U.S. Department of Transportation

National Highway Traffic Safety Administration

DOT Auto Safety Hotline

Vehicle Owner's Questionnaire

To Report Vehicle Safety Defects
1-888-DASH-2-DOT
(1-888-327-4236)
INTERNET:www.nhtsa.dot.gov/hotline

FOR AGENCY USE ONLY 100148

Date Received	Repository ☐
27-MAY-2016	Reference No. 10871242

OWNER INFORMATION (Type or Print)

Name	[redacted]		
Address	[redacted]	Daytime Telephone Number [redacted]	E-mail Address
City BRENNER Renner	State SD	Zip Code [redacted]	Evening Telephone Number [redacted]

The information you provide will be used to identify potential safety-related defects. We may share your information with the applicable vehicle manufacturer during an investigation or recall in accordance with the routine uses described in the agency's Privacy Act notice. See 49 FR 53971 (Sep. 3, 2004).

VEHICLE INFORMATION

17 digit Vehicle Identification Number Located at bottom of windshield on driver's side	Make	Model	Model Year
2T1KR32E28C[redacted]	TOYOTA	COROLLA MATRIX	2008

Date Purchased	Dealer's Name and Telephone Number			Engine: No: Cylinders	Fuel Type:
Original Owner ☐	Dealer's City	State	Zip Code		

Transmission Type	☐ Antilock Brakes ☐ Cruise Control	Powertrain	Multiple Failure:	Incident Date(s) 05-APR-2016

FAILED COMPONENT(S)/PART(S) INFORMATION

Vehicle Component Code: 140000 AIR BAGS	Failure Mileage	Failure Speed

ADDITIONAL ITEMS TO BE COMPLETED WHEN REPORTING A TIRE FAILURE

Tire Make	Tire Model (Name or Number)	Tire Size (Example P215/65R15)
DOT No. (Example: DOTMAL9ABC036)	☐ Original Equipment ☐ Prior Repair	Failure Location:
Tire Component Code		Tire Failure Type:

ADDITIONAL ITEMS TO BE COMPLETED WHEN REPORTING A CHILD SEAT FAILURE

Make:	Date Manufactured:	Model No./Name:
Seat Type:	Installation System:	
Child Seat Component Code:	Failed Part:	

APPLICABLE INCIDENT INFORMATION

(Please describe in detail the incident(s), Failure(s), Crash(es), and injury(ies).)

Crash	Fire	Number of Persons Injured	Number of Deaths	Reported to Police
☐ Yes ☒ No	☐ Yes ☒ No	0	0	Y

Narrative Description of Incident(S), Crash(es), and Injury(ies).
Please describe (1) events leading up to the failure, (2) failure and its consequences, and (3) what was done to correct the failure; i.e, parts repaired or replaced (and if old part is available).

TL* TAKATA RECALL. THE CONTACT OWNS A 2008 TOYOTA COROLLA MATRIX. THE CONTACT RECEIVED A RECALL NOTIFICATION FOR THE AIR BAGS. THE DEALER WAS UNABLE TO PROVIDE A REASONABLE TIME FRAME TO SUPPLY THE PART FOR THE RECALL REPAIR. THE CONTACT CALLED THE DEALER FOR WEEKS AND THEY KEPT INDICATING THAT THEY WOULD CALL WHEN THE PARTS WERE AVAILABLE, BUT THE CONTACT RECEIVED NO FOLLOW UP RESPONSE FROM THE DEALER. THE CONTACT WAS UNABLE TO DETERMINE WHEN THE VEHICLE WOULD BE REPAIRED. THE NHTSA CAMPAIGN NUMBER WAS UNKNOWN. THE CONTACT HAD NOT EXPERIENCED A FAILURE. PARTS DISTRIBUTION DISCONNECT.

Include, if available: Police/Fire Department Report, Photos, and Repair Invoice. ATTACH ADDITIONAL SHEETS IF NECESSARY

[redacted]

Renner, S. D. [redacted]

I got in touch with Toyota about accident with my gas pedal on a 2005 Matrix Toyota. Toyota called me back to see if they could look the over in Sioux Falls and it would take 3 days. I took the car to Billions in Sioux Falls + left it. Toyota would not meet with me, only on the phone. Toyota told me they would send me what they found out. All I can make of it is about the air bags. Not gas pedal.

I was in Mona Minn at a Hardees and put my car in park - it took off across a drive way over a curb and up the building and fell in. A guy came out of Hardees opened my car door + turned key off. I had both feed brake + seat belts were still on. My sister was with me. Air bags did not go off. The car was in the building up to side mirrors. I had car taken to Dulath Minn to fixed. When I got car back is when I called Toyota about what had happened. My insurance is American Family + if they talked to Toyota I don't know but I did get a check form Toyota for $29.23 - Lives sell chipe now days. Thank To Toyota my insurance when up for 4 years.

[redacted]

TOYOTA

Nekii Montgomery
Direct Phone (310) 468-7436
Fax (310) 381-6982

Toyota Motor Sales, U.S.A., Inc.
19001 South Western Avenue
Torrance, CA 90501

December 16, 2013

[redacted]
Renner, SD [redacted]

RE: Date of Loss: October 26, 2013
Vehicle: 2008 Toyota Corolla Matrix
VIN: 2T1KR32E28C[redacted]

Dear [redacted]

Thank you for contacting our Toyota Customer Experience Center regarding the incident you reported on November 12, 2013.

It is our understanding that you parked the vehicle in the parking space and with the shifter in park and your foot on the brake the vehicle accelerated forward over the curb, over some rocks and into the building. The vehicle was inspected on December 3, 2013 at Billion Toyota.

The accelerator pedal operated smoothly and returned to its idle position without any restrictions. The connector was in place and secure. There was no damage observed to the accelerator pedal. There were no leaks in the transmission. The transmission cable and linkage was not damage and operated normally when shifter was moved. There were no issues observed with the driver door lock. During the test drive, numerous test were conducted and the vehicle performed all test with no abnormalities observed. The inspector was unable to duplicate your concern with the vehicle. The inspection determined that this incident was not a result of manufacturing or design defect.

We are very sorry to hear about the unfortunate incident however at the time we cannot honor your claim. Thank you for allowing us to address your concerns.

Sincerely,

Nekii Montgomery
Legal Claims Administrator
Toyota Motor Sales, U.S.A., Inc.

Toyota Economic Loss Settlement Administrator
c/o Gilardi & Co. LLC
P.O. Box 8090
San Rafael, CA 94912-8090

THIS IS A REISSUED CHECK
If you are in possession of a previously issued check,
please do not attempt to cash that check as it is no longer valid.

Claim Number: [redacted]
Check Number: [redacted]
Check Amount: $29.23

>0041778 3368729 001 [redacted]
[redacted]
RENNER SD [redacted]

Toyota Economic Loss Settlement Administrator
c/o Gilardi & Co. LLC
P.O. Box 8090
San Rafael, CA 94912-8090
4/20/2015

Re: Toyota Motor Corp. Unintended Acceleration Marketing,
Sales Practices, and Products Liability Litigation
Claim Number: [redacted]

Dear Class Member:

Please find attached a check made payable to you as an eligible Class Member in the above-referenced matter. You have received this check from the Class Action Settlement Administrator in *In re: Toyota Motor Corp. Unintended Acceleration Marketing, Sales Practices, and Products Liability Litigation*, Case No [redacted] (FMOx), because you have been identified, based on Subject Vehicle information available to us, as a member of the Class certified by the United States District Court for the Central District of California who was eligible but did not previously file a claim. Pursuant to the Court's order, this payment represents your portion of the remaining Settlement Fund. The terms of the settlement (available at www.ToyotaELsettlement.com) apply to you whether or not you cash the enclosed check.

PLEASE CASH THIS CHECK PROMPTLY, AS IT WILL EXPIRE ON 8/17/2015

If you have questions regarding this letter or the enclosed check, please email info@toyotaelsettlement.com, or write to Toyota Economic Loss Settlement Administrator, c/o Gilardi & Co. LLC, P.O. Box 8090, San Rafael, CA 94912-8090, or call (877) 283-0507. If you are calling from outside North America, please use (317) 324-0389. Please do not contact Toyota, Lexus, and/or Scion or their dealers about this matter as the Court has ordered that all questions must be directed to the Class Action Settlement Administrator.

