EA13-007 GM 1/14/2014 **ATTACHMENT** 1 Q 03 Q 07 AND Q 08

EA13-007 GM 1/14/2014 ATTACHMENT 1 Q 03 N130146EA01S_A_71-1245499821.02

System (8:25:24 AM): [Chat has been initiated by anonymous customer.] System (8:25:29 AM): [You are now chatting with Louis.]

(8:25:32 AM) : Welcome to Chevrolet! How may I assist you?

Customer (8:25:39 AM) : Hi

Customer (8:26:00 AM) : I own a 2007 corvette convertible that has the low beam headlight issue

Customer (8:26:07 AM) : http://townhall.com/news/us/2013/08/27/us-regulators-upgrade-safety-probe-of-20052007-chevy-corvette-n1675096

(8:26:45 AM) : Hello! Thank you for contacting us today! I'm sorry you are experiencing this issue.

(8:26:49 AM) : To better assist, I am going to transfer you to an agent in our Customer Assistance Center chat department. One moment please.

Customer (8:26:50 AM) : My car is out of warranty and I want to know how I should handle this problem.

System (8:26:58 AM): [You have been transferred to department: Customer Assistance Center] System (8:29:11 AM): [You are now chatting with Regina.]

Regina (8:30:34 AM) : Thanks for contacting GM Customer Assistance. I understand that there is low beam headlight issue going on with your 2007 Chevrolet Corvette. You are seeking information on how to have the issue resolved. We can assist with with verifying the warranty

and recall information.

Regina (8:30:43 AM) : Do you have the VIN and approximate mileage?

Regina (8:30:57 AM) : Also, can I have your name and contact information for documentation purposes?/

Customer (8:31:28 AM) : I can get the vin, I don't have it handy this second, but the mileage is just over 88,000. Give me a min to get the vin.

Customer (8:36:33 AM) : 1G1YY36U575

Customer (8:37:21 AM) :

Customer (8:37:43 AM)

email

Regina (8:39:06 AM) : Has the concern been presented to any GM dealership yet?

Customer (8:40:30 AM) : not yet, It started about 4 days ago. I put a new relay in yesterday just to make sure it wasn't a simple fix. after checking on the corvette forum and doing some more research to find it's a more widespread problem, you were my next step.

, NJ

Regina (8:41:56 AM) : Your next step would be to present the concern to a Chevrolet dealership in your area or your preferred GM dealership. We researched the VIN and the make and model and found no recall information for the concern. We would like to assist with having the issue resolved with GM but could not guarantee any assistance.

Regina (8:42:10 AM) : We can locate a dealership if necessary and arrange an appointment for diagnosis.

Customer (8:44:49 AM) : I can take it to the dealership, but from what I have read, its' the fuse block under the hood. Wholesale is \$320 plus labor and some of the forum members were quoted \$800 from their dealerships. After GM got involved, one of the dealerships agreed to do it for \$200 total and that car had over 80,000 miles. I was hoping you could contact the dealership in my town RK Chevrolet on Delsea Drive in Vineland, NJ and get this out of the way before I waste time to bring it there only to be told it would be \$800.

Regina (8:47:01 AM) : 71-1245499821, is your reference for this chat and your vehicle concern. We can contact R.K. Chevrolet and possibly set up an appointment for diagnosis, which there would be a fee for. We will notify them that you are seeking cost assistance on a possible repair for the vehicle concern.

Regina (8:47:44 AM) : We understand that this vehicle was purchased used in 2010. Does RK Chevrolet or any GM dealership maintain the vehicle?

Customer (8:48:30 AM) : RK has done work on the car in the past but I have a privately owned corvette specialist shop in Vineland handle the routine service and repairs.

Regina (8:48:30 AM) : We also verified you have other GM vehicles, this will be information we

provide to the Customer Care Specialist at the dealership for your request for cost assistance. Regina (8:50:18 AM) : I understand. Can we set up an appointment at RK for you or will you handle that yourself?

Customer (8:50:54 AM) : Since this is my daily driver, I would like to have this situation resolved ahead of time. If you could contact RK, explain that this is a known problem being investigated by the NHTSA and it's the fuse block under the hood that needs replacing. I would like to have a negotiated price before bringing in the car.

Regina (8:52:36 AM) : I have advised of the plan of action. I would like to set up an appointment for a diagnosis to verify the vehicle complaint. As I have researched the VIN, there are no recall applied to it for this issue, so we will handle as a vehicle complaint which needs to verified by a GM dealership. At that time an estimate will be provided to you based on the factors we will be notifying the Customer Care Specialist at this time.

Customer (8:53:22 AM) : ok, set up the appointment and have the dealership contact me at my phone number

Regina (8:53:47 AM) : What will be a good day and time? Will you be staying with the vehicle or dropping it off?

Customer (8:54:12 AM) : I can drop it off, but will need the car back the same day. Any weekday but Friday is good.

Customer (8:54:28 AM) : morning is preferred

Regina (8:54:29 AM) : David Pastor Customer Care Specialist 856-696-8400 should be contacting you within 24 business hours.

Regina (8:54:51 AM) : Great! I have everything I need to go forward. Is there anything else we can assist with?

Customer (8:55:05 AM) : That will be all. Thank you.

Regina (8:55:08 AM) : Thanks for contacting GM Customer Assistance. System (9:12:10 AM): [Agent Regina has closed the session]

EA13-007 GM 1/14/2014 ATTACHMENT 1 Q 03 N130146EA01S_A_71-923228319.01

GARLAND CA SHO



10-03-11A08:02 RCVD Customer Relations Dept. P.O. BOX 33 170 Detroit, MI 48232-5170

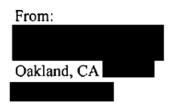


46232+5170

· ·

March 4, 2011

To: General Motors Corporation Customer Relations Department



To Whom It May Concern:

I am a long time loyal and faithful General Motors customer. I have always been proud to drive a GM vehicle. I recall as a child, admiring all the General Motors brands and how no other car or truck even came close to GM quality. I was fascinated by the design, workmanship and quality that went into the GM line.

