

**Wider Distribution (Core Team and Functional Support)**

**Book:** 05-Engineering/Integration Areas **Information:** Historical

**Topic:** 01.0 VAPIR **Sub-Topic:** 01.02 All Meeting Minutes

**Title:** VAPIR 6-14-05

**ILM Record Definition:** GM Business Record **ILM Record Series #:** PRD035

**Business Process:** Product Development/Engineering

**Record Series:** Design and Release - Decision Documentation

**Retention Period:** Production Run+ 50, With Review,

**Program:** GMX001

**ILM Architecture:** Delta

**Description:**

**Keywords:**

**Attachments/Comments:**

    
6-14 X001 VAPIR.x 6-14 Scott GMX001 timeline 6-14 X001 Ignition Cylinder 06090  
   
6-14 X001 Ignition Cylinder 060905 6-14 CR309195 VAPIR Update (14JUN)

**Originator:** Chris M Ritter

**Created:** 14Jun05

**Status:** Approved

**Approval Date:**

**Version:** Original

**Sequence Number:**

**CROSS REFERENCE AREAS (Select all that apply)**

**Field 1:** SMT/Major Subsystem

**Field 2:** PMT/Subsystem

**Field 3:** Integration Areas/PDT'S

GMX001 VAPIR Meeting  
June 14, 2005 7:00 - 8:30

Meet Me Line [REDACTED] Participant: [REDACTED]

TIME	SUBJECT	PRESENTER	I/D	When
7:00	Program Update 311821 - Revised Catalytic Converter Architecture 08 + 308642-01 - RR End Panel 06+ 310835-01 - CASS Clutch Apply Sensing System 08+	Manson Schultz Ritter Schultz	I	Need CR approval and EPM 6/20 - SORP, system fill this week All CRs ok'd for action; 308642-01 straight to DN, PWO was ok'd in CAB
7:05	07 Integration Build BOM & Status	Konzen	I	13th vehicle through lab check
7:10	Exhaust Hanger Issues	Marlowe Porter	I	Potential ergo issue with new 25 mm shorter hanger/ball joint - clearance to body may be tight. Will work ETRs with plant to optimize design
7:20	06 Exhaust Retrofit	Porter	I	Build bucket 1,2 and 1 of 3 have incorrect exhausts. Retrofit schedule in place with Marlowe
7:45	UQ3 - Common Attachment Scheme	Kirsch	D	Go with 06 design to up capacity, handle X002 commonization in 08 due to qtr changes
8:00	Leather Status	Craig Dalton Scott Kolhoff	I	Continuing testing on seats & bags
8:15	Side NCAP	Craig	I	Tested Friday with a/rear changes - 3'; will move forward with re-test by NHTSA
8:20	Park Brake Timing Plan	Crockett	I	Need complete business case including banking costs
8:30	Ignition Cylinder Status	Manson Manzor	D	Will try ring/hole change and continue investigation of 191 cylinder
Time Permitting	PRTS - Chart below	Marlowe	I	Need implementation by 8-1; 180480 only IP rattle; 183505 - Intermittent operation, daily calls, Red X on brake switch, also checking BCM LE5 MMS only

Function	Name	
Vehicle Chief Engr. (VCE)*	Parks	x
Program Engineering Manager (PEM)*	Manson	x
Business Manager (BM)	Ritter	x
Vehicle Performance Manager (VPM)	Manzor	x
Vehicle Architecture Manager (VAM)	NA	
VSE/EGM - Body Structure / Closures	Rodriguez/Aldrete Meza	
VSE/EGM - Exterior	Sergot/Zawacki	
VSE/EGM - Interior	Dobrzynski	
VSE/EGM - Electrical	Kirkman	
VSE/EGM - HVAC/PTC	Porrett	
VSE/EGM - Powertrain	Schultz	x
VSE/EGM - Chassis	Marin/Morales/Guerrero	
Program Quality Manager (PQM)	Taylor/Marlowe	x
Manufacturing Program Manager (MPM)/ Program Launch Manager (PLM)	Sloan	

Prob#	Title	Status	PDFdate	Rootchamp
N178194	Trim Asm, Inside Door Handle - LH inside door handle interference with bezel during activation	Root Caus	3/4/2005	Deyer, Les
N180480	steering system, Steering Wheel Column - rattle	Root Caus	4/13/2005	Sherman, Scott
N182276	Ignition Cylinder, Ignition Lock Module - Ignition cylinder effort to low, allows vehicle to shut off while driving.	Root Caus	5/16/2005	Manson li, Joseph R.
N183505	cruise control, Steering Column - not working properly	Root Caus	6/7/2005	Skelton, Bill

\*The VCE or AVCE/PEM must be present for any items that require a decision.

## X001 Ignition Cylinder Effort... Next Actions

### Short Term:

- Eliminate 25mm dia key ring (use only 13mm ring)  
Timing: Immediate, Cost (savings)
- Plug Key Slot w/Hole  
Timing: 10wks, Cost (tbd)
- Combine?

