

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/Frame Number | |
| User | |
| Case Number | |
| EDR Data Imaging Date | |
| Crash Date | |
| Filename | |
| Saved on | |
| Imaged with CDR version | Crash Data Retrieval Tool 21.4 |
| Imaged with Software Licensed to (Company Name) | |
| Reported with CDR version | Crash Data Retrieval Tool 21.4 |
| Reported with Software Licensed to (Company Name) | |
| EDR Device Type | Airbag Control Module |
| Event(s) recovered | Front/Rear/Side Events (1), Side Events (1), Rollover Events (1) |

Comments

Comments

Data Limitations

CDR Record Information:

- Due to limitations of the data recorded by the airbag ECU, such as the resolution, data range, sampling interval, time period of the recording, and the items recorded, the information provided by this data may not be sufficient to capture the entire crash.
- Pre-Crash data is recorded in discrete intervals. Due to different refresh rates within the vehicle's electronics, the data recorded may not be synchronous to each other.
- Airbag ECU data should be used in conjunction with other physical evidence obtained from the vehicle and the surrounding circumstances.
- If any of the front passenger seat airbags, side airbags, or Curtain Shield Airbags have deployed, data will not be overwritten or deleted by the airbag ECU following that event. If none of the airbags have deployed, the data of that event may be overwritten by a following event even if other airbags (pretensioner, rear seat airbag, etc.) have deployed.
- If power supply to the airbag ECU is lost during an event, all or part of the data may not be recorded.
- "Diagnostic Trouble Codes" are information about faults when a recording trigger is established. Various diagnostic trouble codes could be set and recorded due to component or system damage during an accident.
- The airbag ECU records only diagnostic information related to the airbag system. It does not record diagnostic information related to other vehicle systems.
- The TaSCAN, Global Tech Stream, or Intelligent Tester II devices (or any other Toyota genuine diagnostic tool) can be used to obtain detailed information on the diagnostic trouble codes from the airbag system, as well as diagnostic information from other systems. However, in some cases, the diagnostic trouble codes of the airbag system recorded by the airbag ECU when the event occurred may not match the diagnostic trouble codes read out when the diagnostic tool is used.

General Information:

- The data recording specifications of Toyota's airbag ECUs are divided into the following categories. The specifications for 12EDR or later are designed to be compatible with NHTSA's 49CFR Part 563 rule.
 - 00EDR / 02EDR / 04EDR / 06EDR / 10EDR / 12EDR / 13EDR / 15EDR / 17EDR / 19EDR
- The airbag ECU records data for all or some of the following accident types: frontal crash, rear crash, side crash, and rollover events. Depending on the installed airbag ECU, data for side crash and/or rollover events may not be recorded.
- The airbag ECU has the following recording pages (memory maps) for each accident type to store event data: four pages for frontal/rear/side crash, four pages for a side crash, and two pages for rollover event.
- When a crash impact for a lateral direction is occurred, data may be recorded in a page for frontal/rear/side crash. And additional data may be recorded in a page for side crash.
- The data recorded by the airbag ECU includes correlating information between each previously occurring event (i.e., information that clarifies the collision event sequence. This correlation information consists of the following items.
 - Time from Previous TRG
 - TRG Count
 - Previous Crash Type
- In frontal/rear/side crash events, earlier point in the following is regarded as time zero for the recorded data.
 - the first point where a longitudinal cumulative delta-V of over 0.8 km/h (0.5 mph) is reached

- the first point where a lateral cumulative delta-V of over 0.8 km/h (0.5 mph) is reached
- In side crash event and rollover event, the point in time at which the recording trigger is established is regarded as time zero for the recorded data.
- The recording trigger judgment threshold value differs depending on the collision type (i.e., frontal crash, rear crash, side crash, or rollover event).
- Some of the data recorded by the airbag ECU is transmitted to the airbag ECU from various vehicle control modules by the vehicle's Controller Area Network (CAN).
- In some cases, the airbag ECU part number printed on the ECU label may not match the airbag ECU part number that the CDR tool reports. The part number retrieved by the CDR tool should be considered as the official ECU part number.
- In frontal/rear/side collision events, the record time varies depending on the period during which a longitudinal and lateral cumulative delta-V of over 0.8 km/h (0.5 mph) is reached, and time series data is recorded for up to 250 ms. The record time described above is indicated as "Length of Delta-V". "Delta-V, Longitudinal" outside the record time is indicated by area shaded in the table, and not indicated in the graph.

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.

| Data Element Name | Positive Sign Notation Indicates |
|---|---|
| Maximum Delta-V, Longitudinal | Forward |
| Delta-V, Longitudinal | Forward |
| Delta-V, Lateral | Left to Right |
| Lateral Acceleration, Side Satellite Sensor 1 | Left to Right |
| Lateral Acceleration, Side Satellite Sensor 2 | Left to Right |
| Lateral Acceleration, Side Satellite Sensor 3 | Left to Right |
| Lateral Acceleration, Side Satellite Sensor 4 | Left to Right |
| Rate of Change of Pressure, Side Satellite Sensor 1 | The pressure of a door interior is applied. |
| Rate of Change of Pressure, Side Satellite Sensor 2 | The pressure of a door interior is applied. |
| Rate of Change of Pressure, Side Satellite Sensor 3 | The pressure of a door interior is applied. |
| Rate of Change of Pressure, Side Satellite Sensor 4 | The pressure of a door interior is applied. |
| Lateral Acceleration for Side Crash, Floor Sensor | Left to Right |
| Roll Angle Peak | Clockwise Rotation |
| Roll Angle at the Time of TRG | Clockwise Rotation |
| Roll Rate | Clockwise Rotation |
| Lateral Acceleration for Rollover, Floor Sensor | Left to Right |
| Longitudinal Acceleration, VSC Sensor | Forward |
| Yaw Rate | Left Turn |
| Steering Input | Left Turn |

Data Definitions:

- After "Freeze Signal" has been turned ON, subsequent events will not be recorded in the recording page.
- "Recording Status" indicates a state in which all recorded event data has been written into the non-volatile memory, or a state in which this process was interrupted and not fully written into the non-volatile memory. If "Recording Status" is "Incomplete", recorded event data may not be valid.
- "Engine RPM" indicates the number of engine revolutions, not the number of motor revolutions. The recorded value has an upper limit of 12,800 rpm. Resolution is 100 rpm and the value is rounded down and recorded. For example, if the actual engine speed is 799 rpm, the recorded value will be 700 rpm.
- If the electric vehicle is using a calculated/virtual engine RPM for drivetrain control, "Engine RPM" may be recorded, but should not be used during data analysis.
- The upper limit for the recorded "Vehicle Speed" value is 200 km/h (125mph). Resolution is 1km/h (0.6mph) and the value is rounded down and recorded. The accuracy of the "Vehicle Speed" value can be affected by various factors. These include, but not limited, to the following.
 - Significant changes in the tire's rolling radius
 - Wheel lock and wheel slip
- "Accelerator Pedal" value is recorded as a percentage. The percentage increases as the driver depresses the accelerator.
- If M/T transmission vehicle of some limited model, "Shift Position" may display "Drive" regardless of the actual shift position.
- Depending on the type of occupant sensor installed in the vehicle, one of the following three recording formats for "Occupant Size Classification, Front Passenger" will be utilized.
 - Occupied / Not Occupied
 - AM50 / AF05 / Child / Not Occupied
 - AM50 / AF05 / Child or Not Occupied
- "Cruise Control Status" indicates whether the cruise control system is actuated or not. OFF indicates that the cruise control system is not actuated, but can also indicate that the vehicle is not equipped with the system.
- "Air Bag Warning Lamp, On/Off", "Ignition Cycle, Crash", "Seat Track Position Switch, Foremost, Status, Driver", "Occupant Size Classification, Front Passenger", "Safety Belt Status, Driver", "Safety Belt Status, Front Passenger", "Frontal Air Bag Suppression Switch Status, Front Passenger", and "RSCA Disable Switch" indicate the state approximately 1 second before time zero. They may not always indicate the state at the moment of collision.
- The upper and lower limits for the recorded value of "Motor RPM" is 17,500 rpm and -7,500 rpm respectively. Resolution is 100 rpm and the value is rounded down and recorded.
- "Brake Oil Pressure" has an upper limit of 12.14 Mpa. In the case of the vehicle that has not VSC system, "0 Mpa" or "Invalid" may be displayed.
- "Longitudinal Acceleration, VSC Sensor" has upper and lower limits for the recorded value of 8.973 m/s² and -8.973 m/s² respectively. This acceleration sensor does not sense collisions.
- "Sequential Shift Range" displaying "Undetermined" indicates the shift range is undetermined or was not being used.
- Some vehicles will not be equipped with all "Drive Mode" types indicated in the "Drive Mode" table. If some or all drive modes are not applicable to vehicle, "OFF" or "Invalid" may be displayed. The item in the "Drive Mode" table may not match the name of switch or indicator that equipped the vehicle.

