

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	JHMGE8H36CC004990
User	
Case Number	MC5317
EDR Data Imaging Date	08/16/2012
Crash Date	
Filename	(7576) 12 HONDA FIT.CDRX
Saved on	Thursday, August 16 2012 at 10:18:14
Collected with CDR version	Crash Data Retrieval Tool 6.0
Reported with CDR version	Crash Data Retrieval Tool 11.1.1
EDR Device Type	Airbag Control Module
Event(s) recovered	1

Comments

No comments entered.

Data Limitations

General Information:

These limitations are intended to assist you in reading the event data that has been imaged from the vehicle's SRS control unit. They are not intended to provide specific information regarding the interpretation of this data. Event data should be considered in conjunction with other available physical evidence from the vehicle and scene.

Honda and Acura passenger vehicles designated as 2013 or later model year production are designed to be compatible with the Bosch CDR tool. However, due to production variations during the 2012 model year, only certain 2012 model year vehicles are compatible with the Bosch CDR tool.

Recorded Crash Events:

Data for front, side, rear and rollover events can be recorded as either non-deployment or deployment events. Both types of events can contain pre-crash and crash data.

- A non-deployment event is recorded if the change in longitudinal or lateral velocity equals or exceeds 8km/h over a 150ms timeframe or another type of non-reversible deployable restraint device other than a front, side, or side curtain airbag (e.g. seatbelt pretensioner) is commanded to deploy. Except as indicated below, non-deployment events are not locked into memory and can be over-written by subsequent non-deployment or deployment events.
- A deployment event is recorded if front airbag(s), side airbag(s), or side curtain airbag(s) are commanded to deploy. Deployment events are locked into memory and cannot be over-written.

The SRS control unit typically records only one event. Two events can be recorded if the T0 (time zero) values for each event occur within 5 seconds of each other. T0 is established by whichever of the following occurs first: (1) the change in longitudinal velocity at the SRS control unit equals or exceeds 0.8km/h over a 20ms timeframe; (2) the change in lateral velocity at the SRS control unit equals or exceeds 0.8km/h over a 5ms timeframe; or (3) a commanded deployment of any type of non-reversible deployable restraint device (e.g. airbag or seatbelt pretensioner). Therefore, a non-deployment event can be recorded and locked if it occurs within 5 seconds of a deployment event.

Data:

- Data recorded by the SRS control unit and imaged by the CDR tool is displayed relative to T0, not the time at which the vehicle made contact with another vehicle or object.
- Pre-crash data is recorded at 2 samples per second starting 5 seconds before T0. The sampling interval between T-0.5 and T0 may be less than 0.5 seconds.
- Crash data is recorded at 100 samples per second from T0 to 250 milliseconds or T0 to TEnd (end of event) plus 30 milliseconds, whichever is shorter. TEnd occurs when the change in longitudinal and lateral velocity equals or falls below 0.8km/h over a 20ms timeframe.
- All data is displayed in SAE J211 sign convention unless otherwise noted in this document.
- Delta V, longitudinal reflects the change in velocity that the SRS control unit experienced in the longitudinal direction during the recorded portion of the event and is not the speed the vehicle was traveling before the event.
- Depending on the severity of the event and the accelerometer characteristics, saturation of the SRS control unit longitudinal or lateral accelerometers may occur, decreasing the recorded Delta V value.
- Time, accelerometer range exceeded is recorded if saturation of the SRS control unit longitudinal, lateral and/or normal (vertical) accelerometer occurs. The recorded data is the time at which the sensor range is first exceeded.
- Speed, vehicle indicated data accuracy can be affected by various factors, including but not limited to the following:
 - Significant changes in tire size from the factory setting

- Wheel lockup
- Accelerator pedal position, percent full is the ratio of accelerator pedal position compared to the fully depressed position.
- PCM (Powertrain Control Module) derived accelerator pedal position, percent full may differ from the accelerator pedal position, percent full under circumstances such as brake override activation or cruise control system engagement. These circumstances are based on vehicle equipment application and vary by model.
- Steering input angle is recorded in 5 degree increments.
- Side air bag suppression system status, right front passenger is recorded when the vehicle is equipped with the Occupant Position Detection System (OPDS).
- Occupant size classification, right front passenger airbag suppressed data is recorded as yes (suppressed) if the front passenger seat weight sensor system determined the passenger seat was empty or occupied by a child-size occupant.
- EV mode data records the vehicle powertrain status, not a driver selected operation mode. EV mode is recorded as On when the vehicle is moving and the internal combustion engine is not operating. EV mode may be recorded as On or Off when the vehicle is stopped.
- If power to the SRS control unit is lost during an event, all or part of the data may not be recorded.

