ANN ARBOR POLICE DEPARTMENT
JUSTICE CENTER, 301 E. HURON ST.
ANN ARBOR MI 48104
734.794.6930

Case Report

Administrative Details:

CR No 230003295	Subject C3155 - Personal Injury Traffic Crash PIA
Report Date/Time 01/24/2023 09:48	Occurrence Date/Time 01/24/2023 09:48
Location N MAIN ST&E KINGSLEY ST	Call Source PHONE
Dispatched Offense C3155 Personal Injury Traffic Crash PIA	Verified Offense C3155 Personal Injury Traffic Crash PIA
OIC Hoffman, Christopher (AAHOFFMANC-50802)	OIC Contact Number
County 81 - Washtenaw	City/Twp/Village 89 - Ann Arbor
Division Special Services	

Action Requested:

[ ] Arrest warrant
[ ] Review only
[ ] Search warrant
[ ] Forfeiture
[ ] Juvenile petition
[ ] Other

Offenses:

C3155 - Personal Injury Traffic Crash PIA [AADATTOLOA (08400)]

IBR Code / IBR Group	Offense File Class	
/		
Crime Against	Location Type	Offense Completed
	13 - Highway/Road/Alley/Sidewalk	Not Applicable
Domestic Violence	Hate/Bias	
No	00 - None (No Bias)	
Using		Cargo Theft
A-Alcohol: No C-Computer Equipment: No D-Drugs/Narcotics: No		

People:

LEDUC, JOSHUA MATTHEW (W-WITNESS) [AADATTOLOA (08400)]

PE:	W.Type:	Last Name	First Name	Middle Name	Suffix	Mr/Mrs/Ms
	EY	LEDUC	JOSHUA	MATTHEW		

Aliases	Driver License#	DL State	DL Country	Personal ID#
	[redacted]	[redacted]	USA	

DOB (Age)	Sex	Race	Ethnicity	Birth City & State	Birth Country	Country of Citizenship
[redacted] (34)	M	UNKNOWN				

Complexion	Build	Teeth	Height	Weight	Attire
			6' 4"	290	

Street Address	Apt #	County	Country	Home Phone	Work Phone
[redacted]				UNKNOWN	

City	State	Zip	Cell Phone	Email
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

LEDUC, NICOLE MARIA (W-WITNESS) [AADATTOLOA (08400)]

PE:	W.Type:	Last Name	First Name	Middle Name	Suffix	Mr/Mrs/Ms
	MS	LEDUC	NICOLE	MARIA		

Aliases	Driver License#	DL State	DL Country	Personal ID#
	[redacted]	[redacted]		

DOB (Age)	Sex	Race	Ethnicity	Birth City & State	Birth Country	Country of Citizenship
[redacted] (29)	F	WHITE				

Complexion	Build	Teeth	Height	Weight	Attire
			5' 5"	140	

Street Address	Apt #	County	Country	Home Phone	Work Phone
[redacted]				UNKNOWN	

City	State	Zip	Cell Phone	Email
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CLEARY, ANNE KATHERINE (O-OTHER) (PE-PEDESTRIAN) [AADATTOLOA (08400)]

PE:	W.Type:	Last Name	First Name	Middle Name	Suffix	Mr/Mrs/Ms
		CLEARY	ANNE	KATHERINE		

Aliases	Driver License#	DL State	DL Country	Personal ID#
	[redacted]	MI		

DOB (Age)	Sex	Race	Ethnicity	Birth City & State	Birth Country	Country of Citizenship
[redacted] (24)	F	WHITE				

Complexion	Build	Teeth	Height	Weight	Attire
			5' 2"	115	

Street Address	Apt #	County	Country	Home Phone	Work Phone
[redacted]					

City	State	Zip	Cell Phone	Email
[redacted]	[redacted]	[redacted]		

RENTZ, GREGORY HAYDEN (O-OTHER) (D-DRIVER) [AADATTOLOA (08400)]

PE:	W.Type:	Last Name	First Name	Middle Name	Suffix	Mr/Mrs/Ms
		RENTZ	GREGORY	HAYDEN		

Aliases	Driver License#	DL State	DL Country	Personal ID#
	[redacted]	MI		

DOB (Age)	Sex	Race	Ethnicity	Birth City & State	Birth Country	Country of Citizenship
[redacted] (38)	M	WHITE				

Complexion	Build	Teeth	Height	Weight	Attire
			6' 0"	200	

Street Address	Apt #	County	Country	Home Phone	Work Phone
[redacted]				UNKNOWN	

City	State	Zip	Cell Phone	Email
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Property:

3501 - Automobile/Car/Vehicle (not Stolen Or Recovered) 5403 [AAPETTERLEK (30900)]

Property Class	IBR Type	UCR Type
03	03 - Automobiles	V - Other Vehicle (not Stolen or Recovered)

Status	Count	Value
I - Information Only	1	1

Manufacturer	Model	Serial No.	License No.	Color
JEEP	PATRIOT	[redacted]	6NLK41	

Vehicle Year	Body Style	State	License Year
2015		MI	2023

Description	Disposition	Evidence Tag
2015 Jeep Patriot MI-6NLK41		

Recovered Date/Time	Location	Owner
		[O40534261] RENTZ, GREGORY HAYDEN

Narrative:

CR No: 230003295-001 Written By: AADATTOLOA (08400) Date: 01/29/2023 01:36 PM

REPORT: On January 24th, 2023, while assigned to 1C1, I responded to N. Main St. and W Kingsley St, in reference to an injury accident involving a pedestrian.

CAD INFORMATION: WDWROCKJ - 09:48:49 - CAR VS PEDWDWROCKJ - 09:48:49 - TOW BEAT: BREW
WDWROCKJ - 09:48:55 - PED ON GROUND NOT MOVING
WDWROCKJ - 09:49:01 - CHEROKEE
WDWROCKJ - 09:49:05 - FEMALE PED
WDLUNSFORDN - 09:49:18 - TOT'D HVA
WDSMITHB - 09:49:28 - FEMALE IS AWAKE/ BREATHING PER MY CLR
WDLUNSFORDN - 09:49:30 - THIS WITNESS [redacted]
WDWROCKJ - 09:49:31 - VEH STILL ON SCENE - MI/6NLK41
WDSMITHB - 09:49:56 - MY CLR IS OUT W/ FEMALE - TOTD TO HVA
WDLUNSFORDN - 09:50:47 - DRIVER OF THE CAR CALLING -- GREGORY RENTZ. SAYS HE HIT A PEDESTRIAN [redacted]

WDGILLEST - 09:52:15 - HVA ADVISED UNCONSCIOUS SUBJ, FIRE AND RIG 6 MIN ETA
WDGILLEST - 10:01:24 - SB MAIN SHUT DOWN FR KINGSLEY TO MILLER
WDLUNSFORDN - 10:02:10 - MAIN S/O -- BREWERS
WDLUNSFORDN - 10:02:36 - TRIANGLE....
WDGILLEST - 10:10:43 - CXL TRI
WDGILLEST - 10:38:14 - NOTIFY MDOT AND AATA, SHOULD BE CLOSED FOR APPROX AN HR
WDGILLEST - 10:38:33 - AATA NOTIFIED
WDGILLEST - 12:28:30 - PER 1C1 REQ BREWERS
WDGILLEST - 12:29:10 - BREW ENR
WDGILLEST - 13:09:46 - UM
WDGILLEST - 13:09:52 - UM

INITIAL SCENE: Upon arrival to the area of N. Main St. and W. Kingsley St, I observed a Jeep Cherokee parked on N. Main St., in the far-right lane of traffic, facing south, two citizens flagging me down.

The injury pedestrian, later identified as Anne Cleary, who was found unresponsive lying face down, with her feet towards N. Main St. and head towards the sidewalk. After notifying Metro Dispatch of the findings and an emergent request for HVA, I checked the immediate area for any evidence that would have contributed to Anne's apparent severe injury. Upon approach, I observed Anne with a small laceration to the forehead, and lying underneath her head in the snow-covered ground, was a metal traffic sign leg. After checking Anne and confirming she had a pulse, although unconscious, she displayed mannerisms of a person with a possible closed head injury. Anne was stayed with until AAFD and HVA's arrival.

STATEMENT FROM WITNESS (Joshua Leduc): Joshua stated he was driving with his wife, witness, Nicole Leduc, in the passenger seat. Joshua said when the collision occurred, they were driving through the intersection of N. Main St. and W. Kingsley, and they were in the far-right lane of southbound traffic on N. Main St. Joshua stated he wasn't sure, but he thinks the driver of the vehicle that hit the woman made a left turn from E. Kingsley St., onto southbound N. Main St. Joshua said he didn't think the driver was driving any faster than 25 mph, and the traffic light turn green for north and southbound traffic right after the accident. Joshua said when the accident occurred, he immediately pulled over to check on the injured pedestrian.

STATEMENT FROM WITNESS (Nicole Leduc): Nicole was asked if she saw what occurred and she stated she only noticed what looked like a vehicle hit a tree. Nicole said she noticed it was a

pedestrian after it occurred.

ADDITIONAL INFORMATION: When responding to the scene, I parked my fully marked patrol vehicle just south of the intersection of N. Main St. and W. Kingsley St. Once HVA transported Anne Cleary to the hospital and Sgt. Kory Petterle, Ofc. Hoffman, and Ofc. Wells started the accident scene investigation; I monitored the southbound traffic on N. Main St. and the westbound traffic on E. Kingsley St.

BWC/IN-CAR: Yes

DISPOSITION: Report filed.

CR No: 230003295-002 Written By: AAPETTERLEK (30900) Date: 01/25/2023 09:50 AM

REPORT:

On 01/25/2023 at 0948 hrs I, Sgt. K. Petterle, responded to a report of a car vs. pedestrian crash in the area of N. Main St. and E. Kinglsey St.

-

INITIAL SCENE:

Upon my arrival Ofc. Dattalo was already on scene and had requested HVA/AAFD step up their response as the pedestrian who had been struck, identified as Anne Cleary, was still unconscious. I observed Cleary on the ground, laying on the sidewalk extension between the sidewalk and curb along the west side of N. Main St. about 40 feet south of Kingsley St. Cleary had a head laceration to the left of her forehead. She was not alert and appeared to potentially be having a seizure, with minor convulsions and arm flexing occurring. I remained with Cleary until AAFD arrived and took over care. HVA arrived shortly later and Cleary was transported to UM ER emergently.

-

Also on scene were two witnesses to the crash, they had stopped when they saw the crash and pulled their car to shield where Cleary had landed. Surveying the surrounding area I observed a tote bag, which When I checked I was able to locate Cleary's license which was sent with HVA. Also in the area was a broken to-go food container, food debris, and debris from the striking car. Parked further south in the driveway of 407 N. Main St. was a Jeep Patriot (the striking vehicle) Ofc. Dattalo was able to locate and speak with the driver. Gregory Rentz. After an initial field interview with Ofc. Dattalo, the driver went to AAPD for an additional interview (see below).

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CRASH INVESTIGATION RESPONSE:

Due the severity of Cleary's injuries an advance crash investigation would be required. I

contacted Ofc. Hoffman to respond as the primary investigation/reconstructionist. Additionally, I asked Ofc. Wells to respond to assist.

-

Once Ofc. Wells arrived, I used spray paint to mark items on the road to preserve their location. I marked the witness vehicle's location as well as where the striking vehicle stopped. I mark the location that Cleary was laying at. I also marked several items of debris in the roadway.

-

AAFD/HVA Response:

Battalion Chief: Buscemi

Rescue 1-1

HVA Rig 81-12

-

DRIVER STATEMENT of Gregory Rentz:

I spoke with Rentz in the front desk conference room at AAPD. Rentz was accompanied by his wife during this time as Rentz was distressed due to the crash. MY BWC was active during this interview and the video was added to the evidence.com case.

-

I asked Rentz where he was coming from and going to, he informed me he was going to a meeting at his child's preschool at [redacted]. He stated he took M14 and exited at N. Main St. travelling south with the intention of turning on W. Huron St.

-

I asked for details regarding where he was immediately before the crash. He stated that he was SB on N. Main St. in the right lane. He stated as he approached Kinglsey St. he saw the signal was green, he then was checking his mirrors and as he came closer to the signal he saw that it had cycled to yellow. He proceeded through the intersection due to how close he was to the intersection when he saw the cycle was yellow. He estimated he may have been 1 - 2 car lengths back from the crosswalk on the north side of the intersection when he observed this. He stated he never saw Cleary approaching or in the crosswalk until he struck her. He stated after striking Cleary he pulled over and called 911.