- The upper and lower limits for the recorded value of "Steering Input" is 375 deg and -375 deg respectively. Resolution is 1.5 deg and the value is rounded down and recorded.
- Resolution of the "Air Bag Warning Lamp ON Time Since DTC was Set" is 15 minutes, and the value is rounded down and recorded.
- "Delta-V, Longitudinal" indicates the change in forward speed after time zero. This does not refer to vehicle speed, and it does not include the change in speed during the period from the start of the actual collision to establishment of the time zero.
- "Location of Side Satellite Sensor" shows the outline of a typical sensor position. Sensory location can be confirmed using the repair manual.
- "TRG Count" indicates a calculated value of the number of times recording triggers have been established for all crash types. The sequence in which each event occurred can be verified from the "TRG Count". The smaller the "TRG Count" value, the older the data. The upper limit for the recorded value is 65,533 times. When more than one event reaches the upper limit, the actual "TRG Count" may be greater than what is displayed for that event.
- Resolution of the "Time from Pre-Crash to TRG" is 50 [ms], and the value is rounded up and recorded.
- "Time from Previous TRG" indicates the time between the establishment of a most recent event's recording trigger to the establishment of a latest event's recording trigger. The upper limit for the recorded value is 32,767 milliseconds. In the event of establishment of the first recording trigger after the ignition is switched ON, the upper limit value(max value) is recorded.
- "Roll Angle at the Time of TRG" and "Roll Angle Peak" do not represent the actual roll angle of the vehicle. These values are used internally by the airbag ECU for sensing a rollover.
- Depending on the type of satellite sensor installed in the vehicle, "Lateral Acceleration" or "Rate of Change of Pressure" is displayed as Side satellite sensor. "Rate of Change of Pressure" indicates that of a door interior. 0% is displayed when the pressure of a door interior is equal with the outside air pressure.
- Depending on the type of satellite sensor installed in the vehicle, "Clipping Time, Lateral Acceleration" or "Clipping Time, Rate of Change of Pressure" is displayed.
- "VSC Control Status" displaying "OFF+ (disable)" indicates VSC is disable (a part of the behavior stabilization control is operated).
- "Trip count" indicates the number of ignition power applying to a vehicle. The upper limit for the recorded value is 65534 times. When trip count reaches the upper limit value, trip count is reset at the next counting up.
- "Time count input system" indicates a count method of "Time count" and "Trip count".
 - Normal: Airbag ECU correct the count value with vehicle common value and count it up.
 - IG: ECU uniquely counts up regardless of vehicle common value. (In case of IG system ECU.)
 - ACC: ECU uniquely counts up regardless of vehicle common value. (In case of ACC system ECU.)
 - +B: ECU uniquely counts up regardless of vehicle common value. (In case of +B system ECU.)
- "Time count" indicates time from ignition power applying. The upper limit for the recorded value is 1,677,721,400ms. The resolution is 100ms and the value is rounded down and recorded.

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System Status at Retrieval

| | |
|--|--------------|
| ECU Part Number | 89170-0E100 |
| EDR Generation | 17EDR |
| Complete File Recorded | Yes |
| Ignition Cycle, Download (times) | 1610 |
| Multi-Event, Number of Events (times) | 2 or greater |
| Time from Event 1 to 2 (sec) | 0.245 |
| Diagnostic Trouble Codes Exist | No |
| Location of Side Satellite Sensor 1, L | front door |
| Location of Side Satellite Sensor 2, L | Not Equipped |
| Location of Side Satellite Sensor 3, L | Not Equipped |
| Location of Side Satellite Sensor 4, L | C-Pillar |
| Location of Side Satellite Sensor 1, R | front door |
| Location of Side Satellite Sensor 2, R | Not Equipped |
| Location of Side Satellite Sensor 3, R | Not Equipped |
| Location of Side Satellite Sensor 4, R | C-Pillar |
| Location of Floor Sensor | Airbag ECU |

Event Record Summary at Retrieval

| Events Recorded | TRG Count | Crash Type | Time (msec) | Pre-Crash Recording Status | Diagnostic Data Recording Status | Occupant Data Recording Status | Crash Info Recording Status | Time Series Recording Status |
|-------------------|-----------|-------------------------|-------------|----------------------------|----------------------------------|--------------------------------|-----------------------------|------------------------------|
| Most Recent Event | 3 | Rollover | 0 | Complete | Complete | Complete | Complete | Complete |
| 1st Prior Event | 2 | Side Crash | -234.5 | N/A | Complete | N/A | N/A | Complete |
| 2nd Prior Event | 1 | Frontal/Rear/Side Crash | -245 | Complete | Complete | Complete | Complete | Complete |

System Status at Event (Most Recent Event, TRG 3)

| | |
|--|-----------------|
| TRG Count (times) | 3 |
| Event Type | Rollover |
| Previous Crash Type | Side Crash |
| Time from Previous TRG (msec) | 234.5 |
| Freeze Signal | OFF |
| Freeze Signal Factor | None |
| Recording Status, Rollover Crash Info. | Complete |
| Odometer signal (miles [km]) | 14,546 [23,410] |
| Trip count (times) | 1622 |
| Time count (msec) | 1,767,400 |
| Time count input system | Normal |

Deployment Command Data (Most Recent Event, TRG 3)

| | |
|---|----|
| Pretensioner Deployment, Time to Fire, 1st Seat, Driver (msec) | No |
| Pretensioner Deployment, Time to Fire, 1st Seat, Passenger (msec) | No |
| Pretensioner Deployment, Time to Fire, 2nd Seat, Driver (msec) | No |
| Pretensioner Deployment, Time to Fire, 2nd Seat, Passenger (msec) | No |
| Side Curtain Airbag Deployment, Time to Deploy, Driver (msec) | No |
| Side Curtain Airbag Deployment, Time to Deploy, Passenger (msec) | No |

DTCs Present at Time of Event (Most Recent Event, TRG 3)

| | |
|---|----------|
| Recording Status, Diagnostic | Complete |
| Ignition Cycle Since DTC was Set (times) | 0 |
| Airbag Warning Lamp ON Time Since DTC was Set (min) | 0 |
| Diagnostic Trouble Codes | None |

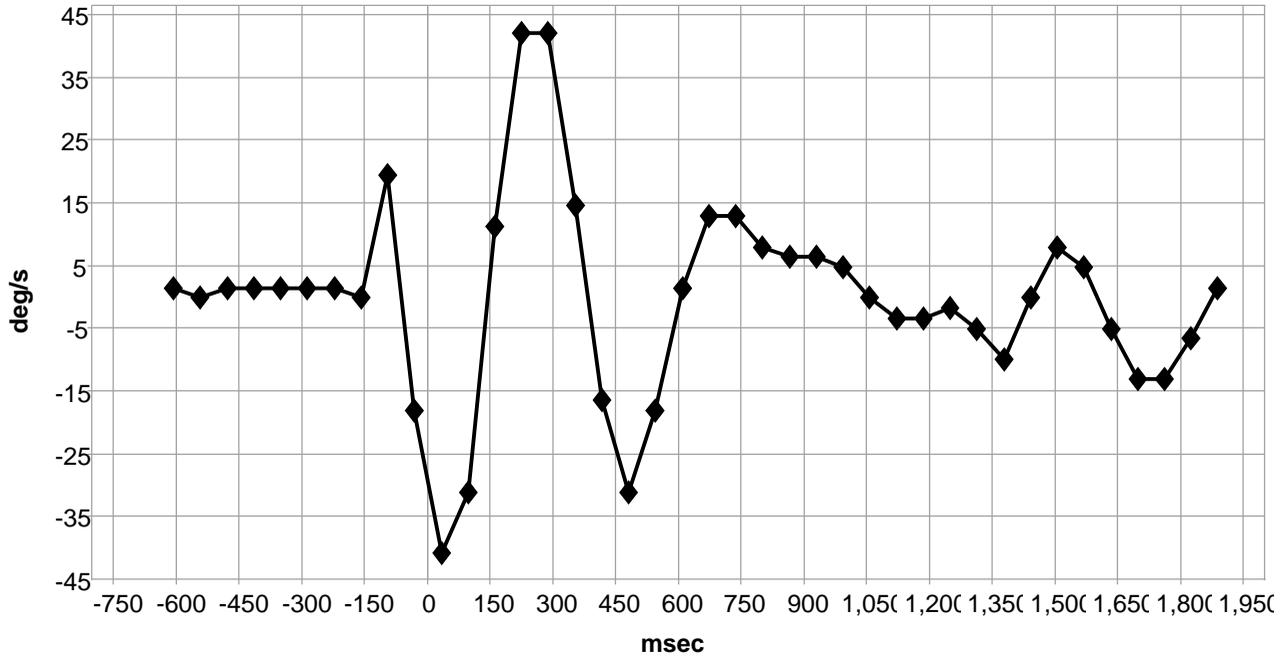
Pre-Crash Data, 1 Sample (Most Recent Event, TRG 3)

| | |
|---|-----------------------|
| Recording Status, Occupant | Complete |
| Recording Status, Pre-Crash | Complete |
| Time from Pre-Crash to TRG (msec) | 500 |
| Safety Belt Status, Driver | ON |
| Safety Belt Status, Front Passenger | OFF |
| Occupant Size Classification, Front Passenger | Child or Not Occupied |
| Frontal Airbag Suppression Switch Status, Front Passenger | SNA |
| RSCA Disable Switch | SNA |
| Seat Track Position Switch, Foremost, Status, Driver | No |
| Airbag Warning Lamp, On/Off | OFF |
| Ignition Cycle, Crash (times) | 1609 |