Roll Rate Data:

- Vehicle roll rate data is recorded separately from the non-deployment and deployment events as described above. Therefore, the T0 for the roll rate data may differ from the T0 for the other data in this report.
- Roll rate recording trigger (T0) is established by whichever of the following occurs first: (1) a rollover algorithm ON judgment (SRS control unit decision to command deployment), or (2) a change in relative roll angle at the SRS control unit equal to or exceeding 30 degrees (roll angle is not measured, but is calculated from the roll rate data).
- Once a recording trigger has been met, roll rate data is recorded for one rollover event at 10 samples per second from 1 second before to 2 seconds after T0. If a roll angle trigger is satisfied without a rollover algorithm ON judgment, the recorded roll rate data is unlocked and can be over-written by a subsequent rollover event. Roll rate data triggered by or recorded during a rollover algorithm ON judgment is locked into memory and cannot be over-written.
- If roll rate is detected at the SRS control unit during a non-deployment or deployment event but the recording trigger has not been satisfied, no roll rate data will be recorded. A graph of roll rate data will only be present in this report if roll rate data is recorded.

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. All directional references to sign notation are from the perspective of the driver when seated in the vehicle facing the direction of forward vehicle travel.

Data element name	Positive sign indicates
Longitudinal Acceleration	Forward direction acceleration
Delta-V, Longitudinal	Forward direction acceleration
Lateral Acceleration	Left to right direction acceleration
Delta-V, Lateral	Left to right direction acceleration
Normal (Vertical) Acceleration	Downward direction acceleration
Vehicle Roll Rate	Left to right (clockwise) rotation
Steering Input Angle*	Left Turn

*Not SAE J211 sign convention

Data Source:

All recorded data is measured and calculated within the SRS control unit except for the following parameters (if applicable) which are transmitted via the vehicle's communication network to the SRS control unit:

- Speed, vehicle indicated
- Accelerator pedal position, percent full
- Service brake
- ABS activity
- Stability control
- Steering input angle
- Engine RPM
- PCM derived accelerator pedal position, percent full
- EV mode

Depending on vehicle feature content, capability, or conditions described above, the following items may not be recorded. If these items are not recorded, they will not be present in this document.

- ABS activity
- Stability control
- Steering input angle
- PCM derived accelerator pedal position, percent full
- Side air bag suppression system status, right front passenger
- Vehicle roll rate
- Normal acceleration
- Time, accelerometer range exceeded (longitudinal, lateral or normal)
- EV mode

Hexadecimal Data:

All data that has been specified for imaging is shown in the hexadecimal data section of this report. However, not all of this data is translated by the CDR tool. The SRS control unit may contain additional data that is not retrievable by the CDR tool.

Data Imaging:

If the SRS control unit is imaged outside of the vehicle, ensure that it is not moved, tilted or turned while connected to the CDR tool. Also, after imaging is complete, wait 3 minutes after removing the CDR tool before moving the SRS control unit. Not following this guideline could cause current non-deployment event data to be overwritten and a new event to be recorded. Current fault status could also be altered if the SRS control unit is imaged outside of the vehicle.