-

I asked about other vehicles around him, he stated there was no one ahead of him but there was traffic in the SB lane to his left. He stated that's what he was checking for as he approached the signal at Kingsley St. I asked Rentz about how fast he was travelling and he commented that he normally sets his cruise control about 5 mph over the limit. He estimated he may have been driving at 35 mph.

-

I asked Rentz if he had consumed any alcohol, he stated no. No signs of intoxication were observed during my contact with him. Rents commented that he was in recovered and had been sober for several months. I inquired if he was taking any medications that may affect his ability to drive a vehicle or had used and illegal drugs. He stated no to both.

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See my BWC for the full interview.

-

VEHICLE CONSENT TO SEARCH:

I explained to Rentz that as part of crash investigations we like to investigate the vehicle(s) involved and part of that includes imaging and analyzing the vehicle's EDR. I explained that the EDR can contain data from the crash (if captured) that can include speed prior to the crash, seat belt usage, steering and braking input. I informed Rentz he was not obligated to provide consent, but asked if he would. Rentz agreed and signed a written consent to search form for his vehicle. This form was turned over to Ofc. Hoffman.

-

DISPOSITION:

Report Filed

CR No: 230003295-003 Written By: AAHOFFMANC (50802) Date: 04/26/2023 10:43 AM

REPORT: I, Detective Hoffman, am a trained traffic accident reconstructionist with the Ann Arbor Police Department. On 01/24/2023, I was dispatched to conduct a personal injury traffic crash which occurred at N Main St. & Kingsley.

LOCATION: N Main St runs north and south and intersects with Kinglsey which runs east and west. Beakes St also intersects with N Main St and Kinglsey St, merging from the northeast of the intersection. Beakes St does not continue southwest but ends at the intersection with Main/Kingsley.

Main St is a four-lane road with two lanes southbound, a middle turn lane, and a single northbound lane. The speed limit on N Main St is 30mph. Beakes St is two lanes with one lane southwest and one lane northeast. The speed limit on Beakes St is also 30mph. Kinglsey St is two lane road. One lane eastbound and one lane westbound. The speed limit on Kinglsey is 25mph.

OBSERVATIONS: Upon arrival I located a debris field mainly in the curb lane of southbound Main St traffic, south of Kinglsey. I also observed a Jeep Patriot south of the accident site which

had come to a controlled stop. The pedestrian was not on scene and had previously been transported to the University of Michigan Hospital.

INVESTIGATION: Upon arrival, I used the AAPD AI Team camera and took photographs of the accident scene. I then used Leica GNSS surveying system to map and measure the scene and surrounding roadway.

PHOTOGRAPHS: I took photographs of the accident scene and of the Jeep Patriot. The photographs were entered into Evidence.com.

DRIVING HISTORY: [redacted]

EVENT DATA RECORDER (EDR): Rentz was driving a 2015 Silver Jeep Patriot with VIN [redacted]. The vehicle is registered in Michigan under plate # 6NLK41[redacted]

EDR: Sgt. Petterle obtained a consent to search of the Jeep Patriot's EDR. Please refer to Sgt. Petterle's report for further details on the consent to search. I conducted the EDR imaging and recovered saved data. However, the data imaged was not from the recent pedestrian crash. The ignition cycle at time of download was 13989 and the ignition cycle at the time of the saved crash data was 9648. The large gap in the two numbers indicates the saved crash data was from a much earlier traffic accident. No data was recorded from the accident on 1/24/2023. A copy of the EDR has been saved to this report.

RECONSTRUCTION: I, Detective Hoffman, was assigned an accident reconstruction of a one vehicle, one pedestrian injury accident. The following are the facts and findings based upon my investigation.

The crash occurred on N Main St and the intersection of Kingsley and Beakes St. At this intersection N Main St has 4 lanes with a posted speed limit of 30mph. The crash occurred during the morning of 1/24/2023 on dry concrete. There was little cloud cover and the sun/natural light allowed for clear visibility in the area. This time of day, the sun was rising in the east and did not interfere with the visibility of southbound traffic. The sun possibly could have interfered with the pedestrian's, Anne Cleary's, visibility as she was walking eastbound.

The vehicle involved was a 2015 Jeep Patriot. An inspection of the exterior of the vehicle revealed no obvious mechanic issues. The tires were uniform and had adequate tread. Damage to the vehicle is consistent with a vehicle striking a pedestrian. Damage to the Jeep Patriot is consistent with a pedestrian striking the front right portion of the vehicle. Briefly interacting with the hood of the vehicle before fall to the side of the vehicle. The pushed in side mirror, bent radio antenna, and damage pattern all indicate this path of travel for the pedestrian. This form of pedestrian kinematics is known as a fender vault which most commonly occurs at speeds of 25mph, however, fender vaults can occur at slightly higher or slightly lower speeds also. This information is gathered from "Pedestrian Post-Impact Kinematics and Injury Patterns" by Ravani, Mason and Brougham, SAE 811024.

The vehicle was further inspected while in impound. The vehicle's EDR was imaged to determine if any information was captured from the crash. The EDR was imaged using the Bosch CanPlus tool and Bosch EDR software. The Jeep Patriots EDR did report one crash however, as stated prior, the saved data was from a prior triggering event. No data was saved from the accident on 01/24/2023.

Rentz stated he did not see the pedestrian, Cleary, until she approached the crosswalk. This statement, coupled with the damage to the vehicle would indicate Cleary had just begun to enter the crosswalk. Without knowing exactly where Clearly was standing, The crosswalk is 8 feet in width, measurements to Cleary's final rest were taking from the extreme southern edge and the extreme northern edge of the crosswalk. These measurements gave a range of the slowest possible speed and the highest possible speed which the Jeep Patriot would have traveled.

The maximum distance thrown from the northern edge of the cross walk was 38.717ft and the minimum distance thrown was 30.361.

The above distances were used to calculate the three Searle formulas to estimate vehicle speed at impact. Also used in Searle's formulas was a .66 drag factor. Searle's experiments showed this to be the most common drag factor for pedestrians. I also did a calculation using .79drag factor to determine the fastest speed possible the Jeep Patriot could have been traveling. Printout of all calculations have been added to the attachments section of this report. The slowest speed the Jeep Patriot could have been traveling was using a .66f and a distance of 30.361ft. These numbers reveal a minimum speed of 20.44mph. The highest speed obtained using a .66f and a distance of 38.717ft was 27.66mph at impact. Using the high end of pedestrian drag factors of .79f and the higher distance of 38.717ft, revealed a min speed of 23.75mph and a maximum speed of 30.26mph at impact. These results indicate excessive speeds do not appear to be a factor in the traffic crash.

Rentz stated he observed the traffic light turn yellow while he was two car lengths north of the intersection. traveling at the posted speed limit of 30mph, a vehicle traverses 43.98fps. Rentz

would have been legally allowed to drive through the intersection as stopping abruptly would not have been safe or prudent. The witness, Joshua Leduc, stated he was southbound on N Main St and believed Rentz turned onto N Main from Kinglsey at 25mph. Leduc then stated immediately after the accident the light for N Main St turned green. The two above statements appear to be at odds with each other. It should be noted a vehicle driving from Brighton, such a Rentz stated, to downtown Ann Arbor would most likely have exited on N Main and traveled south. There would be no reason for the vehicle to travel on Kinglsey unless Rentz stopped elsewhere prior to the accident.

The status of the traffic light could not be determined from Rentz or Leduc's statements. The area was canvassed for camera's which could have seen the traffic accident. Several cameras were located but did not catch the area where the traffic accident occurred. Due to no video evidence, it can not be definitively determined, if Rentz obeyed or disobeyed the traffic control devices. Conversely it can not be determined if Clearly obeyed or disobeyed the pedestrian control devices.

In conclusion, I can not definitively determine who disregarded the traffic or pedestrian control devices. I can only conclude speed was not the determining factor in the above traffic accident. As such no charges are requested at this time.

RELEVENT LAWS: Releveant to this case is MCL 257.612 which instructs motorists to obey traffic control devices. MCL 257.613 instructs pedestrians to obey pedestrian control signals.

STATUS: Closed.

Attachments:					
File Name	**File Type**	**Comments**	**Date**	**By**	**Role**
Attachments Included In This Report:					
SEARLE 1.pdf	pdf	SEARLE 1	04/27/2023 10:26 AM	HOFFMAN, CHRISTOPHER	INVESTIGATOR
SEARLE 2.pdf	pdf	SEARLE 2	04/27/2023 10:26 AM	HOFFMAN, CHRISTOPHER	INVESTIGATOR
SEARLE HIGH.pdf	pdf	SEARLE HIGH DRAG FACTOR	04/27/2023 10:26 AM	HOFFMAN, CHRISTOPHER	INVESTIGATOR
consent.pdf	pdf	CONSENT	04/27/2023 10:26 AM	HOFFMAN, CHRISTOPHER	INVESTIGATOR
[redacted]_ACM.PDF	pdf	EDR REPORT	04/27/2023 10:26 AM	HOFFMAN, CHRISTOPHER	INVESTIGATOR

" Searle Formula Results "

File Number: 23-3295

Formula (s):

$$V = \frac{\sqrt{2 \times \mu \times g \times d_t}}{\left[\cos\theta + (\mu \times \sin\theta)\right]} \qquad V_{min} = \sqrt{\frac{2 \times \mu \times g \times d_t}{1 + \mu^2}} \qquad V_{max} = \sqrt{2 \times \mu \times g \times d_t}$$

Formula Requirements:

Pedestrian's Throw Distance:	30.361 ft
Pedestrian's Takeoff Angle:	10 °
Pedestrian's Friction Value:	.66

NOTE:

Searle formula can use either imperial of metric values.

Formula Results:

Projectile (Speed / Velocity):	22.28 mph / 32.68 fps
Min Results (Speed / Velocity):	20.44 mph / 29.98 fps
Max Results (Speed / Velocity):	24.49 mph / 35.92 fps
Min / Max Average:	22.47 mph / 32.95 fps

Investigator: HOFFMAN

" Searle Formula Results "

File Number: 23-3295

Formula (s):

$$V = \frac{\sqrt{2 \times \mu \times g \times d_t}}{\left[\cos\theta + (\mu \times \sin\theta)\right]} \qquad V_{min} = \sqrt{\frac{2 \times \mu \times g \times d_t}{1 + \mu^2}} \qquad V_{max} = \sqrt{2 \times \mu \times g \times d_t}$$

Formula Requirements:

Pedestrian's Throw Distance:	38.717 ft
Pedestrian's Takeoff Angle:	10 °
Pedestrian's Friction Value:	.66

NOTE:

Searle formula can use either imperial of metric values.

Formula Results:

Projectile (Speed / Velocity):	25.16 mph / 36.90 fps
Min Results (Speed / Velocity):	23.09 mph / 33.86 fps
Max Results (Speed / Velocity):	27.66 mph / 40.57 fps
Min / Max Average:	25.37 mph / 37.22 fps

Investigator: HOFFMAN

" Searle Formula Results "

File Number: 23-3295

Formula (s):

$$V = \frac{\sqrt{2 \times \mu \times g \times d_t}}{\left[\cos\theta + (\mu \times \sin\theta)\right]} \qquad V_{min} = \sqrt{\frac{2 \times \mu \times g \times d_t}{1 + \mu^2}} \qquad V_{max} = \sqrt{2 \times \mu \times g \times d_t}$$

Formula Requirements:

Pedestrian's Throw Distance:	38.717 ft
Pedestrian's Takeoff Angle:	10 °
Pedestrian's Friction Value:	.79

NOTE:

Searle formula can use either imperial of metric values.

Formula Results:

Projectile (Speed / Velocity):	26.97 mph / 39.56 fps
Min Results (Speed / Velocity):	23.75 mph / 34.83 fps
Max Results (Speed / Velocity):	30.26 mph / 44.38 fps
Min / Max Average:	27.00 mph / 39.61 fps

Investigator: HOFFMAN

Ann Arbor Police Department

301 E. Huron, P.O. Box 8647, Ann Arbor, Michigan 48107-8647
Phone (734) 794-6900 FAX (734) 994-2850 Website: www.a2gov.org

CONSENT TO SEARCH

Incident #: 23-3295

Date & Time: 1/24/23

I, Gregory Rente, having been informed of my constitutional right not to have a search made of my person, property, the premises and/or automobile(s), specifically described as Jeep Patriot [redacted] located at Sakstrup's Towing 5600 S State St Ann Arbor MI without a search warrant and of my right to refuse to consent to such a search, hereby authorize the following officers and agents Sgt K. Petterle or other officer(s) of the (Officer's Title and Name) Ann Arbor Police Department

Search to include imaging/analysis of Event Data recorder & Physical inspection of vehicle

to conduct a complete search of my person, property, premises and/or automobile(s) located at Sakstrups Towing.