Sincerely yours,
Gilardi & Co. LLC
Settlement Administrator
www.ToyotaELsettlement.com

This check has been optimized for deposit via mobile banking

This check may be cashed at your personal bank or any Bank of the West branch

810051301 (04/14)

By my (our) signature(s) on the back of this check, I (we) hereby agree to the terms of the Release as stated in Section VI of the Settlement Agreement.

Toyota Motor Corp. Unintended Acceleration Marketing,
Sales Practices, and Products Liability Litigation
c/o Gilardi & Co. LLC
P.O. Box 8090
San Rafael, CA 94912-8090

BANK OF THE WEST

[redacted]

Check No. [redacted]

Pay Amount: $29.23

PAY *** **Twenty-nine & 23/100 Dollars** ***

Date: 4/20/2015
CLAIM #: [redacted]

TO THE
ORDER OF [redacted]
RENNER SD [redacted]

VOID AFTER 8/17/2015

Dennis A. Gilardi

DOCUMENT CONTAINS COLORED BACKGROUND ON WHITE PAPER, "VOID" FEATURE, SIMULATED WATERMARK (REVERSE SIDE.) MICRO-PRINT BORDER.

[redacted]

Paul Richardson

800 692 6326

Apt 62464

Claim # [redacted]

Rick 360 7885

[redacted]

I will call you
on Monday 12/2/13

Do not mail this
back please.
I will have you
leave it in your car
Thanks Kelley Monroe

Wednesday October 16, 2013 Logout

GET VEHICLE INFO:

VIN: 2T1KR32E28C[redacted]

Clear Submit

VEHICLE

VIN: 2T1KR32E28C[redacted]
Year/Make/Model: 2008 TOYOTA COROLLA MATRIX (1912)
Original Selling Dealer: BILLION TOYOTA (40011)

ACTIVE OWNERSHIP FOR VIN 2T1KR32E28C[redacted]

VEHICLE INFORMATION

Print Options Expand All Collapse All

VEHICLE STATUS

	Status	Status Date
Re-acquired Vehicle?	No	---
TMS Warranty Claims		

VEHICLE DETAILS

Product: 2008 TOYOTA COROLLA MATRIX (1912)
DOFU: 11/04/2007
Built Date: 08/02/2007
Transmission Type: 4AT
Engine Type: 1ZZ
Model Description: COROLLA MATRIX 4-DOOR XR 2WD

VIN: 2T1KR32E28C[redacted]
Exterior Color: COSMIC BLUE METALLIC (08Q5)
Interior Color: STONE (FB13)
Edition: 4-DOOR XR 2WD

Original Selling Dealer: BILLION TOYOTA (40011)
Mobile App Capable: N
Telematics Capable: N

☐ Additional Vehicle Details

TELEMATICS PRODUCTS

No records found.

OWNER NOTIFICATION PROGRAMS

Campaign	Status	Date Serviced	Servicing Dealer
A01-Safety Recall A01 - Engine Control Module (ECM) for Certain 2005 through 2008 Toyota Corolla and Corolla Matrix Models Equipped with a 1ZZ-FE Engine and Two Wheel Drive	Completed	03/09/11	BILLION TOYOTA (40011)

TOYOTA ROADSIDE ASSISTANCE*

*The following is a general overview of Toyota Roadside Coverage for this VIN and may not be inclusive of all coverage.

Program Name	Program Effective Date	Program Expiration Date

No records found.

TFS PRODUCT SUMMARY

Type	Sub Type	ID	Plan Cd	Product Status	Effective Dt	Expiration Dt	Expiration Mileage

No records found.

TOYOTA CARE / SCION SERVICE BOOST Help

Eligible Vin: No Oil Type:

No records Found

SERVICE HISTORY Help Claim View OPEN IN NEW WINDOW

The Service History displayed, contains only service information reported to Toyota by Toyota dealers. It does not contain any other information regarding any other service that may have been performed on the vehicle. As a result, Toyota cannot assure, and thus makes no representations regarding, its completeness or accuracy.

Customer Pay	Warranty Pay	Internal (DEALER) Pay	Goodwill	Total Amount
$472.91	$796.23	$116.04	$0	$1,385.18

DISCLAIMER:
These $ amounts represent repair orders from your dealership only.

R.O. Open/ Claim Dt	R.O. Close/ Claim Paid Dt▾	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	10/11/2013	35,109	BILLION TOYOTA-(40011)	SMITH, R	[redacted]	$39.84

Condition 1 — Pay Type: CUSTOMER PAY
Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AN — SSC No. ----
TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AN ~|~TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER) ~|~ ~|~35109 CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, SET TIRE PRESSURE — Agreement ----

Condition 2 — Pay Type: CUSTOMER PAY
Op Code Desc: FREE VEHICLE INSPECTION — SSC No. ----
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION — Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	09/30/2013	34,861	BILLION TOYOTA-(40011)	RUSSELL, K	[redacted]	$0.00

Condition 1 — Pay Type: CUSTOMER PAY

[redacted]

Op Code Desc: CUSTOMER STATES CHECK WHEEL AND TIRES
CUSTOMER STATES CHECK WHEEL AND TIRES ~|~CUSTOMER STATES TIRE PRESSURE LIGHT IS ON--PLEASE CHECK ~|~ ~|~34861 INSPECTED AND FOUND TIRE PRESSURES LOW. RAISED TO 35PSI. TIRE PRESSURE LIGHT IS OFF AT THIS TIME.
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	08/28/2013	33,636	BILLION TOYOTA-(40011)	MCFARLAND, T	[redacted]	$0.00

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: CUSTOMER STATES CHECK WHEEL AND TIRES
CUSTOMER STATES CHECK WHEEL AND TIRES ~|~CUSTOMER STATES CHECK WHEEL AND TIRES LIGHT IS ON CHECK AND ADVISE ~|~ ~|~33636 LEFT FRONT TIRE WAS AT 25PSI ADJUSTED TO 35PSI. SPARE TIRE WAS AT 30PSI ADJUSTED TO 60PSI. TIRE LIGHT ON DUE TO LOW TIRE PRESSURE NO LEAKS FOUND AT THIS TIME.
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	06/26/2013	30,500	BILLION TOYOTA-(40011)	KADING, D	[redacted]	$39.84

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AN
TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AN ~|~TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER) ~|~ ~|~30500 CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, SET TIRE PRESSURE
SSC No. ----
Agreement ----

Condition 2 — Pay Type: CUSTOMER PAY

Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
SSC No. ----
Agreement ----

Condition 3 — Pay Type: CUSTOMER PAY

Op Code Desc: TIRE ROTATION - FREE MAILER
TIRE ROTATION - FREE MAILER ~|~TIRE ROTATION - FREE MAILER ~|~ ~|~30500 ROTATED TIRES, CHECKED BRAKES, TORQUED TO SPEC
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	03/20/2013	28,861	BILLION TOYOTA-(40011)	WINTER, G	[redacted]	$0.00

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: CUSTOMER STATES CHECK WHEEL AND TIRES
CUSTOMER STATES CHECK WHEEL AND TIRES ~|~CUSTOMER STATES LOW TIRE LIGHT IS ON, ADVISE ~|~ ~|~28861 ADJUST TIRE PRESSURES TO 35 PSI, RESET LIGHT
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	01/16/2013	27,957	BILLION TOYOTA-(40011)	SMITH, R	[redacted]	$69.74

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AN
TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AN ~|~TOYOTA EXPRESS LUBE (INCLUDES: FULL SYNTHETIC OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER) ~|~ ~|~27957 CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, SET TIRE PRESSURE
SSC No. ----
Agreement ----

Condition 2 — Pay Type: CUSTOMER PAY

Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
SSC No. ----
Agreement ----