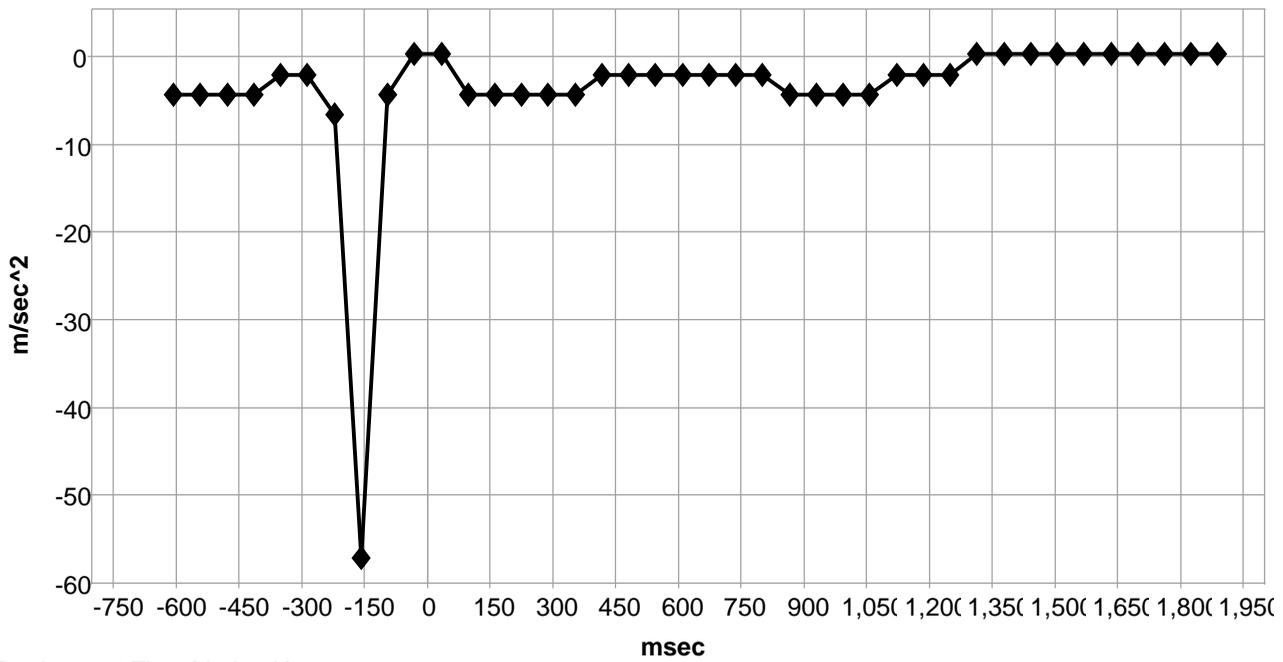
Rollover Crash Pulse (Most Recent Event, TRG 3)

| | |
|---|----------|
| Recording Status, Time Series Data | Complete |
| Time from TRG to Next Sample (msec) | 33 |
| RollAngle Peak (degrees) | 3.8 |
| Roll Angle at the Time of TRG (degrees) | -1.4 |

Roll Rate



Lateral Acceleration for Rollover



Deployment Time Marker Key

| | |
|---|-----------------------------------|
| 1 | Driver CSA |
| 2 | Passenger CSA |
| 3 | Driver Pretensioner Deployment |
| 4 | Passenger Pretensioner Deployment |

Rollover Crash Pulse (Most Recent Event, TRG 3)

| Time (msec) | Roll Rate (deg/s) | Lateral Acceleration for Rollover (m/s ²) |
|-------------|-------------------|---|
| -607 | 1.6 | -4.6 |
| -543 | 0.0 | -4.6 |
| -479 | 1.6 | -4.6 |
| -415 | 1.6 | -4.6 |
| -351 | 1.6 | -2.3 |
| -287 | 1.6 | -2.3 |
| -223 | 1.6 | -6.9 |
| -159 | 0.0 | -57.4 |
| -95 | 19.5 | -4.6 |
| -31 | -17.9 | 0.0 |
| 33 | -40.7 | 0.0 |
| 97 | -30.9 | -4.6 |
| 161 | 11.4 | -4.6 |
| 225 | 42.3 | -4.6 |
| 289 | 42.3 | -4.6 |
| 353 | 14.7 | -4.6 |
| 417 | -16.3 | -2.3 |
| 481 | -30.9 | -2.3 |
| 545 | -17.9 | -2.3 |
| 609 | 1.6 | -2.3 |
| 673 | 13.0 | -2.3 |
| 737 | 13.0 | -2.3 |
| 801 | 8.1 | -2.3 |
| 865 | 6.5 | -4.6 |
| 929 | 6.5 | -4.6 |
| 993 | 4.9 | -4.6 |
| 1057 | 0.0 | -4.6 |
| 1121 | -3.3 | -2.3 |
| 1185 | -3.3 | -2.3 |
| 1249 | -1.6 | -2.3 |
| 1313 | -4.9 | 0.0 |
| 1377 | -9.8 | 0.0 |
| 1441 | 0.0 | 0.0 |
| 1505 | 8.1 | 0.0 |
| 1569 | 4.9 | 0.0 |
| 1633 | -4.9 | 0.0 |
| 1697 | -13.0 | 0.0 |
| 1761 | -13.0 | 0.0 |
| 1825 | -6.5 | 0.0 |
| 1889 | 1.6 | 0.0 |

Pre-Crash Data -5 to 0 Seconds (Most Recent Event, TRG 3) - Table 1 of 4

| Time (sec) | Vehicle Speed (MPH [km/h]) | Accelerator Pedal, % Full (%) | Percentage of Engine Throttle (%) | Fuel Injection Quantity (mm ³ /st) | Engine RPM (RPM) | Motor RPM (RPM) | Service Brake, ON/OFF |
|------------|----------------------------|-------------------------------|-----------------------------------|---|------------------|-----------------|-----------------------|
| -5.00 | 50.3 [81] | 8.0 | 1.0 | Invalid | 1,300 | Invalid | OFF |
| -4.50 | 49.7 [80] | 8.0 | 1.0 | Invalid | 1,200 | Invalid | OFF |
| -4.00 | 49.1 [79] | 8.0 | 1.0 | Invalid | 1,200 | Invalid | OFF |
| -3.50 | 49.1 [79] | 7.5 | 0.5 | Invalid | 1,200 | Invalid | OFF |
| -3.00 | 48.5 [78] | 7.5 | 0.5 | Invalid | 1,200 | Invalid | OFF |
| -2.50 | 48.5 [78] | 7.5 | 0.5 | Invalid | 1,200 | Invalid | OFF |
| -2.00 | 47.8 [77] | 8.0 | 1.0 | Invalid | 1,200 | Invalid | OFF |
| -1.50 | 47.2 [76] | 8.0 | 0.5 | Invalid | 1,200 | Invalid | OFF |
| -1.00 | 46.6 [75] | 67.0 | 7.0 | Invalid | 1,200 | Invalid | OFF |
| -0.50 | 47.2 [76] | 100.0 | 99.5 | Invalid | 2,100 | Invalid | OFF |
| TRG(0) | 11.8 [19] | 100.0 | 49.0 | Invalid | 3,900 | Invalid | OFF |

Pre-Crash Data -5 to 0 Seconds (Most Recent Event, TRG 3) - Table 2 of 4

| Time (sec) | ABS Control Status | BOS Control Status | Brake Oil Pressure (Mpa) | Longitudinal Acceleration , VSC Sensor (m/s ²) | Yaw Rate (deg/s) | Steering Input (degrees) | Shift Position |
|------------|--------------------|--------------------|--------------------------|--|------------------|--------------------------|----------------|
| -5.00 | OFF | OFF | 0.00 | -0.359 | -0.49 | 0.0 | D |
| -4.50 | OFF | OFF | 0.00 | -0.215 | 0.49 | 3.0 | D |
| -4.00 | OFF | OFF | 0.00 | -0.287 | -0.49 | 0.0 | D |
| -3.50 | OFF | OFF | 0.00 | -0.359 | -0.49 | 3.0 | D |
| -3.00 | OFF | OFF | 0.00 | -0.287 | 0.98 | 6.0 | D |
| -2.50 | OFF | OFF | 0.00 | -0.215 | 2.93 | 12.0 | D |
| -2.00 | OFF | OFF | 0.00 | -0.287 | 6.83 | 28.5 | D |
| -1.50 | OFF | OFF | 0.00 | -0.359 | 8.78 | 33.0 | D |
| -1.00 | OFF | OFF | 0.00 | -0.502 | 14.64 | 45.0 | D |
| -0.50 | OFF | OFF | 0.00 | 0.072 | 14.15 | 55.5 | D |
| TRG(0) | ON | ON | 0.10 | -7.178 | 61.00 | 57.0 | N |

Pre-Crash Data -5 to 0 Seconds (Most Recent Event, TRG 3) - Table 3 of 4

| Time (sec) | Sequential Shift Range | Cruise Control Status | VSC Control Status | READY Signal | Drive Mode, Power Train | Drive Mode, Snow | Drive Mode, EV |
|------------|------------------------|-----------------------|--------------------|--------------|-------------------------|------------------|----------------|
| -5.00 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -4.50 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -4.00 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -3.50 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -3.00 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -2.50 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -2.00 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -1.50 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -1.00 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -0.50 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| TRG(0) | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |

