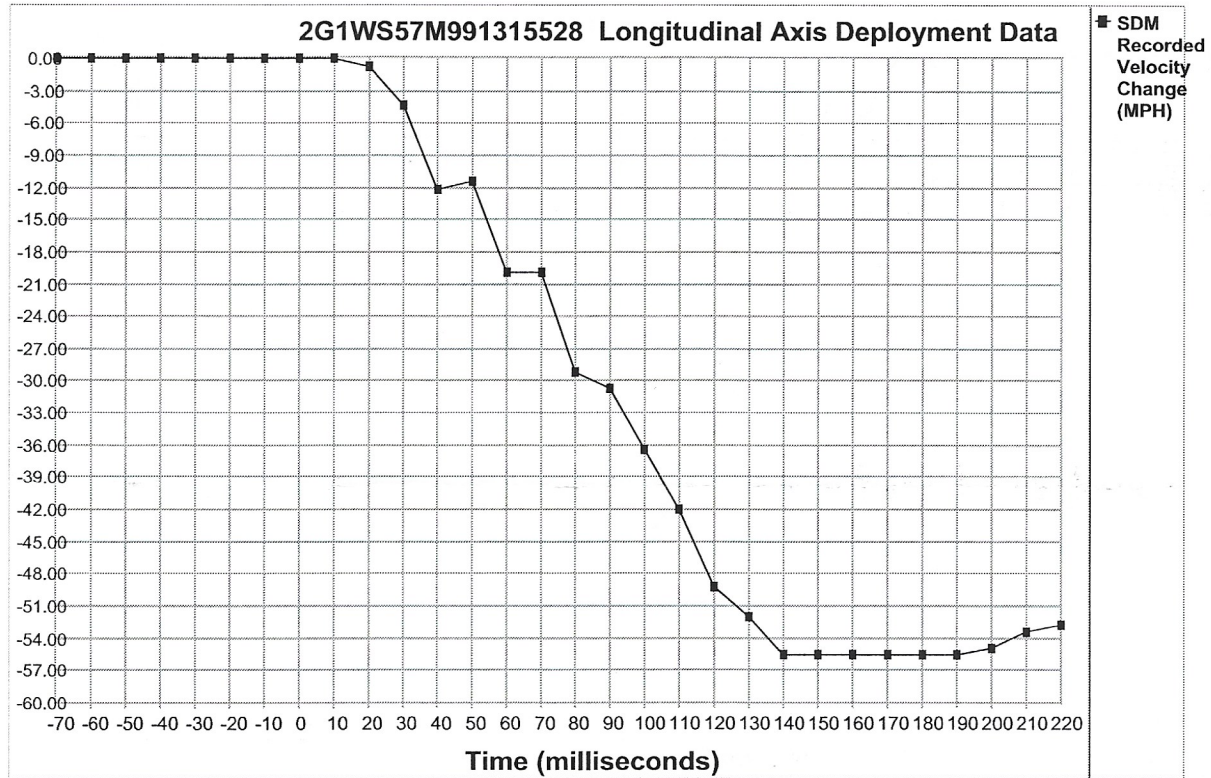
| Parameter | -1.0 sec | -0.5 sec |
|---|----------|----------|
| Reduced Engine Power Mode | OFF | OFF |
| Cruise Control Active (If Equipped) | No | No |
| Cruise Control Resume Switch Active (If Equipped) | No | No |
| Cruise Control Set Switch Active (If Equipped) | No | No |
| Engine Torque (foot pounds) | Invalid | Invalid |