04001_HondaSRS_KLine_r004

System Status at Retrieval

EDR Version	0.1.1.0
-------------	---------

System Status at Crash Judgment

Side Air Bag Suppression System Status, Right Front Passenger at 1st Front Crash Judgment	Actuation Permitted
Side Air Bag Suppression System Status, Right Front Passenger at 2nd Front Crash Judgment	No Crash Judgment
Side Air Bag Suppression System Status, Right Front Passenger at Left Side Crash Judgment	Actuation Permitted
Side Air Bag Suppression System Status, Right Front Passenger at Right Side Crash Judgment	No Crash Judgment
Side Air Bag Suppression System Status, Right Front Passenger at 1st Roll Over Judgment	No Crash Judgment
Side Air Bag Suppression System Status, Right Front Passenger at 2nd Roll Over Judgment	No Crash Judgment
Frontal Air Bag Suppression System Status, Right Front Passenger at 1st Front Crash Judgment	Actuation Prohibited
Frontal Air Bag Suppression System Status, Right Front Passenger at 2nd Front Crash Judgment	No Crash Judgment
Frontal Air Bag Suppression System Status, Right Front Passenger at Left Side Crash Judgment	Actuation Prohibited
Frontal Air Bag Suppression System Status, Right Front Passenger at Right Side Crash Judgment	No Crash Judgment
Frontal Air Bag Suppression System Status, Right Front passenger at 1st Roll Over Judgment	No Crash Judgment
Frontal Air Bag Suppression System Status, Right Front Passenger at 2nd Roll Over Judgment	No Crash Judgment

System Status at Event (Event Record 1)

Safety Belt Status, Driver	Buckled
Safety Belt Status, Right Front Passenger	Unbuckled
Seat Track Position Switch, Foremost, Status, Driver	No
Occupant Size Classification, Right Front Passenger Airbag Suppressed (Yes/No)	Yes
Frontal Air Bag Warning Lamp (On, Off)	Off
Ignition Cycle, Crash	100
Multi-Event, Number of Events (1, 2)	1
Complete File Recorded (Yes/No)	Yes
Ignition Cycle, Download	102
Maximum Delta-V, Longitudinal (MPH [km/h])	-3 [-5]
Time, Maximum Delta-V, Longitudinal (msec)	45.0
Maximum Delta-V, Lateral (MPH [km/h])	15 [24]
Time, Maximum Delta-V, Lateral (msec)	62.5
Time, Maximum Delta-V, Resultant (msec)	62.5

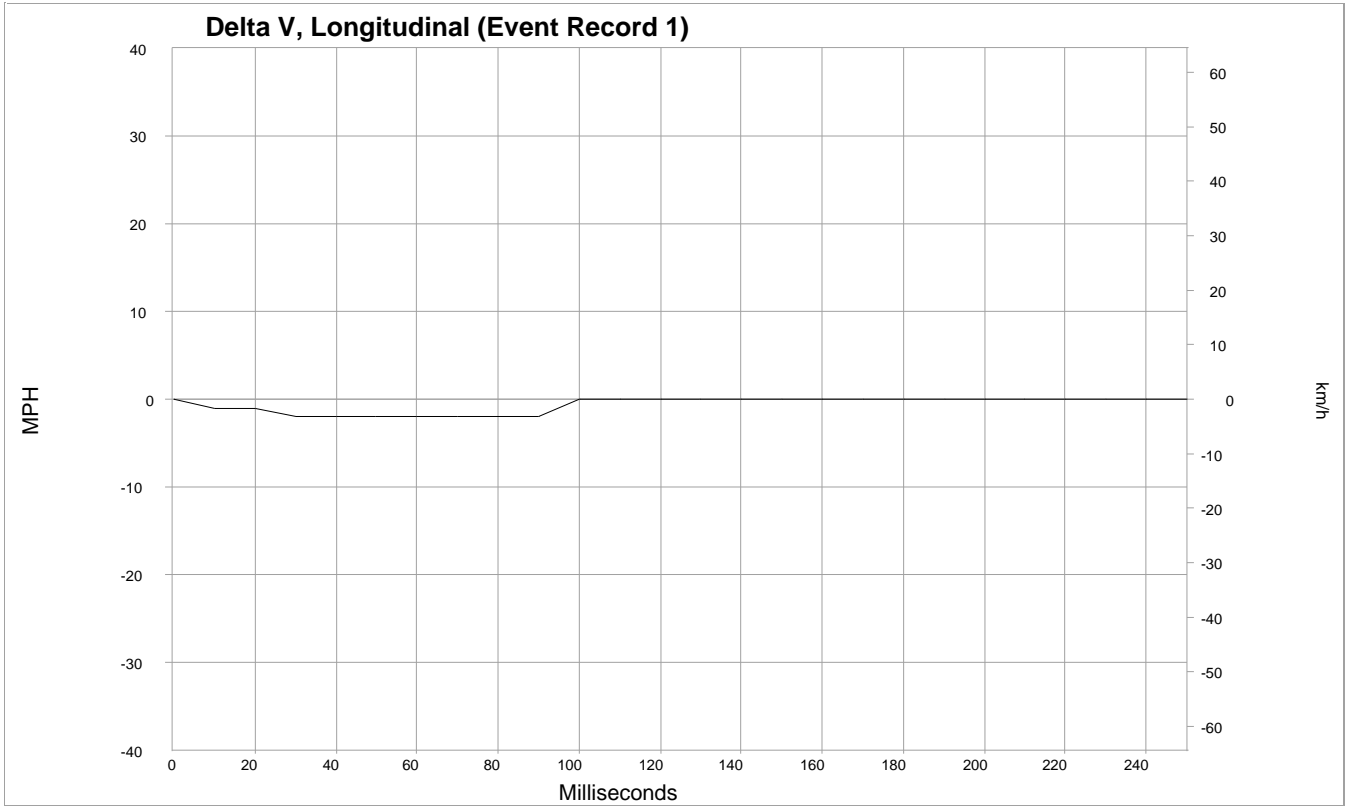
Deployment Command Data (Event Record 1)