Pre-Crash Data -5 to 0 Seconds (Most Recent Event, TRG 3) - Table 4 of 4

| Time (sec) | Drive mode select signal |
|------------|--------------------------|
| -5.00 | Normal |
| -4.50 | Normal |
| -4.00 | Normal |
| -3.50 | Normal |
| -3.00 | Normal |
| -2.50 | Normal |
| -2.00 | Normal |
| -1.50 | Normal |
| -1.00 | Normal |
| -0.50 | Normal |
| TRG(0) | Normal |

System Status at Event (1st Prior Event, TRG 2)

| | |
|-------------------------------|-------------------------|
| TRG Count (times) | 2 |
| Event Type | Side Crash |
| Previous Crash Type | Frontal/Rear/Side Crash |
| Time from Previous TRG (msec) | 8.0 |
| Freeze Signal | OFF |
| Freeze Signal Factor | None |
| Odometer signal (miles [km]) | 14,546 [23,410] |
| Trip count (times) | 1622 |
| Time count (msec) | 1,767,200 |
| Time count input system | Normal |

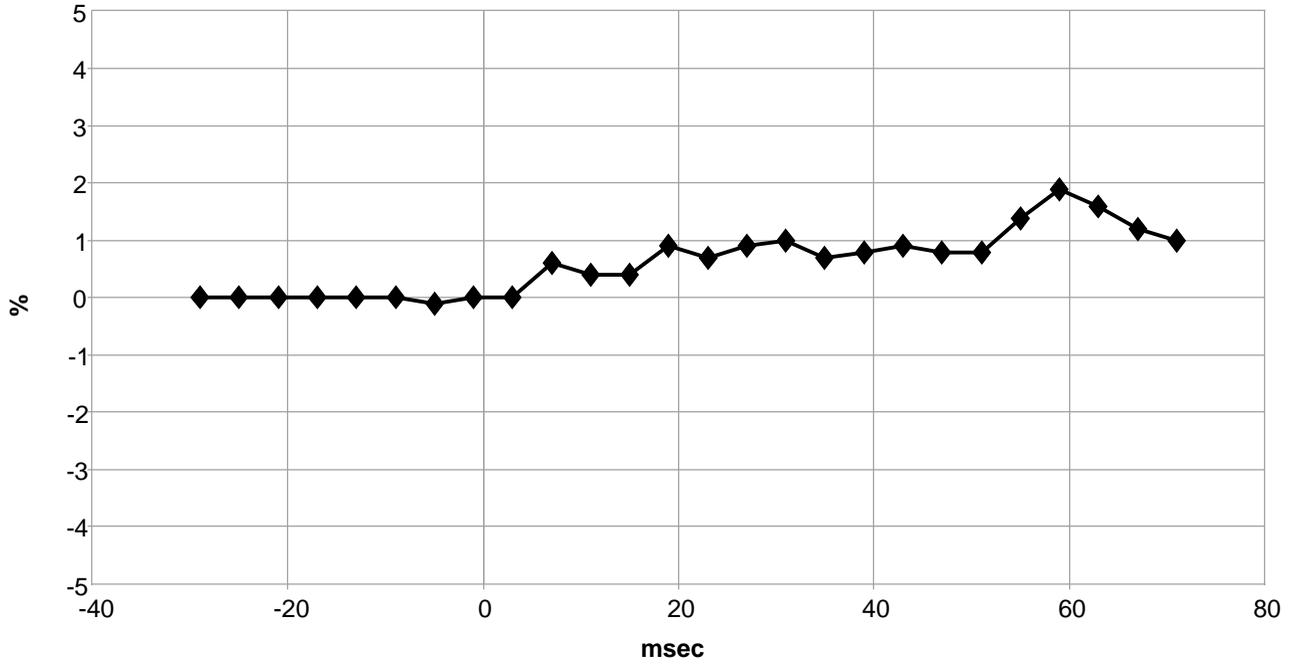
DTCs Present at Time of Event (1st Prior Event, TRG 2)

| | |
|---|----------|
| Recording Status, Diagnostic | Complete |
| Ignition Cycle Since DTC was Set (times) | 0 |
| Airbag Warning Lamp ON Time Since DTC was Set (min) | 0 |
| Diagnostic Trouble Codes | None |

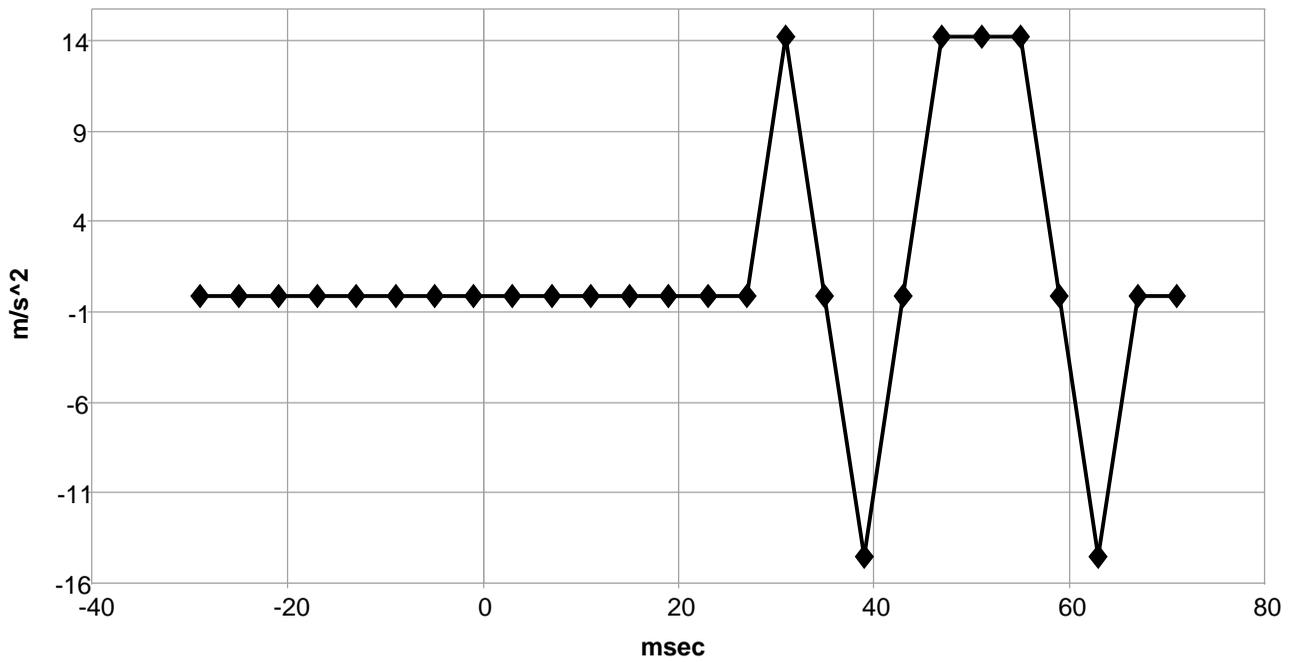
Lateral Crash Pulse (1st Prior Event, TRG 2)

| | |
|--|----------|
| Recording Status , Time Series Data | Complete |
| Time from TRG to Next Sample (msec) | 3 |
| Clipping Time, Rate of Change of Pressure, Side Satellite Sensor 1, L (msec) | No |
| Clipping Time, Lateral Acceleration, Side Satellite Sensor 2, L (msec) | SNA |
| Clipping Time, Lateral Acceleration, Side Satellite Sensor 3, L (msec) | SNA |
| Clipping Time, Lateral Acceleration, Side Satellite Sensor 4, L (msec) | No |
| Clipping Time, Rate of Change of Pressure, Side Satellite Sensor 1, R (msec) | No |
| Clipping Time, Lateral Acceleration, Side Satellite Sensor 2, R (msec) | SNA |
| Clipping Time, Lateral Acceleration, Side Satellite Sensor 3, R (msec) | SNA |
| Clipping Time, Lateral Acceleration, Side Satellite Sensor 4, R (msec) | No |
| Clipping Time, Lateral Acceleration, Floor Sensor (msec) | No |