I authorize these officers to take any letters, papers, materials, or other property that they may desire, provided that a complete listing of those items is provided to me at the conclusions of the search. This written permission is being given by me to the above named persons voluntarily and without threats or promises of any kind.

Signature

Witness

Witness

RW/Forms
Consent to Search
06/11

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	[redacted]
User	CHOFFMAN
Case Number	230003295
EDR Data Imaging Date	02/07/2023
Crash Date	01/24/2023
Filename	[redacted]_ACM.CDRX
Saved on	Tuesday, February 7 2023 at 08:55:19
Imaged with CDR version	Crash Data Retrieval Tool 23.0.2
Imaged with Software Licensed to (Company Name)	Ann Arbor Police Department
Reported with CDR version	Crash Data Retrieval Tool 23.0
Reported with Software Licensed to (Company Name)	Ann Arbor Police Department
EDR Device Type	Airbag Control Module
Event(s) recovered	Most Recent Event

Comments

CONSENT SEARCH SIGNED BY R/O
230003295
CHOFFMAN 016
2015 Jeep
Patriot (= 4 && typeof(BSPSPopupOnMouseOver) == 'function') BSPSPopupOnMouseOver(event);" id=a79 class=BSSCPopup href="javascript:void(0);"note 11)
ACM
Data <Chrysler_MY2013_ACMs.htm>
CANplus
F00K108287
<F00K108387.htm> & Cable #808
Under center stack

Data Limitations

AIRBAG CONTROL MODULE (ACM) DATA LIMITATIONS:

GENERAL INFORMATION:

CAUTION: During direct-to-module imaging where the Airbag Control Module (ACM) is disconnected and removed from a vehicle, make sure the ACM is not moved, tilted or turned over while connected to and powered by the CDR Interface Module (with appropriate adaptors in place, where required). Also, after a CDR imaging process, wait 2 minutes after power is removed from the ACM before attempting to move the module. Not following these general ACM guidelines for direct-to-module imaging may cause new events to be recorded in the ACM.

- For additional definitions, please refer to the CDR Help File Glossary.
- As the VIN may be used to determine the configuration of the restraint system, it is imperative that the correct VIN be entered into the CDR Tool during the imaging process.
- If a DLC adapter has to be used with the CDR Tool, the "Read VIN from Vehicle" feature in the CDR Tool will not work. The VIN will have to be manually entered.
- If a 2021 or later MY Dodge Durango was imaged with a CDR Tool version 19.4 or older, the ACM will need to be reimaged as not all the peripheral sensor data will have been retrieved.
- The 2019 MY RAM 1500 may take up to 30 minutes to retrieve the EDR data. The ignition will time out within 20 minutes so the vehicle flashers must be turned on within 20 minutes to keep the ignition and communication bus active.
- Lateral Delta V will not be displayed for the 2013 MY Jeep Compass and Patriot.
- Ignition Cycle, download/crash
    - For RAMs and Dodge Vipers, there are 2 internal ignition counters in the ACM. It is possible for the ignition cycles at download to be different than the ignition cycles at event due to the 2 different counters.
    - Note that the ignition cycle count in an ACM may differ from the ignition cycle count in a Pedestrian Protection Module (PPM) in the same vehicle due to the fact that the ACM has an energy reserve while the PPM does not.

The following table provides an explanation of the sign notation for data elements that may be included in this CDR report. All directional references

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

Data Element Name	Positive Sign Notation Indicates
Delta-V, Longitudinal	Forward
Maximum Delta-V, Longitudinal	Forward
Delta-V, Lateral	Left to Right
Maximum Delta-V, Lateral	Left to Right
Angular Rate	Clockwise rotation around the longitudinal axis
Peripheral Sensors, X and Y	Outside to Inside
Pressure Sensors	Compression of air
Internal Y Acceleration	Left to Right
Low-g Z Acceleration	Downward
Steering Input	Steering wheel turned counter clockwise
Yaw Rate	Counter clockwise rotation

CDR FILE INFORMATION:

- An event will be stored when the delta V is approximately 5 mph (8 km/h) or greater within a 150 ms interval.
- For non-NAFTA ACMs that control pedestrian protection devices, a non-deployment event will be stored when the pedestrian protection devices are activated.
- A non-deployment event may be stored with activation of the Active Head Restraints. See AHR explanation under System Configuration at Retrieval/Event section.
- A deployment event may be stored in a 2019 MY+ Ram 3500 as the result of a rear impact, even though the Ram 3500 does not deploy any restraint system devices in a rear impact.

Event(s) Recovered definitions:
- None - There are no stored events in the ACM
- Not Retrievable - Event Data may be stored in the ACM but is not retrievable by the CDR Tool.
- Most Recent Event - Data of the most recent event is displayed in the report
- 1st Prior Event - Two events are stored in the ACM, Data displayed is of the first prior event.
- 2nd Prior Event - Three events are stored in the ACM, Data displayed is of the second prior event.
- For 2013 and 2014 MY Dodge Journey and Fiat Freemont:
    - Event Record 1 - Data from an event is stored in the ACM (not necessarily in chronological order)
    - Event Record 2 - Data from another event is stored in the ACM (not necessarily in chronological order)
- For TRW modules:
- If there is a side impact, two EDR events may be stored for the one side impact event. The second event may be recorded due to the Lateral Delta V exceeding 5 mph (8 km/h) within a 150 ms interval after the side deployment occurred.
- For some Fiat vehicles:
    - Two EDR events may be stored for one impact event. The second event may be recorded due to the deployment of the frontal airbag, 3rd stage passenger.
- During an event, if power to the ACM is lost, all or part of the event data record may not be recorded. An indication may be observed in the recorded data under this condition: The restraint data is recorded first and then the vehicle data.
    - "None" may be displayed in the "Event(s) Recovered" section of the report indicating no pre-crash vehicle data.
    - An event may be displayed in the "Event(s) Recovered" section of the report and "Interrupted" will be displayed for Pre-Crash Recorder Status.
- For the 2021MY Jeep Grand Cherokee L, an event may be displayed in the "Event(s) Recovered" section of the report as "End of Line Test event - See Data Limitations". This event is an End of Line test event from the module manufacturing process which will be included in the count for the total number of events, but no data will be displayed in the CDR Report.

SYSTEM STATUS AT RETRIEVAL:

- Original VIN - The VIN is captured by the ACM and then recorded as the Original VIN after 10 consecutive ignition cycles of capturing the same number. Once it has been recorded, this number cannot be changed.

SYSTEM CONFIGURATION AT RETRIEVAL/EVENT:

- The System Configuration data tables indicate the components that the ACM for a particular vehicle monitors and/or controls.
- Active Head Restraint (AHR) - This refers to some active head restraint systems that are electronically controlled by the ACM. AHRs may activate but not store an EDR Record if the delta V does not exceed the minimum delta V threshold. It is possible that the AHRs may activate after the EDR record has been stored and written, based on achieving the minimum delta V. This condition will result in an EDR but no record of the AHR activation in the CDR report. Activation of only the AHRs, if stored, will be a non-deployment event.

SYSTEM STATUS AT EVENT:

- Frontal Airbag Warning Lamp - In Veoneer modules, the airbag warning lamp may indicate ON at the time of a most recent event without any DTCs present if a deployment event has already occurred in the same ignition cycle. The ABWL will come on due to the deployment but, as there are still algorithms processing data, the actual faults will not be qualified yet and will not show up as DTCs.

- Number, Total Events - Cumulative number of events that the ACM has recorded, including those non-deployment events that have been overwritten by a subsequent event.
    - For the 2021MY Jeep Grand Cherokee L, the module will contain one, two, or three End of Line test events from the module manufacturing process which will be included in the count for the total number of events. However, the data from these End of Line test events will not be displayed in the CDR Report.
- Occupant Size Classification, Outboard Front Passenger - "Child" status may be used to indicate anything weighing less than a 5 th percentile female adult crash dummy, including an empty seat; "Not Child" indicates anything weighing the same as or more than a 5 th percentile female adult crash dummy. "SNA" indicates undetermined;
    - For some non-North American applications, "Empty" indicates an empty seat;
- Odometer at Event - Vehicle odometer at the time of the event
    - For 2014-2016 MY Fiat 500L, the odometer value in miles may be shown in the brackets, labeled as kilometers. If this is the case, the non-bracketed value is not valid.
- Operation via Energy Reserve Only -"Yes" indicates that the ACM had lost power at or before T0 and was only operating on energy reserve at T0.
- Safety Belt Status, Outboard Front Passenger - For vehicles sold outside of North America which do not contain a buckle switch for the outboard front passenger, the safety belt status, outboard front passenger will default to "not buckled/unbuckled".
- System Voltage at Event, ACM - Voltage at the ACM as measured by the ACM. This voltage may be approximately 0.7V (one diode drop) below the bused voltage.
- System Voltage at Event, Bused - Voltage of the vehicle system, communicated on the communication bus to other electronic modules in the vehicle.
- Temperature, Outside - Ambient Air Temperature.
- Time, Airbag Warning Lamp On - This is a cumulative time. It indicates the total amount of time that the ACM has requested the Airbag Warning Lamp be turned on.
    - This time does not include the warning lamp bulb check time, which occurs at every ignition cycle
        - For 2013 MY Minivans and new 2017+ MY Jeep Compass, this time is only cumulative for the past 10 ignition cycles.
- Time from event 1 to 2 -
    - If only one event is stored, either a value of 0 or >5 may be displayed for this data element.
    - For the 2018+ MY Promaster and 2019+ MY RAM 1500, a value of 0 may be displayed for the first event or for events >5 seconds apart.
    - If multiple events exist in the EDR, the time from event 1 to event 2 is defined as:
        - For Bosch and TRW modules, the time from the prior recorded event (even if it has been overwritten) to the current recorded event.
        - For Continental modules, the time from the prior existing recorded event (as long as it is still displayed in the CDR report) to the current recorded event**.** If the prior event in a multi-event condition is overwritten by a subsequent event, the multi-event status will no longer be displayed.
        - For the 2019+ MY RAM 1500, the time from event 1 to 2 may utilize a non-stored event as event 1. In this case, the total number of events and multi-event data elements will not include the non-stored event in the number of events. However, the time from event 1 to 2 will be shown as time from that non-stored event.
- Time, Operation System Time - This is a cumulative lifetime timer for the ACM. It indicates the total amount of time the ACM has been powered up.
    - For 2019 and later MY RAMs, this time is only cumulative for the current ignition cycle.
- Tire Pressure Indicator Lamp at Event- "On" indicates a tire with low pressure or a fault in the tire pressure monitoring system at the time of the event. The TPM module DTC's should be read and recorded for final system interpretation. "Flashing" indicates a recent fault in the tire pressure monitoring system.
- Tire Pressure at Event, LF, LF, RF, RR - See "Tire Information" under Pre-Crash Data section for details.
- VIN at Event, Last 8 Digits- Last 8 digits of the VIN of the vehicle at the time the ACM records the event.

DEPLOYMENT COMMAND DATA:

- A "Yes" for a particular item indicates that the ACM commanded the deployment /activation of the associated device.
- The phrase "Exceeded Storage Range" for a particular time to deploy indicates that the deployment time is equal to or greater than the 255 milliseconds that can be stored.
- If a device is not deployed, the "time to deploy" for that device will N/A.
- A time to deploy value of 0 is valid and indicates that the deployment of the device triggered the EDR t0.
- In vehicles with Bosch and Veoneer ACMs, once a device has been deployed in an ignition cycle, it is possible that the ACM will not attempt to re-deploy any already deployed device during subsequent events in that same ignition cycle.

DTCs PRESENT AT START OF EVENT:

- If any DTCs (diagnostic trouble codes) are present in the ACM at the start of the event, these will be listed in this section. A dealership service manual can be used to decode the DTCs.
    - DTCs Present at Start of Event are not present in the Alfa Romeo Giulia, Fiat 500X, and the Jeep Renegade.
- For the 2021 MY+ Jeep Grand Cherokee L, the DTCs will not be updated for the subsequent events within the same ignition cycle.

