

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 | 1FTYR1ZM2GKA34167 |
| User | SP |
| Case Number | 734406-2016 |
| EDR Data Imaging Date | 05/16/2016 |
| Crash Date | 04/26/2016 |
| Filename | 1FTYR1ZM2GKA34167_ACM.CDRX |
| Saved on | Monday, May 16 2016 at 14:20:38 |
| Collected with CDR version | Crash Data Retrieval Tool 16.5 |
| Reported with CDR version | Crash Data Retrieval Tool 16.5 |
| EDR Device Type | Airbag Control Module |
| ACM Adapter Detected During Download | Yes |
| Event(s) recovered | None |

Comments

Benchtop Download
BE1131F

Data Limitations

Data Imaging:

CAUTION: When imaging data directly from the RCM on a bench top, make sure the RCM is placed on a flat surface without any movement (static) while connected to and powered by the CDR interface. Not following the above guideline for bench top imaging could risk inducing new events to be recorded in the RCM and possibly overwriting a Non airbag deployment.

Note that the RCM Adapter Detected during Download parameter equal to "Yes" indicates that the EDR data was collected directly from the RCM. When equal to "No", it indicates that the EDR data was collected through the OBD II from the vehicle.

Restraints Control Module (RCM) Recorded Crash Event(s):

The RCM can store up to two crash events. Event types are categorized as follow:

1. Non deployment trigger event is an event in which EDR recording trigger threshold is met or exceeded (minimum of 5 mph (8kph) Accumulated Delta Velocity within 150ms interval), but no device(s) have deployed. The data from such event can be overwritten by subsequent events.
2. Airbag deployment event is an event in which frontal, side or curtain airbags have deployed. Note that such event cannot be overwritten or cleared from the Restraints Control Module (RCM). Once the RCM has deployed any airbag device(s), the RCM must be replaced.
3. Some RCM may also categorize Non airbag deployment event. This type is an event in which non airbag devices such as pretensioners, knee bolster etc « have deployed. Note that such event can be overwritten given a subsequent "deployment" event.

"Time zero" or Event Beginning of any event (First Record or Second Record) is defined as the first Algorithm wake up during that event. So all the Pre-Crash, At Event, Delta V Data, deployment times etc « are relative to "Time zero".

It is possible that conditions in a crash may result in an incomplete event data record.

EDR Data Elements Overview/Interpretation in CDR Report:**Under CDR File Information Section**

- Event(s) recovered indicates if an event was detected and recorded by RCM. If no event is detected, it will indicate "none". If a trigger or non airbag deployment event is detected, it will indicate "unlocked event". If an airbag deployment is detected, it will indicate "locked frontal event", or "locked side event", or "locked rollover event".

Under System Status at Event Section

- Complete file recorded indicates if data from the recorded event has been fully written to the RCM memory.
- If the RCM detected a peripheral crash sensor was lost during an event, the crash sensor would be identified as well as the time it was lost during that event relative to Time zero. If no loss of a peripheral crash sensor, nothing would be displayed. Note in some vehicles, loss of a peripheral crash sensor may lead to the loss of another peripheral crash sensor due to shared communication.

Under Deployment Data Section

- If the RCM commanded a deployment during an event, the deployment device(s) would be identified as well as the time the RCM commanded its deployment relative to Time zero. If no device was commanded to deploy by the RCM, nothing (no deployment device(s)) would be displayed.

Under Pre-Crash Data -5 to 0 sec

- Steering Wheel Angle if Applicable: positive value indicates left turn, and negative value would indicate right turn.
- Stability Control Lateral Acceleration if Applicable: Lateral Acceleration (Y-direction) is the acceleration along the lateral axis of the vehicle, reported as positive when accelerating to the left.
- Stability Control Longitudinal Acceleration if Applicable: Longitudinal Acceleration (X-direction) is the acceleration along the longitudinal axis of the vehicle, reported as positive when accelerating in a forward direction.
- Stability Control Yaw Rate if Applicable: The Yaw Axis is the vertical axis of the vehicle, generally perpendicular to the plane of the road. A positive Yaw Rate is counter-clockwise when observing the vehicle from above.
- Stability Control Roll Rate if Applicable: The Roll Axis is the longitudinal axis of the vehicle, generally aligned with the primary axis of motion of the vehicle. A positive Roll Rate is counter-clockwise when observing the vehicle from the front.