Pre-Crash Data

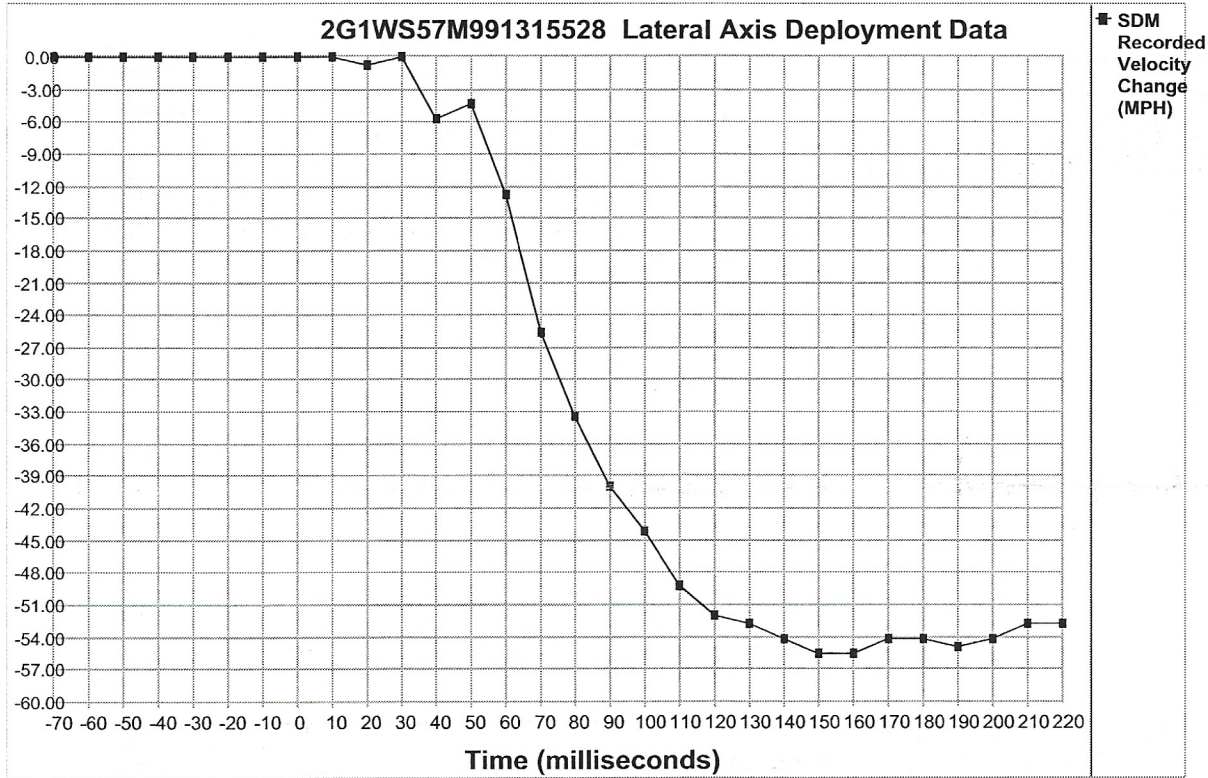
| Parameter | -2.5 sec | -2.0 sec | -1.5 sec | -1.0 sec | -0.5 sec |
|--------------------------------------|----------|----------|----------|----------|----------|
| Accelerator Pedal Position (percent) | 5 | 39 | 0 | 0 | 0 |
| Vehicle Speed (MPH) | 117 | 116 | 114 | 112 | 83 |
| Engine Speed (RPM) | 3456 | 3392 | 3328 | 3328 | 2368 |
| Percent Throttle | 22 | 22 | 22 | 30 | 20 |
| Brake Switch Circuit State | OFF | OFF | OFF | ON | ON |