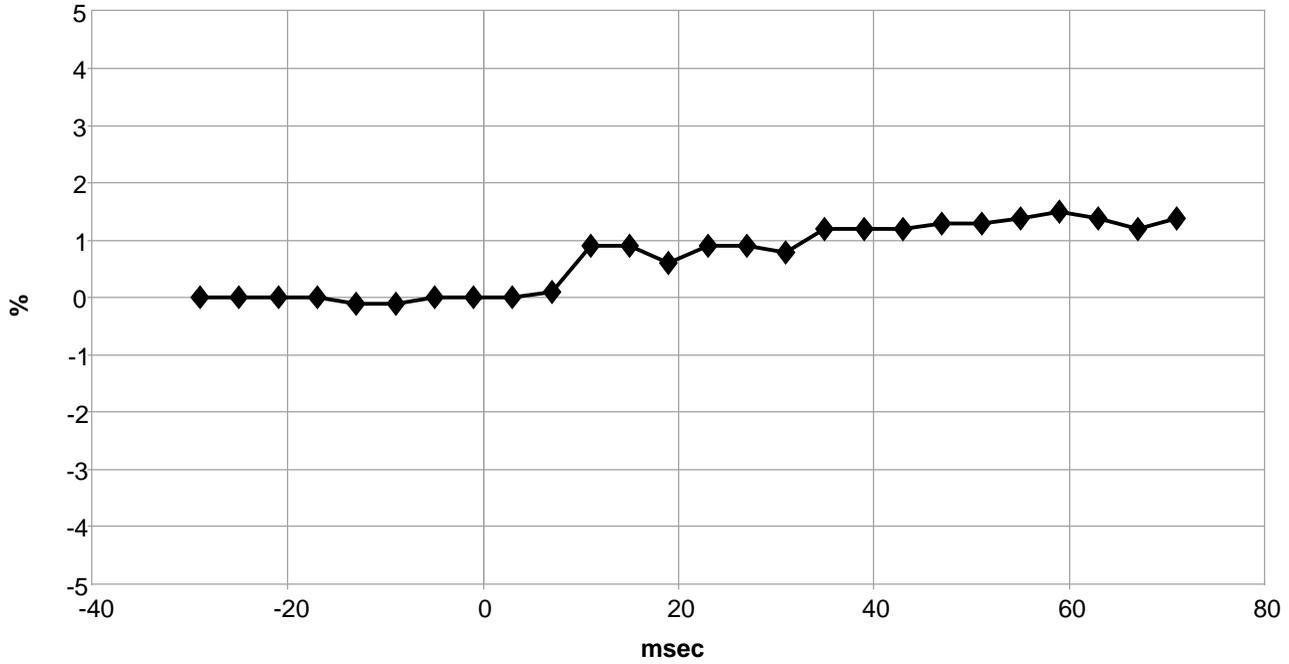
Rate of Change of Pressure, Side Satellite Sensor 1, L



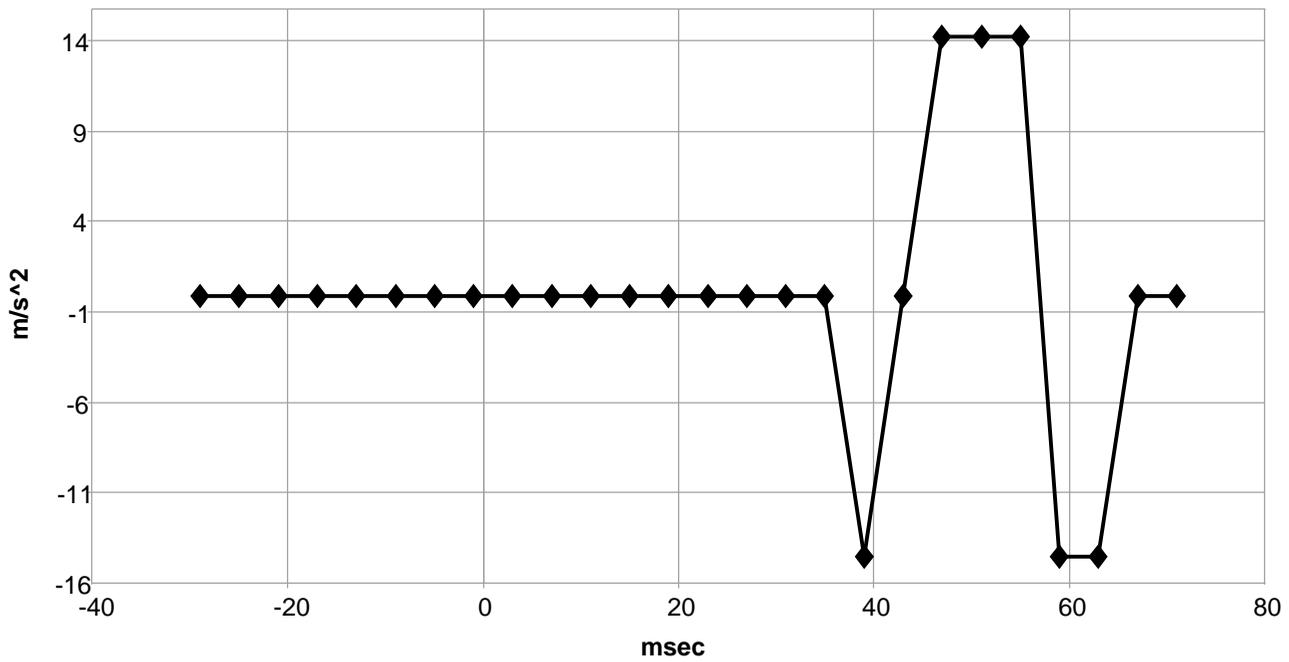
Lateral Acceleration, Side Satellite Sensor 4, L



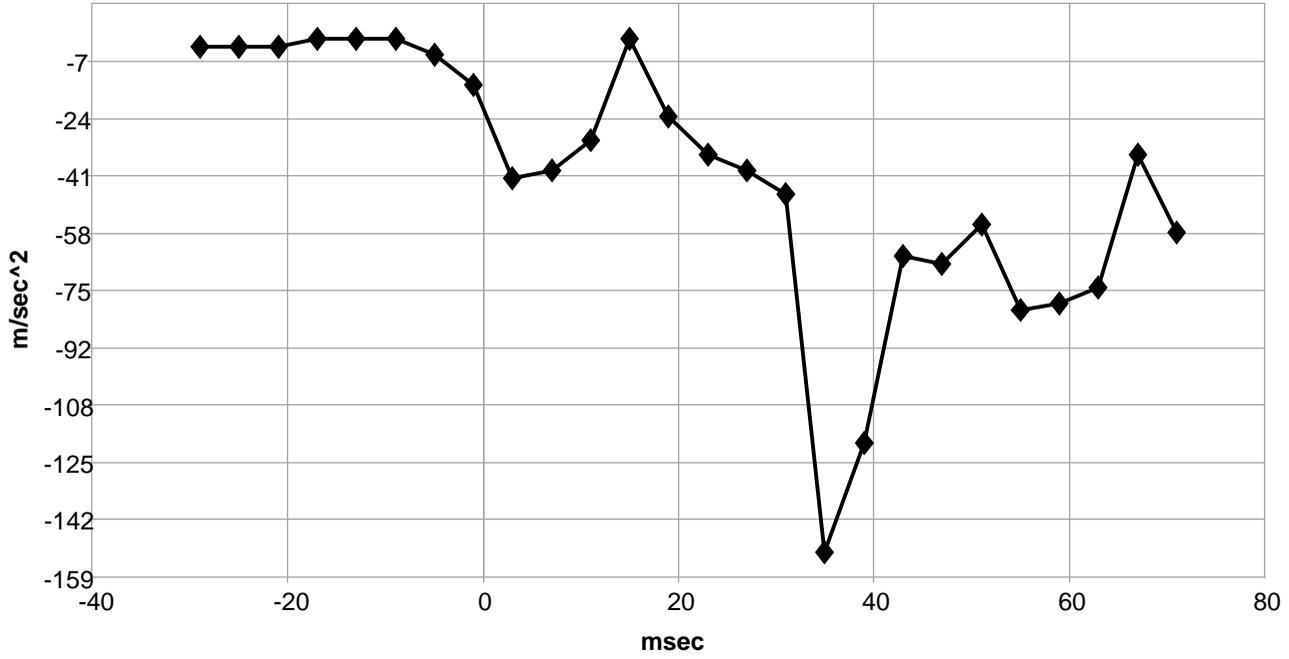
Rate of Change of Pressure, Side Satellite Sensor 1, R