### Long Term:

- Increase camshaft load to cylinder module (10% solution to increase effort)  
Timing: 50wks, Cost (\$0.57/veh, \$187K & proto parts)
- Revise Ignition Switch aka GMX191 to increase shut off effort from 3lbs to 6lbs  
Timing: 2008 SOP (GMX191 gets in 2007), Cost (\$1.00/veh, Tools TBD)

## X001 Ignition Cylinder Effort...Field Info

- Jeff Sabatini (NY Times) article on his wife's experience due 6/19
- GM Communication Response (attach)
- 5/23 Sunbury Article (attach)
- Service Bulletin PI (attach)

# X001 Ignition Cylinder Effort... GM Communications Statement

## **GM Statement On Chevrolet Cobalt Inadvertent Shutoffs**

***Attributable to Alan Adler, Manager, Product Safety Communications***

In rare cases when a combination of factors is present, a Chevrolet Cobalt driver can cut power to the engine by inadvertently bumping the ignition key to the accessory or off position while the car is running.

When this happens, the Cobalt is still controllable. The engine can be restarted after shifting to neutral.

GM has analyzed this condition and believes it may occur when a driver overloads a key ring, or when the driver's leg moves amid factors such as steering column position, seat height and placement. Depending on these factors, a driver can unintentionally turn the vehicle off.

Service advisers are telling customers they can virtually eliminate this possibility by taking several steps, including removing non-essential material from their key rings.

Ignition systems are designed to have "on" and "off" positions, and practically any vehicle can have power to a running engine cut off by inadvertently bumping the ignition from the run to accessory or off position.

# X001 Ignition Cylinder Effort... Sunbury Article

May 26, 2005

All-new Cobalt  
has good,  
bad points

By Gary Heller

SUNBURY - The all-new Chevrolet Cobalt has many virtues and many faults.

The virtues include good gas mileage, loads of trunk space and better-than-average power for a car in this class.

The faults include a stiff ride, a cheap-feeling steering wheel, lack of rear seat legroom and one that I hope is unique - the engine is easy to turn off while the car is in motion.

Unplanned engine shutdowns happened four times during a hard-driving test week.

In each of those instances, I bumped the ignition key fob with my knee. The bump was enough to knock the key into the accessory position, which turned off the engine but allowed other systems to keep operating.

That happened twice on Interstate 80 at 65 mph before I figured what was going on. I confirmed my theory while parked at a rest stop.

Nevertheless, even knowing about the problem didn't stop me from bumping the key fob and accidentally turning off the engine twice more.

I never encountered anything like this in 37 years of driving. I hope I never do again.

Anyway, the test model was an LS sedan with a list price of \$15,920. The only options were a four-speed automatic transmission (\$850) and rear deck-lid spoiler (\$275).

The transmission worked well with the 2.2-liter engine, rated at 145 horsepower, but the engine was a shade noisy when pushed.

And I will have to acknowledge that I pushed it.

I took the Cobalt to Indiana, Pa., to bring my youngest son, Andrew, home from college.

Even with careful packing, the car was so full that Andrew had to ride home with a 40-pound duffle bag on his lap.

Nevertheless, the Cobalt had no trouble handling the mountains on I-80 between the Lewisburg and Clearfield exits - at least when the engine didn't shut down.

GMHEC000552116

## X001 Ignition Cylinder Effort... Sunbury Article Cont

Gas mileage was certainly respectable, given the load. I didn't clock it precisely, but it was fairly close to the EPA rating of 32 miles per gallon on highways.

Speed-sensitive electric power steering was among the Cobalt's standard equipment, but I didn't find the handling exceptional. The ride was a bit stiff, but got softer with a load.

Standard equipment on the test model included driver and passenger dual-stage air bags, power windows, locks and exterior mirrors and four-wheel anti-lock brakes.

The Cobalt comes in several styles. A super sport model is available with a 205-horsepower supercharged engine. A 5-speed Getrag manual transmission is standard.

The Cobalt is replacing the Cavalier in the Chevrolet lineup and competes directly with the Ford Focus, Honda Civic, Mazda3 and Toyota Corolla. The standard goodies make it a tempting pick, but I'd look hard at the distance between your knee and the ignition switch before making a final decision.



### The stats

2005 Chevrolet Cobalt LS sedan

Engine: 2.2-liter 4-cylinder

Gas mileage: 24 city, 32 highway

Base price: \$15,920

As tested: \$17,610

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GMHEC000552117

# X001 ignition Cylinder Effort...Service Bulletin PI

**Engine Stalls, Loss of Electrical Systems, and No DTCs - keywords driver engine intermittent int ignition IPC key loss  
LSJ phantom #PIC3421 - (Feb 28, 2005)  
Engine Stalls, Loss of Electrical Systems, and No DTC**

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in the PI.

## **Condition/Concern:**

The engine may stall while driving intermittently, and some customers may notice the loss of electrical systems.

**Note:** No DTCs are stored.

## **Recommendation/Instructions:**

There is potential for the driver to inadvertently turn off the ignition due to low key ignition cylinder torque/effort. The concern is more likely to occur if the driver is short and has a large heavy key chain.

In the cases this condition was documented, the driver's knee would contact the key chain while the vehicle was turning. The steering column was adjusted all the way down. This is more likely to happen to a person that is short as they will have the seat positioned closer to the steering column.

In cases that fit this profile, question the customer thoroughly to determine if this may be the cause. The customer should be advised of this potential and to take steps, such as removing unessential items from their key chain, to prevent it.

Please follow this diagnosis process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

## **Models:**

(2005 Pontiac Pursuit) and (2005 Chevrolet Cobalt)

## X001 Ignition Cylinder Effort... Next Actions

### Short Term:

- Eliminate 25mm dia key ring (use only 13mm ring)  
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