

EA11-015

GM

4/29/2013

ATTACHMENT 1

Q17

Q_17_N-

110175+Aura+Shift+Cable,+EF

ADC+Final-p

2007-2008 Saturn Aura Automatic Transmission Shift Cable



62,492 Vehicles (U.S. & Canada)

2007MY & 2008MY built thru Oct 2007, w 4-spd Auto Trans MN5/ME7

Cost Estimate: \$tbd

N-110175, Ref: PE11-021

Condition:

General Motors has received complaints alleging that the transmission shift cable failed, and:

1. The vehicle rolled away after the passengers exited the vehicle with the shifter in Park;
2. The vehicle experienced unintended movement/acceleration with the shifter in Park; or,
3. The vehicle accelerated in the opposite direction than the driver intended.

Effect of the Condition:

The driver may experience increased effort selecting a drive gear or moving the shift lever. As time increases the driver may not be able to restart the vehicle or shift the vehicle into PARK. If these warnings are ignored, the cable could fracture and shift function could be lost.

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Frequency: 10.8 cumulative IPTV, 2007-08 , 4-spd automatic transmission (2007 SOP thru 2008MY Oct 2007), Replace & Adjust Labor Ops

Potential Field Action Category: Potential Safety Campaign, or TBD

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2007-2008 Saturn Aura Automatic Transmission Shift Cable

Discovery:

This condition was reported by the NHTSA on 5-20-11, Reference PE-11021.

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Immediate Improvement /Containment:

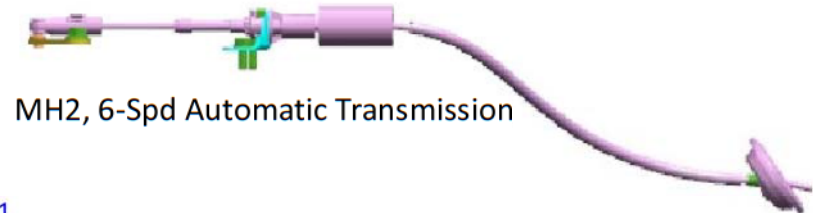
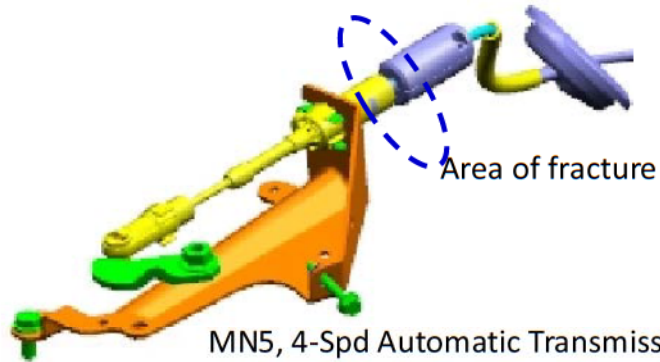
No immediate action is required because the subject L&P shift cables have been out of production and service since October 2007. The current supplier, Kongsberg Automotive, meets all engineering requirements.

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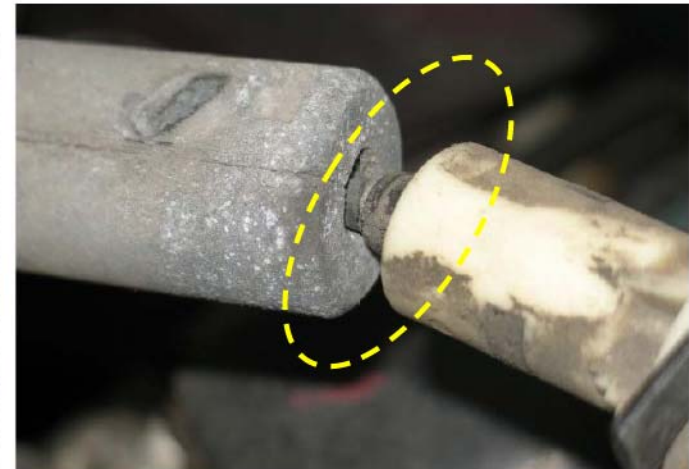
Saturn Aura Automatic Transmission Shift Cable

Suspect Population:

Saturn Aura, 4-speed automatic transmission, MN5/ME7
2007MY & 2008MY built through Oct 2007



MN5, 4-Spd Automatic Transmission - Underhood



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Saturn Aura Automatic Transmission Shift Cable

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Field Reports:

Relevant Historian Recalls:

Cost Estimates:

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Saturn Aura Automatic Transmission Shift Cable

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Field Reports:

-VOQs

-Warranty

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Relevant Historian Recalls:

Cost Estimates:

Saturn Aura Automatic Transmission Shift Cable VOQ summary for 2004 - 2008 Aura-G6-Malibu

VOQ's

- All VOQs, but one, indicated a 4-speed transmission (*)
- Saturn Aura VOQs were elevated at 0.20 VOQs/1K