SENSOR DATA:

- The design range for the angular rate data is:
    - +/- 240 deg/sec for Bosch ACMs unless specifically called out below
    - +/- 300 deg/sec for TRW ACMs, the 2019 MY RAM 1500, and the 2018+ MY Dodge Journey
    - +/- 290 deg/sec for 2008+ MY minivans and 2009-2017 MY Dodge Journey
    - +/- 340 deg/sec for 2017+ MY Chrysler Pacifica and new 2017+ MY Jeep Compass
    - - 416.67 deg/sec to +413.41 deg/sec for 2014+ MY Jeep Cherokee
    - +/- 300 deg/sec for vehicles with Veoneer ACMs
- For vehicles that store peripheral sensor data, t0 for the peripheral sensors is the same as the t0 for the delta V.
- Internal y acceleration is stored prior to t0 so the internal y acceleration data will usually be zero unless the rollover sensing algorithm has triggered storage of the EDR event.
- The words "Sensor Design Range Exceeded" and a vertical line will be displayed on the Longitudinal and Lateral Delta-V graphs the first time the applicable sensor range is exceeded.
- For the 2010-2012 MY Chrysler Town and Country, Dodge Caravan, Dodge Grand Caravan, and Dodge Journey and the 2010-2011 MY Grand Voyager, the angular rate will only be displayed if it is non-zero.

PRE-CRASH DATA:

- The recorded Event may contain Pre-Crash data. Pre-Crash data from the various electronic control modules in the vehicle is transmitted to the Airbag Control Module via the vehicle's communication bus.
- In the Pre-Crash Data graph, data transmitted at a rate other than 0.1 seconds will be shown as dots for each available data point. Only data transmitted at a rate of 0.1 seconds will have the dots connected by a line.
- (if equip.) - If a parameter name is followed by the words (if equip.), then the parameter is only valid for vehicles equipped with the associated parameter/vehicle system.
- The MIL (Malfunction Indicator Lamp) Status for the various recorded systems indicates the requested state of the applicable malfunction indicator lamp at the time that the data was captured. Note: Some fault codes could be stored due to component/system damage from the accident. The appropriate diagnostic tool should be used to read any stored Diagnostic Trouble Codes (DTC's) in the various electronic modules (ACM, PCM, ABS, TCM, etc., where applicable) for use in interpretation of some vehicle specific recorded data.
- ABS Activity - "Yes" indicates an active ABS event in which the ABS is actively controlling the brakes.
- ABS MIL- This indicates the ABS fault indicator lamp status. It will only be "On" when there is a fault in the ABS system. The Electronic brake module DTC's should be read and recorded for final system interpretation.
- Accelerator Pedal, % Full - This indicates the actual position of the accelerator pedal. It will be "SNA" if the vehicle is in the power free mode which limits acceleration.
- Accelerator Pedal (Derived), % Full - This indicates the calculated value of the accelerator pedal for battery electric vehicles only.
- Accelerator Pedal/Engine Throttle, % Full - This indicates the actual position of the accelerator pedal unless the cruise control is engaged. If the cruise control is engaged, this indicates the actual position of the engine throttle blade.
- Brake Pedal Position - This indicates the percentage of brake pedal depression by the driver.
- Brake Torque - This indicates the calculated amount of brake torque the system is producing at the wheels.
- Brake Torque Driver - This indicates the calculated amount of brake torque that the driver is requesting.
- Braking System, Maximum Braking -- "Yes" indicates that ABS is active on all 4 wheels at the same time.
- Cruise Control:
    - Note that the following two Cruise Control data elements are only valid for vehicles not equipped with Adaptive Cruise Control (ACC). For vehicles equipped with ACC, the ACC data elements are used for both regular Cruise Control and ACC.
    - Cruise Control System/Lamp Status -"On" indicates that the Cruise Control system is turned on.
    - Cruise Control Status - "Off" indicates that all cruise control functionality is disabled; "NCC_On" indicates that the Normal Cruise Control system is turned on; "NCC_Engaged" indicates the Normal Cruise Control is actively controlling vehicle speed; "ACC_On" indicates that ACC is turned on; "ACC_Engaged" indicates that the ACC is actively controlling vehicle speed.
    - Cruise Control Engaged Status/Active - "Engaged"/"Yes" indicates the Cruise Control system is actively controlling vehicle speed. "Not Engaged"/"No" indicates the system is NOT controlling vehicle speed.
    - Cruise Control Override - "Active" indicates that the driver has overridden the set speed. "Not Active" indicates that the cruise control is either not turned on or is not being overridden.
    - Adaptive Cruise Control (ACC) Status (if equip.)- "Off" indicates that all cruise control functionality is disabled; "NCC_On" indicates that the Normal Cruise Control system is turned on; "NCC_Set" indicates the Normal Cruise Control is actively controlling vehicle speed; "ACC_On" indicates that ACC is turned on; "ACC_Set" indicates that the ACC is actively controlling vehicle speed. If the value is SNA for all time stamps, then the vehicle is not equipped with ACC.
    - Set Speed (if equip.)- This indicates the desired speed in mph that was input by the driver for the cruise control system.
    - ACC Faulted - "Yes" indicates that the ACC system will not function and the ACC warning lamp is lit; "No" indicates that the ACC system is functional and the ACC warning lamp is off;
    - For new 2017+MY Jeep Compass, cruise control data elements are only available for vehicles NOT equipped with ACC.
- Drive Mode - This indicates the driver selected mode of operation (e.g. normal, sport, track, …)
- Electronic Brake/Stability Control information:
    - Stability Control - This is the status of the ESC symbol - "car with squiggly lines" indicator lamp. "On" indicates that the ESC system is functional. "Off" indicates that the ESC system was turned off either by the driver or due to a fault or thermal mode shutdown. "Engaged" indicates an active ESC/TCS event. "Partial Off" indicates that engine management has been turned off but brake traction control is still functional.
        - For the Jeep Renegade, if the Stability Control is "Off", the ESC Button Status is "Disabled", and the vehicle speed exceeds 40 mph, the stability control system will operate in a reduced functionality mode with traction control turned off ("partial off" mode) even though the user disabled it. For all other conditions, when the Stability Control is "Off", the stability control system will be off.

- ESC Button Status - This indicates the driver selected mode for the ESC system. "Disabled" indicates that the driver pressed the ESC Button to disable engine management. "Enabled" is the default state for the ESC system.
    - SRT and some Fiat products have the ability to fully disable the ESC system if the ESC button has been pressed and held for a specific amount of time. Additional system analysis is required.
- ESP Feature is Completely Disabled - This indicates that the stability control system has turned off engine management, traction control, and stability control.
- ESC/ESP MIL - This indicates the ESC/ESP fault indication lamp status. It will only be "On" when there is a fault or thermal mode shutdown in the ESC/ESP system. The ESC/ESP module DTC's should be read and recorded for final system interpretation.
- Brake Intervention by ESP - "Yes" indicates that the stability control system has engaged the brakes.
- Engine Torque Applied - "No" indicates no engine torque output was applied (as in Park/Neutral for Automatic transmissions or clutch depressed on manual or during an ESP/Traction Control event). If "Yes", then engine torque output was applied.
- Traction Control Active - "Yes" indicates that the traction control system is actively controlling the vehicle's wheels.

- Electronic Park Brake (EPB):
    - Park Brake Engaged - "Yes" indicates that the park brake is applied.
    - EPB MIL - "On" indicates that there is a fault in the Electronic Park Brake System.
- Engine RPM - For the RAM ProMaster City, the minimum resolution for Engine RPM is 32 rpm.
- Engine Throttle, % Full - This indicates the actual position of the Engine Throttle blade. This data element is not supported by vehicles with diesel engines. Thus a value of "SNA" will be displayed if the vehicle has a diesel engine.
- ETC Lamp - Lamp "ON "indicates there is an active Electronic Throttle DTC.
- ETC Lamp Flashing - "Yes" indicates that the ETC is in the limp-in mode.
- Forward Collision Warning (FCW) (if equip.):
    - Object of Interest Distance - If the FCW system is acting on the object, this indicates the actual forward distance to the main object being tracked by the FCW system. "No Object" indicates that the FCW system is not currently acting on an object. If the value is SNA for all time stamps, then the vehicle is not equipped with FCW.
    - FCW System Operating State - "Off" indicates that the FCW system is off and the FCW Warning Lamp will be "On"; "On" indicates that the FCW system is on with the audible and visual warnings enabled.
    - FCW System Status - "Off" indicates that the FCW system is off and the FCW Warning Lamp will be "On". "On-warning" indicates that the FCW system is on but active braking is disabled. In an FCW event, the driver will only receive FCW audible and visual warnings. "On-full" indicates that the FCW system is fully on with active braking enabled as well as the audible and visual warnings enabled. SNA indicates that the vehicle is not equipped with FCW.
    - FCW Braking Enabled - "Yes" indicates that the FCW system has active braking enabled; "No" indicates that the FCW system does not have active braking enabled.
- Gear Position/Current Gear - For all vehicles except the RAM ProMaster City, this indicates the current transmission gear.
  For the RAM ProMaster City, this indicates the status of the gear shift lever.
- Estimate Regenerative Braking Axle Torque - (HEV only) This indicates the calculated braking torque applied by the HEV system to the drive axles in Nm.
- Driver Intended Axle Torque - (HEV only) This indicates the calculated value of torque in Nm being applied to the drive axles based on accelerator pedal position.
- Trans torque request - (HEV only) "Yes" indicates that the transmission controller has requested a torque reduction when shifting from one gear to another.
- Static Axle Torque - (HEV only) This indicates the torque in Nm at the axle when the speed of the axle is constant.
- HEV Battery Pack Contactor State - (HEV only) "Closed' indicates that the HEV battery pack is connected to the vehicle's electrical system. "Open" indicates that the HEV battery pack is disconnected from the vehicle's electrical system. "Pre-Charging" indicates that the inverter internal capacitor is charging. "Pre-Charge Failed" indicates that the attempt to charge an internal capacitor failed. "Pre-Charge Inhibited" indicates that an attempt to charge an internal capacitor was not made.
- HEV Lamp Request - (HEV only) This indicates the HEV indicator lamp status. It will only be "On" when there is a fault in the HEV system. The vehicle DTC's should be read and recorded for final system interpretation.
- Master Cylinder Pressure - This indicates the brake pressure applied to the brakes through the brake pedal.
- PCM MIL - This indicates the PCM fault indicator lamp status. It will only be "On" when there is a fault in the PCM. "Flashing" indicates misfire detection. The Powertrain Control Module DTC's should be read and recorded for final system interpretation.
- Pre-Crash Recorder Complete - Due to the interruption of data recording in one section, this data element may display "Interrupted" for all sections when some data sections are actually complete.
    - For the 2014 MY Jeep Grand Cherokee and Dodge Durango, if recording of angular rate data is interrupted, the entire EDR record will display "Interrupted" even though the rest of the data may be complete.
- PRND/PRNDL/PRNDS Status - This indicates the status of the Shifter Position.
- Raw Manifold Pressure - This indicates engine load in kPa.
- Reverse Gear - For manual transmission vehicles only, "Yes" indicates the transmission is in the reverse gear.
- Service Brake - "On" indicates that the brake pedal is physically depressed. Braking from the ABS or FCW systems will not be reported in this data element.
- Shift Selector Position - This indicates the status of the gear shift selector.
- Speed, Vehicle Indicated - This indicates the average of the wheel speeds of the drive wheels.
    - The reporting resolution for Speed, Vehicle Indicated is 1 km/h.
    - To display this data element in mph, the CDR Tool converts the km/h to mph and reports a rounded value in mph.
    - The accuracy of the recorded Speed, Vehicle Indicated may be affected by a significant change of the tire size for the drive wheels or the final drive axle ratio of the transmission from the factory build specifications, wheel lockup, wheel slip, or wheel spin.
    - On some vehicles capable of speeds in excess of 255km/h (about 158mph), the actual vehicle speed may have exceeded the reporting range. It is always prudent to check the reported wheel speeds and other parameters to confirm the Speed, Vehicle Indicated value(s).
- Tire Information:
    - XX where LF = Left Front Tire, RF = Right Front Tire, LR = Left Rear Tire, and RR = Right Rear Tire.
    - Tire X Location - This indicates the location of the tire pressure sensor data being displayed for that time stamp. Default is used to indicate that the location of the tire pressure sensor is unknown or there is no tire pressure sensor in that wheel. Vehicles with Base

Tire Pressure Monitoring systems will display SNA for both Tire Locations as these vehicles do not send actual pressure values across the communication bus.