I am having some serious and costly problems with my 2008 Chevy Corvette. The car is no longer safe on the road and has become a serious safety concern. The low beam headlamps are only working part of the time and rarely work at night. You never know when they will stop working. I left the car at the dealership for a week and they were unable to determine what was causing the problem. In addition, the fuel system is having problems. The fuel sensor (like the headlamps) is only working intermittently. This problem has been ongoing for some time and began shortly after the warranty was off. The dealership service department at FH Dailey told me that a service memo had been sent out about this problem. This indicates to me that this is not an isolated case. Per the memo, the service advisor recommended a costly fuel additive that was supposed to resolve the problem, however it did not. I have already had to replace a part that was causing the car to lose almost all of its power when driving. (again, another safety concern). This has become a nightmare. I purchased the car in August of 2007 for over \$60,000.00. The car now is just over three years old and has approximately 63,000 miles. The vehicle has always been well maintained and should not be causing the problems that it is and under no circumstances should it be an on-road safety hazard. I am now at the point where every time I get into the car to drive it, I worry about what will happen and will I be able to get to where I am going and will taking the car on the road be a danger to others or myself? Not a pleasant feeling at all.

The transmission that is in this car in my opinion is inferior and should have never been used for this automobile. When I first purchased the car, I was told what a wonderful thing the paddle shifters are and how much I would enjoy having them. To my dismay, I could not believe how rough the car shifts and how slow the shifters are to respond. This transmission should not be on a high end vehicle like the Corvette.

It will take a lot of convincing for me to ever purchase another GM car or truck. I had been contemplating purchasing the new 2011 Cadillac CTSV Coupe and even considering upgrading my current Corvette to the new Corvette ZR1. However with the recent problems that I am having, I just can't justify spending that amount of money if the quality is not going to be there.

For years I have defended the GM brand when others would talk about how other brands like Toyota, Honda, Nissan and even Ford were superior. Now I find it a little embarrassing when I hear them say "I told you so"

I would like to find out what if anything can be done to at least make my car drivable again. I would like to be able to drive it and not have to worry if I am going to make it home safely or even make it home at all.

D 1 -	
Regards,	

cc: General Manager FH Dailey Daniel F. Akerson Corvette Maintenance File

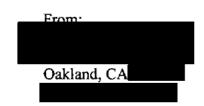
CLARGE AND CAL STARS or mar idli. Pri o T 10-03-11AC8:02 RCVD Daniel Akerson GM P.O. Box 33170 Detvort, MS 48232-5770

42232+5170

UANLAND, CA

March 4, 2011

To: General Motors Corporation Customer Relations Department



To Whom It May Concern:

I am a long time loyal and faithful General Motors customer. I have always been proud to drive a GM vehicle. I recall as a child, admiring all the General Motors brands and how no other car or truck even came close to GM quality. I was fascinated by the design, workmanship and quality that went into the GM line.

In the last 9 years I have purchased 3 brand new Chevrolets at a total cost of over \$145,000.00. In 2002 I purchased a new Camaro Z28 convertible VIN# 2G1FP32G722, in 2004 I purchased a brand new Z06 Commemorative Edition Corvette VIN# 1G1YY12S645, and in 2007 I purchased a brand new 2008 Corvette Convertible VIN# 1G1YY36W585, I love the Corvette and have admired it for years. However, now I am sorry to say that I am no longer happy with the car and have now become very disenchanted with the General Motors brand.

I am having some serious and costly problems with my 2008 Chevy Corvette. The car is no longer safe on the road and has become a serious safety concern. The low beam headlamps are only working part of the time and rarely work at night. You never know when they will stop working. I left the car at the dealership for a week and they were unable to determine what was causing the problem. In addition, the fuel system is having problems. The fuel sensor (like the headlamps) is only working intermittently. This problem has been ongoing for some time and began shortly after the warranty was off. The dealership service department at FH Dailey told me that a service memo had been sent out about this problem. This indicates to me that this is not an isolated case. Per the memo, the service advisor recommended a costly fuel additive that was supposed to resolve the problem, however it did not. I have already had to replace a part that was causing the car to lose almost all of its power when driving. (again, another safety concern). This has become a nightmare. I purchased the car in August of 2007 for over \$60,000.00. The car now is just over three years old and has approximately 63,000 miles. The vehicle has always been well maintained and should not be causing the problems that it is and under no circumstances should it be an on-road safety hazard. I am now at the point where every time I get into the car to drive it, I worry about what will happen and will I be able to get to where I am going and will taking the car on the road be a danger to others or myself? Not a pleasant feeling at all.

The transmission that is in this car in my opinion is inferior and should have never been used for this automobile. When I first purchased the car, I was told what a wonderful thing the paddle shifters are and how much I would enjoy having them. To my dismay, I could not believe how rough the car shifts and how slow the shifters are to respond. This transmission should not be on a high end vehicle like the Corvette.

It will take a lot of convincing for me to ever purchase another GM car or truck. I had been contemplating purchasing the new 2011 Cadillac CTSV Coupe and even considering upgrading my current Corvette to the new Corvette ZR1. However with the recent problems that I am having, I just can't justify spending that amount of money if the quality is not going to be there.

For years I have defended the GM brand when others would talk about how other brands like Toyota, Honda, Nissan and even Ford were superior. Now I find it a little embarrassing when I hear them say "I told you so"

I would like to find out what if anything can be done to at least make my car drivable again. I would like to be able to drive it and not have to worry if I am going to make it home safely or even make it home at all.



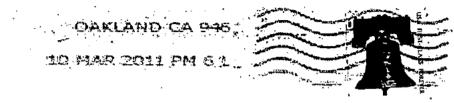
1

cc: General Manager FH Dailey Daniel F. Akerson Corvette Maintenance File

EA13-007 GM 1/14/2014 ATTACHMENT 1 Q 03 N130146EA01S_A_71-923228319.02

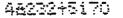


and the second sec



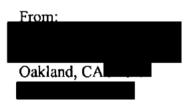
14-03-11A08:34 RCVD

Corvette P.D. Box 33170 Detroit, MI 48232



March 4, 2011

To: General Motors Corporation Customer Relations Department



To Whom It May Concern:

I am a long time loyal and faithful General Motors customer. I have always been proud to drive a GM vehicle. I recall as a child, admiring all the General Motors brands and how no other car or truck even came close to GM quality. I was fascinated by the design, workmanship and quality that went into the GM line.