Condition 3 — Pay Type: CUSTOMER PAY

Op Code Desc: SERVICE CABIN FILTER
SERVICE CABIN FILTER ~|~SERVICE CABIN FILTER
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	11/06/2012	26,858	BILLION TOYOTA-(40011)	SMITH, R	[redacted]	$0.00

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: CUSTOMER STATES CHECK WHEEL AND TIRES
CUSTOMER STATES CHECK WHEEL AND TIRES ~|~CUSTOMER STATES CHECK WHEEL AND TIRES TIRE LIGHT IS ON ~|~ ~|~26858 ADJUSTED ALL TIRES FROM 30 TO 35 PSI
SSC No. ----
Agreement ----

Condition 2 — Pay Type: CUSTOMER PAY

Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	08/09/2012	25,716	BILLION TOYOTA-(40011)	RUSSELL, K	[redacted]	$0.00

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: CUSTOMER STATES CHECK WHEEL AND TIRES
CUSTOMER STATES CHECK WHEEL AND TIRES ~|~CUSTOMER STATES TIRE PRESSURE LIGHT IS ON-PLEASE CHECK ~|~ ~|~25716 INSPECTED AND FOUND LEFT REAR TIRE AT 30PSI. INSPECTED FOR LEAKS AND FOUND EXISTING PLUG LEAKING. REPLACED PLUG AND SET TIRE PRESSURE.
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	04/16/2012	24,122	BILLION TOYOTA-(40011)	SMITH, R	[redacted]	$34.85

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOW
TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOW ~|~TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER) ~|~ ~|~24122 CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, SET TIRE PRESSURE
SSC No. ----
Agreement ----

Condition 2 — Pay Type: CUSTOMER PAY

Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	01/31/2012	23,049	BILLION TOYOTA-(40011)	RUSSELL, K	[redacted]	$0.00

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: CUSTOMER STATES CHECK WHEEL AND TIRES
CUSTOMER STATES CHECK WHEEL AND TIRES ~|~CUSTOMER STATES TPMS LIGHT IS ON-PLEASE CHECK ~|~ ~|~23049 FOUND NAIL IN LEFT REAR TIRE. REPAIRED HOLE AND RESET TIRE PRESSURE TO 35PSI.
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	11/09/2011	21,962	BILLION TOYOTA-(40011)	SMITH, R	[redacted]	$34.85

Condition 1 — Pay Type: CUSTOMER PAY

Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOW
TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER) ~|~ ~|~21962 CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, SET TIRE PRESSURE
SSC No. ----
Agreement ----

Condition 2
Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	10/19/2011	21,751	BILLION TOYOTA-(40011)	WINTER, G	[redacted]	$0.00

Condition 1
Op Code Desc: CUSTOMER STATES CHECK WHEEL AND TIRES
CUSTOMER STATES CHECK WHEEL AND TIRES ~|~CUSTOMER STATES LOW TIRE LIGHT IS ON ~|~ ~|~21751 NO HOLE FOUND. TIRES WERE A LITTLE LOW. FILLED TO 35 PSI.
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	05/31/2011	18,899	BILLION TOYOTA-(40011)	TUSCHEN, S	[redacted]	$34.85

Condition 1
Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOW
TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER) ~|~ ~|~18899 CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, SET TIRE PRESSURE
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

Condition 2
Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	03/09/2011	17,410	BILLION TOYOTA-(40011)	WINTER, G	[redacted]	$575.00

Condition 1
Op Code Desc: CUSTOMER STATES CHECK WHEEL AND TIRES
CUSTOMER STATES CHECK WHEEL AND TIRES ~|~CUSTOMER STATES LOW TIRE LIGHT IS ON
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

Condition 2
Op Code Desc: A0J INSPECT ECM PN AND LN SSC
A0J INSPECT ECM PN AND LN SSC ~|~PERFORM CAMPAIGN A0J ~|~CAMPAIGN A0J ~|~17410 SSC A0J 0519H2 70 REPLACED ECU AS PER CAMPAIGN
Pay Type: WARRANTY PAY
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	11/05/2010	15,623	BILLION TOYOTA-(40011)	LEWIS, A	[redacted]	$34.85

Condition 1
Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOW
TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER) ~|~ ~|~15623 CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, AND SET TIRE PRESSURE
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

Condition 2
Op Code Desc: TIRE ROTATION - FREE MAILER
TIRE ROTATION - FREE MAILER ~|~TIRE ROTATION - FREE MAILER ~|~ ~|~15623 ROTATED TIRES AND CHECKED BRAKES
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

Condition 3
Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	06/23/2010	12,828	BILLION TOYOTA-(40011)	TUSCHEN, S	[redacted]	$34.85

Condition 1
Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOW
TOYOTA EXPRESS LUBE (INCLUDES: QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER) ~|~ ~|~12828 CHANGED OIL AND FILTER,TOPPED OFF FLUIDS AND SET TIRE PRESSURES
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

Condition 2
Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	02/11/2010	10,878	BILLION TOYOTA-(40011)	TUSCHEN, S	[redacted]	$0.00

Condition 1
Op Code Desc: CUSTOMER STATES CHECK TIRE/WHEEL
CUSTOMER STATES CHECK TIRE/WHEEL ~|~CUSTOMER STATES TIRE LIGHT IS ON ~|~ ~|~10878 FOUND TIRES AT 30PSI, LEFT FRONT TIRE AT 28PSI, NO LEAKS FOUND, RAISED TIRE PRESSURE, INITILIZED SYSTEM.
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	11/03/2009	9,728	BILLION TOYOTA-(40011)	KADING, D	[redacted]	$34.85

Condition 1
Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWE
TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWE ~|~TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER). ~|~ ~|~9728 CHANGED OIL AND FITLER, TOPPED OFF ALL FLUIDS AND SET TIRE PRESSURES
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

Condition 2
Op Code Desc: FREE VEHICLE INSPECTION
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

Condition 3
Op Code Desc: PRE-VACATION FLIER FREE TIRE ROTATION
PRE-VACATION FLIER FREE TIRE ROTATION ~|~PRE-VACATION FLIER FREE TIRE ROTATION ~|~ ~|~9728 ROTATED TIRES, BRAKES OK. TORQUED TO SPECS
Pay Type: CUSTOMER PAY
SSC No. ----
Agreement ----

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	06/05/2009	7,457	BILLION TOYOTA-(40011)		[redacted]	$0.00

[redacted]

Condition 1 — Pay Type: CUSTOMER PAY
Op Code Desc: CUSTOMER STATES BODY EXTERIOR — SSC No. ---- — Agreement ----
CUSTOMER STATES BODY EXTERIOR ~|~CHECK FOG LIGHT SEEMS LOOSE ~|~ ~|~7457 NO ADJUSTMENT IS AVAILABLE FOR THE FOG LIGHT. INSTALLED FOAM TAPE AROUND TOP TO STOP RATTLING.

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	04/15/2009	6,745	BILLION TOYOTA-(40011)		[redacted]	$34.70

Condition 1 — Pay Type: CUSTOMER PAY
Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWE — SSC No. ---- — Agreement ----
TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWE ~|~TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER). ~|~ ~|~6745 CHANGED OIL AND FILTER, CHECK ALL FLUIDS AND TIRE PRESSURES

Condition 2 — Pay Type: CUSTOMER PAY
Op Code Desc: FREE VEHICLE INSPECTION — SSC No. ---- — Agreement ----
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	10/02/2008	4,485	BILLION TOYOTA-(40011)	HIGHFILL, K	[redacted]	$48.72

Condition 1 — Pay Type: CUSTOMER PAY
Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWE — SSC No. ---- — Agreement ----
TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWE ~|~TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER). ~|~ ~|~4485 CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, AND SET TIRE PRESSURE

Condition 2 — Pay Type: CUSTOMER PAY
Op Code Desc: ROTATE AND CHECK BRAKES — SSC No. ---- — Agreement ----
ROTATE AND CHECK BRAKES ~|~ROTATE AND CHECK BRAKES ~|~ ~|~4485 ROTATED TIRES AND CHECKED BRAKES, TORQ TO SPEC