Lateral Acceleration, Side Satellite Sensor 4, R



Lateral Acceleration for Side Crash Addition, Floor Sensor



Lateral Crash Pulse (1st Prior Event, TRG 2) - Table 1 of 2

| Time (msec) | Rate of Change of Pressure, Side Satellite Sensor 1, L (%) | Lateral Acceleration, Side Satellite Sensor 2, L (m/s^2) | Lateral Acceleration, Side Satellite Sensor 3, L (m/s^2) | Lateral Acceleration, Side Satellite Sensor 4, L (m/s^2) | Rate of Change of Pressure, Side Satellite Sensor 1, R (%) | Lateral Acceleration, Side Satellite Sensor 2, R (m/s^2) | Lateral Acceleration, Side Satellite Sensor 3, R (m/s^2) | Lateral Acceleration, Side Satellite Sensor 4, R (m/s^2) |
|-------------|--|--|--|--|--|--|--|--|
| -29 | 0.0 | SNA | SNA | 0.0 | 0.0 | SNA | SNA | 0.0 |
| -25 | 0.0 | SNA | SNA | 0.0 | 0.0 | SNA | SNA | 0.0 |
| -21 | 0.0 | SNA | SNA | 0.0 | 0.0 | SNA | SNA | 0.0 |
| -17 | 0.0 | SNA | SNA | 0.0 | 0.0 | SNA | SNA | 0.0 |
| -13 | 0.0 | SNA | SNA | 0.0 | -0.1 | SNA | SNA | 0.0 |
| -9 | 0.0 | SNA | SNA | 0.0 | -0.1 | SNA | SNA | 0.0 |
| -5 | -0.1 | SNA | SNA | 0.0 | 0.0 | SNA | SNA | 0.0 |
| -1 | 0.0 | SNA | SNA | 0.0 | 0.0 | SNA | SNA | 0.0 |
| 3 | 0.0 | SNA | SNA | 0.0 | 0.0 | SNA | SNA | 0.0 |
| 7 | 0.6 | SNA | SNA | 0.0 | 0.1 | SNA | SNA | 0.0 |
| 11 | 0.4 | SNA | SNA | 0.0 | 0.9 | SNA | SNA | 0.0 |
| 15 | 0.4 | SNA | SNA | 0.0 | 0.9 | SNA | SNA | 0.0 |
| 19 | 0.9 | SNA | SNA | 0.0 | 0.6 | SNA | SNA | 0.0 |
| 23 | 0.7 | SNA | SNA | 0.0 | 0.9 | SNA | SNA | 0.0 |
| 27 | 0.9 | SNA | SNA | 0.0 | 0.9 | SNA | SNA | 0.0 |
| 31 | 1.0 | SNA | SNA | 14.4 | 0.8 | SNA | SNA | 0.0 |
| 35 | 0.7 | SNA | SNA | 0.0 | 1.2 | SNA | SNA | 0.0 |
| 39 | 0.8 | SNA | SNA | -14.4 | 1.2 | SNA | SNA | -14.4 |
| 43 | 0.9 | SNA | SNA | 0.0 | 1.2 | SNA | SNA | 0.0 |
| 47 | 0.8 | SNA | SNA | 14.4 | 1.3 | SNA | SNA | 14.4 |
| 51 | 0.8 | SNA | SNA | 14.4 | 1.3 | SNA | SNA | 14.4 |
| 55 | 1.4 | SNA | SNA | 14.4 | 1.4 | SNA | SNA | 14.4 |
| 59 | 1.9 | SNA | SNA | 0.0 | 1.5 | SNA | SNA | -14.4 |
| 63 | 1.6 | SNA | SNA | -14.4 | 1.4 | SNA | SNA | -14.4 |
| 67 | 1.2 | SNA | SNA | 0.0 | 1.2 | SNA | SNA | 0.0 |
| 71 | 1.0 | SNA | SNA | 0.0 | 1.4 | SNA | SNA | 0.0 |

Lateral Crash Pulse (1st Prior Event, TRG 2) - Table 2 of 2

| Time (msec) | Lateral Acceleration for Side Crash Addition, Floor Sensor (m/s²) |
|--------------------|---|
| -29 | -2.3 |
| -25 | -2.3 |
| -21 | -2.3 |
| -17 | 0.0 |
| -13 | 0.0 |
| -9 | 0.0 |
| -5 | -4.6 |
| -1 | -13.8 |
| 3 | -41.4 |
| 7 | -39.1 |
| 11 | -29.9 |
| 15 | 0.0 |
| 19 | -23.0 |
| 23 | -34.5 |
| 27 | -39.1 |
| 31 | -45.9 |
| 35 | -151.6 |
| 39 | -119.5 |
| 43 | -64.3 |
| 47 | -66.6 |
| 51 | -55.1 |
| 55 | -80.4 |
| 59 | -78.1 |
| 63 | -73.5 |
| 67 | -34.5 |
| 71 | -57.4 |

System Status at Event (2nd Prior Event, TRG 1)

| | |
|--|--|
| TRG Count (times) | 1 |
| Event Type | Frontal/Rear/Side Crash |
| Previous Crash Type | No Event |
| Time from Previous TRG (msec) | 32767 or greater |
| Time from Time Zero to TRG (msec) | 2.5 |
| Event Establishment Factor | Frontal Crash |
| TRG Establishment Factor | Frontal Crash |
| Freeze Signal | ON |
| Freeze Signal Factor | Front Airbag Deployment, Driver / Front Airbag Deployment, Passenger |
| Recording Status , Front/Rear and Side Crash Info. | Complete |
| Odometer signal (miles [km]) | 14,546 [23,410] |
| Trip count (times) | 1622 |
| Time count (msec) | 1,767,200 |
| Time count input system | Normal |

Deployment Command Data (2nd Prior Event, TRG 1)

| | |
|---|------|
| Active Head Restraint, Time to Deploy, Driver (msec) | SNA |
| Active Head Restraint, Time to Deploy, Front Passenger (msec) | SNA |
| Frontal Airbag Deployment, Time to 1st Stage Deployment, Driver (msec) | 5.5 |
| Frontal Airbag Deployment, Time to 1st Stage Deployment, Front Passenger (msec) | No |
| Frontal Airbag Deployment, Time to 2nd Stage, Driver (msec) | 15.5 |
| Frontal Airbag Deployment, Time to 2nd Stage, Front Passenger (msec) | No |
| Frontal Airbag Deployment, Time to 3rd Stage, Front Passenger (msec) | SNA |
| Pretensioner Deployment, Time to Fire, 1st Seat, Driver (msec) | 2.5 |
| Pretensioner Deployment, Time to Fire, 1st Seat, Passenger (msec) | 2.5 |
| Pretensioner Deployment, Time to Fire, 2nd Seat, Driver (msec) | 2.5 |
| Pretensioner Deployment, Time to Fire, 2nd Seat, Passenger (msec) | 2.5 |
| Rear Window Airbag Deployment, Time to Deploy (msec) | SNA |
| Side Airbag Deployment, Time to Deploy, 1st Seat, Driver (msec) | 55.5 |
| Side Airbag Deployment, Time to Deploy, 1st Seat, Passenger (msec) | 55.5 |
| Side Airbag Deployment, Time to Deploy, 2nd Seat, Driver (msec) | 55.5 |
| Side Airbag Deployment, Time to Deploy, 2nd Seat, Passenger (msec) | 55.5 |
| Side Curtain Airbag Deployment, Time to Deploy, Driver (msec) | 5.5 |
| Side Curtain Airbag Deployment, Time to Deploy, Passenger (msec) | 5.5 |

DTCs Present at Time of Event (2nd Prior Event, TRG 1)

| | |
|---|----------|
| Recording Status, Diagnostic | Complete |
| Ignition Cycle Since DTC was Set (times) | 0 |
| Airbag Warning Lamp ON Time Since DTC was Set (min) | 0 |
| Diagnostic Trouble Codes | None |

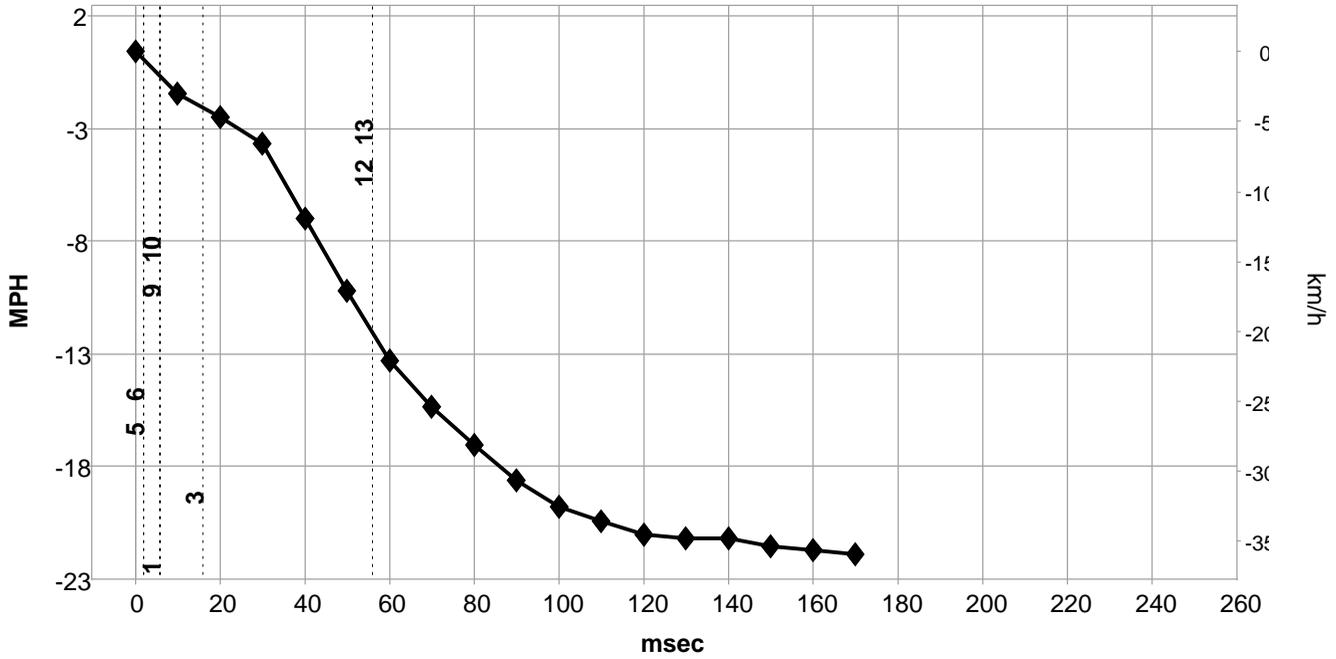
Pre-Crash Data, 1 Sample (2nd Prior Event, TRG 1)

| | |
|---|-----------------------|
| Recording Status, Occupant | Complete |
| Recording Status, Pre-Crash | Complete |
| Time from Pre-Crash to TRG (msec) | 250 |
| Safety Belt Status, Driver | ON |
| Safety Belt Status, Front Passenger | OFF |
| Occupant Size Classification, Front Passenger | Child or Not Occupied |
| Frontal Airbag Suppression Switch Status, Front Passenger | SNA |
| RSCA Disable Switch | SNA |
| Seat Track Position Switch, Foremost, Status, Driver | No |
| Airbag Warning Lamp, On/Off | OFF |
| Ignition Cycle, Crash (times) | 1609 |