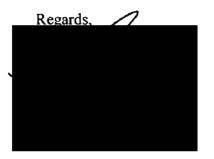
I am having some serious and costly problems with my 2008 Chevy Corvette. The car is no longer safe on the road and has become a serious safety concern. The low beam headlamps are only working part of the time and rarely work at night. You never know when they will stop working. I left the car at the dealership for a week and they were unable to determine what was causing the problem. In addition, the fuel system is having problems. The fuel sensor (like the headlamps) is only working intermittently. This problem has been ongoing for some time and began shortly after the warranty was off. The dealership service department at FH Dailey told me that a service memo had been sent out about this problem. This indicates to me that this is not an isolated case. Per the memo, the service advisor recommended a costly fuel additive that was supposed to resolve the problem, however it did not. I have already had to replace a part that was causing the car to lose almost all of its power when driving. (again, another safety concern). This has become a nightmare. I purchased the car in August of 2007 for over \$60,000.00. The car now is just over three years old and has approximately 63,000 miles. The vehicle has always been well maintained and should not be causing the problems that it is and under no circumstances should it be an on-road safety hazard. I am now at the point where every time I get into the car to drive it, I worry about what will happen and will I be able to get to where I am going and will taking the car on the road be a danger to others or myself? Not a pleasant feeling at all.

The transmission that is in this car in my opinion is inferior and should have never been used for this automobile. When I first purchased the car, I was told what a wonderful thing the paddle shifters are and how much I would enjoy having them. To my dismay, I could not believe how rough the car shifts and how slow the shifters are to respond. This transmission should not be on a high end vehicle like the Corvette.

It will take a lot of convincing for me to ever purchase another GM car or truck. I had been contemplating purchasing the new 2011 Cadillac CTSV Coupe and even considering upgrading my current Corvette to the new Corvette ZR1. However with the recent problems that I am having, I just can't justify spending that amount of money if the quality is not going to be there.

For years I have defended the GM brand when others would talk about how other brands like Toyota, Honda, Nissan and even Ford were superior. Now I find it a little embarrassing when I hear them say "I told you so"

I would like to find out what if anything can be done to at least make my car drivable again. I would like to be able to drive it and not have to worry if I am going to make it home safely or even make it home at all.



cc: General Manager FH Dailey Daniel F. Akerson Corvette Maintenance File

EA13-007 GM 1/14/2014 ATTACHMENT 1 Q 03 N130146EA01S_A_71-923228319.03

March 25, 2014



Dear

At Chevrolet, we take pride in the vehicles we produce and appreciate the time you took to contact us.

Because customer satisfaction is a top priority for us, please accept this letter worth up to \$100 towards your next maintenance service or repair on your 2008 Chevrolet Corvette.

This offer is valid towards <u>one</u> service visit on VIN 1G1YY36W585 In the event the cost of your service exceeds the \$100 maximum value, you will be responsible for paying the difference. If the total cost of your services is less than \$100, a credit or refund will not be issued. This letter is not transferable and is valid for 12 months from the date of issue.

We hope this gesture demonstrates our appreciation of you as a valued customer. Simply present this letter to any Chevrolet dealership for redemption. If you have future questions, please don't hesitate to contact our Executive Office at 1-313-667-7153. Please refer to your service request number listed above and we will be happy to assist you.

Sincerely,

Chevrolet Executive Office Service Request 71-923228319

For more information regarding the maintenance and care of your vehicle, please visit www.gmownercenter.com. This free online service offers vehicle and ownership-related information and tools tailored to your specific vehicle.

ATTENTION: DEALERSHIP SERVICE MANAGER

When submitting the claim, please use labor op Z7092, insert the amount in the net item column, and insert the CAC Service Request number in your comments. This <u>original</u> letter must be surrendered by the customer and retained by the dealer for audit purposes.

EA13-007 GM 1/14/2014 ATTACHMENT 1 Q 03 N130146EA01S_A_71-923228319.04

Feedback Directive Form ²⁰⁰⁹

Executive CRS	Jakenya Anderson
Executive	
Requestor(s) Name	Lynn Herron
Detroit Requestor:	Sheri Tickles
Special Instructions from Detroit:	none

Closed Status:	Dissatisfied	*Dissatisfied requires prior Detroit approval
Dissatisfied Approved By:	Sheri Tickles	Willing to Buy GM Again?: Select Yes or No

Customer's Name	
-----------------	--

Service Request #	71-923228319	Case Highlights
Pre-existing File?	none	Vehicle Concern: cust had a repair for fuel sensor and for his head lamps,
Date Assigned	3/14/11	
Email subject line	Fw: Case 71- 923228319	
Date of Contact	3/7/11	Dealer/ DVM/ FSE/ CAM opinion(s): at first gw was a 50/50 split for \$2-3000 repair, after further reivew with ddma, offered cust a \$500 deductible, and to offset cost of healamp
Date Closed by agent	4/13/11	repair \$100 maint ltr.
	1	
Year	2008	Final decision: 2 forms of goodwill.
Make	Chevrolet	Final decision. 2 forms of good will.
Model	Corvette	

Mileage	64000	
Type of Goodwill:	cust got \$500 deductible for repair and \$100 maint ltr	Business Case/Rationale for the decision: to retain a good cust and to help with out of warranty repairs.
Goodwill Generated by?	CARS	
Dealer Name Contacted:	F. H. Dailey Motor Co.	Customer's feedback regarding the decision: Cust satisfied with exec assist, but not with having to pay anything for
DVM Name Involved:	aubrey parrott	headlamp repairs.