Pretensioner Deployment, Time to Fire, Driver (msec)	0
Pretensioner Deployment, Time to Fire, Right Front Passenger (msec)	0
Frontal Air Bag Deployment, Time to Deploy/First Stage, Driver (msec)	0
Frontal Air Bag Deployment, Time to Deploy/First Stage, Right Front Passenger (msec)	18
Side Air Bag Deployment, Time to Deploy, Driver (msec)	0
Side Air Bag Deployment, Time to Deploy, Right Front Passenger (msec)	0
Side Curtain/Tube Air Bag Deployment, Time to Deploy, Driver Side (msec)	0
Side Curtain/Tube Air Bag Deployment, Time to Deploy, Right Side (msec)	0
Frontal Air Bag Deployment, 2nd Stage Disposal, Driver (Yes/No)	No (Not disposal)
Frontal Air Bag Deployment, 2nd Stage Disposal, Right Front Passenger (Yes/No)	Yes (Disposal)
Frontal Air Bag Deployment, Time to 2nd Stage, Driver (msec)	0
Frontal Air Bag Deployment, Time to 2nd Stage, Right Front Passenger (msec)	168

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

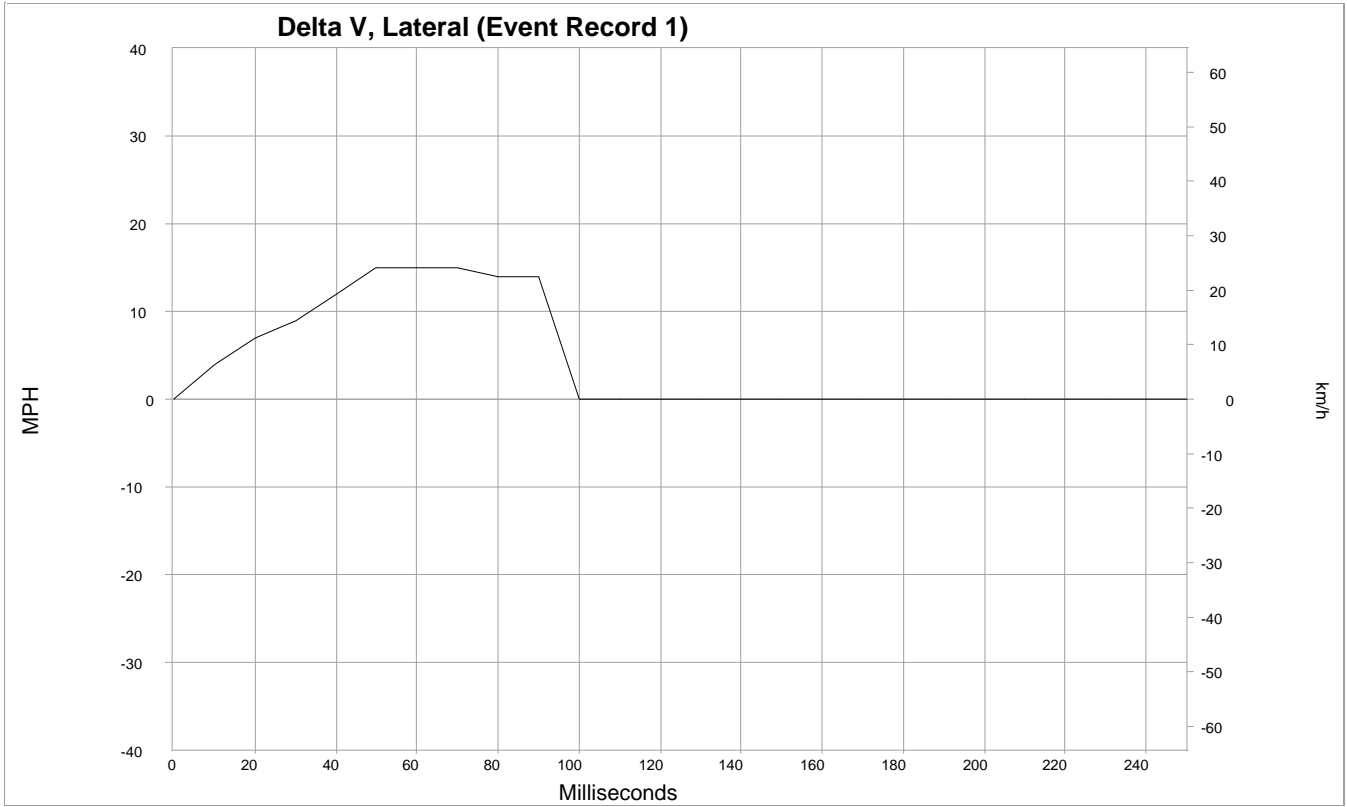
(the most recent sampled values are recorded prior to the event)

Time Stamp (sec)	Speed, Vehicle Indicated (MPH [km/h])	PCM Derived Accelerator Pedal Position, % full	Service Brake (On, Off)	ABS Activity (On, Off)	Stability Control (On, Off, Engaged)	Engine RPM	Accelerator Pedal Position, % full
-5.0	0 [0]	80	Off	Off	On Non-Engaged	0	80
-4.5	0 [0]	80	Off	Off	On Non-Engaged	0	80
-4.0	0 [0]	80	Off	Off	On Non-Engaged	0	80
-3.5	0 [0]	80	Off	Off	On Non-Engaged	0	80
-3.0	0 [0]	80	Off	Off	On Non-Engaged	0	80
-2.5	0 [0]	80	Off	Off	On Non-Engaged	0	80
-2.0	0 [0]	80	Off	Off	On Non-Engaged	0	80
-1.5	0 [0]	80	Off	Off	On Non-Engaged	0	80
-1.0	0 [0]	80	Off	Off	On Non-Engaged	0	80
-0.5	0 [0]	80	Off	Off	On Non-Engaged	0	80
0.0	0 [0]	80	Off	Off	On Non-Engaged	0	80