System Status At Deployment

| | |
|---|-------------------------|
| Ignition Cycles At Investigation | 4742 |
| SIR Warning Lamp Status | OFF |
| SIR Warning Lamp ON Time Continuously (seconds) | 0 |
| Number of Ignition Cycles SIR Warning Lamp was ON/OFF Continuously | 8 |
| Ignition Cycles At Event | 4742 |
| Ignition Cycles Since DTCs Were Last Cleared | 255 |
| Driver's Belt Switch Circuit Status | BUCKLED |
| Passenger's Belt Switch Circuit Status | UNBUCKLED |
| Passenger Classification Status at Event Enable | Passenger Seat Empty |
| Current Passenger Position Status at Event Enable | Position Not Applicable |
| Previous Passenger Position Status at Event Enable | Unknown |
| Passenger Air Bag Indicator Status at Event Enable | OFF |
| Diagnostic Trouble Codes at Event, fault number: 1 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 2 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 3 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 4 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 5 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 6 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 7 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 8 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 9 | N/A |
| Driver 1st Stage Time From Algorithm Enable to Deployment Command Criteria Met (msec) | 46 |
| Driver 2nd Stage Time From Algorithm Enable to Deployment Command Criteria Met (msec) | 46 |
| Passenger 1st Stage Time From Algorithm Enable to Deployment Command Criteria Met (msec) | Suppressed |
| Passenger 2nd Stage Time From Algorithm Enable to Deployment Command Criteria Met (msec) | Suppressed |
| Driver Side or Roof Rail/Head Curtain Time From Algorithm Enable to Deployment Command Criteria Met (msec) | 16 |
| Passenger Side or Roof Rail/Head Curtain Time From Algorithm Enable to Deployment Command Criteria Met (msec) | 16 |
| Time Between Events (sec) | 0.3152 |
| Crash Record Locked | Yes |
| Vehicle Event Data (Pre-Crash) Associated With This Event | No |
| SDM Synchronization Counter | 4741 |
| Event Recording Complete | No |
| Driver First Stage Deployment Loop Commanded | Yes |
| Passenger First Stage Deployment Loop Commanded | No |
| Driver Second Stage Deployment Loop Commanded | Yes |
| Driver 2nd Stage Deployment Loop Commanded for Disposal | No |
| Passenger Second Stage Deployment Loop Commanded | No |
| Passenger 2nd Stage Deployment Loop Commanded for Disposal | No |
| Driver Pretensioner Deployment Loop Commanded | Yes |
| Passenger Pretensioner Deployment Loop Commanded | Yes |
| Driver Side Deployment Loop Commanded | No |
| Passenger Side Deployment Loop Commanded | Yes |
| Second Row Left Side Deployment Loop Commanded | No |
| Second Row Right Side Deployment Loop Commanded | No |
| Driver (Initiator 1) Roof Rail/Head Curtain Loop Commanded | Yes |
| Passenger (Initiator 1) Roof Rail/Head Curtain Loop Commanded | Yes |
| Driver (Initiator 2) Roof Rail/Head Curtain Loop Commanded | No |
| Passenger (Initiator 2) Roof Rail/Head Curtain Loop Commanded | No |
| Driver (Initiator 3) Roof Rail/Head Curtain Loop Commanded | No |
| Passenger (Initiator 3) Roof Rail/Head Curtain Loop Commanded | No |
| Driver Knee Deployment Loop Commanded | No |
| Passenger Knee Deployment Loop Commanded | No |
| Second Row Left Pretensioner Deployment Loop Commanded | No |
| Second Row Right Pretensioner Deployment Loop Commanded | No |
| Second Row Center Pretensioner Deployment Loop Commanded | No |



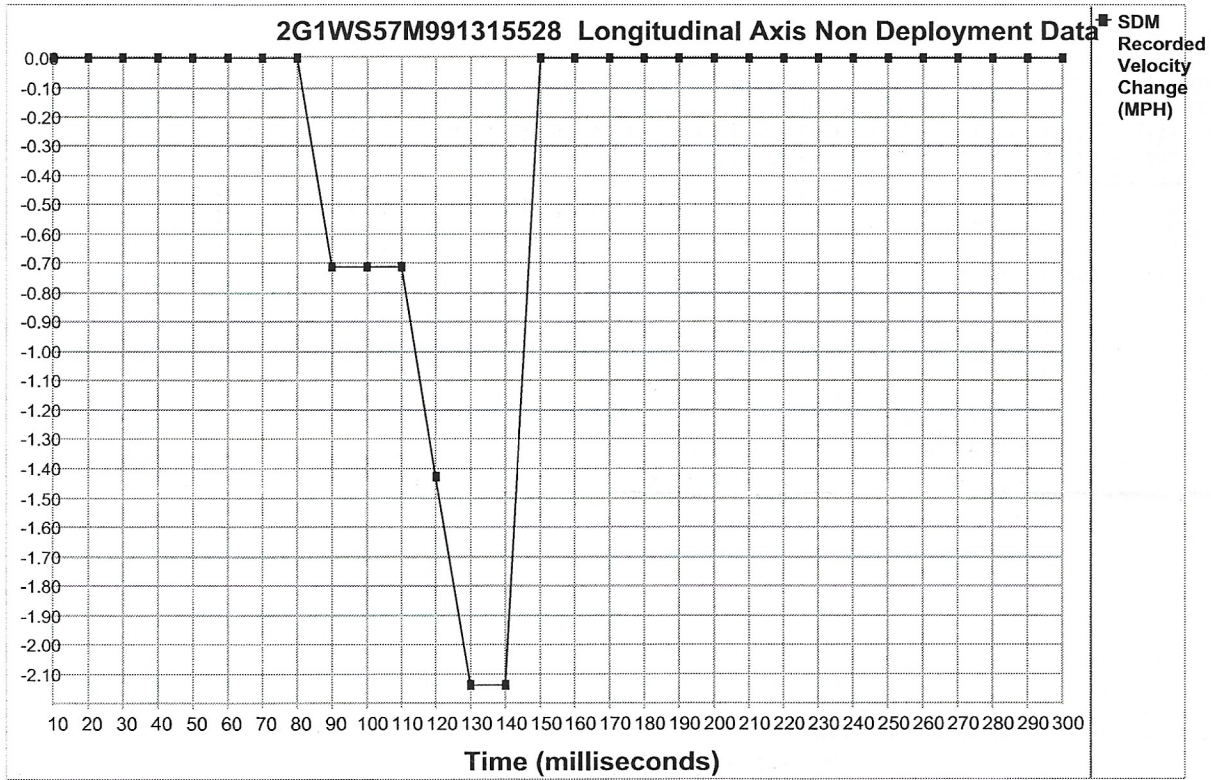
| | | | | | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Time (milliseconds) | -70 | -60 | -50 | -40 | -30 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 |
| SDM Longitudinal Axis Recorded Velocity Change (MPH) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.71 | -4.28 | -12.12 | -11.40 | -19.96 | -19.96 |
| Time (milliseconds) | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | 210 | 220 |
| SDM Longitudinal Axis Recorded Velocity Change (MPH) | -29.22 | -30.65 | -36.35 | -42.05 | -49.18 | -52.03 | -55.59 | -55.59 | -55.59 | -55.59 | -55.59 | -55.59 | -54.88 | -53.45 | -52.74 |