- Tire X Pressure/Tire Pressure Status, XX -This indicates the actual pressure status of the Tire Location defined in the previous column (Tire X Location) or by the values for XX. Possible values are Significantly Under Inflated (TPM lamp will be on), LOW/Under/Under Inflated, NORMAL, HIGH/Over/Over Inflated, or SNA for this parameter. Vehicles with Base Tire Pressure Monitoring systems may display NORMAL even though these vehicles do not send actual pressure values across the communication bus.
- Tire X Pressure/Tire Pressure Value, XX (psi) - This indicates the actual tire pressure value of the Tire Location defined in the previous column (Tire X Location) or by the values for XX. Vehicles with Base Tire Pressure Monitoring systems will display N/A for this parameter as these vehicles do not send actual pressure values across the communication bus.
- For the following vehicles, the tire location, if displayed, may not be accurate if the tires have been rotated:
  - -2013 MY Ram
  - -2013-2017 MY Jeep Patriot
  - -2013-2014 MY Chrysler 200
  - -2013-2017 MY Jeep Compass
  - -2013-2016 MY Dodge Dart
- For the 2013 MY Ram, if the values for tire pressure status and the tire pressure are SNA, the EDR does not store tire pressure monitoring data.
- Tire pressure is not stored in the EDR for the following vehicles:
  - -2014-2018 MY RAM 1500
  - -2014+ MY RAM (all but 1500)
  - -2013+ MY Jeep Wrangler
  - -2013 MY Jeep Grand Cherokee
  - -2013 MY Dodge Durango
  - -2013-2014 MY Dodge Challenger
  - -2013-2016 MY Chrysler Town and Country
  - -2013+ MY Dodge Grand Caravan
  - -2015+ MY Fiat 500

- Wheel Speed, XX - This indicates the speed value of a particular tire as denoted by XX.

- Tire Pressure Monitor Indicator Lamp/Faults - "On" indicates a tire with low pressure or a fault in the tire pressure monitoring system. The TPM module DTC's should be read and recorded for final system interpretation. "Flashing" indicates a recent fault in the tire pressure monitoring system.
- "T0" ("Time zero" where '0' is seen as subscript) is defined as "beginning of the crash event". T0 is the time at which the ACM algorithm is activated, a specific Delta-V is exceeded, or a non-reversible restraint device is deployed. T0 may be defined differently for front, side, rear and roll-over events.
  - If multiple algorithm decisions (i.e.: frontal, side, rear and/or rollover) are made before the first recorded event ends, all of those events are part of the same event record and "T0" is defined as the "T0" from the first recorded event.
  - In the Pre-Crash data tables, the relative time marker "-0.1s" or "-0.25s" respectively represents the last set of data captured in the buffer prior to "T0."
- Torque Information:
  - Axle Torque - This indicates the E-Motor Torque multiplied by the gear ratio for battery electric vehicles only.
  - E-Motor Torque - This indicates the calculated torque from the output shaft of the electric motor in battery electric vehicles only.
- Traction Control Intervention Active - "Active" indicates wheel slippage was occurring during vehicle acceleration.

APPLICATION INFORMATION:

- Alfa Romeo Giulia, Alfa Romeo Stelvio, Fiat 500L, Fiat 500X, and Jeep Renegade are only CDR supported in the United States, Canada, and Saudi Arabia markets.
- Fiat 500/500e is only CDR supported in the United States, Canada, Mexico, and Brazil markets.

03002_Chrysler_ r046

System Status at Retrieval

Original VIN	[redacted]
Airbag Control Module Part Number	68232713AC
Airbag Control Module Serial Number	T26MF263402960
Airbag Control Module Supplier	TRW
Ignition Cycle, Download	13989

System Configuration at Retrieval

Configured for Driver Frontal Airbag	Yes
Configured for Passenger Frontal Airbag	Yes
Configured for Left Curtain Airbag	Yes
Configured for Left Seat Airbag	Yes
Configured for Right Curtain Airbag	Yes
Configured for Right Seat Airbag	Yes
Configured for Driver Buckle Pretensioner	No
Configured for Driver Retractor Pretensioner	Yes
Configured for Front Passenger Buckle Pretensioner	No
Configured for Front Passenger Retractor Pretensioner	Yes
Configured for Driver Active Head Restraint	Yes
Configured for Front Passenger Active Head Restraint	Yes
Configured for Front Passenger Occupant Classification System	No
Configured for Driver Seat Track Position Sensor	Yes
Configured for Front Passenger Seat Track Position Sensor	No

System Status at Event (Most Recent Event)

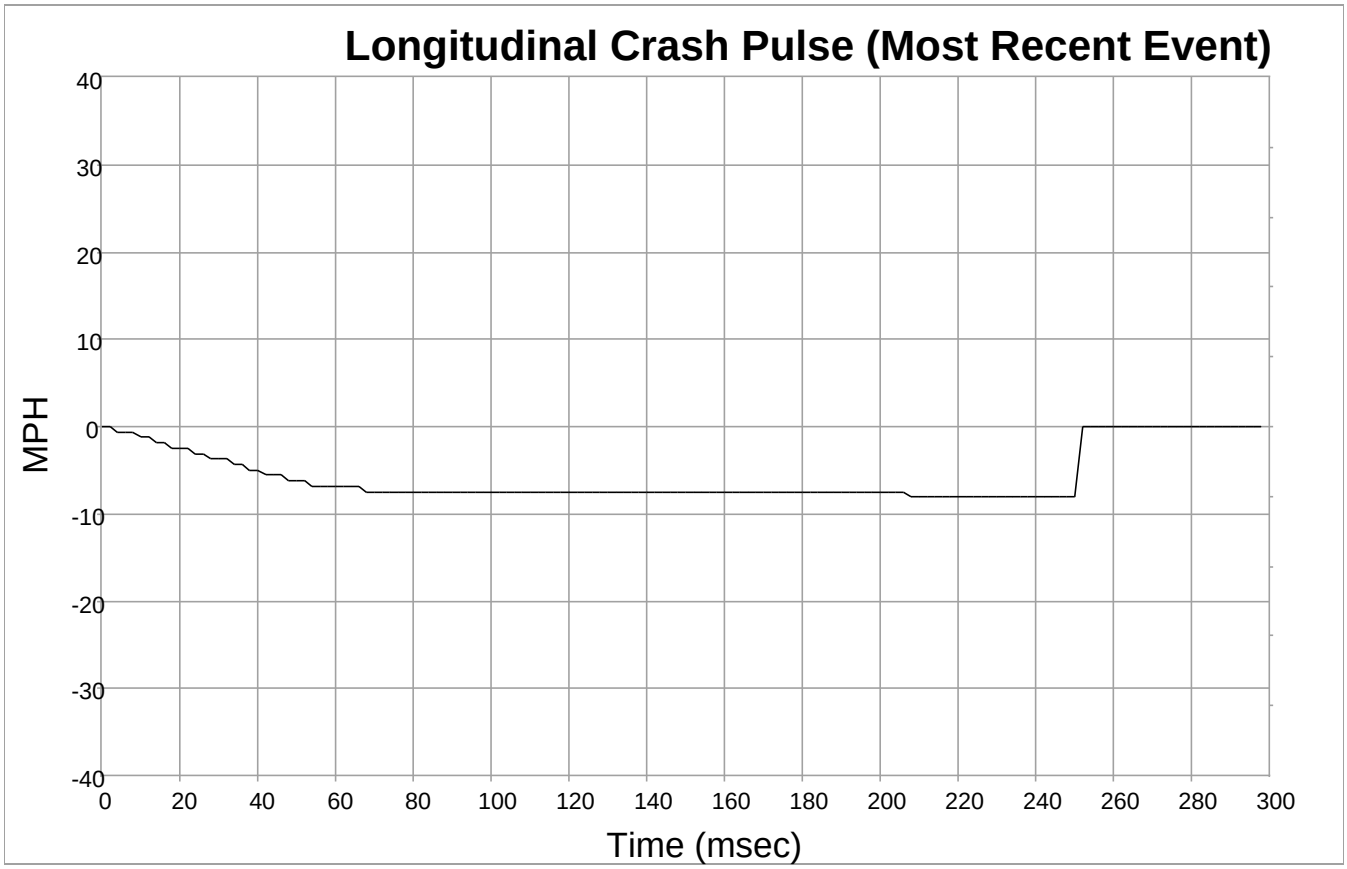
Event Number	1
Event Type	Non-Deployment Event
Complete File Recorded	Yes
Time from Event 1 to 2 (sec)	0.0
Multi-Event, Number of Events (1,2)	1
Maximum Delta-V Longitudinal (MPH [km/h])	-8.1 [-13]
Time, Maximum Delta-V, Longitudinal (msec)	208
Maximum Delta-V Lateral (MPH [km/h])	-0.6 [-1]
Time, Maximum Delta-V, Lateral (msec)	64
Safety Belt Status, Driver	Buckled
Safety Belt Status, Outboard Front Passenger	Not Buckled
Seat Track Position Switch, Foremost, Status, Driver	No
Airbag Warning Lamp, On/Off	Off
Ignition Cycle, Crash	9648
Odometer Recorded at Event (miles[km])	70206.4 [112986.2]
VIN at event, Last 8 Digits	[redacted]
Vehicle System Voltage Recorded at Event (V)	14.0

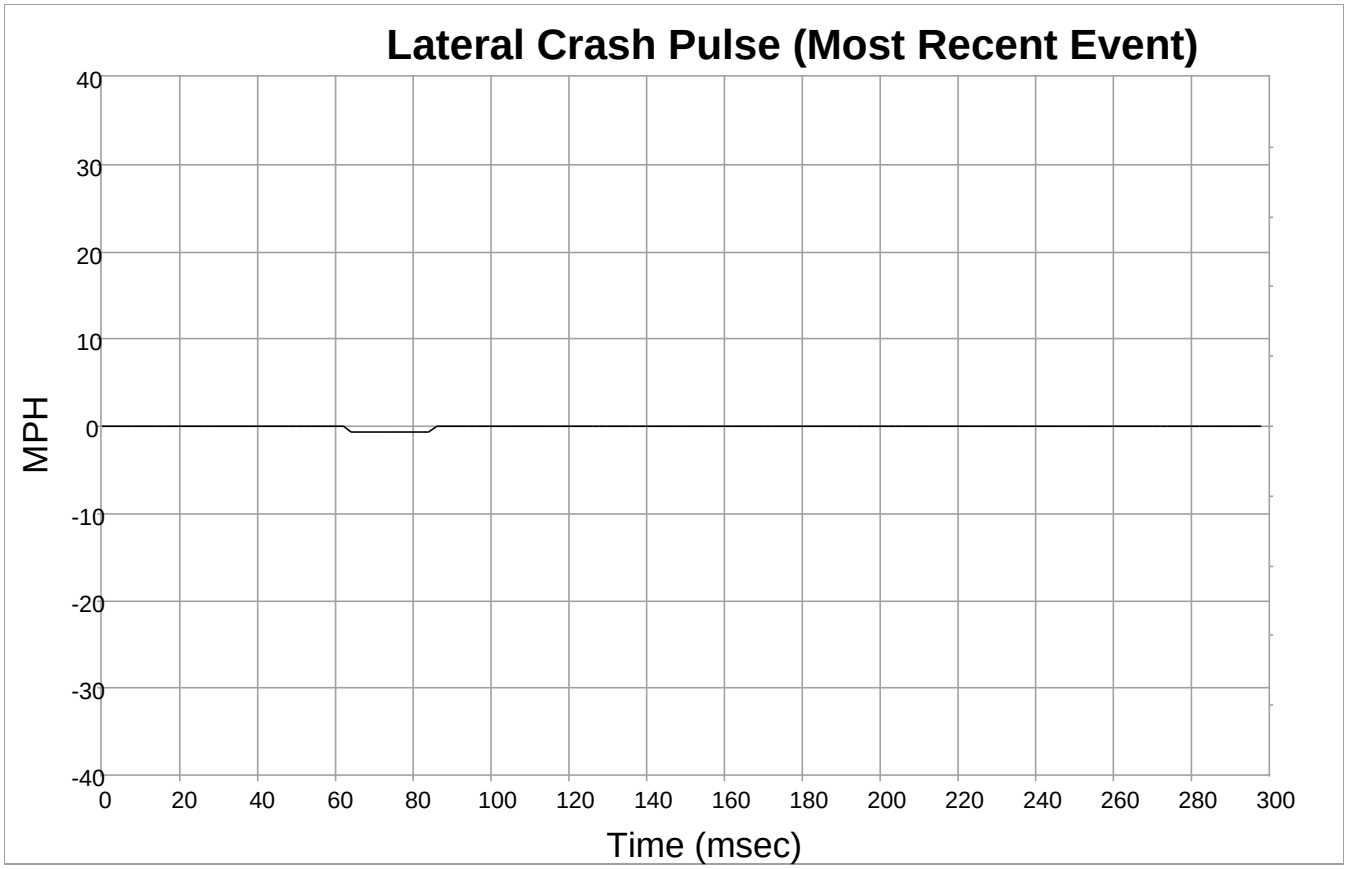
Deployment Command Data (Most Recent Event)