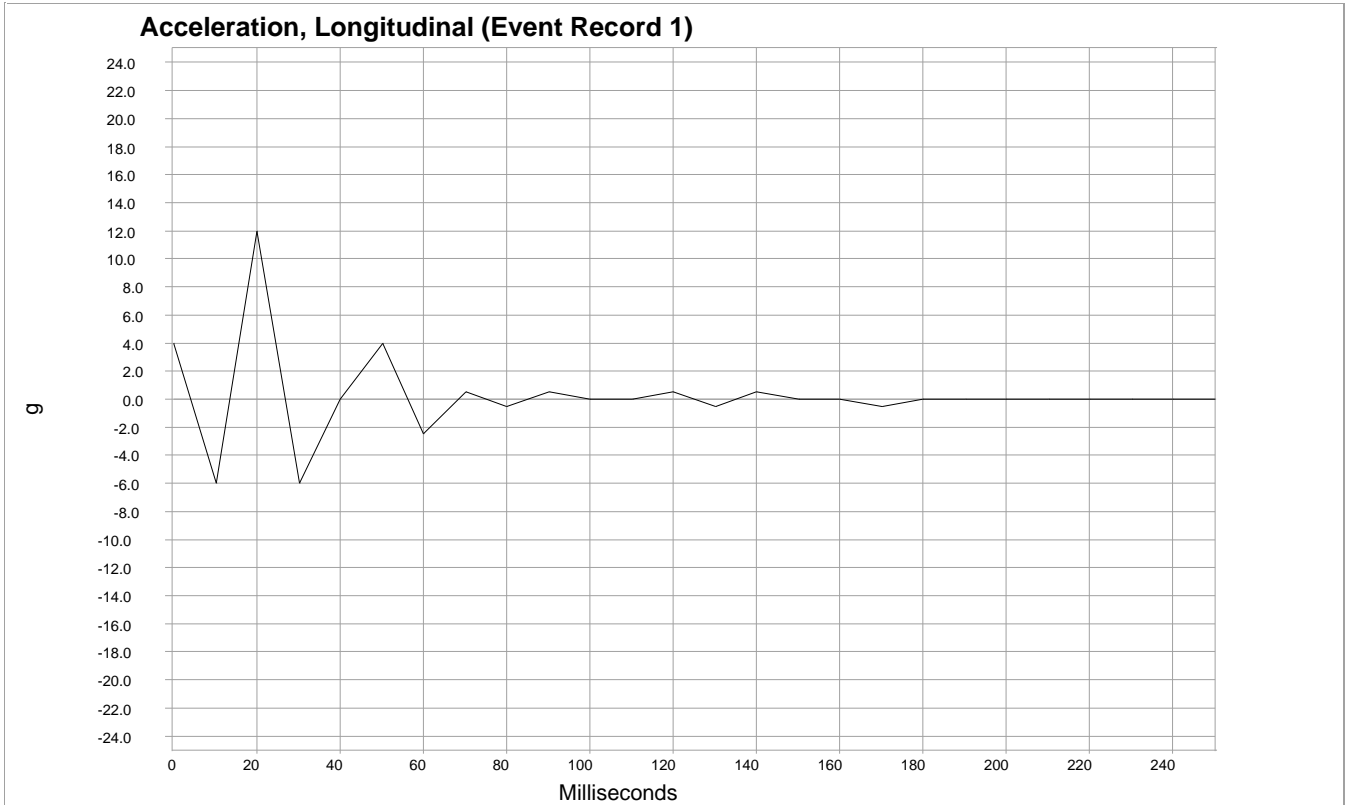
Longitudinal Delta V (Event Record 1)

Time (msec)	MPH [km/h]
0	0 [0]
10	-1 [-1]
20	-1 [-2]
30	-2 [-4]
40	-2 [-4]
50	-2 [-4]
60	-2 [-4]
70	-2 [-4]
80	-2 [-4]
90	-2 [-4]
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]