Under Longitudinal Crash Pulse

- Delta-V, longitudinal: SAE J211 sign convention, negative value generally indicates a front crash and positive value generally indicates a rear crash. Longitudinal delta-V reflects the change in forward velocity that the sensing system experienced from Time zero. It is not the speed the vehicle was traveling before the event. Note that the vehicle speed is recorded separately. This data should be examined in conjunction with other available physical evidence from the vehicle and scene when assessing occupant or vehicle longitudinal delta-V.

Under Lateral Crash Pulse

- Delta-V, lateral: SAE J211 sign convention, Positive value generally indicates a driver side crash and negative value generally indicates a passenger side crash.

Under Rollover Sensor Data (if Applicable)

- Vehicle roll angle if applicable: The Roll Axis is the longitudinal axis of the vehicle, generally aligned with the primary axis of motion of the vehicle. A positive Roll Angle is counter-clockwise when observing the vehicle from the front.

Data Sources:

The Restraints Control Module (RCM) contains all recorded data on any event. Data collected from the RCM comes from multiple sources:

1. Internal to the RCM such as internal sensors for delta Velocity data, rollover angle data if applicable, etc« which are measured, calculated and stored internally.
2. External to the RCM but with a direct connection such as buckle switches, peripheral crash sensors, seat track switch(s) etc« which are measured, calculated and stored internally.
3. External Modules to the RCM such as Powertrain Control Module, Brake Control Module, etc« These modules

communicate to the RCM via Vehicle Communication Network. The RCM stores the received data internally.

02010_RCM-RC7_r001

System Status at Time of Retrieval

| | |
|--|-------------------|
| VIN As Programmed into RCM at Factory | 1FTYR1ZM2GKA34167 |
| Current VIN from PCM | 1FTYR1ZM2GKA34167 |
| Ignition Cycle, Download (First Record) | N/A |
| Ignition Cycle, Download (Second Record) | N/A |
| Restraints Control Module Part Number | CK4T-14B321-CG |
| Restraints Control Module Serial Number | 7000146300000000 |
| Restraints Control Module Software Part Number (Version) | BK2T-14C028-BA |
| Driver Side/Center Frontal Restraints Sensor Serial Number | 00222948 |
| Driver, Row 1, Side Restraint Sensor 1 Serial Number | 00000078 |
| Driver, Row 2, Side Restraint Sensor 2 Serial Number | 00B51DEB |
| Passenger Frontal Restraints Sensor Serial Number | 00000000 |
| Passenger, Row 1, Side Restraint Sensor 1 Serial Number | 00000003 |
| Passenger, Row 2, Side Restraint Sensor 2 Serial Number | 009B1DEB |

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.

00 00 00 00

43 4B 34 54 2D 31 34 42 33 32 31 2D 43 47 00 00 00 00 00 00 00 00 00 00

37 30 30 30 31 34 36 33 30 30 30 30 30 30 30

42 4B 32 54 2D 31 34 43 30 32 38 2D 42 41 00 00 00 00 00 00 00 00 00 00

00 22 29 48 CA A6 62 00 00 00 00 00 00 00 00 00

00 00 00 78 B7 06 71 00 00 00 00 00 00 00 00 00

00 B5 1D EB 20 30 36 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 03 C6 5E 61 00 00 00 00 00 00 00 00 00

00 9B 1D EB 20 4C 39 00 00 00 00 00 00 00 00 00

31 46 54 59 52 31 5A 4D 32 47 4B 41 33 34 31 36 37

31 46 54 59 52 31 5A 4D 32 47 4B 41 33 34 31 36 37 00 00 00 00 00 00 00

53 68 C0 30 10 0C 65 00

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