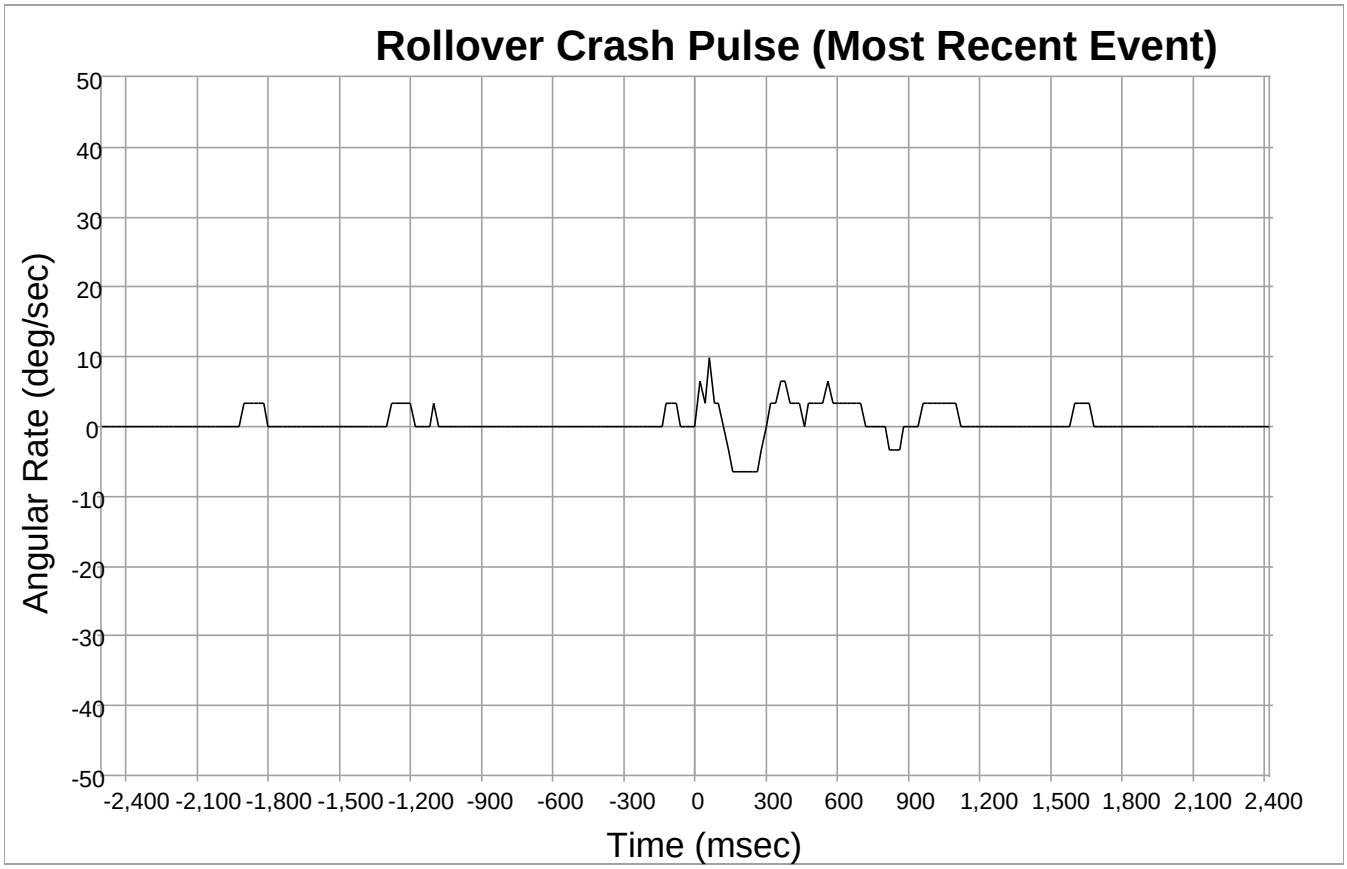
Driver Front Airbag Commanded	No
Driver Front Airbag, Time to 1st Stage (msec)	N/A
Driver Front Airbag, Time to 2nd Stage (msec)	N/A
Passenger Frontal Airbag Commanded	No
Passenger Front Airbag, Time to 1st Stage (msec)	N/A
Passenger Front Airbag, Time to 2nd Stage (msec)	N/A
Commanded Driver Pretensioner(s) Deployment	No
Commanded Passenger Pretensioner(s) Deployment	No
Commanded Left Side Airbag(s) Deployment	No
Commanded Right Side Airbag(s) Deployment	No
Commanded Driver Active Head Restraint	No
Commanded Passenger Active Head Restraint	No

DTCs Present at Start of Event (Most Recent Event)

No DTCs Present


Longitudinal Crash Pulse (Most Recent Event)
MPH
40
30
20
10
0
-10
-20
-30
-40
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
Time (msec)


Lateral Crash Pulse (Most Recent Event)
MPH
40
30
20
10
0
-10
-20
-30
-40
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
Time (msec)


Rollover Crash Pulse (Most Recent Event)
Angular Rate (deg/sec)
50
40
30
20
10
0
-10
-20
-30
-40
-50
-2,400 -2,100 -1,800 -1,500 -1,200 -900 -600 -300 0 300 600 900 1,200 1,500 1,800 2,100 2,400
Time (msec)

Longitudinal Crash Pulse (Most Recent Event)

Time (msec)	Delta-V, Longitudinal (MPH [km/h])	Time (msec)	Delta-V, Longitudinal (MPH [km/h])	Time (msec)	Delta-V, Longitudinal (MPH [km/h])
0	0.0 [0]	100	-7.5 [-12]	200	-7.5 [-12]
2	0.0 [0]	102	-7.5 [-12]	202	-7.5 [-12]
4	-0.6 [-1]	104	-7.5 [-12]	204	-7.5 [-12]
6	-0.6 [-1]	106	-7.5 [-12]	206	-7.5 [-12]
8	-0.6 [-1]	108	-7.5 [-12]	208	-8.1 [-13]
10	-1.2 [-2]	110	-7.5 [-12]	210	-8.1 [-13]
12	-1.2 [-2]	112	-7.5 [-12]	212	-8.1 [-13]
14	-1.9 [-3]	114	-7.5 [-12]	214	-8.1 [-13]
16	-1.9 [-3]	116	-7.5 [-12]	216	-8.1 [-13]
18	-2.5 [-4]	118	-7.5 [-12]	218	-8.1 [-13]
20	-2.5 [-4]	120	-7.5 [-12]	220	-8.1 [-13]
22	-2.5 [-4]	122	-7.5 [-12]	222	-8.1 [-13]
24	-3.1 [-5]	124	-7.5 [-12]	224	-8.1 [-13]
26	-3.1 [-5]	126	-7.5 [-12]	226	-8.1 [-13]
28	-3.7 [-6]	128	-7.5 [-12]	228	-8.1 [-13]
30	-3.7 [-6]	130	-7.5 [-12]	230	-8.1 [-13]
32	-3.7 [-6]	132	-7.5 [-12]	232	-8.1 [-13]
34	-4.3 [-7]	134	-7.5 [-12]	234	-8.1 [-13]
36	-4.3 [-7]	136	-7.5 [-12]	236	-8.1 [-13]
38	-5.0 [-8]	138	-7.5 [-12]	238	-8.1 [-13]
40	-5.0 [-8]	140	-7.5 [-12]	240	-8.1 [-13]
42	-5.6 [-9]	142	-7.5 [-12]	242	-8.1 [-13]
44	-5.6 [-9]	144	-7.5 [-12]	244	-8.1 [-13]
46	-5.6 [-9]	146	-7.5 [-12]	246	-8.1 [-13]
48	-6.2 [-10]	148	-7.5 [-12]	248	-8.1 [-13]
50	-6.2 [-10]	150	-7.5 [-12]	250	-8.1 [-13]
52	-6.2 [-10]	152	-7.5 [-12]	252	0.0 [0]
54	-6.8 [-11]	154	-7.5 [-12]	254	0.0 [0]
56	-6.8 [-11]	156	-7.5 [-12]	256	0.0 [0]
58	-6.8 [-11]	158	-7.5 [-12]	258	0.0 [0]
60	-6.8 [-11]	160	-7.5 [-12]	260	0.0 [0]
62	-6.8 [-11]	162	-7.5 [-12]	262	0.0 [0]
64	-6.8 [-11]	164	-7.5 [-12]	264	0.0 [0]
66	-6.8 [-11]	166	-7.5 [-12]	266	0.0 [0]
68	-7.5 [-12]	168	-7.5 [-12]	268	0.0 [0]
70	-7.5 [-12]	170	-7.5 [-12]	270	0.0 [0]
72	-7.5 [-12]	172	-7.5 [-12]	272	0.0 [0]
74	-7.5 [-12]	174	-7.5 [-12]	274	0.0 [0]
76	-7.5 [-12]	176	-7.5 [-12]	276	0.0 [0]
78	-7.5 [-12]	178	-7.5 [-12]	278	0.0 [0]
80	-7.5 [-12]	180	-7.5 [-12]	280	0.0 [0]
82	-7.5 [-12]	182	-7.5 [-12]	282	0.0 [0]
84	-7.5 [-12]	184	-7.5 [-12]	284	0.0 [0]
86	-7.5 [-12]	186	-7.5 [-12]	286	0.0 [0]
88	-7.5 [-12]	188	-7.5 [-12]	288	0.0 [0]
90	-7.5 [-12]	190	-7.5 [-12]	290	0.0 [0]
92	-7.5 [-12]	192	-7.5 [-12]	292	0.0 [0]
94	-7.5 [-12]	194	-7.5 [-12]	294	0.0 [0]
96	-7.5 [-12]	196	-7.5 [-12]	296	0.0 [0]
98	-7.5 [-12]	198	-7.5 [-12]	298	0.0 [0]

Lateral Crash Pulse (Most Recent Event)

Time (msec)	Delta-V, Lateral (MPH [km/h])	Time (msec)	Delta-V, Lateral (MPH [km/h])	Time (msec)	Delta-V, Lateral (MPH [km/h])
0	0.0 [0]	100	0.0 [0]	200	0.0 [0]
2	0.0 [0]	102	0.0 [0]	202	0.0 [0]
4	0.0 [0]	104	0.0 [0]	204	0.0 [0]
6	0.0 [0]	106	0.0 [0]	206	0.0 [0]
8	0.0 [0]	108	0.0 [0]	208	0.0 [0]
10	0.0 [0]	110	0.0 [0]	210	0.0 [0]
12	0.0 [0]	112	0.0 [0]	212	0.0 [0]
14	0.0 [0]	114	0.0 [0]	214	0.0 [0]
16	0.0 [0]	116	0.0 [0]	216	0.0 [0]
18	0.0 [0]	118	0.0 [0]	218	0.0 [0]
20	0.0 [0]	120	0.0 [0]	220	0.0 [0]
22	0.0 [0]	122	0.0 [0]	222	0.0 [0]
24	0.0 [0]	124	0.0 [0]	224	0.0 [0]
26	0.0 [0]	126	0.0 [0]	226	0.0 [0]
28	0.0 [0]	128	0.0 [0]	228	0.0 [0]
30	0.0 [0]	130	0.0 [0]	230	0.0 [0]
32	0.0 [0]	132	0.0 [0]	232	0.0 [0]
34	0.0 [0]	134	0.0 [0]	234	0.0 [0]
36	0.0 [0]	136	0.0 [0]	236	0.0 [0]
38	0.0 [0]	138	0.0 [0]	238	0.0 [0]
40	0.0 [0]	140	0.0 [0]	240	0.0 [0]
42	0.0 [0]	142	0.0 [0]	242	0.0 [0]
44	0.0 [0]	144	0.0 [0]	244	0.0 [0]
46	0.0 [0]	146	0.0 [0]	246	0.0 [0]
48	0.0 [0]	148	0.0 [0]	248	0.0 [0]
50	0.0 [0]	150	0.0 [0]	250	0.0 [0]
52	0.0 [0]	152	0.0 [0]	252	0.0 [0]
54	0.0 [0]	154	0.0 [0]	254	0.0 [0]
56	0.0 [0]	156	0.0 [0]	256	0.0 [0]
58	0.0 [0]	158	0.0 [0]	258	0.0 [0]
60	0.0 [0]	160	0.0 [0]	260	0.0 [0]
62	0.0 [0]	162	0.0 [0]	262	0.0 [0]
64	-0.6 [-1]	164	0.0 [0]	264	0.0 [0]
66	-0.6 [-1]	166	0.0 [0]	266	0.0 [0]
68	-0.6 [-1]	168	0.0 [0]	268	0.0 [0]
70	-0.6 [-1]	170	0.0 [0]	270	0.0 [0]
72	-0.6 [-1]	172	0.0 [0]	272	0.0 [0]
74	-0.6 [-1]	174	0.0 [0]	274	0.0 [0]
76	-0.6 [-1]	176	0.0 [0]	276	0.0 [0]
78	-0.6 [-1]	178	0.0 [0]	278	0.0 [0]
80	-0.6 [-1]	180	0.0 [0]	280	0.0 [0]
82	-0.6 [-1]	182	0.0 [0]	282	0.0 [0]
84	-0.6 [-1]	184	0.0 [0]	284	0.0 [0]
86	0.0 [0]	186	0.0 [0]	286	0.0 [0]
88	0.0 [0]	188	0.0 [0]	288	0.0 [0]
90	0.0 [0]	190	0.0 [0]	290	0.0 [0]
92	0.0 [0]	192	0.0 [0]	292	0.0 [0]
94	0.0 [0]	194	0.0 [0]	294	0.0 [0]
96	0.0 [0]	196	0.0 [0]	296	0.0 [0]
98	0.0 [0]	198	0.0 [0]	298	0.0 [0]