	Responsive VOQs	Unintended Motion
Malibu	6 0.01 IPTV	3 < 0.01 IPTV
G6	5 0.01 IPTV	1 < 0.01 IPTV
Aura	18 0.20 IPTV	12 0.19 IPTV

(*) One 2007 Aura 6-spd verbatim indicated the cable was adjusted

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Saturn Aura Automatic Transmission Shift Cable

Regular & extended warranty from GART

Transmission Shift Cable Replacement (4-Speed MN5 trans, Leggett Platt cables)

		United States			Production		
Model	Model Years	Cable Replace	Unintended Movement		2004 -2007 MY + estimated 2008 Partial MY Production for US, CA, MX		
		(IPTV)	(IPTV)		US	Canada	Mexico
Malibu	2004 thru Oct2007 MY2008	1.89	0.01		673,331	62,183	30,098
G6*	2005 thru Oct2007 MY2008	2.06	0.01		421,824	50,034	2,298
Aura	2007 thru Oct2007 MY2008	11.43	0.50		57,925	3,821	0

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n/a: Production Volume was zero

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Saturn Aura Automatic Transmission Shift Cable

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Field Reports:

-VOQs

-Warranty

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Relevant Historian Recalls:

Cost Estimates:

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Saturn Aura Automatic Transmission Shift Cable

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Field Reports:

-VOQs

-Warranty

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Relevant Historian Recalls:

Cost Estimates:

Relevant NHTSA Investigations & Recalls Automatic Transmission Shift Cable– Unintended Vehicle Motion

NHTSA IR	OPEN DATE	CLOSE DATE	VEHICLE	MY	ALLEGED CONDITION	Warning (Y/N)	RECALL	# OF VEHICLES	VOQs	VOQs/1K VEHICLES	MANUFACTURER COMPLAINTS WARRANTY	CIPTV
EA09013	2009 0818	OPEN	FORD EXPLORER MOUNTAINEER	2002-2005	Customers who believed they had shifted to "PARK", alleged UNINTENDED VEHICLE MOVEMENT. Customer reports of higher than expected shift efforts into/out of "PARK" could be result of a groove being worn into swing arm ramp of steering column.	Y	OPEN	1,500,000	18 VOQs 9 w CRASH 4 INJURY 3-30-11 NHTSA Ltr 32 VOQs, Movement 2 w CRASH 28 VOQs, Shifting	0.01 0.04	200 COMPLAINTS 85 w CRASH 31 INJURY 883 Reports	0.13 - Complaints 0.72 - Overall 0.59 - Reports
None		n/a	Pontiac G6	2004-2008	Transmission shift cable fails	Y	n/a	427,168 (421,824 4-spds) (5,344 6-spds)	5 VOQs	0.01	841 4-spd Warranty 11 6-spd Warranty	1.99 4-spd Warranty 2.06 6-spd Warranty
None		n/a	Chevrolet Malibu	2004-2008	Transmission shift cable failed	Y	n/a	669,902 (all 4-spds)	6 VOQs	0.01	1,120 4-Spd Warranty	1.67 4-spd Warranty
RQ00010	20000313	20010112	FORD F250 FORD F350 FORD F450 FORD F550	1999	The rust preventative coating the surface of the parking brake lining material which reduces the frictional characteristics at the lining and rotor interface	N	98V101000 Noncompliance	700,854	13 VOQs 5 w CRASH 1 INJURY	0.02	144 COMPLAINTS 40 w CRASH 2 INJURY 1,258 WARRANTY	0.21 - Complaints 2.00 - Overall 1.79 - Warranty
EA04025	20040826	20051222	DODGE RAM 2500 w A/T DODGE RAM 3500 w A/T	2003-2004	THE VEHICLE MAY EXPERIENCE A REVERSE POWERED ROLLAWAY INCIDENT AFTER AN ATTEMPTED SHIFT INTO "PARK" WITH THE ENGINE RUNNING AND THE PARK BRAKE UNSECURED - FALSE PARK	N	05V462000 Product Improvement See 673 Letter	183,058 (Open) 250,285 (Close)	9 VOQs 6 w CRASH 2 INJURY 81 VOQs (close) 69-C,14-I,2-D	0.05	50 Complaints 42 w Crash 3 w Injury 250 Complaints 205 w Crash 27 w Injury, 2 deaths	0.27 - Complaints 1.00 - Complaints
PE03057	20031208	20040409	2500/3500 C/K Trucks	1999-2003	Park Brake friction linings may wear out prematurely	N	Upgraded to EA04011	155,000 (Open)	8 VOQs 2 w Crash 1 Injury	0.05	not provided	
PE10046	20101122	20110405	KIA OPTIMA	2007	AUTOMATIC TRANSMISSION SHIFT CABLE MAY DETACH FROM THE SHIFTER ASSEMBLY. IF THIS OCCURS, THE VEHICLE MAY ROLL.	N	11V153000 Voluntary Safety	41,000 (Open) 70,115 (Close)	3 VOQs 4 VOQs	0.07 0.06	not provided 135 Complaints 4 w/Crash 2,026 Warranty	n/a 1.94 - Complaints 30.8 - Overall 28.90 - Warranty
EA01003 (PE00038)	20010111	20020325	JEEP / WRANGLER	1994-1995	PARKING BRAKE 'PEDAL' MAY FAIL TO HOLD	N	02V041000 Safety	124,826 (open) 316,148 (close)	13 VOQs 6 Crashes 17 VOQs 6 w/CRASH	0.10 0.05	78 COMPLAINTS 51 W/CRASH 3 INJURIES 2395 WARRANTY	0.62 - Complaints 19.81 - Overall 7.58 - Warranty
PE11021	20110520	OPEN	Saturn Aura	2007-2008	Transmission shift cable failed	Y	-	65,105 88,692 57,964	8 VOQs 1 Crash 18 VOQs (11 Rolls, 4-spd)	0.12 0.20 0.19	549 Warranty, all 515 Warranty, 4-spd	1.11 6-spd Warranty 8.88 4-spd Warranty
EA04011	20040409	20050510	2500/3500 C/K Trucks	1999-2003	Park Brake friction linings may wear out prematurely. If the parking brake does not hold, unintended vehicle movement could occur which could lead to a crash.	N	05V161000 Safety	70,226 (Open) 70,226 (Close)	10 VOQs 2 w Crash 1 Injury 8 VOQs 3 w Crash	0.14	55 Complaints 17 Crashes 3 w Injury 2,854 Warranty	0.78 - Complaints 41.42 - Overall 40.64 - Warranty
PE08052	20080902	20081110	DODGE CHARGER POLICE CRUISER (V8)	2007-2009	GEAR SHIFT CABLE MAY SEPARATE FROM BRACKET. RESULTING IN UNINTENDED VEHICLE MOTION.	N	08V583000 Safety	20,383 (Open) 20,383 (Close)	5 VOQs 5 VOQs	1.06 1.06	70 Complaints 0 Crashes 200 Reports	3.54 - Complaints 18.10 - Overall 14.67 - Reports