Condition 3 — Pay Type: CUSTOMER PAY
Op Code Desc: FREE VEHICLE INSPECTION — SSC No. ---- — Agreement ----
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION

Claim R.O. Date	Claim Paid	R.O. Mileage	Servicing Dealer	R.O. No.	R.O. Total
07/08/2008	07/11/2008	3,350	BILLION TOYOTA-(40011)	--------	$147.43

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	07/08/2008	3,350	BILLION TOYOTA-(40011)	ISEMINGER, J	[redacted]	$147.43

Condition 1 — Pay Type: WARRANTY PAY
Op Code Desc: WHL DISC/TIRE(1 WHL)DISMOUNT R&R — SSC No. ---- — Agreement ----
WHL DISC/TIRE(1 WHL)DISMOUNT R&R ~|~CUSTOMER STATES CHECK TIRE/WHEEL----TIRE LITE FLASHING ~|~TIRE LIGHT ON ~|~3350 TIRE WARNING LIGHT ON, R &R RIGHT REAR TIRE SENSOR AND REPROGRAMMED

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	03/20/2008	1,326	BILLION TOYOTA-(40011)	HIGHFILL, K	[redacted]	$30.97

Condition 1 — Pay Type: CUSTOMER PAY
Op Code Desc: TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWE — SSC No. ---- — Agreement ----
TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWE ~|~TOYOTA EXPRESS LUBE (INCLUDES:QUAKERSTATE SYNTHETIC BLEND OIL FOR HIGH HORSEPOWER ENGINES AND OIL FILTER). ~|~ ~|~CHANGED OIL AND FILTER, TOPPED OFF FLUIDS, AND SET TIRE PRESSURE

Condition 2 — Pay Type: CUSTOMER PAY
Op Code Desc: FREE VEHICLE INSPECTION — SSC No. ---- — Agreement ----
FREE VEHICLE INSPECTION ~|~FREE VEHICLE INSPECTION

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	11/05/2007	23	BILLION TOYOTA-(40011)		[redacted]	$50.00

Condition 1 — Pay Type: INTERNAL (DEALER) PAY
Op Code Desc: NEW CAR CLEAN FOR DELIVERY — SSC No. ---- — Agreement ----
NEW CAR CLEAN FOR DELIVERY ~|~NEW CAR CLEAN FOR DELIVERY

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	08/21/2007	4	BILLION TOYOTA-(40011)		[redacted]	$66.04

Condition 1 — Pay Type: INTERNAL (DEALER) PAY
Op Code Desc: WASH AND VAC (INSP TRANSPORT DAMAGE) — SSC No. ---- — Agreement ----
WASH AND VAC (INSP TRANSPORT DAMAGE) ~|~WASH AND VAC (INSP TRANSPORT DAMAGE)

Condition 2 — Pay Type: INTERNAL (DEALER) PAY
Op Code Desc: APPLY FABRIC, VINYL & LEATHER PROTECTION — SSC No. ---- — Agreement ----
APPLY FABRIC, VINYL & LEATHER PROTECTION ~|~APPLY FABRIC, VINYL & LEATHER PROTECTION

R.O. Open	R.O. Close	R.O. Mileage	Servicing Dealer	Service Advisor	R.O. No.	R.O. Total
----	08/20/2007	4	BILLION TOYOTA-(40011)		[redacted]	$73.80

Condition 1 — Pay Type: WARRANTY PAY
Op Code Desc: PRE-DELIVERY SERVICE FOR USA INS — SSC No. ---- — Agreement ----
PRE-DELIVERY SERVICE FOR USA INS ~|~PRE-DELIVERY SERVICE FOR USA INS ~|~PDI ~|~PDI

Get Other Service History

[redacted]

TOYOTA

Toyota Motor Sales, U.S.A., Inc.
19001 S. Western Avenue
Torrance, CA 90501

TOYOTA EDR DATA IMAGING INVESTIGATION RECORD

2008	Toyota	Corolla	2T1KR32E28C[redacted]
(MY)	**(Make)**	**(Model)**	**(VIN)**

Purpose: Use this form to record circumstances of obtaining an EDR image. Attach it to any report when sending it back to Toyota Motor Sales, U.S.A., Inc. Where noted below, do not disclose owner identification information (name or full VIN). Contact TMS Legal Department if you have questions.

CONSENT HISTORY

(check box that applies)

OWNER CONSENT

A. ☒ I obtained written consent of registered owner, lessee, or authorized representative. [Attach consent form to this record. **Written** consent is **required** in Arkansas, Connecticut, and Oregon, unless exceptions/other circumstances apply. Written consent of **ALL** Owners/Lessees is required in Arkansas and Oregon. In Arkansas, written consent is not consent to release owner identification information.]

B. ☐ I obtained oral consent of registered Owner, Lessee, or Authorized Representative as follows: [Not for use in Arkansas, Connecticut or Oregon.]

_____

(Name of person giving consent and date)

OWNER REFUSED CONSENT

☐ The registered Owner, Lessee, or Authorized Representative refused to allow imaging. [You may proceed with readout if other circumstances below apply.]

_____

Notes:

OTHER CIRCUMSTANCES (consent not obtained)

A. ☐ I imaged the data under a court or administrative order.

B. ☐ I imaged the data with permission of Toyota's counsel in a legal proceeding.

<OTHER CIRCUMSTANCES continued on next page>

<OTHER CIRCUMSTANCES continued>

C. ☐ I imaged the data on behalf of and at the request of the following law enforcement officer: **[Do not use in California, Colorado, Connecticut, Nevada, New Hampshire, New York, North Dakota, Oregon, Texas, or Washington unless accompanied by court order.]**

(Name, Position, Date)

D. ☐ I imaged the data on behalf of and at the request of the following authorized government official (e.g., NHTSA official): **[Do not use in Arkansas, Colorado, New Hampshire, or Virginia unless accompanied by court order.] [Do not provide owner identification information (name or full VIN; providing VIN is ok if last 6 digits removed)].**

(Name, Position, Date)

E. ☐ I imaged the data on behalf of and at the request of the following emergency medical responder who, in the course of responding to a motor vehicle crash, including injury, requested the data to determine the need for, or to facilitate, emergency medical response: [For use only in Arkansas, Maine, New Hampshire, New York, Oregon, Texas, Virginia and Washington].

(Name, Position, Date)

F. ☐ I imaged the data from an EDR that was installed after the manufacture date of the subject motor vehicle [for use only in Colorado].

G. ☐ I imaged the data permitted by, and pursuant to, a subscription service contract or agreement [for use only in Nevada and Virginia].

Kelley D. Monroe EAA SA 12/03/2013

(Toyota representative and Date)

How does the EDR record information? During a collision, the EDR calculates the delta V based on accelerometer data every 10 milliseconds and puts it into the permanent memory. During the intervals, other data is also placed into memory. If all the data is not transferred into the permanent memory, a writing flag is put on the report. If all data is successfully transferred, the report states 'Finished writing'. In some very severe impacts, electrical connections or internal EDR components may be damaged, resulting in incomplete data transfer to the permanent memory.

How long is an event stored in the EDR? If the airbags are deployed in a collision, the EDR data is locked and cannot be erased or overwritten. If the airbags have not been deployed in previous EDR events, an event that causes the vehicle to experience a rapid change in speed (example: hitting a curb) that exceeds a specified threshold will overwrite previous EDR events.

Why is a signed consent form required before performing imaging? Various states have privacy regulations that require consent before performing an EDR image.

How is EDR data retrieved and does the retrieval process affect/change the data contained in the EDR? Depending on the vehicle's condition, data can be imaged in one of two ways. The EDR tool is either connected through the vehicles DLC port, or the EDR is removed from the vehicle and the EDR tool is connected directly to the SRS ECU. Neither method alters or erases EDR data during the process. In some rare circumstances such as water immersions- the EDR data may not be able to be imaged.

What will I receive after the EDR image process has taken place on my vehicle? After the imaging has been completed, the EDR report and other reference documents will be provided.