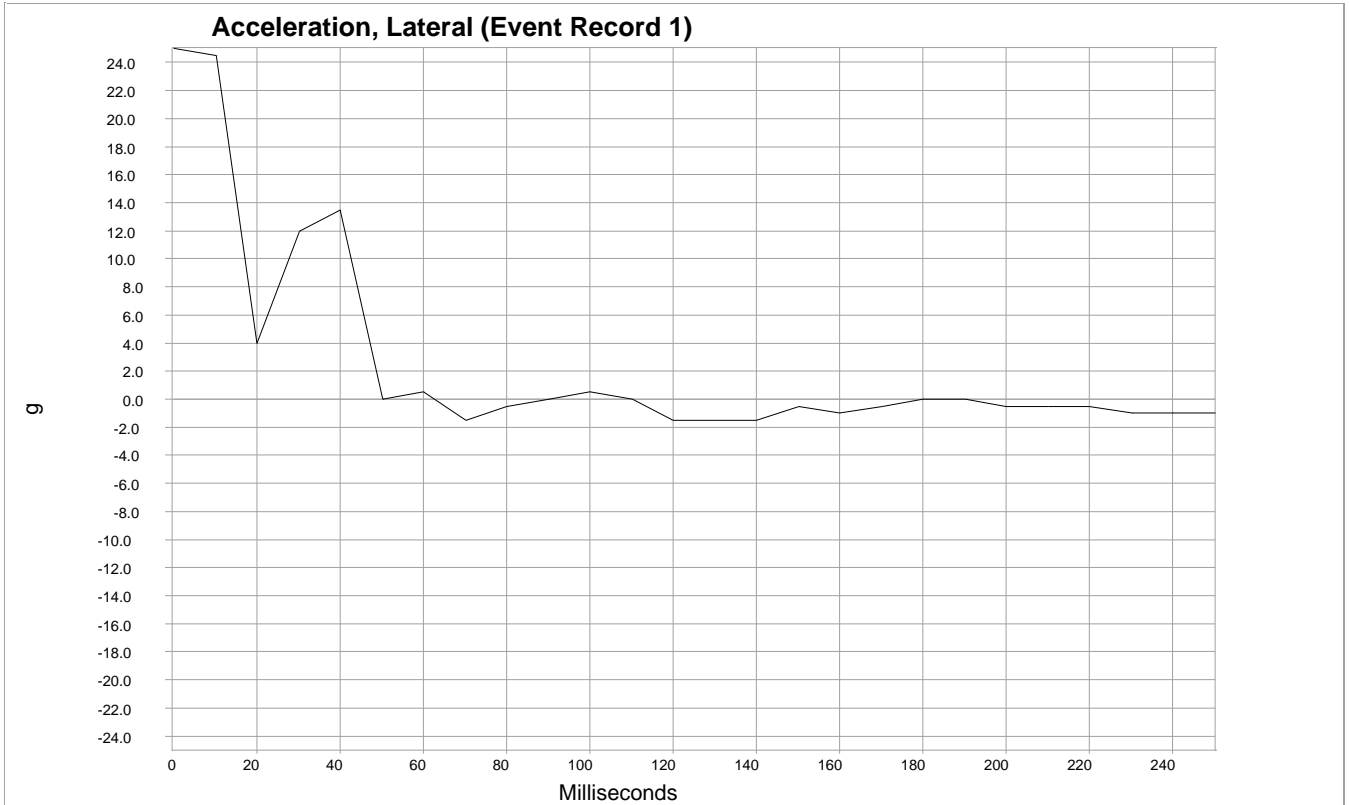
Lateral Delta V (Event Record 1)

Time (msec)	MPH [km/h]
0	0 [0]
10	4 [7]
20	7 [11]
30	9 [14]
40	12 [19]
50	15 [24]
60	15 [24]
70	15 [24]
80	14 [23]
90	14 [23]
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]



Longitudinal Acceleration (Event Record 1)

Time (msec)	g
0	4.0
10	-6.0
20	12.0
30	-6.0
40	0.0
50	4.0
60	-2.5
70	0.5
80	-0.5
90	0.5
100	0.0
110	0.0
120	0.5
130	-0.5
140	0.5
150	0.0
160	0.0
170	-0.5
180	0.0
190	0.0
200	0.0
210	0.0
220	0.0
230	0.0
240	0.0
250	0.0



Lateral Acceleration (Event Record 1)

Time (msec)	g
0	25.0
10	24.5
20	4.0
30	12.0
40	13.5
50	0.0
60	0.5
70	-1.5
80	-0.5
90	0.0
100	0.5
110	0.0
120	-1.5
130	-1.5
140	-1.5
150	-0.5
160	-1.0
170	-0.5
180	0.0
190	0.0
200	-0.5
210	-0.5
220	-0.5
230	-1.0
240	-1.0
250	-1.0