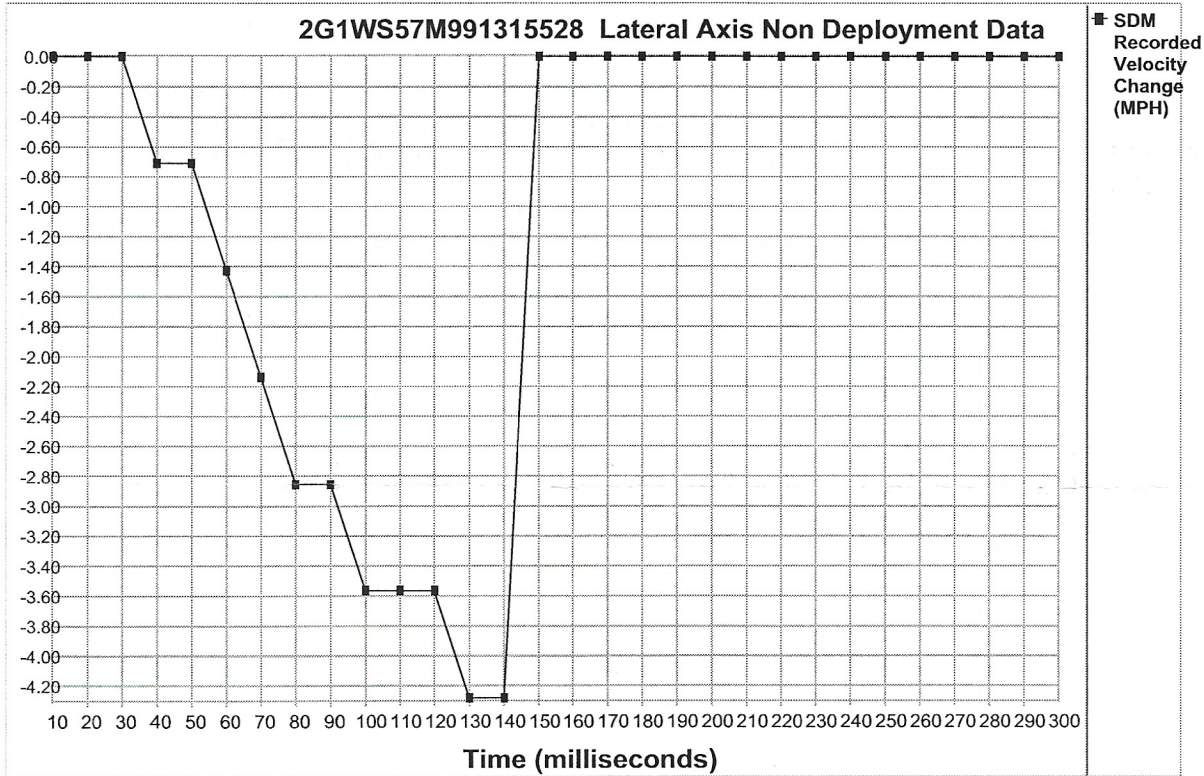
| | | | | | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Time (milliseconds) | -70 | -60 | -50 | -40 | -30 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 |
| SDM Lateral Axis Recorded Velocity Change (MPH) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.71 | 0.00 | -5.70 | -4.28 | -12.83 | -25.66 |
| Time (milliseconds) | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | 210 | 220 |
| SDM Lateral Axis Recorded Velocity Change (MPH) | -33.50 | -39.91 | -44.19 | -49.18 | -52.03 | -52.74 | -54.17 | -55.59 | -55.59 | -54.17 | -54.17 | -54.88 | -54.17 | -52.74 | -52.74 |