What is the difference between vehicle speed and delta V? Vehicle speed is how fast the vehicle moves relative to the ground - usually in miles per hour. It is understood that vehicle speed is the straight line speed of the entire vehicle. Delta V is the change in vehicle speed over milliseconds and is usually discussed as longitudinal, lateral or total delta V.

Is there more than one deltaV? In some EDR reports there are longitudinal and lateral delta V data.

Why can't the EDR tool operator just tell the customer what the report says? Crashes can be very complex events. The EDR report is just one piece of information and without knowing other critical crash information, the EDR data could be misinterpreted with the context for the overall crash.

Can the EDR tell me the date and time of collision? No, the EDR does not have a time stamp function.

EDR - Frequently Asked Questions

What is an EDR? An Event Data Recorder (EDR) is part of the Supplemental Restraint System (SRS) ECU that records data for some types of collision events for future safety research or analysis. An event is a change in vehicle speed that is more than typical of everyday use. For example, stopping hard with the brakes would not cause a recording, but hitting a curb may cause the EDR to record an event.

Are EDRs required in cars? They are currently not required.

Is the EDR a black box? No, the EDR is not a black box like on an airplane. It does not record sounds or conversations and does not have the capacity like an airplane blackbox. The EDR is simply part of the Supplemental Restraint System (SRS) ECU that only records certain vehicle data for a short period of time before or during a collision.

What causes the EDR to record? The EDR starts to record when the vehicle experiences a rapid change in speed (like acceleration or deceleration) that exceeds a specified threshold higher than normal use. Hard braking will not cause an EDR to record, because that may be considered normal use. Impacting a curb hard may cause a recording as the vehicle body may change speed much quicker than normal use.

Why were EDRs installed in Toyota/Lexus/Scion vehicles? EDRs have the capability to serve several purposes, such as assisting in vehicle development, quality control or safety research. Airbag deployment occurs very rapidly and it may be difficult to determine exactly what occurred during a collision. Although indirect methods may be used to determine airbag deployment circumstances, an EDR is a more direct method to understand airbag deployment circumstances.

Do all EDRs record the same information? No. Due to different vehicle designs and changes in equipment, the information recorded varies by model and model year.

Were there other recording systems before EDR in Toyota vehicles? Yes, some vehicles in the past had some impact recording capabilities, but these were not considered reliable for field use. There is no current capability to read these predecessors to EDRs.

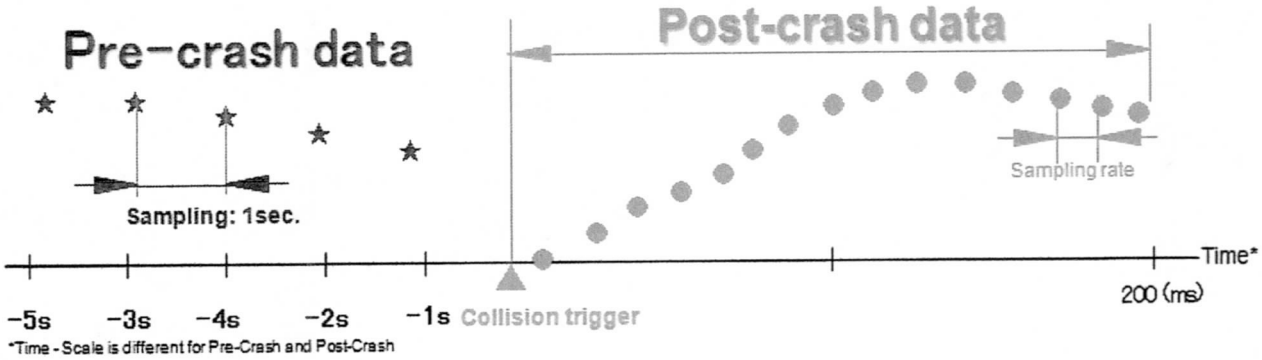
How accurate is the EDR data? The accuracy of the data from the EDR depends on the collision and the EDR capabilities. Government studies of Toyota EDRs indicate that Toyotas EDRs have similar capabilities to other vehicle manufacturers.

What has Toyota done to validate its EDRs and EDR tools? Toyota has been analyzing data from vehicles since they were first introduced to ensure the reliability of the EDR technology. Toyota performs imaging of our own vehicles as part of crash testing. Toyota also performs EDR imaging from U.S. Government crash testing and investigations, and when requested, in law enforcement investigations.

Pre-Crash Data - Not all models have an EDR capable of recording pre-crash data

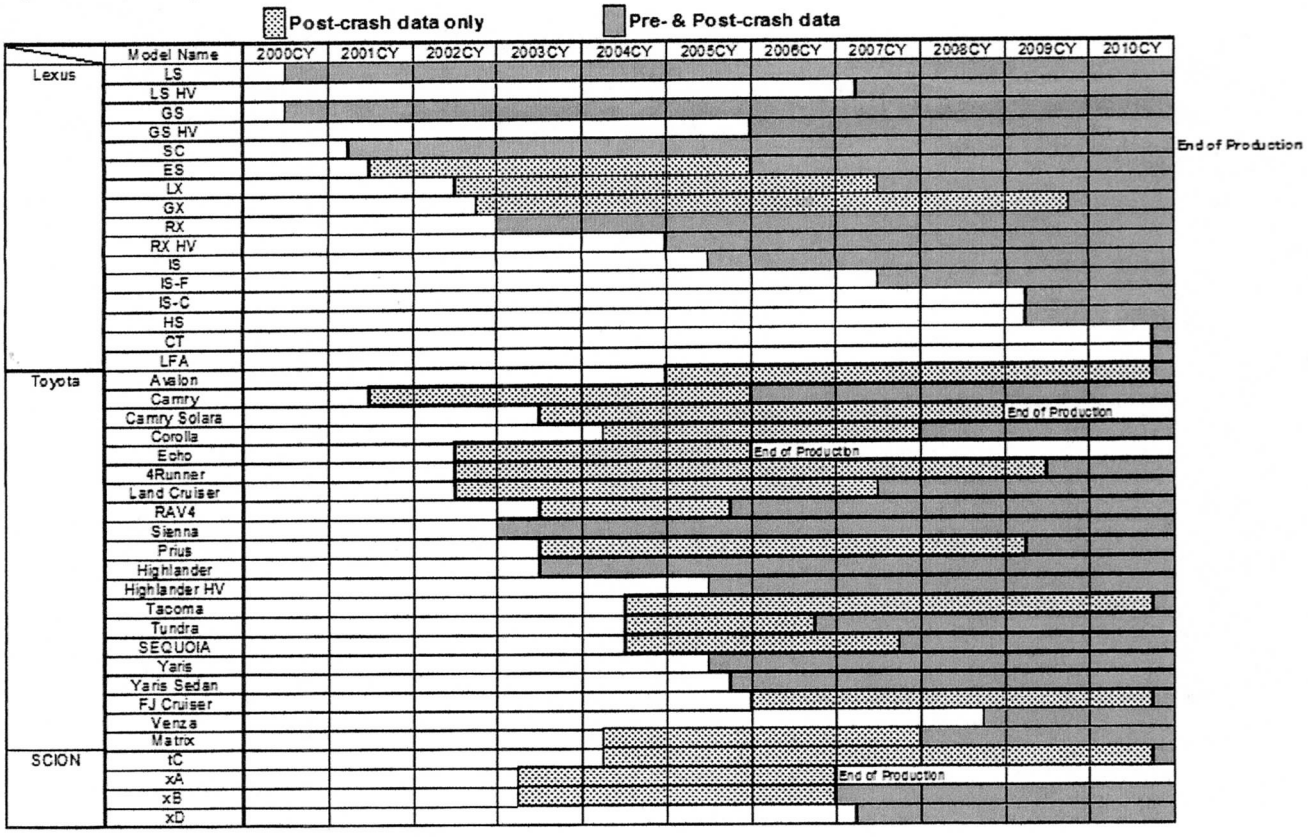
As explained in the Post-crash section, the EDR System begins recording data when an impact exceeds the rapid change in speed threshold. On certain models, the EDR will also record about 5 seconds of data that took place before the impact. Figure 2 shows the sampling rate of Pre-Crash data is different than Post-Crash data.