EA13-007 GM 1/14/2014 **ATTACHMENT 1 Q** 07 2005 - 2007 MY Chevrolet **Corvette with Low Beams** Intermittent or Inoperable

Date: 11/06/2013

Ref. number: Service / Service Operations / G_0000178781

Subject: 2005 – 2007 MY Chevrolet Corvette with Low Beams Intermittent or Inoperable

GM CUSTOMER CARE & AFTERSALES

URGENT - DISTRIBUTE IMMEDIATELY

DATE	November 7, 2013
SUBJECT	2005 – 2007 MY Chevrolet Corvette with Low Beams Intermittent or
	Inoperable
MODELS	Corvette (MY 2005 & MY 2007)
ТО	Chevrolet Dealers
ATTN	Service Managers, Service Advisor, Service Technician

** Please communicate this information to technicians who install accessories

General Motors is investigating customer complaints of intermittent low beam headlamps and/or headlamps that turn off and will not come back on. Customers have reported the condition may be related to a failed under hood BEC (fuse box). General Motors would like to obtain several of the under hood BECs (fuse boxes) that exhibit this condition.

Should a customer come into your dealership with a 2005 to 2007 Corvette with a complaint of the low beam headlights go out while driving and/or the headlamps go out and come back on when the vehicle cools, or both low beam headlamps are in operable but the fog lamps and high beam lamps operate, please contact Art Spong at 586-524-9931. If Art is not available please leave a voice message with the following information;

- VIN
- mileage
- dealership name and BAC
- dealership contact information including name and phone number
- are the headlamps intermittent or inoperative

Art Spong will return your call within 48 hours and provide the dealership with repair information.

Art Spong Group Manager Performance Cars

Thank you for your cooperation.

END OF MESSAGE

GM CUSTOMER CARE & AFTERSALES

Contact name: Art Spong

E-Mail: Art.Spong@gm.com

Department: Service - Brand Quality Phone: -Intended Service Advisor, Service Manager, Service Technician roles: Archives: 11/20/2013 Expires: 11/06/2014

EA13-007 GM 1/14/2014 ATTACHMENT 1 Q 08 Q_08_2005 - 2007 Corvette UBEC - 13 Jan 14 FPERC-p

{ * } Indicates GM Confidential Business Information Redacted { ** } Indicates Cost Information Redacted

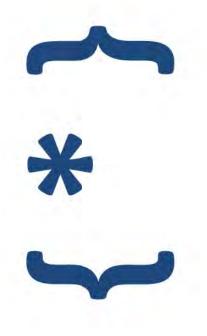
Underhood Bussed Electrical Center

	Model Year: 2005 - 2013 Corvette 200,114 total vehicles Cost: \$415/vehicle	NHTSA PE 13-013 NHTSA EA 13-007 ETQ N130XXX
	{ * }	
	{*}	
	{*}	
{ *}	<pre>{ * }</pre>	
{*}		
<pre>{*}</pre>		
{ *}		
{ * }		