Rollover Crash Pulse (Most Recent Event) (if equipped)

Time (msec)	Angular Rate (deg/sec)
-2500	0.00
-2480	0.00
-2460	0.00
-2440	0.00
-2420	0.00
-2400	0.00
-2380	0.00
-2360	0.00
-2340	0.00
-2320	0.00
-2300	0.00
-2280	0.00
-2260	0.00
-2240	0.00
-2220	0.00
-2200	0.00
-2180	0.00
-2160	0.00
-2140	0.00
-2120	0.00
-2100	0.00
-2080	0.00
-2060	0.00
-2040	0.00
-2020	0.00
-2000	0.00
-1980	0.00
-1960	0.00
-1940	0.00
-1920	0.00
-1900	3.26
-1880	3.26
-1860	3.26
-1840	3.26
-1820	3.26
-1800	0.00
-1780	0.00
-1760	0.00
-1740	0.00
-1720	0.00
-1700	0.00
-1680	0.00
-1660	0.00
-1640	0.00
-1620	0.00
-1600	0.00
-1580	0.00
-1560	0.00
-1540	0.00
-1520	0.00

Time (msec)	Angular Rate (deg/sec)
-1500	0.00
-1480	0.00
-1460	0.00
-1440	0.00
-1420	0.00
-1400	0.00
-1380	0.00
-1360	0.00
-1340	0.00
-1320	0.00
-1300	0.00
-1280	3.26
-1260	3.26
-1240	3.26
-1220	3.26
-1200	3.26
-1180	0.00
-1160	0.00
-1140	0.00
-1120	0.00
-1100	3.26
-1080	0.00
-1060	0.00
-1040	0.00
-1020	0.00
-1000	0.00
-980	0.00
-960	0.00
-940	0.00
-920	0.00
-900	0.00
-880	0.00
-860	0.00
-840	0.00
-820	0.00
-800	0.00
-780	0.00
-760	0.00
-740	0.00
-720	0.00
-700	0.00
-680	0.00
-660	0.00
-640	0.00
-620	0.00
-600	0.00
-580	0.00
-560	0.00
-540	0.00
-520	0.00

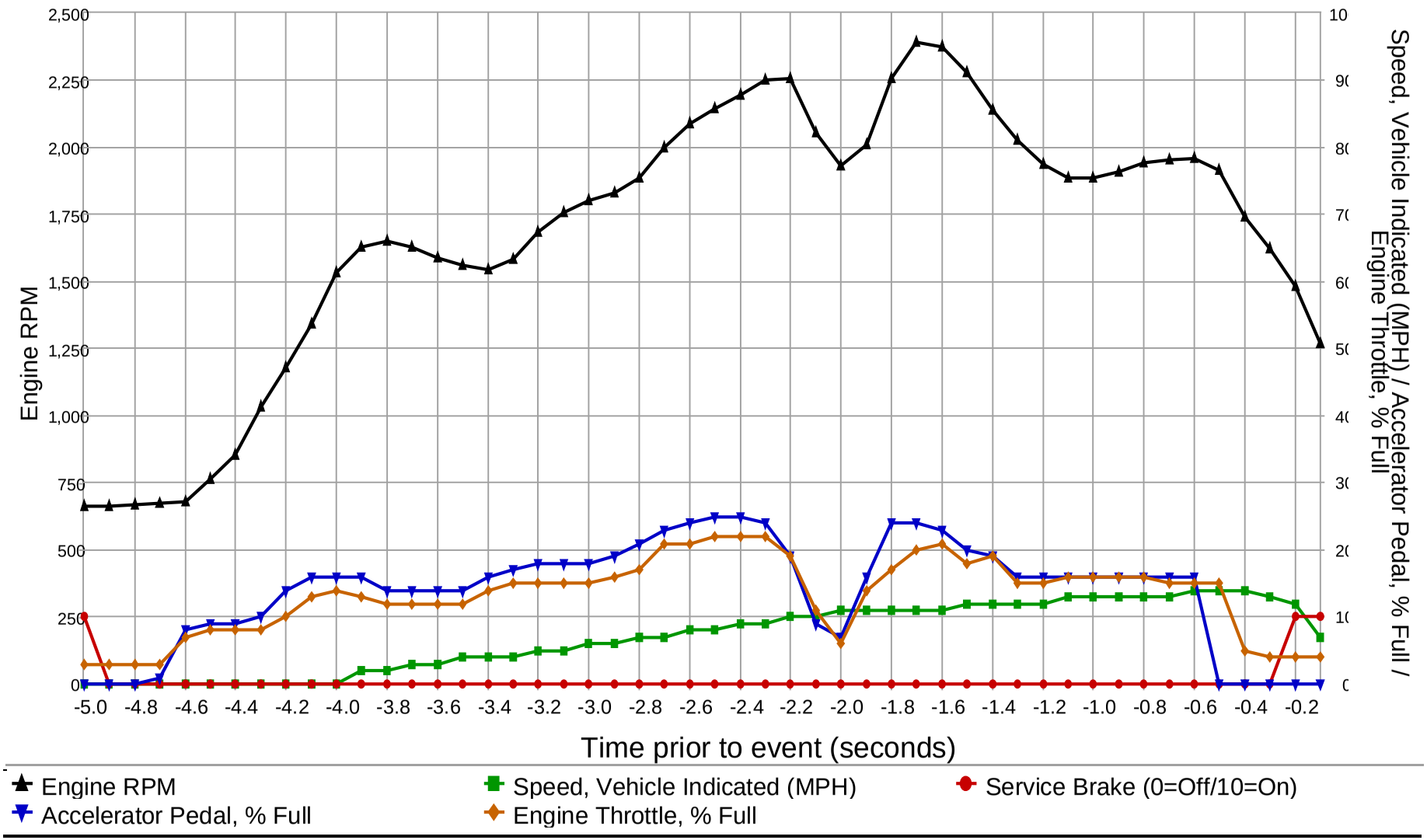
Time (msec)	Angular Rate (deg/sec)
-500	0.00
-480	0.00
-460	0.00
-440	0.00
-420	0.00
-400	0.00
-380	0.00
-360	0.00
-340	0.00
-320	0.00
-300	0.00
-280	0.00
-260	0.00
-240	0.00
-220	0.00
-200	0.00
-180	0.00
-160	0.00
-140	0.00
-120	3.26
-100	3.26
-80	3.26
-60	0.00
-40	0.00
-20	0.00
0	0.00
20	6.52
40	3.26
60	9.77
80	3.26
100	3.26
120	0.00
140	-3.26
160	-6.52
180	-6.52
200	-6.52
220	-6.52
240	-6.52
260	-6.52
280	-3.26
300	0.00
320	3.26
340	3.26
360	6.52
380	6.52
400	3.26
420	3.26
440	3.26
460	0.00
480	3.26

Rollover Crash Pulse (Most Recent Event) (if equipped)

Time (msec)	Angular Rate (deg/sec)
500	3.26
520	3.26
540	3.26
560	6.52
580	3.26
600	3.26
620	3.26
640	3.26
660	3.26
680	3.26
700	3.26
720	0.00
740	0.00
760	0.00
780	0.00
800	0.00
820	-3.26
840	-3.26
860	-3.26
880	0.00
900	0.00
920	0.00
940	0.00
960	3.26
980	3.26
1000	3.26
1020	3.26
1040	3.26
1060	3.26
1080	3.26
1100	3.26
1120	0.00
1140	0.00
1160	0.00
1180	0.00
1200	0.00
1220	0.00
1240	0.00
1260	0.00
1280	0.00
1300	0.00
1320	0.00
1340	0.00
1360	0.00
1380	0.00
1400	0.00
1420	0.00
1440	0.00
1460	0.00
1480	0.00

Time (msec)	Angular Rate (deg/sec)
1500	0.00
1520	0.00
1540	0.00
1560	0.00
1580	0.00
1600	3.26
1620	3.26
1640	3.26
1660	3.26
1680	0.00
1700	0.00
1720	0.00
1740	0.00
1760	0.00
1780	0.00
1800	0.00
1820	0.00
1840	0.00
1860	0.00
1880	0.00
1900	0.00
1920	0.00
1940	0.00
1960	0.00
1980	0.00
2000	0.00
2020	0.00
2040	0.00
2060	0.00
2080	0.00
2100	0.00
2120	0.00
2140	0.00
2160	0.00
2180	0.00
2200	0.00
2220	0.00
2240	0.00
2260	0.00
2280	0.00
2300	0.00
2320	0.00
2340	0.00
2360	0.00
2380	0.00
2400	0.00
2420	0.00

Pre-Crash Data (Most Recent Event)



SNA values will not be plotted on the graph

Pre-Crash Data (Most Recent Event - table 1 of 4)

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

Time Stamp (sec)	Pre-Crash Recorder Status	Speed, Vehicle Indicated (MPH [km/h])	Accelerator Pedal, % Full	Engine Throttle, % Full	Service Brake	Engine RPM	Stability Control	Raw Manifold Pressure (kPa)	PCM MIL
-5.0	Complete	0 [0]	0	3	On	665	On	31	Off
-4.9	Complete	0 [0]	0	3	Off	663	On	31	Off
-4.8	Complete	0 [0]	0	3	Off	668	On	31	Off
-4.7	Complete	0 [0]	1	3	Off	672	On	31	Off
-4.6	Complete	0 [0]	8	7	Off	682	On	34	Off
-4.5	Complete	0 [0]	9	8	Off	765	On	41	Off
-4.4	Complete	0 [0]	9	8	Off	854	On	47	Off
-4.3	Complete	0 [0]	10	8	Off	1,035	On	50	Off
-4.2	Complete	0 [0]	14	10	Off	1,182	On	52	Off
-4.1	Complete	0 [0]	16	13	Off	1,343	On	59	Off
-4.0	Complete	0 [0]	16	14	Off	1,532	On	66	Off
-3.9	Complete	2 [2]	16	13	Off	1,629	On	64	Off
-3.8	Complete	2 [3]	14	12	Off	1,653	On	61	Off
-3.7	Complete	3 [4]	14	12	Off	1,627	On	57	Off
-3.6	Complete	3 [5]	14	12	Off	1,591	On	56	Off
-3.5	Complete	4 [6]	14	12	Off	1,561	On	57	Off
-3.4	Complete	4 [6]	16	14	Off	1,546	On	60	Off
-3.3	Complete	4 [7]	17	15	Off	1,587	On	65	Off
-3.2	Complete	5 [8]	18	15	Off	1,687	On	68	Off
-3.1	Complete	5 [9]	18	15	Off	1,758	On	70	Off
-3.0	Complete	6 [9]	18	15	Off	1,805	On	68	Off
-2.9	Complete	6 [10]	19	16	Off	1,832	On	69	Off
-2.8	Complete	7 [11]	21	17	Off	1,890	On	73	Off
-2.7	Complete	7 [12]	23	21	Off	2,001	On	79	Off
-2.6	Complete	8 [12]	24	21	Off	2,092	On	80	Off
-2.5	Complete	8 [13]	25	22	Off	2,146	On	81	Off
-2.4	Complete	9 [14]	25	22	Off	2,198	On	81	Off
-2.3	Complete	9 [15]	24	22	Off	2,251	On	79	Off
-2.2	Complete	10 [16]	19	19	Off	2,259	On	74	Off
-2.1	Complete	10 [17]	9	11	Off	2,055	On	52	Off
-2.0	Complete	11 [17]	7	6	Off	1,931	On	36	Off
-1.9	Complete	11 [17]	16	14	Off	2,013	On	36	Off
-1.8	Complete	11 [17]	24	17	Off	2,259	On	54	Off
-1.7	Complete	11 [18]	24	20	Off	2,392	On	67	Off
-1.6	Complete	11 [18]	23	21	Off	2,377	On	76	Off
-1.5	Complete	12 [19]	20	18	Off	2,283	On	70	Off
-1.4	Complete	12 [19]	19	19	Off	2,141	On	70	Off
-1.3	Complete	12 [20]	16	15	Off	2,029	On	66	Off
-1.2	Complete	12 [20]	16	15	Off	1,941	On	66	Off
-1.1	Complete	13 [20]	16	16	Off	1,889	On	69	Off
-1.0	Complete	13 [21]	16	16	Off	1,885	On	70	Off
-0.9	Complete	13 [21]	16	16	Off	1,910	On	70	Off
-0.8	Complete	13 [21]	16	16	Off	1,944	On	70	Off
-0.7	Complete	13 [22]	16	15	Off	1,953	On	70	Off
-0.6	Complete	14 [22]	16	15	Off	1,960	On	69	Off
-0.5	Complete	14 [22]	0	15	Off	1,917	On	66	Off
-0.4	Complete	14 [23]	0	5	Off	1,741	On	47	Off
-0.3	Complete	13 [22]	0	4	Off	1,624	On	38	Off
-0.2	Complete	12 [20]	0	4	On	1,483	On	33	Off
-0.1	Complete	7 [12]	0	4	On	1,267	On	32	Off