Figure 2



Post Crash & Pre-Crash Applicability Chart

The chart below provides EDR capability of each model and the corresponding calendar year (CY) it was built. Vehicles and the corresponding year that have a yellow bar are equipped with EDR that have the ability to record post-crash data only. Vehicles and the corresponding year that have a red bar, are equipped with EDRs capable of pre & post-crash data recording.

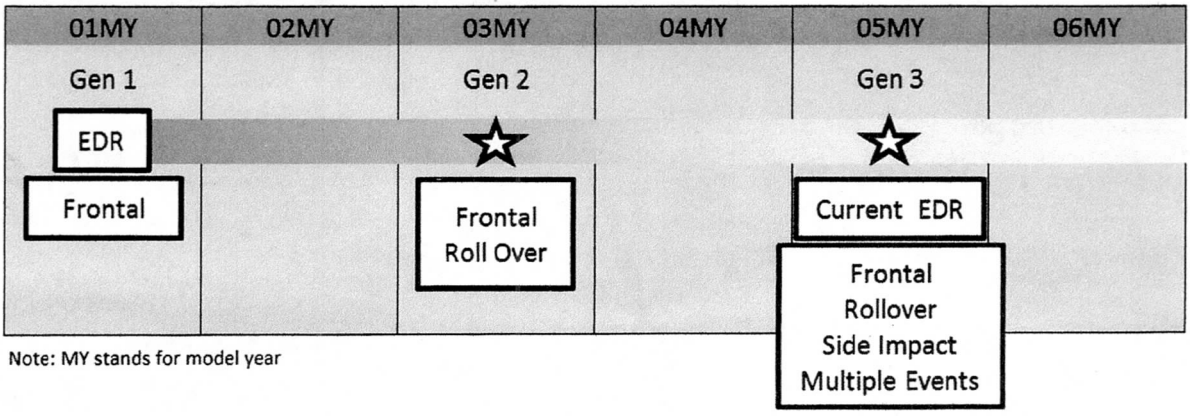


Event Data Recorder - Reference Document

An Event Data Recorder (EDR) is a part of the Supplemental Restraint System (SRS) ECU that records data for some types of collision events for future safety research or analysis. The EDR will record data when the vehicle experiences a rapid change in speed that exceeds a specified threshold. The threshold to start recording is above changes in speeds that are considered normal driving use. For example, stopping hard with the brakes would not cause a recording, but hitting a curb may. EDRs were installed on Toyota/Lexus/Scion vehicles because they have the capability to serve several purposes, such as assisting in vehicle development, quality control and/or safety research. An EDR is also helpful in determining the circumstances that caused an airbag to be deployed or not deployed.

EDR Generations

Starting with the 2001 Lexus LS400, EDRs were incorporated into to all Toyota, Lexus and Scion vehicles by 2007. SRS ECUs with EDRs were typically installed at full model change years, which generally occur every 4 to 6 years, depending on the model. The chart below outlines the three generations of EDRs installed on Toyota, Lexus, and Scion vehicles and what each EDR generation is capable of recording.



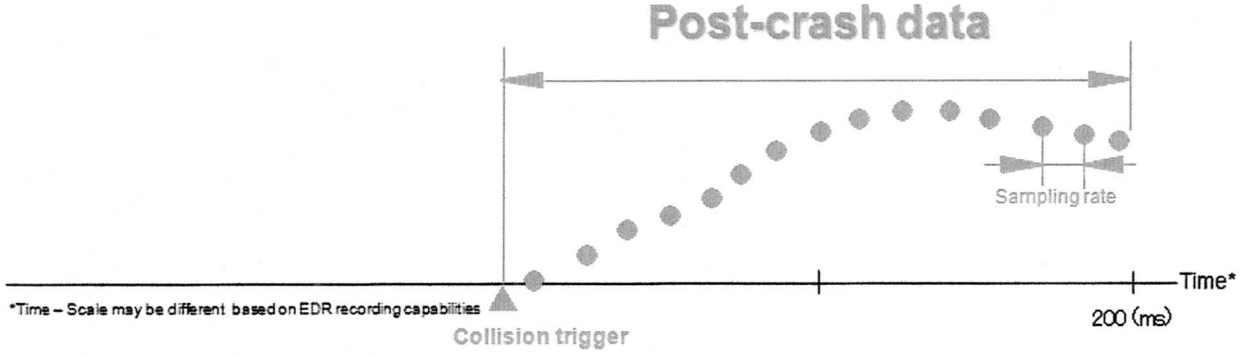
Note: MY stands for model year

Post-Crash & Pre-Crash data

Post-Crash Data - All vehicles equipped with an EDR will record post-crash data

If an impact occurs that has exceeded the rapid change in speed threshold, the EDR system will begin to record data for varying lengths of time depending on the parameters it is capable of recording. Figure 1 shows a collision 'trigger' and the data sampling rate recorded in the EDR.

Figure 1



BOSCH

CDR CRASH DATA RETRIEVAL

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	2T1KR32E28C[redacted]
User	Kelley D. Monroe
Case Number	[redacted]
EDR Data Imaging Date	12/03/2013
Crash Date	10/26/2013
Filename	2T1KR32E28C[redacted]12032013_EDR_ACM.CDRX
Saved on	Tuesday, December 3 2013 at 14:28:35
Collected with CDR version	Crash Data Retrieval Tool 12.1
Reported with CDR version	Crash Data Retrieval Tool 12.1
EDR Device Type	Airbag Control Module
Event(s) recovered	Front/Rear (2)

Comments

No comments entered.

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 the airbags did not deploy or the pretensioners did not operate during an event that meets a specified recording threshold, it is called a Non-Deployment Event. Data from a Non-Deployment Event can be overwritten by a succeeding event that meets the specified recording threshold. If the airbag(s) deploy or the pretensioners are operated, it is called a Deployment Event. Deployment Event data cannot be overwritten or deleted by the airbag ECU following that event.
- 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 TechStream, 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 seven 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
- 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 records post-crash data and may record pre-crash data in the event of a frontal/rear crash. In addition, it may record post-crash data in the event of a side crash or rollover.
- The airbag ECU has the following recording pages (memory maps) for each accident type to store event data: three pages for frontal or rear crash, one page for a side crash (if airbag ECU is applicable) , and one page for rollover events. (if airbag ECU is applicable)
- The data recorded by the airbag ECU in the event of a frontal/rear crash includes information that indicates the sequence and interval of each previously-occurring frontal/rear crash event.
  - Time from Previous TRG
  - TRG Count
- The point in time at which the recording trigger is established is regarded as time zero for the recorded data. For the time indicated in "Lateral Delta-V", "Roll Angle" or "Lateral Acceleration", the first sampling point after the recording trigger establishment is regarded as time zero. The time zero of the data and the recording trigger establishment do not always occur simultaneously.

- 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.
- The sampling interval of "Roll Angle" and "Lateral Acceleration" is 8 [ms] or 128 [ms]. A field indicating the sampling interval is not provided. The graph scaling can assist with derterming the sample rate. The time zero is indicated by count (0).
- The data sampling interval and data recording period may be 1.024 times depending on the ECU specifications.
- "Prior Event" is the event that occurred before the "1st Prior Event" that reached the greatest MAX Delta-V. Therefore, "Prior Event" is not always the prior event of "1st Prior Event".