Q_08_2005 - 2007 Corvette UBEC - 13 Jan 14 FPERC-p.pdf Page 1 of 8

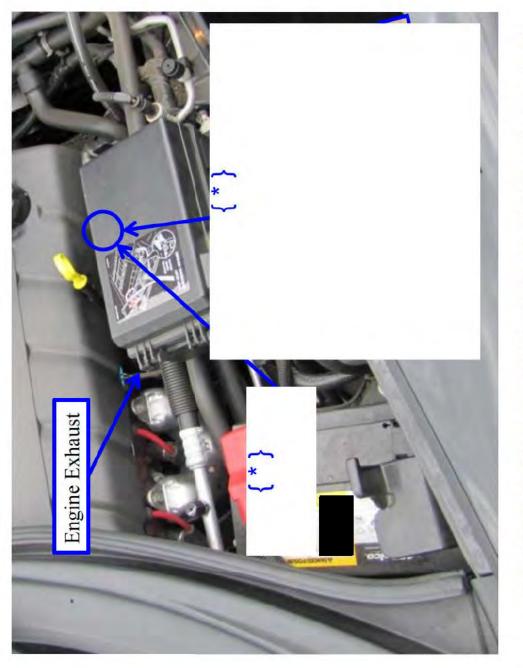
,

{ * } Indicates GM Confidential Business Information Redacted

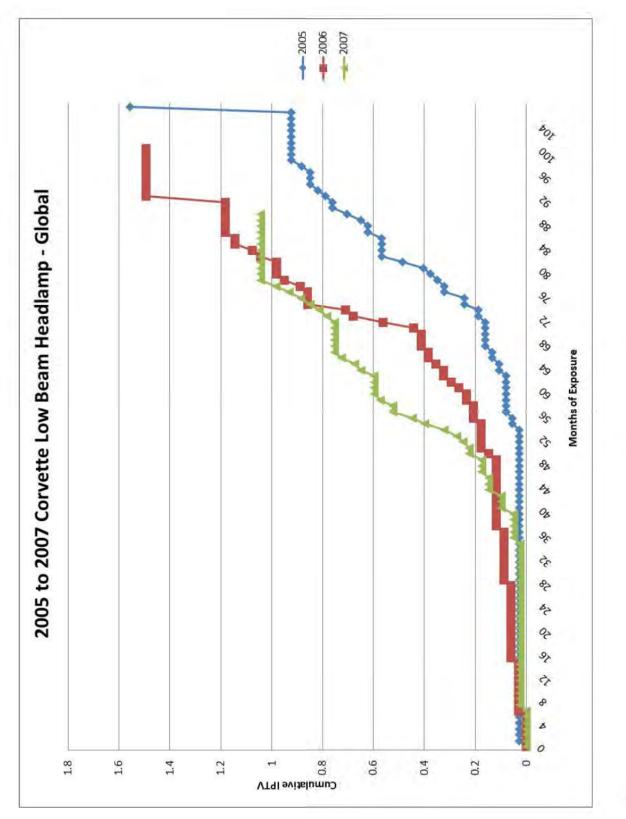


Q_08_2005 - 2007 Corvette UBEC - 13 Jan 14 FPERC-p.pdf Page 2 of 8

{ * } Indicates GM Confidential Business Information Redacted

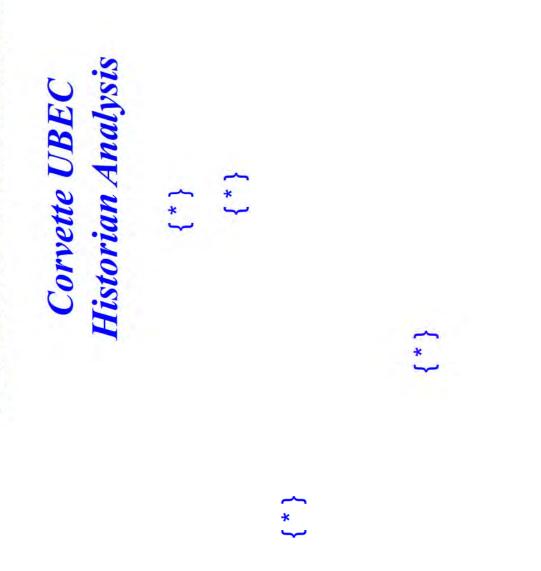


Q_08_2005 - 2007 Corvette UBEC - 13 Jan 14 FPERC-p.pdf Page 3 of 8



Q_08_2005 - 2007 Corvette UBEC - 13 Jan 14 FPERC-p.pdf Page 4 of 8

{ * } Indicates GM Confidential Business Information Redacted

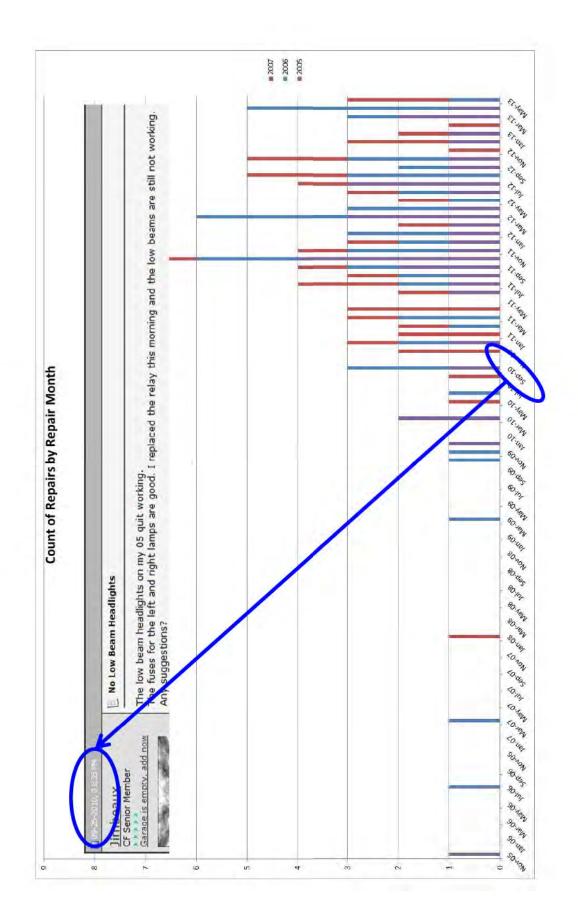


Q_08_2005 - 2007 Corvette UBEC - 13 Jan 14 FPERC-p.pdf Page 5 of 8

Corvette UBEC Historian Analysis

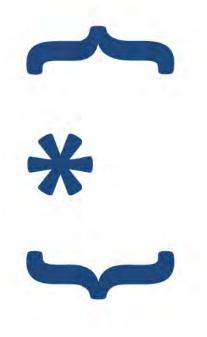
Mfr_Name	Subject	æ	Recall	Warranty Rate	Exposure	spov	population Warning	Restored
General Motors	ALLEGED HEADLIGHT FAILURE	PE06-017 No	No	2.0	2.0 4.5 years	15	201,468 No	By switch manipulation
Suzuki	HEADUGHT / DRL MALFUNCTION	PE07-039 Safety	Safety	31.7	31.7 39 months	4	35,000 No	Cannot be restored
Ford Motor Company	LOSS OF HEADLIGHT FUNCTION	PE08-066 No	No	0.5	0.5 5.5 years	10	518,468 No	Turn switch off and wait for a time, High beams
Chryster	Loss of Headlight Illumination	PE10-022	PE10-022 Lifetime warranty	22.8	22.8 5.5 years	75	622,014 Flicker	Turn switch off and on, High beams
Honda	Low Beam Headlights	PEID-037 Safety	Safety	0.4	0.4 40 months	00	133,000 No	High beams
Honda	Low Beam Headlights Stop Working	PE11-017				12	288,000 No	High beams
Chrysler	Loss of headlight illumination	EA11-010	EA11-010 Lifetime warranty	22.8	22.8 5.5 years	75	622,014 Flicker	Turn switch off and on, High beams
Honda	Low Beam Headlights Stop Illuminating	EA11-012 Safety	Safety				Same	High beams
2005 - 2007 Corvette UBEC	2005 - 2007 Corvette UBEC Low Beam Headlights Stop Illuminating	PE 13-013 No	No	1.04	1.04 6.5 years	30	103,374 No	Turn switch off and wait for a time, High beams
2005 - 2013 Corvette UBEC	2005 - 2013 Corvette UBEC Low Beam Headlights Stop Illuminating	EA13-007 No	No	0,91	0.91 4.8 years	113	200,111 No	Turn switch off and wait for a time, High beams
2005 Corvette UBEC	Low Beam Headlights Stop Illum Inating EA13-007 No	EA13-007	No	1.27	1.27 8.9 years	43	33,798 No	Turn switch off and wait for a time, High beams
2006 Corvette UBEC	Low Beam Headlights Stop Illuminating	EA13-007 No	No	1.08	1.08 7.9 years	34	31,556 No	Turn switch off and wait for a time, High beams
2007 Corvette UBEC	Low Beam Headlights Stop Illuminating	EA13-007 No	No	0,56	0.66 6.9 years	25	37,742 No	Turn switch off and wait for a time, High beams
2008 Corvette UBEC	Low Beam Headlights Stop Illuminating	EA13-007 No	No	0.24	0.24 5.9 years	60	32,885 No	Turn switch off and wait for a time, High beams
2009 Corvette UBEC	Low Beam Headlights Stop Illuminating	EA13-007 No	No	0.13	0.13 4.9 years	2	15,646 No	Turn switch off and wait for a time, High beams
2010 Corvette UBEC	Low Beam Headlights Stop Illuminating	EA13-007 No	No	0.09	0.09 3.9 years	1	11,615 No	Turn switch off and wait for a time, High beams
2011 Corvette UBEC	Low Beam Headlights Stop Illuminating	EA13-007 No	No	0.00	0.00 2.9 years	0	12,813 No	Turn switch off and wait for a time, High beams
2012 Corvette UBEC	Low Beam Headlights Stop Illuminating	EA13-007 No	No	0.00	0.00 1.9 years	0	11,144 No	Turn switch off and wait for a time, High beams
2013 Corvette UBEC	Low Beam Headlights Stop Illum nating	EA13-007 No	No	0.00	0.00 0.9 years	0	12,912 No	Turn switch off and wait for a time, High beams