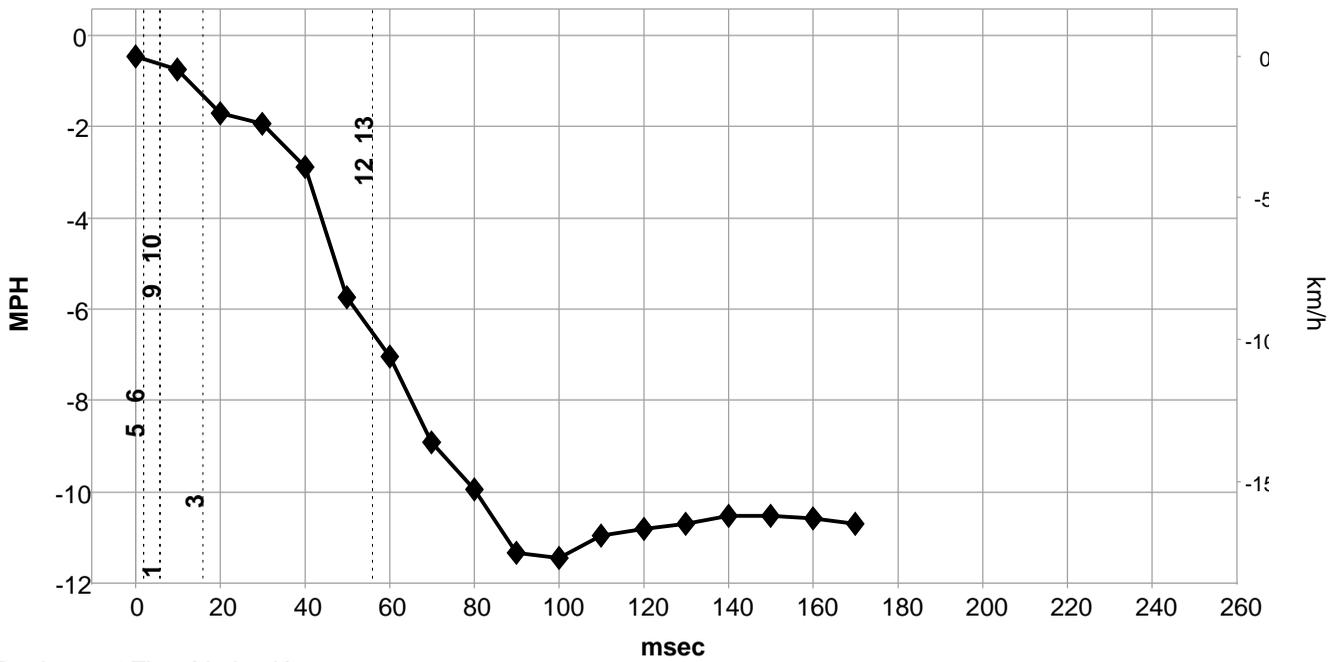
Longitudinal/Lateral Crash Pulse (2nd Prior Event, TRG 1)

| | |
|---|---------------|
| Recording Status , Time Series Data | Complete |
| Power Supply Status at the time of Max. Delta-V | ON |
| Maximum Delta-V, Longitudinal (MPH [km/h]) | -22.3 [-35.9] |
| Time, Maximum Delta-V, Longitudinal (msec) | 164.0 |
| Clipping Time, Longitudinal Delta-V (msec) | No |
| Clipping Time, Lateral Delta-V (msec) | No |
| Length of Delta-V (msec) | 170 |

Delta-V, Longitudinal



Delta-V, Lateral



Deployment Time Marker Key

| | |
|----|------------------------------------|
| 1 | Driver Airbag Deployment Time |
| 2 | Passenger Airbag Deployment Time |
| 3 | Driver 2nd Stage Airbag Deployment |
| 4 | Passenger 2nd Stage Airbag |
| 5 | Driver Pretensioner Deployment |
| 6 | Passenger Pretensioner Deployment |
| 7 | Driver AHR |
| 8 | Passenger AHR |
| 9 | Driver CSA |
| 10 | Passenger CSA |
| 11 | Rear Window Airbag Deployment |
| 12 | Driver SAB |
| 13 | Passenger SAB |

Longitudinal/Lateral Crash Pulse (2nd Prior Event, TRG 1)

| Time (msec) | Delta-V, Longitudinal (MPH [km/h]) | Delta-V, Lateral (MPH [km/h]) | Power Supply Status |
|-------------|--|-------------------------------------|---------------------------|
| 0 | 0.0 [0.0] | 0.0 [0.0] | ON |
| 10 | -1.9 [-3.0] | -0.3 [-0.5] | ON |
| 20 | -2.9 [-4.7] | -1.2 [-2.0] | ON |
| 30 | -4.1 [-6.6] | -1.5 [-2.4] | ON |
| 40 | -7.4 [-11.9] | -2.4 [-3.9] | ON |
| 50 | -10.6 [-17.1] | -5.3 [-8.5] | ON |
| 60 | -13.7 [-22.1] | -6.6 [-10.6] | ON |
| 70 | -15.8 [-25.4] | -8.5 [-13.6] | ON |
| 80 | -17.5 [-28.1] | -9.5 [-15.3] | ON |
| 90 | -19.0 [-30.6] | -10.9 [-17.5] | ON |
| 100 | -20.2 [-32.5] | -11.0 [-17.7] | ON |
| 110 | -20.9 [-33.6] | -10.5 [-16.9] | ON |
| 120 | -21.4 [-34.5] | -10.4 [-16.7] | ON |
| 130 | -21.6 [-34.8] | -10.3 [-16.5] | ON |
| 140 | -21.6 [-34.8] | -10.1 [-16.2] | ON |
| 150 | -21.9 [-35.3] | -10.1 [-16.2] | ON |
| 160 | -22.1 [-35.6] | -10.1 [-16.3] | ON |
| 170 | -22.3 [-35.9] | -10.3 [-16.5] | ON |
| 180 | 0.0 [0.0] | 0.0 [0.0] | ON |
| 190 | 0.0 [0.0] | 0.0 [0.0] | ON |
| 200 | 0.0 [0.0] | 0.0 [0.0] | ON |
| 210 | 0.0 [0.0] | 0.0 [0.0] | ON |
| 220 | 0.0 [0.0] | 0.0 [0.0] | ON |
| 230 | 0.0 [0.0] | 0.0 [0.0] | ON |
| 240 | 0.0 [0.0] | 0.0 [0.0] | ON |
| 250 | 0.0 [0.0] | 0.0 [0.0] | ON |

Pre-Crash Data -5 to 0 Seconds (2nd Prior Event, TRG 1) - Table 1 of 4

| Time (sec) | Vehicle Speed (MPH [km/h]) | Accelerator Pedal, % Full (%) | Percentage of Engine Throttle (%) | Fuel Injection Quantity (mm ³ /st) | Engine RPM (RPM) | Motor RPM (RPM) | Service Brake, ON/OFF |
|------------|----------------------------|-------------------------------|-----------------------------------|---|------------------|-----------------|-----------------------|
| -4.75 | 50.3 [81] | 8.0 | 1.0 | Invalid | 1,300 | Invalid | OFF |
| -4.25 | 49.7 [80] | 8.0 | 1.0 | Invalid | 1,200 | Invalid | OFF |
| -3.75 | 49.1 [79] | 8.0 | 1.0 | Invalid | 1,200 | Invalid | OFF |
| -3.25 | 49.1 [79] | 7.5 | 0.5 | Invalid | 1,200 | Invalid | OFF |
| -2.75 | 48.5 [78] | 7.5 | 0.5 | Invalid | 1,200 | Invalid | OFF |
| -2.25 | 48.5 [78] | 7.5 | 0.5 | Invalid | 1,200 | Invalid | OFF |
| -1.75 | 47.8 [77] | 8.0 | 1.0 | Invalid | 1,200 | Invalid | OFF |
| -1.25 | 47.2 [76] | 8.0 | 0.5 | Invalid | 1,200 | Invalid | OFF |
| -0.75 | 46.6 [75] | 67.0 | 7.0 | Invalid | 1,200 | Invalid | OFF |
| -0.25 | 47.2 [76] | 100.0 | 99.5 | Invalid | 2,100 | Invalid | OFF |
| TRG(0) | 47.2 [76] | 100.0 | 99.5 | Invalid | 3,300 | Invalid | OFF |