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
Max. Longitudinal Delta-V	Forward
Longitudinal Delta-V	Forward
Max. Lateral Delta-V , B-Pillar Sensor	Outside to Inside
Max. Lateral Delta-V , C-Pillar Sensor	Outside to Inside
Lateral Delta-V , B-Pillar Sensor	Outside to Inside
Lateral Delta-V , C-Pillar Sensor	Outside to Inside
Lateral Delta-V , Airbag ECU Sensor	Left to Right
Roll Angle Peak	Clockwise Rotation
Roll Angle	Clockwise Rotation
Lateral Acceleration , Airbag ECU Sensor *	Right to Left

* For sensing a rollover

Data Definitions:
1)
- The "ON" setting for the "Freeze Signal" indicates a state in which the non-volatile memory can not be overwritten or deleted by the airbag ECU. After "Freeze Signal" has been turned ON, subsequent events will not be recorded.
- "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.
- "Recording Status, All Pages" does not consider the recording state of the side crash. Even if the side crash page writing process is interrupted, "Recording Status, All Pages" may display "Complete". If the writing of the frontal/rear crash page or rollover page is interrupted, "Recording Status, All Pages" may be displayed as "Incomplete".
- "Time to Deployment Command" indicates the time between recording trigger establishment and the determination of airbag deployment. This value may differ from the actual time it takes for the airbag to fully deploy. In the case of multiple crash, this item records the information of the first airbag which had been determined to deploy from Frontal/Rear impact TRG. It is necessary to confirm this record with an actual vehicle state.
- Even if an airbag/pretensioner did not deploy due to the "front passenger airbag disable switch and/or "RSCA Disable Switch" in the ON position or other disabling criteria are met, the "Time to deployment command" data element for that airbag/pretensioner may still be recorded.
- "Engine RPM" indicates the number of engine revolutions, not the number of motor revolutions. The recorded value has an upper limit of 6,000 rpm. Resolution is 400 rpm and the value is rounded down and recorded. For example, if the actual engine speed is 799 rpm, the recorded value will be 400 rpm.
- The upper limit for the recorded "Vehicle Speed" value is 126 km/h (78.3mph). Resolution is 2km/h (1.2mph) 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
- The "Accelerator Rate" value is recorded as a voltage or level. In the case of voltage, the voltage increases as the driver depresses the accelerator. In case of the level, the following three levels are recorded.
  - FULL / MIDDLE / OFF
- "Accelerator Rate" may be recorded as "OFF" even if the accelerator pedal is depressed lightly. In addition, "FULL" may be recorded when the accelerator pedal is depressed strongly but not fully.
- The "Drive" setting for the "Shift Position" value indicates the shift position state is other than "R,"(Reverse), "N" (Neutral), or "P" (Park).
- Depending on the type of occupant sensor installed in the vehicle, one of the following three recording formats for "Occupancy Status, Passenger" will be utilized.
  - Occupied / Not Occupied
  - Adult / Child / Not Occupied
  - AM50 / AF05 / Child / Not Occupied
- Resolution of the "Air Bag Warning Lamp ON Time Since DTC was Set" is 15 [min] or 15.36[min] for ECUs with 1.024 data sampling intervals, and the value is rounded down and recorded.
- "Longitudinal Delta-V" indicates the change in forward speed after establishment of the recording trigger. 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 recording

trigger.

- "Roll Angle peak" may not always match the peak value within the "Roll Angle" sampling points due to differences in data calculation method.
- For "Lateral Delta-V", the sensor location (B-pillar, front door, C-pillar, and slide door) shows the outline of a typical sensor position. Sensory location can be confirmed using the repair manual.
- "TRG Count" indicates the number of frontal/rear recording triggers that have been established. The calculated value does not include the number of times side or rollover recording triggers have been established. The sequence in which each frontal/rear event occurred can be verified from the "TRG Count". The lesser the "TRG Count" value, the older the data. The upper limit for the recorded value is 254 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 100[ms] or 102.4[ms] for ECUs with 1.024 data sampling intervals, and the value is rounded down and recorded.
- For "Time from Previous TRG", the recording trigger of side crash and rollover is not considered. The upper limit for the recorded value is 5000 [ms] or 5120 [ms] for ECUs with 1.024 data sampling intervals. Resolution is 20 [ms] or 20.48 [ms] and the value is rounded down and recorded.
- If 2 or more frontal/rear events occur successively within a period of 5000ms (or 5120ms for ECUs with 1.024 data sampling intervals), the actual sample time before the trigger is not displayed for subsequent events. The sample time before trigger will only be displayed for the first event of the successive events. For subsequent events (i.e second event or later events), the pre-crash "Time (sec)" data is replaced by integers -5 through -1 and the heading "Time (sec)" is replaced with "Sample Count". The time between "Sample Count" integers (-5 through -1) cannot be determined. The time between the last integer and TRG cannot be determined.

System Status at Time of Retrieval

ECU Part Number	89170-01060
ECU Generation	02EDR
Recording Status, All Pages	Complete
Diagnostic Trouble Codes Exist	No
Total Number of Front/Rear Crash Events	2
Freeze Signal	OFF

Front/Rear Event Record Summary at Retrieval

Events Recorded	TRG Count	Crash Type	Time (msec)	Event & Crash Pulse Data Recording Status
Most Recent Frontal/Rear Event	2	Front/Rear Crash	0	Complete (Front/Rear Page 1)
1st Prior Frontal/Rear Event	1	Front/Rear Crash	-410	Complete (Front/Rear Page 0)

System Status at Front Airbag Deployment

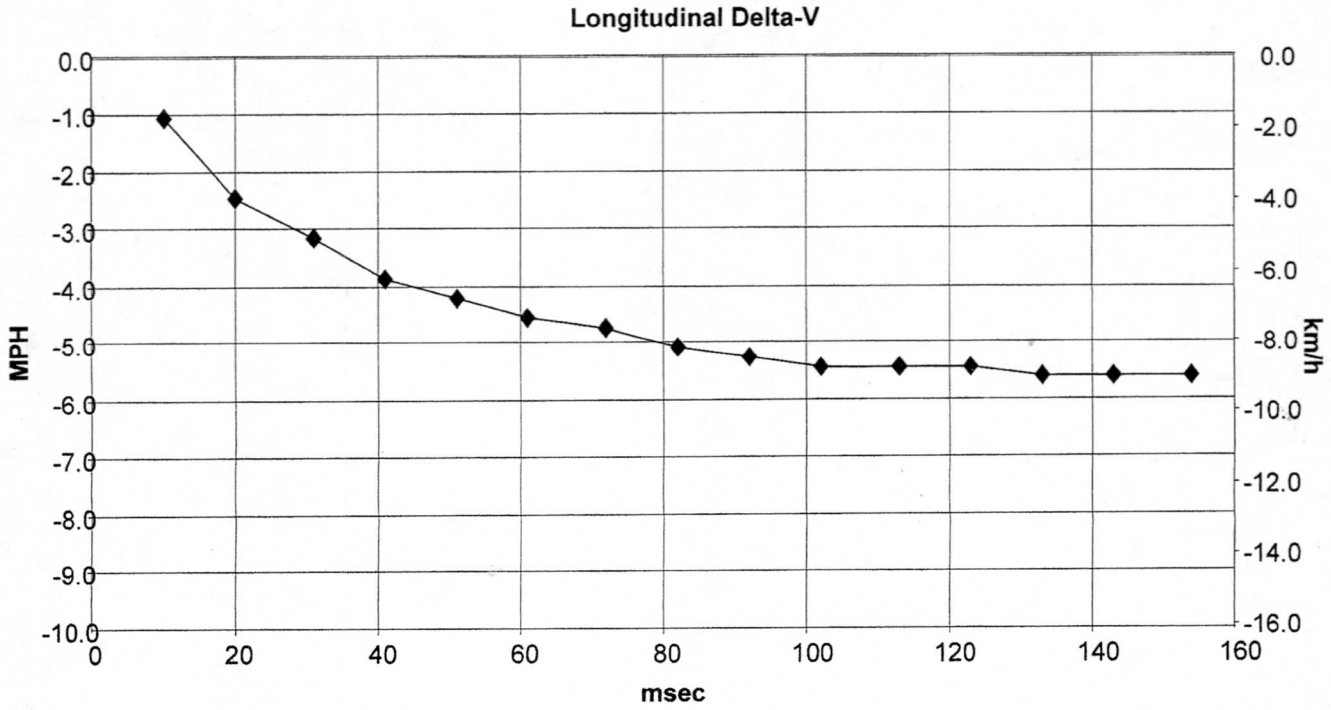
Time to Deployment Command, Front Airbag, Driver (msec)	Not Commanded
Time to Deployment Command, Front Airbag, Passenger (msec)	Not Commanded
Event Severity Status, Driver	N/A
Event Severity Status, Passenger	N/A