Q_08_2005 - 2007 Corvette UBEC - 13 Jan 14 FPERC-p.pdf Page 6 of 8





{ * } Indicates GM Confidential Business Information Redacted



Q_08_2005 - 2007 Corvette UBEC - 13 Jan 14 FPERC-p.pdf Page 8 of 8

EA13-007 GM 1/14/2014 ATTACHMENT 1 Q 08 Q_08_Corvette Low Beam

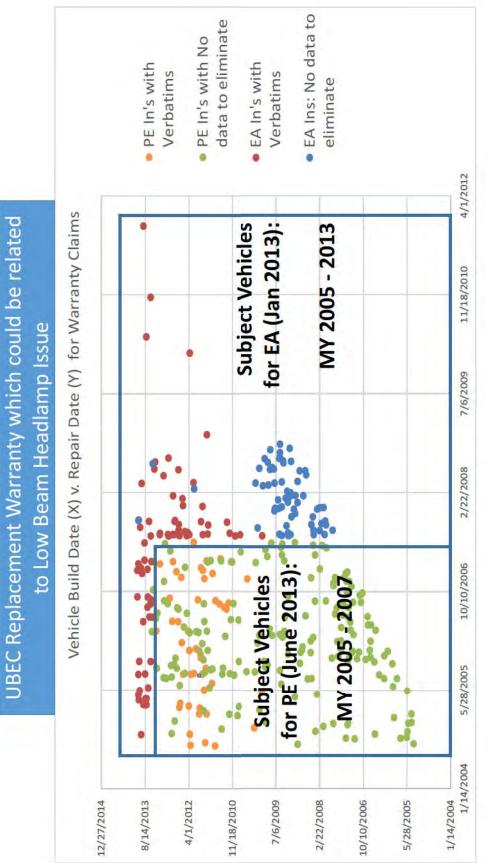
Headlamp Warranty Reports and VOQ data Preliminary-p

Corvette Low Beam Headlamp Failure Risk Assessment from PE 13013: 6/27/2013 N130146: EA13007 Due Jan 14, 2014

The failure mechanism is a routed wire in the UBEC that may fracture due to the cyclical application of stress. The routed wire fractures at a bend in the wire routing which may create an open circuit in circuit 1970, the headlamp low beam relay control circuit. A fracture at this point would disable the low-beam headlamps. The fracture may separate more as the temperature rises. So the low-beam headlamp's function may be intermittent with the low beam headlight functionality returning after a period of time, typically after the vehicle has been parked. The high beam headlamps, marker lamps, turn signals, and fog

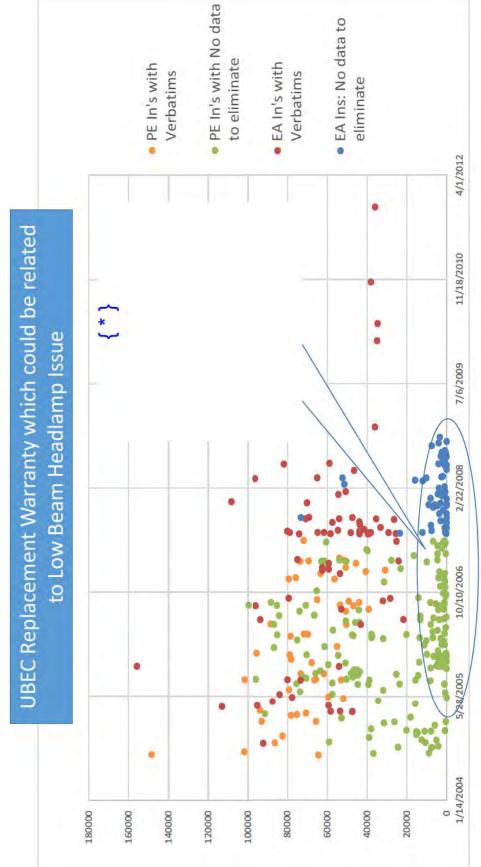
The coefficient of thermal expansion of plastic is greater than that of copper. As the plastic of the UBEC expands when subjected to high external temperatures, the copper routed wire is stressed at a bend in the wire routing. In time this cyclical application of stress may fatigue the copper routed wire. Surface cracks visible near the routed wire fracture are consistent with thermal-cyclic fatigue. The point of the routed wire fracture (circuit 1970) is in the portion of the UBEC closest to the engine and its exhaust components, which apply heat to this portion of the UBEC. Circuits with similar routings and lengths, such as circuits 1314 and 28, face away from the engine and fatigue was not observed in these circuits

Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 1 of 15





a.