Pre-Crash Data (Most Recent Event - table 2 of 4)

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

Time Stamp (sec)	ESC MIL	ETC Lamp	Engine Torque Applied	PRND Status
-5.0	Off	Off	Yes	Drive
-4.9	Off	Off	Yes	Drive
-4.8	Off	Off	Yes	Drive
-4.7	Off	Off	Yes	Drive
-4.6	Off	Off	Yes	Drive
-4.5	Off	Off	Yes	Drive
-4.4	Off	Off	Yes	Drive
-4.3	Off	Off	Yes	Drive
-4.2	Off	Off	Yes	Drive
-4.1	Off	Off	Yes	Drive
-4.0	Off	Off	Yes	Drive
-3.9	Off	Off	Yes	Drive
-3.8	Off	Off	Yes	Drive
-3.7	Off	Off	Yes	Drive
-3.6	Off	Off	Yes	Drive
-3.5	Off	Off	Yes	Drive
-3.4	Off	Off	Yes	Drive
-3.3	Off	Off	Yes	Drive
-3.2	Off	Off	Yes	Drive
-3.1	Off	Off	Yes	Drive
-3.0	Off	Off	Yes	Drive
-2.9	Off	Off	Yes	Drive
-2.8	Off	Off	Yes	Drive
-2.7	Off	Off	Yes	Drive
-2.6	Off	Off	Yes	Drive
-2.5	Off	Off	Yes	Drive
-2.4	Off	Off	Yes	Drive
-2.3	Off	Off	Yes	Drive
-2.2	Off	Off	Yes	Drive
-2.1	Off	Off	Yes	Drive
-2.0	Off	Off	Yes	Drive
-1.9	Off	Off	Yes	Drive
-1.8	Off	Off	Yes	Drive
-1.7	Off	Off	Yes	Drive
-1.6	Off	Off	Yes	Drive
-1.5	Off	Off	Yes	Drive
-1.4	Off	Off	Yes	Drive
-1.3	Off	Off	Yes	Drive
-1.2	Off	Off	Yes	Drive
-1.1	Off	Off	Yes	Drive
-1.0	Off	Off	Yes	Drive
-0.9	Off	Off	Yes	Drive
-0.8	Off	Off	Yes	Drive
-0.7	Off	Off	Yes	Drive
-0.6	Off	Off	Yes	Drive
-0.5	Off	Off	Yes	Drive
-0.4	Off	Off	Yes	Drive
-0.3	Off	Off	Yes	Drive
-0.2	Off	Off	Yes	Drive
-0.1	Off	Off	Yes	Drive

Pre-Crash Data (Most Recent Event - table 3 of 4)

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

Time Stamp (sec)	Tire Location 1	Tire Location 2	Tire Location 3	Tire Pressure Status 1	Tire Pressure Status 2	Tire Pressure Status 3	Tire Pressure 1	Tire Pressure 2	Tire Pressure 3
-5.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-4.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-3.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-2.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-1.0	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.9	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.8	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.7	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.6	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.5	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.4	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.3	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.2	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA
-0.1	Spare	Spare	Spare	SNA	SNA	SNA	SNA	SNA	SNA

Pre-Crash Data (Most Recent Event - table 4 of 4)

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

Time Stamp (sec)	Cruise Control Active (if equip.)	Cruise Control System (if equip.)
-5.0	No	Off
-4.9	No	Off
-4.8	No	Off
-4.7	No	Off
-4.6	No	Off
-4.5	No	Off
-4.4	No	Off
-4.3	No	Off
-4.2	No	Off
-4.1	No	Off
-4.0	No	Off
-3.9	No	Off
-3.8	No	Off
-3.7	No	Off
-3.6	No	Off
-3.5	No	Off
-3.4	No	Off
-3.3	No	Off
-3.2	No	Off
-3.1	No	Off
-3.0	No	Off
-2.9	No	Off
-2.8	No	Off
-2.7	No	Off
-2.6	No	Off
-2.5	No	Off
-2.4	No	Off
-2.3	No	Off
-2.2	No	Off
-2.1	No	Off
-2.0	No	Off
-1.9	No	Off
-1.8	No	Off
-1.7	No	Off
-1.6	No	Off
-1.5	No	Off
-1.4	No	Off
-1.3	No	Off
-1.2	No	Off
-1.1	No	Off
-1.0	No	Off
-0.9	No	Off
-0.8	No	Off
-0.7	No	Off
-0.6	No	Off
-0.5	No	Off
-0.4	No	Off
-0.3	No	Off
-0.2	No	Off
-0.1	No	Off

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.

```
5A 87 02 27 03 05 FF 0D 27 0E 0F 01 36 38 32 33 32 37 31 33 41 43

5A 88 31 43 34 4E 4A 52 46 42 39 46 44 31 35 35 32 37 35

61 E1 54 32 36 4D 46 32 36 33 34 30 32 39 36 30

61 EA 04 18 00 DB 40 9D 08 01 38 00 00 00 00 00 00 00 00 00 00

61 02 E1 25 00 00 6A 92 18 00 00 00 20 01 00 00 00 00 00 00 00

61 31 01 CC 01 01 12 00 00 11 39 0A 23 73 00 00 08 00 00 25 B0 11 3D 86 00 F3 67 FF 20 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0E 0F 01 5A 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 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 46 44
31 35 35 32 37 35

61 32 02 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
FF FF FF FF FF FF

71 02 01 00 CC 00 04 F3 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 01 00 24 DB 2E 17 28 09 00 CC
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 05 D9 00 00
04 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

71 02 01 01 CC 00 05 CB 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 01 00 21 DE 2E 17 29 08 00 CC
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 09 F3 00 00
04 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

71 02 01 02 CC 00 06 58 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 01 00 21 DE 2E 17 2F 08 00 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0A D0 00 00
04 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

71 02 01 03 CC 00 06 CD 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 01 00 22 DD 2E 17 3B 0B 00 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0B 58 00 00
04 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

71 02 01 04 CC 00 07 7D 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 23 DC 2E 17 52 1F 00 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0B 2F 00 00
04 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

71 02 01 05 CC 00 07 A8 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 39 C6 54 2A 56 1F 1D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0B 0E 00 00
04 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

71 02 01 06 CC 00 07 A1 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 39 C6 53 29 57 1F 1D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0A DA 00 00
04 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

71 02 01 07 CC 00 07 98 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 39 C6 54 00 58 20 1D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0A AE 00 00
04 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
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00 00 00 00 00

71 02 01 08 CC 00 07 76 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3A C6 54 2A 58 20 1D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0A 8B 00 00
04 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

71 02 01 09 CC 00 07 5D 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3A C6 54 2A 58 20 1D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0A 54 00 00
04 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

71 02 01 0A CC 00 07 61 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3B C5 54 2A 56 21 1D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 0A 30 00 00
04 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

71 02 01 0B CC 00 07 95 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 39 C6 53 2A 52 1F 1D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 09 FE 00 00
04 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

71 02 01 0C CC 00 07 ED 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 36 C9 53 29 52 1F 1C C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 09 C1 00 00
04 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

71 02 01 0D CC 00 08 5D 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3E C1 56 2B 58 26 21 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 09 95 00 00
04 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

71 02 01 0E CC 00 08 EB 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3E C1 5A 2D 58 24 23 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 09 62 00 00
04 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

71 02 01 0F CC 00 09 49 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 45 BA 5D 2E 5F 2B 28 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 09 1D 00 00
04 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

71 02 01 10 CC 00 09 58 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 44 BB 61 30 54 28 2A C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 08 E0 00 00
04 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

71 02 01 11 CC 00 08 D3 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3D C2 61 30 43 22 2A C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 08 B5 00 00
04 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

71 02 01 12 CC 00 07 DD 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 35 CA 58 2C 2D 1C 1D C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 08 A1 00 00
04 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

71 02 01 13 CC 00 07 8B 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 24 DB 45 22 2D 0C 0C C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 08 8F 00 00
04 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

71 02 01 14 CC 00 08 07 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 26 D9 44 22 41 16 10 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 08 55 00 00
04 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
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71 02 01 15 CC 00 08 D3 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 39 C6 56 2B 5C 26 22 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 07 F4 00 00
04 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

71 02 01 16 CC 00 08 CB 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 45 BA 62 31 63 2C 2B C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 07 85 00 00
04 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

71 02 01 17 CC 00 08 96 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 46 B9 62 31 65 2D 2C C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 07 2B 00 00
04 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

71 02 01 18 CC 00 08 62 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 47 B8 63 00 65 2C 2C C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 06 A5 00 00
04 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

71 02 01 19 CC 00 08 2C 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 44 BB 61 30 64 2A 2A C0
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00 00 00 00 00

71 02 01 1A CC 00 07 D1 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 44 BB 60 30 63 2B 29 C0
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00 00 00 00 00

71 02 01 1B CC 00 07 62 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 40 BF 5D 2E 5B 23 25 C0
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00 00 00 00 00

71 02 01 1C CC 00 07 28 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3B C4 59 2C 56 20 22 C0
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00 00 00 00 00

71 02 01 1D CC 00 07 0D 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 39 C6 57 2B 55 1F 20 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 04 A1 00 00
04 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

71 02 01 1E CC 00 06 DE 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 39 C6 57 2B 57 1F 20 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 04 43 00 00
04 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

71 02 01 1F CC 00 06 97 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 3A C5 57 2B 55 1F 20 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 03 E2 00 00
04 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

71 02 01 20 CC 00 06 33 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 37 C8 55 2A 51 1E 1E C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 03 9C 00 00
04 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

71 02 01 21 CC 00 06 0A 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 36 C9 53 29 4B 1C 1C C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 03 33 00 00
04 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

71 02 01 22 CC 00 06 19 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 33 CC 50 28 47 19 19 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 02 D5 00 00
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04 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

71 02 01 23 CC 00 06 37 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 32 CD 50 28 46 18 19 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 02 86 00 00
04 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

71 02 01 24 CC 00 06 5B 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 32 CE 4F 28 47 18 19 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 02 06 00 00
04 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

71 02 01 25 CC 00 06 75 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 31 CF 4F 28 4C 18 19 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 01 97 00 00
04 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

71 02 01 26 CC 00 06 5D 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 34 CC 52 29 50 1A 1C C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 01 3E 00 00
04 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

71 02 01 27 CC 00 05 FC 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 34 CC 53 29 53 1D 1C C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 28 CC 00 05 3F 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 36 CA 53 29 4A 1A 1C C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 29 CC 00 04 9E 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 2F D0 50 00 41 15 18 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 2A CC 00 04 0B 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 2A D5 49 25 3E 10 11 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 2B CC 00 03 56 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 2A D6 46 23 3B 10 0F C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 2C CC 00 02 FD 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 29 D6 46 23 33 10 0F C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 2D CC 00 02 AA 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 29 D6 45 22 2A 0E 0E C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 2E CC 00 02 A0 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 20 DF 3C 1E 27 07 02 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 2F CC 00 02 9C 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 20 DF 2E 17 27 07 00 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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
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71 02 01 30 CC 00 02 97 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 20 DF 2E 17 27 07 00 C0
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
04 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

71 02 01 31 CC 00 02 99 00 FF FF FF FF FF FF FF FF FF FF 00 03 00 00 00 20 DF 2E 17 27 07 00 CC
00 FF 00 18 FF 18 FF 18 FF 00 3F FF 00 F8 FF 00 80 FF 07 3F 00 FF FF FF 00 00 00 00 00 00 00 00
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