Pre-Crash Data -5 to 0 Seconds (2nd Prior Event, TRG 1) - Table 2 of 4

| Time (sec) | ABS Control Status | BOS Control Status | Brake Oil Pressure (Mpa) | Longitudinal Acceleration, VSC Sensor (m/s ²) | Yaw Rate (deg/s) | Steering Input (degrees) | Shift Position |
|------------|--------------------|--------------------|--------------------------|---|------------------|--------------------------|----------------|
| -4.75 | OFF | OFF | 0.00 | -0.359 | -0.49 | 0.0 | D |
| -4.25 | OFF | OFF | 0.00 | -0.215 | 0.49 | 3.0 | D |
| -3.75 | OFF | OFF | 0.00 | -0.287 | -0.49 | 0.0 | D |
| -3.25 | OFF | OFF | 0.00 | -0.359 | -0.49 | 3.0 | D |
| -2.75 | OFF | OFF | 0.00 | -0.287 | 0.98 | 6.0 | D |
| -2.25 | OFF | OFF | 0.00 | -0.215 | 2.93 | 12.0 | D |
| -1.75 | OFF | OFF | 0.00 | -0.287 | 6.83 | 28.5 | D |
| -1.25 | OFF | OFF | 0.00 | -0.359 | 8.78 | 33.0 | D |
| -0.75 | OFF | OFF | 0.00 | -0.502 | 14.64 | 45.0 | D |
| -0.25 | OFF | OFF | 0.00 | 0.072 | 14.15 | 55.5 | D |
| TRG(0) | OFF | OFF | 0.00 | -7.896 | 12.69 | 48.0 | D |

Pre-Crash Data -5 to 0 Seconds (2nd Prior Event, TRG 1) - Table 3 of 4

| Time (sec) | Sequential Shift Range | Cruise Control Status | VSC Control Status | READY Signal | Drive Mode, Power Train | Drive Mode, Snow | Drive Mode, EV |
|------------|------------------------|-----------------------|--------------------|--------------|-------------------------|------------------|----------------|
| -4.75 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -4.25 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -3.75 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -3.25 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -2.75 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -2.25 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -1.75 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -1.25 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -0.75 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| -0.25 | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |
| TRG(0) | Undetermined | OFF | ON (enable) | Invalid | Normal | OFF | Invalid |

Pre-Crash Data -5 to 0 Seconds (2nd Prior Event, TRG 1) - Table 4 of 4

| Time (sec) | Drive mode select signal |
|------------|--------------------------|
| -4.75 | Normal |
| -4.25 | Normal |
| -3.75 | Normal |
| -3.25 | Normal |
| -2.75 | Normal |
| -2.25 | Normal |
| -1.75 | Normal |
| -1.25 | Normal |
| -0.75 | Normal |
| -0.25 | Normal |
| TRG(0) | Normal |

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.

| PIDs | PID | Data |
|------|-----|---|
| | 00 | BC 75 00 01 |
| | 01 | 00 |
| | 03 | 30 45 31 30 30 30 30 30 36 38 30 30 30 36 38 30 30 30 30 30 30 |
| | | 30 36 45 |
| | 04 | 02 03 01 01 |
| | 05 | 01 |
| | 06 | BA 17 |
| | 0A | 06 |
| | 0B | 00 |
| | 0C | 30 30 30 33 39 30 30 30 33 39 |
| | 10 | 00 |
| | 20 | E8 00 00 01 |
| | 21 | 02 A0 |
| | 22 | 00 00 00 00 00 00 |
| | 23 | 98 03 06 56 00 00 45 0D 98 37 06 56 00 00 45 0D 99 26 06 56 00 00 |
| | | 45 1A 99 06 06 56 00 00 45 1A 99 01 06 56 00 00 45 1B 99 21 06 56 |
| | | 00 00 45 1C |
| | 25 | 00 00 00 00 00 00 00 00 |
| | 40 | 00 00 00 01 |
| | 60 | F7 77 00 01 |
| | 61 | 02 0A 05 00 14 D8 00 00 00 00 00 00 00 00 00 00 00 00 00 00 03 55 |
| | | 03 55 14 D8 29 B1 85 5F 14 D8 00 00 E8 00 FF FE 30 00 80 02 80 02 |
| | | 80 00 FF C0 06 4A 80 01 00 06 |
| | 62 | 55 00 6F 00 6F 00 0B 3F FE 00 05 00 05 00 1F 3F FE 00 0B 00 0B 00 |
| | | 6F 00 6F 00 05 00 05 3F FE 3F FE 3F FE 3F FE 55 38 05 FF FE 00 01 |
| | | 11 A5 03 |
| | 63 | 03 FE 12 00 00 00 0B 00 11 00 18 00 2B 00 3E 00 50 00 5C 00 66 00 |
| | | 6F 00 76 00 7A 00 7D 00 7E 00 7E 00 80 00 81 00 82 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 00 82 01 48 |
| | 64 | 03 FE 00 00 00 08 00 1E 00 25 00 3B 00 80 00 A0 00 CE 00 E8 01 08 |
| | | 01 0B 01 00 00 FD 00 F9 00 F5 00 F5 00 F7 00 F9 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 |
| | 66 | 00 |
| | | 00 |
| | | 00 00 00 |
| | 67 | 00 |
| | | 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| | 68 | 00 |
| | | 00 |
| | | 00 00 00 00 00 00 00 00 00 00 |
| | 6A | 00 |
| | | 00 |
| | | 00 00 00 |
| | 6B | 00 |
| | | 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| | 6C | 00 |
| | | 00 |
| | | 00 00 00 00 00 00 00 00 |
| | 6E | 00 |
| | | 00 |
| | | 00 00 00 |
| | 6F | 00 |
| | | 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| | 70 | 00 |
| | | 00 |
| | | 00 00 00 00 00 00 00 00 00 00 |
| | 80 | 00 00 00 01 |
| | A0 | 0C 0C FF FD |
| | A5 | 55 3F FE 55 E1 01 00 01 01 01 01 01 |
| | | 00 0C F5 E7 ED 07 1A 1A 09 F6 ED F5 01 08 08 05 04 04 03 00 FE FE |
| | | FF FD FA 00 05 03 FD F8 F8 FC 01 00 00 00 |
| | A6 | 02 02 02 02 01 01 03 19 02 00 00 02 02 02 02 02 01 01 01 01 01 01 |

01 02 02 02 02 01 01 01 00 00 00 00 00 00 00 00 00 00 00 01 D5
00 03 FF E5 00 49 01
AD 00
00
00
AE 00
00
00 00 00 00 00 00 00
B3 55 00 10 00 02 03 00 00 00 00 55 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 06 56 00 45
08 00 00 38 D2 02
B4 32 32 32 32 32 32 31 32 32 38 36 36 3B 39 3B 3C 39 3A 3B 3A 3A 40
45 42 3E 3C 32 32 32 32 31 31 32 32 32 33 3B 3B 38 3B 3B 3A 3E 3E
3E 3F 3F 40 41 40 3E 40 01 FE 01 FE
B5 00
00
00 00 00 00 00 00 00 00 01 FE 01 FE
B6 00
00
00 00 00 00 00 00 00 00 01 FE 01 FE
B7 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 FF 00 01 01 01
00 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01
00 FF FF FF 01 01 00 00 01 FE 01 FE
B8 01 01 01 00 00 00 02 06 12 11 0D 00 0A 0F 11 14 42 34 1C 1D 18 23
22 20 0F 19 01 FE
B9 00
00
00 00 00 00 00 00
BA 00
00
00 00 00 00 00 00 00 00 00 00 00 00
BB 00
00
00 00 00 00 00 00 00 00 00 00 00 00
BC 00
00
00 00 00 00 00 00 00 00 00 00 00
BD 00
00
00 00 00 00 00 00 00 00 00 00 00
BE 00
00 00 00 00 00 00
C0 FF FF FF E1
C1 00
00
00 00 00 00 00 00
C2 00
00
00 00 00 00 00 00 00 00 00 00 00
C3 00
00
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C4 00
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C5 00
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C7 00
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C8 00
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00 00 00 00 00 00 00 00 00 00 00
C9 00
00
00 00 00 00 00 00 00 00 00 00 00
CA 00
00
00 00 00 00 00 00 00 00 00 00 00
CB 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
CC 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
CD 55 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 06 56 00 00 45 08 00 00 38 D2 02 55 11 10 00
00
CE 55 06 49 40 11 11 11 11 11 10 51 50 4F 4F 4E 4E 4D 4C 4B 4C 4C 10
10 10 0F 0F 0F 10 10 86 C8 C8 00 00 00 0D 0C 0C 0C 0C 0C 0C 0C
15 21 00 00 00 00 00 00
CF 00 00 00 00 00 00 00 00 00 00 00 00 FF 01 FF FF 02 06 0E 12 1E 1D 1A
FB FD FC FB FC FD FC FB F9 01 92 02 02 02 01 01 01 02 01 0E C7 C7
00 00 00
D0 00 40 00 40 00 40 00 40 00 40 00 40 00 40 00 40 00 40 00 40
FE FE
D1 00 00 00 02 00 00 00 02 00 04 00 08 00 13 00 16 00 1E 00 25 00 20
00 02 00 02 00 02 00 02 00 02 00 02 00 02 00 02 00 02 00 02 00 02
D2 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
D3 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
D4 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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D5 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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D6 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
D7 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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D8 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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D9 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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DA 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
DB 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
E0 FC 11 FF FC
F0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
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F1 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
F2 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
F3 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
F4 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
F5 55 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 06 56 00 00 45 0A 00 00 38 D2 02 55 11 10 00
00
F6 55 06 49 90 11 11 11 11 11 00 51 50 4F 4F 4E 4E 4D 4C 4B 4C 13 10
10 10 0F 0F 0F 10 10 86 C8 C8 00 00 00 0D 0C 0C 0C 0C 0C 0C 0C
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