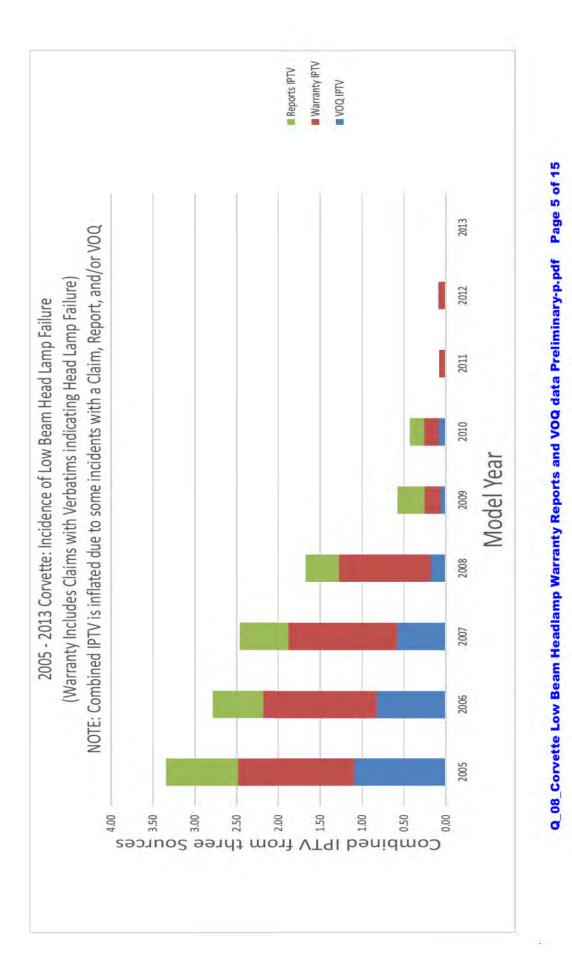


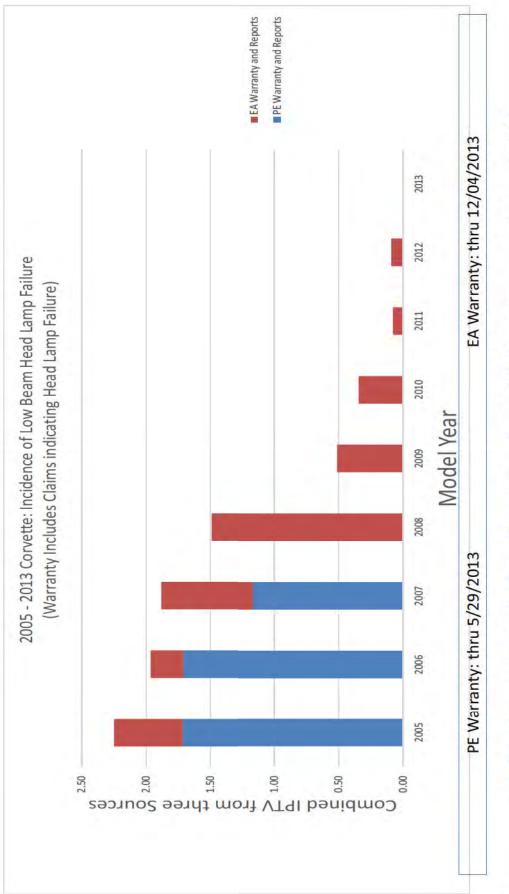
{*} Indicates GM Confidential Business Information Redacted

Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 3 of 15

IPTV of VOQS through	h PE EA Total IPTV PE	Total	VTqI	PE	EA	Total		Total IPTV for all
1.27	arranuy warran 34	13 13	47 1.39	24 24	t Ports	керогь 29	0,86	3.34 3.34
1.08	38	5	43 1.36	16	3	19	0.60	2.79
0.66	36	13	49 1.30	8	14	22	0.58	2.46
0.24	0	36	36 1.09	0	13	13	0.40	1.67
0.13	0	3	3 0.19	0	5	5	0.32	0.58
0.09	0	2	2 0.17	0	2	2	0.17	0.43
0.00	0	1	1 0.08	0	0	0	0.00	0.08
0.00	0	1	1 0.09	0	0	0	0.00	0.09
0.00	0	0	0 0.00	0	0	0	0.00	0.00
	108	74	182	48	42	8		
		-						
Total submitted in Access		138 3	383					

Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 4 of 15

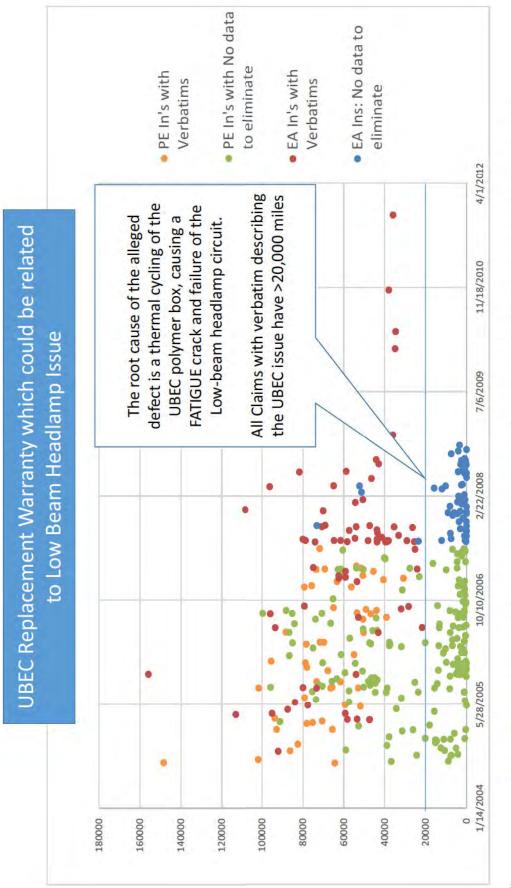




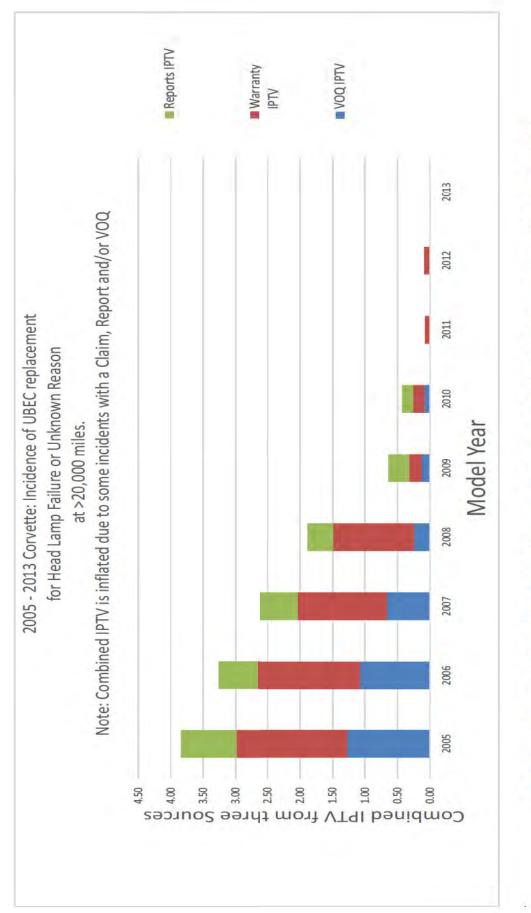
Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 6 of 15

Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 7 of 15

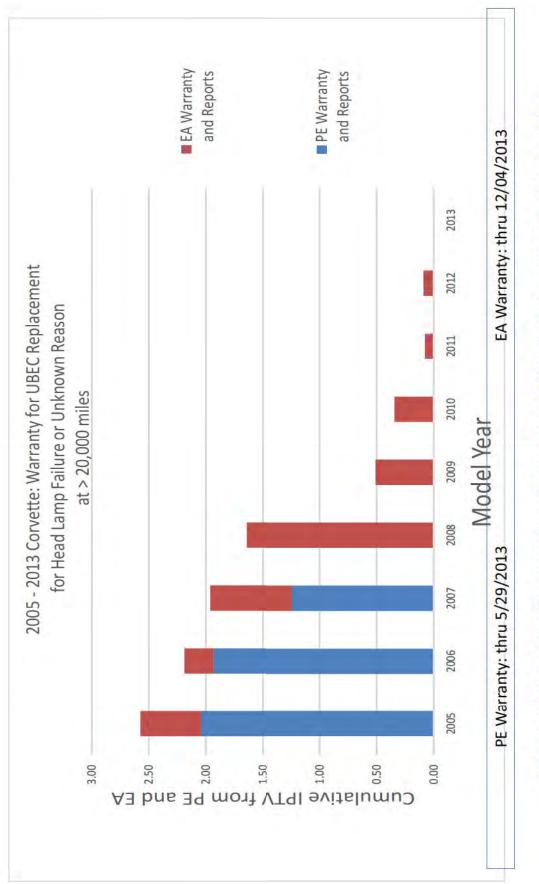
Backup





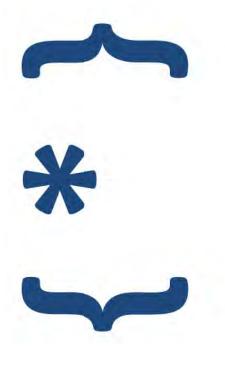




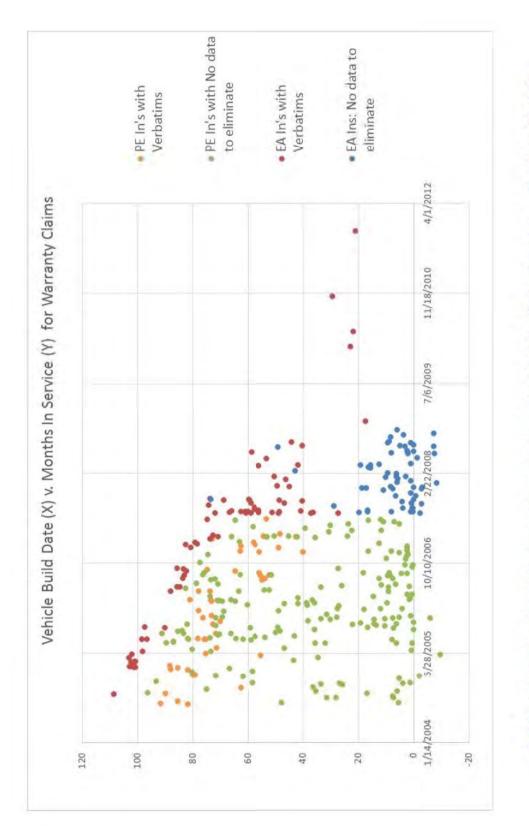


Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 10 of 15

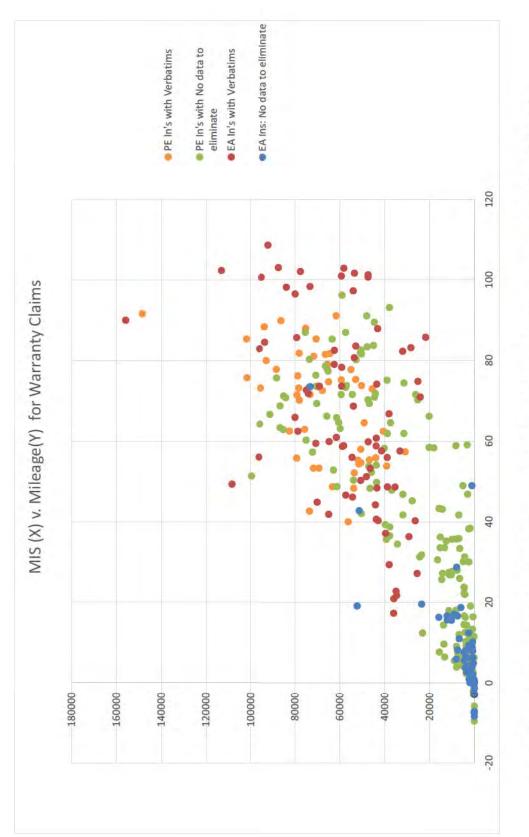
{ * } Indicates GM Confidential Business Information Redacted



Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 11 of 15

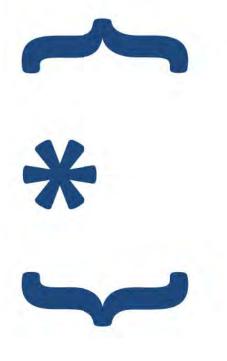






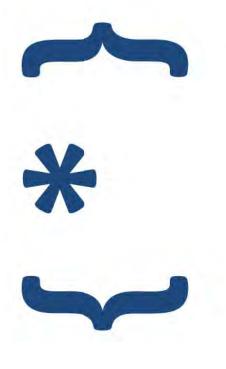


{ * } Indicates GM Confidential Business Information Redacted



Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 14 of 15

{ * } Indicates GM Confidential Business Information Redacted



Q_08_Corvette Low Beam Headlamp Warranty Reports and VOQ data Preliminary-p.pdf Page 15 of 15