System Status At Non-Deployment

| | |
|--|-----------|
| Ignition Cycles At Investigation | 4742 |
| SIR Warning Lamp Status | OFF |
| SIR Warning Lamp ON Time Continuously (seconds) | 0 |
| Number of Ignition Cycles SIR Warning Lamp was ON/OFF Continuously | 8 |
| Ignition Cycles At Event | 4742 |
| Ignition Cycles Since DTCs Were Last Cleared | 255 |
| Driver's Belt Switch Circuit Status | BUCKLED |
| Passenger's Belt Switch Circuit Status | UNBUCKLED |
| Diagnostic Trouble Codes at Event, fault number: 1 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 2 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 3 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 4 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 5 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 6 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 7 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 8 | N/A |
| Diagnostic Trouble Codes at Event, fault number: 9 | N/A |
| Maximum SDM Recorded Vehicle Velocity Change (MPH) | 5.76 |
| Algorithm Enable to Maximum SDM Recorded Velocity Change (msec) | 140 |
| Crash Record Locked | Yes |
| Deployment Event Recorded in the Non-Deployment Record | No |
| Vehicle Event Data (Pre-Crash) Associated With This Event | Yes |
| SDM Synchronization Counter | 4741 |
| Event Recording Complete | Yes |
| Driver First Stage Deployment Loop Commanded | No |
| Passenger First Stage Deployment Loop Commanded | No |
| Driver Second Stage Deployment Loop Commanded | No |
| Driver 2nd Stage Deployment Loop Commanded for Disposal | No |
| Passenger Second Stage Deployment Loop Commanded | No |
| Passenger 2nd Stage Deployment Loop Commanded for Disposal | No |
| Driver Pretensioner Deployment Loop Commanded | No |
| Passenger Pretensioner Deployment Loop Commanded | No |
| Driver Side Deployment Loop Commanded | No |
| Passenger Side Deployment Loop Commanded | No |
| Second Row Left Side Deployment Loop Commanded | No |
| Second Row Right Side Deployment Loop Commanded | No |
| Driver (Initiator 1) Roof Rail/Head Curtain Loop Commanded | No |
| Passenger (Initiator 1) Roof Rail/Head Curtain Loop Commanded | No |
| Driver (Initiator 2) Roof Rail/Head Curtain Loop Commanded | No |
| Passenger (Initiator 2) Roof Rail/Head Curtain Loop Commanded | No |
| Driver (Initiator 3) Roof Rail/Head Curtain Loop Commanded | No |
| Passenger (Initiator 3) Roof Rail/Head Curtain Loop Commanded | No |
| Driver Knee Deployment Loop Commanded | No |
| Passenger Knee Deployment Loop Commanded | No |
| Second Row Left Pretensioner Deployment Loop Commanded | No |
| Second Row Right Pretensioner Deployment Loop Commanded | No |
| Second Row Center Pretensioner Deployment Loop Commanded | No |



| | | | | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|
| Time (milliseconds) | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| SDM Longitudinal Axis Recorded Velocity Change (MPH) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.71 | -0.71 | -0.71 | -1.43 | -2.14 | -2.14 | 0.00 |
| Time (milliseconds) | 160 | 170 | 180 | 190 | 200 | 210 | 220 | 230 | 240 | 250 | 260 | 270 | 280 | 290 | 300 |
| SDM Longitudinal Axis Recorded Velocity Change (MPH) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |



| | | | | | | | | | | | | | | | |
|---|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Time (milliseconds) | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| SDM Lateral Axis Recorded Velocity Change (MPH) | 0.00 | 0.00 | 0.00 | -0.71 | -0.71 | -1.43 | -2.14 | -2.85 | -2.85 | -3.56 | -3.56 | -3.56 | -4.28 | -4.28 | 0.00 |
| Time (milliseconds) | 160 | 170 | 180 | 190 | 200 | 210 | 220 | 230 | 240 | 250 | 260 | 270 | 280 | 290 | 300 |
| SDM Lateral Axis Recorded Velocity Change (MPH) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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.

```
$01 00 08 00 00 00 00 00
$02 00 00 00 00 00 00 00
$03 00 00 00 00 00 00 00
$04 00 00 00 00 00 00 00
$05 00 00 00 00 00 00 00
$06 40 00 00 00 00 00 00
$0A 08 00 00 20 00 00 00
$0B 00 00 00 00 00 00 00
$0C 00 00 00 00 00 00 00
$0D 00 00 00 00 00 00 00
$0E 00 00 00 00 00 00 00
$0F 00 00 00 00 00 00 00
$10 00 00 00 00 00 00 00
$11 29 15 15 00 00 00 00
$12 FF F0 F0 F0 C0 00 00
$13 FF F0 F0 30 40 00 00
$14 FF F0 F0 30 40 00 00
$15 01 02 03 04 0B 0C 05
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$17 00 00 00 00 00 00 00
$18 01 03 04 05 00 00 00
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$1C 00 00 00 00 00 00 00
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$37 00 00 00 00 00 00 00
$38 00 00 00 00 00 00 00
$39 00 00 00 00 00 00 00
$3A 00 FF 00 00 00 00 00
```

\$3B 00 00 00 00 08 00 00
\$3C 00 FF 12 86 00 12 86
\$3D B4 C0 00 00 00 00 00
\$40 00 00 00 64 0E 00 00
\$41 C0 00 00 00 00 80 90
\$42 25 34 34 35 36 00 00
\$43 0F FF 0F FF 80 00 00
\$44 34 4C 38 38 39 00 00
\$45 85 B4 B8 BA BC 00 00
\$46 00 B4 C0 00 00 00 00
\$50 A0 A5 00 00 00 00 00
\$51 00 00 00 00 00 00 00
\$52 00 00 00 00 08 00 00
\$53 FF 12 86 12 85 00 00
\$54 00 00 00 00 00 00 00
\$55 00 00 00 00 00 00 00
\$56 00 00 00 00 00 00 00
\$57 00 00 00 00 00 00 00
\$58 00 00 00 00 00 00 00
\$59 00 00 00 00 00 00 00
\$5A 00 FF 00 FF 00 FE 00
\$5B 00 FD 00 FC 01 FC 00
\$5C 01 FB 01 FB 02 FB 00
\$5D 03 FA 03 FA 00 00 00
\$5E 00 00 00 00 00 00 00
\$5F 00 00 00 00 00 00 00
\$60 00 00 00 00 00 00 00
\$61 00 00 00 00 00 00 00
\$62 00 00 00 00 00 00 00
\$63 84 54 54 50 00 00 00
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\$90 80 00 00 00 00 00 00
\$91 A3 4C 01 80 00 00 00
\$92 00 00 00 00 08 00 00
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\$9F 3B BB 45 B7 49 B6 00
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\$01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
\$02 00 00 00 00
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\$07 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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\$09 00 00 00 00 00 00 00 00 00 00 00 00 00 00

```
$0A 00 00 00 00
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$25 47 31 57 FA 35 FA FA FA
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$42 D4 10 10
$43 00 00 FC 9F
$44 C6 00 00 FC 80 C0
$45 00 00 1E 1E 64 64 64 64 04 64
$46 00 00 00 00 00 00 00 00 00 04 64
$47 18 08 08
$B4 41 53 37 32 37 34 45 39 39 30 54 58 4B 36 31 30
$C1 01 8B 94 48
$C2 01 3E 6E 1C
$CB 01 8B 9E 6A
$CC 01 8B 9E 6A
$DB 41 41
$DC 41 41
```

Disclaimer of Liability

The users of the CDR product and reviewers of the CDR reports and exported data shall ensure that data and information supplied is applicable to the vehicle, vehicle's system(s) and the vehicle ECU. Robert Bosch LLC and all its directors, officers, employees and members shall not be liable for damages arising out of or related to incorrect, incomplete or misinterpreted software and/or data. Robert Bosch LLC expressly excludes all liability for incidental, consequential, special or punitive damages arising from or related to the CDR data, CDR software or use thereof.