System Status at Event (Most Recent Frontal/Rear Event, TRG 2)

Recording Status, Front/Rear Crash Info.	Complete
TRG Count	2
Time From Previous TRG (msec)	410
Buckle Switch, Driver	Belted
Buckle Switch, Passenger	Belted
Occupancy Status, Passenger	AF05
Seat Position, Driver	Forward

Longitudinal Crash Pulse (Most Recent Frontal/Rear Event, TRG 2 - table 1 of 2)

Max Longitudinal Delta-V (MPH [km/h])	-5.6 [-9.0]



Longitudinal Crash Pulse (Most Recent Frontal/Rear Event, TRG 2 - table 2 of 2)

Time (msec)	Longitudinal Delta-V (MPH [km/h])
10.24	-1.1 [-1.7]
20.48	-2.5 [-4.0]
30.72	-3.2 [-5.1]
40.96	-3.9 [-6.2]
51.20	-4.2 [-6.8]
61.44	-4.6 [-7.3]
71.68	-4.7 [-7.6]
81.92	-5.1 [-8.2]
92.16	-5.3 [-8.5]
102.40	-5.4 [-8.8]
112.64	-5.4 [-8.8]
122.88	-5.4 [-8.8]
133.12	-5.6 [-9.0]
143.36	-5.6 [-9.0]
153.60	-5.6 [-9.0]

DTCs Present at Start of Event (Most Recent Frontal/Rear Event, TRG 2)

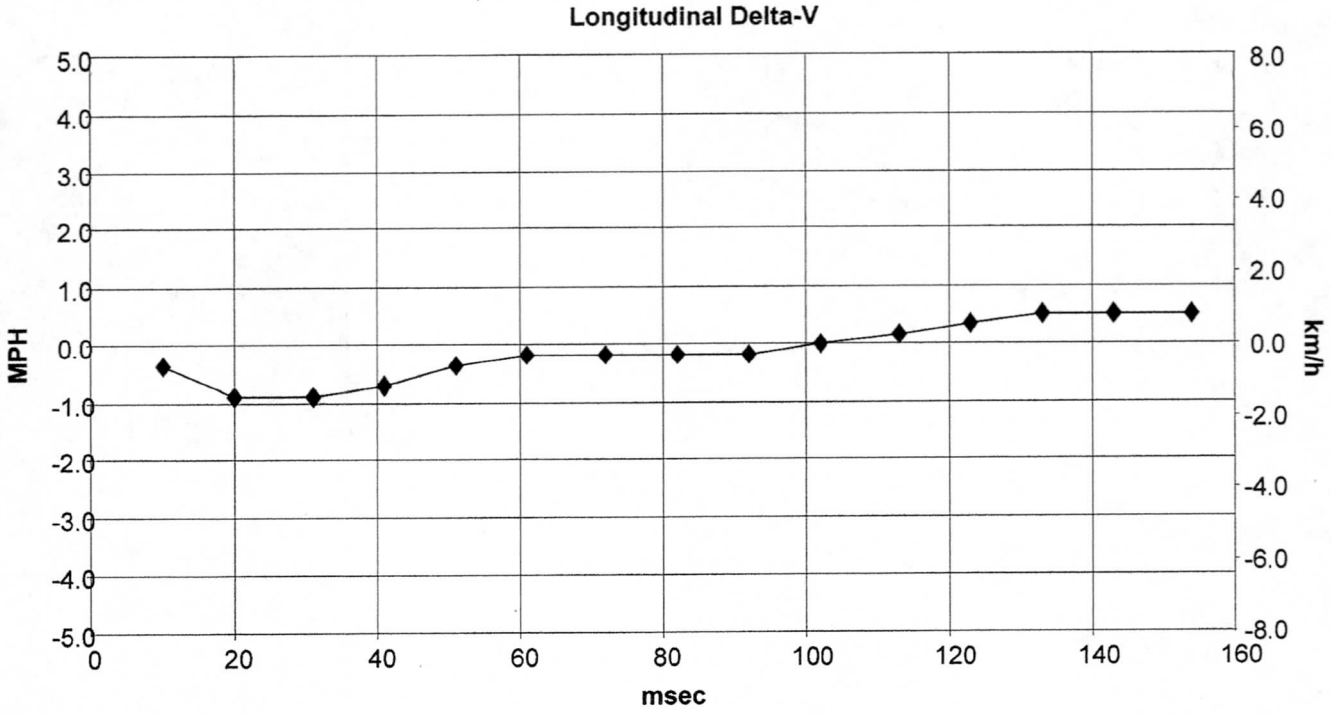
Ignition Cycle Since DTC was Set (times)	2047
Airbag Warning Lamp ON Time Since DTC was Set (min)	15
Diagnostic Trouble Codes	None

System Status at Event (1st Prior Frontal/Rear Event, TRG 1)

Recording Status, Front/Rear Crash Info.	Complete
TRG Count	1
Time From Previous TRG (msec)	5120 or greater
Buckle Switch, Driver	Belted
Buckle Switch, Passenger	Belted
Occupancy Status, Passenger	AF05
Seat Position, Driver	Forward

Longitudinal Crash Pulse (1st Prior Frontal/Rear Event, TRG 1 - table 1 of 2)

Max Longitudinal Delta-V (MPH [km/h])	-0.9 [-1.4]



Longitudinal Crash Pulse (1st Prior Frontal/Rear Event, TRG 1 - table 2 of 2)

Time (msec)	Longitudinal Delta-V (MPH [km/h])
10.24	-0.4 [-0.6]
20.48	-0.9 [-1.4]
30.72	-0.9 [-1.4]
40.96	-0.7 [-1.1]
51.20	-0.4 [-0.6]
61.44	-0.2 [-0.3]
71.68	-0.2 [-0.3]
81.92	-0.2 [-0.3]
92.16	-0.2 [-0.3]
102.40	0.0 [0.0]
112.64	0.2 [0.3]
122.88	0.4 [0.6]
133.12	0.5 [0.8]
143.36	0.5 [0.8]
153.60	0.5 [0.8]

DTCs Present at Start of Event (1st Prior Frontal/Rear Event, TRG 1)

Ignition Cycle Since DTC was Set (times)	2047
Airbag Warning Lamp ON Time Since DTC was Set (min)	15
Diagnostic Trouble Codes	None

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 00 00 01
01	00
03	30 31 30 36 30 30 30 30 30 31 30 30 30 30 31
04	02 02 01 01
05	02
06	00
20	80 00 00 01
21	00 01
40	C0 00 E0 01
41	54 57
42	77
51	00
52	99 FF 00
53	FF
60	00 00 00 01
80	00 00 00 01
A0	00 00 00 01
C0	00 00 00 01
E0	C0 10 00 00
E1	00 00
E2	00 5B 1F 11 00
EC	00

EEPROM

Address	Data (-- = data not imaged from ECU) (** = no response from ECU)
0	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
10	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
20	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- 07 FF
30	00 00 FF FF 00 00 00 01 FF FF 00 00 FD 00 FF FF
40	AA 02 28 03 00 00 00 FF 00 FE 00 FF 00 00 00 00
50	00 00 00 FF 00 FF 00 FF 00 FF 00 00 00 00 00 FF
60	00 FA 00 01 00 70 00 00 00 00 00 00 00 00 00 00
70	00 00 07 FF 00 01 AA AA AA 06 28 08 00 04 00 04
80	00 02 00 02 00 01 00 02 00 01 00 01 00 00 00 00
90	00 01 00 00 00 00 00 02 00 14 00 02 00 70 00 00
A0	00 00 00 00 00 00 00 00 00 00 07 FF 00 01 AA AA
B0	FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
C0	FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D0	FF FF FF 00 FF FF FF FF FF FF FF FF FF FF FF FF
E0	FF FF FF FF FF FF FF FF

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.