Hexadecimal Data

Block #	Data
00:	00 00 00 00 00 00 00 00 0C 00 00 00 00 00 00 00 AA 4A
01:	00 03 03 0F 0F 00 03 01 00 02 00 00 00 00 00 00 00
02:	00 37 37 39 36 30 54 4B 36 41 30 34 30 4D 31 00 00
03:	00 31 39 39 31 37 34 37 34 48 5A 00 00 00 00 00 00
04:	00 33 00 00 00 00 00 00 00 00 33 00 30 02 00 00 00
05:	00 00 01 00 00 00 00 00 00 00 FB D6 FF 09 00 00 00 26
06:	00 7D B0 54 91 13 70 54 91 00 00 00 00 00 00 00 86
07:	00 71 17 12 13 81 33 11 55 11 33 00 23 0F 00 88 3B
08:	00 AF 80 20 6F 00 1F 00 00 00 00 00 00 00 00 00 00
09:	00 AF 11 11 00 00 00 00 00 00 00 00 00 00 00 00 00
0A:	00 00 00 00 12 00 00 00 00 00 00 00 02 12 00 01 00 64
0B:	00 00 00 00 A8 00 00 00 00 00 00 00 00 CD 01 AA 00 66
0C:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0D:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0E:	00 00 DF 00 00 00 00 00 1F 00 00 00 00 00 00 00 00
0F:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
10:	01 00 50 00 00 00 50 00 00 00 50 00 00 00 50 00 00
11:	01 00 50 00 00 00 50 00 00 00 50 00 00 00 50 00 00
12:	01 00 50 00 00 00 50 00 00 00 50 00 00 00 50 00 00
13:	01 00 50 00 00 00 50 00 00 00 50 00 00 00 50 00 00
14:	01 00 50 00 00 00 50 00 00 00 50 00 00 00 50 00 00
15:	01 00 50 00 00 00 50 00 00 00 00 00 00 00 00 00 20
16:	01 00 FF FE FC FC FC FC FC FC FC 00 00 00 00 00 00
17:	01 00 00 00 00 00 00 00 00 00 00 00 00 00 FB 12 00 00
18:	01 00 07 0B 0E 13 18 18 18 17 17 00 00 00 00 00 00
19:	01 00 00 00 00 00 00 00 00 00 00 00 18 19 00 19 00
1A:	01 08 F4 18 F4 00 08 FB 01 FF 01 00 00 01 FF 01 00
1B:	01 00 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00
1C:	01 32 31 08 18 1B 00 01 FD FF 00 01 00 FD FD FD FF
1D:	01 FE FF 00 00 FF FF FF FE FE FE 00 00 00 00 00 00
1E:	01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
1F:	01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 1F
20:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
21:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
22:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
23:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
24:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
25:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
26:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
27:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
28:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
29:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
2A:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
2B:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
2C:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
2D:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
2E:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
2F:	02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
30:	03 21 00 10 16 78 40 00 59 3C D0 7F 00 00 00 00 1D
31:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
32:	03 21 00 10 16 78 40 00 59 3C D0 7F 00 00 00 00 1D
33:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
34:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
35:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
36:	03 11 02 C9 02 3E 00 00 00 00 00 00 0B 06 7C 01 35
37:	03 04 06 7C 01 35 00 00 00 00 00 65 00 00 00 00 00
38:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
39:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
3A:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
3B:	03 01 03 03 E7 FC F6 01 5B FF 01 C4 00 00 00 00 00
3C:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

```
3D: 03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
3E: 03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
3F: 03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
40: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
41: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
42: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
43: 04 80 00 00 00 00 00 00 00 00 84 12 01 00 00 00 00
44: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
45: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
46: 04 01 01 01 01 01 01 00 00 01 01 00 00 01 00 01 00
47: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
48: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
49: 04 00 00 00 00 00 00 00 00 00 01 01 BD 00 6E 00 00
4A: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
4B: 04 00 00 00 00 00 00 00 00 00 00 81 00 84 FF 00 00
4C: 04 FF FF FF FF 00 00 00 00 00 00 00 00 48 00 00 00
4D: 04 00 00 00 00 00 00 00 00 00 13 11 11 00 00 00 00
4E: 04 92 22 02 00 51 21 44 00 92 21 05 00 00 00 00 00
4F: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
50: 50
```

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.