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Saturn Aura Automatic Transmission Shift Cable

Backup

S:\PRODUCT INVESTIGATIONS\NHTSA Investigations\N110175 - PE11-021 - Shift Indicator



Service Part Numbers:	MN5/ ME7 4 Speed Transmission	
	Shift Cable	Bracket
Saturn Aura	25907379	25907374
Chevy Malibu	20922586	25907374
Pontiac G6	20922585	25907374

Saturn Aura Automatic Transmission Shift Cable

United States Regular Warranty Claims for Shift Cable Replacement
Malibu, G6, Aura vehicles built with Leggett-Platt cables
 (2004 MY through Oct 2007 of MY 2008) Labor Codes K5168 and K5180

		Production Volume	Regular Warranty			TAC & CAC			VOQs (*)			Combined # of Unintended Movement	Combined Reports UM/1000 Vehs
			IPTV	Unintended Movement	UM/1000 Vehs	Total Reports	Unintended Movement	UM/1000 Vehs	Total Reports	Unintended Movement	UM/1000 Vehs		
MNS 4-Spd	GMX380 Malibu	669,902	1.67	4	0.01	95	27	0.04	6	3	0.00	34	0.05
	GMX381 G6	421,824	1.99	6	0.01	85	31	0.07	5	1	0.00	38	0.09
	GMX384 Aura	57,964	8.88	29	0.50	73	21	0.36	17	11	0.19	61	1.05
MH2 6-Spd	GMX381 G6	5,344	2.06	0	0.00	2	0	0.00	0	0	0.00	0	0.00
	GMX384 Aura	30,728	1.11	0	0.00	6	5	0.16	1	1	0.03	6	0.20
	Total Unintended Movement with Legget & Platt			39		261	84		29	16			

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Saturn Aura Automatic Transmission Shift Cable

2007 Saturn Aura



Saturn Aura Automatic Transmission Shift Cable

Global Impact - Production Volumes for 2004 MY thru Oct2007 (2008 MY)

Model	Country					Totals
	US	Canada	Israel	Mexico	Netherlands	
GMX-380, Malibu	676,531	62,183	1,709	30,098	1,095	
4 SPD Auto, 4T65E, Enhanced -	7,413	523				
4 SPD, 4T45E - MN5	669,116	61,660	1,709	30,098	1,095	768,810
Unk	2					
GMX-381, G6	458,180	48,030		2,714		
4 SPD Auto, 4T65E, Enhanced -	28,903	2,387				
6 SPD Auto, 6T70 - MH2	5,329	361		489		
4 SPD Auto, 4T45E - MN5	421,509	44,792		2,225		499,816
6 SPD Man, Opel - MT2	1,757	417				
6 SPD Man, Opel - MU9	660	72				
Unk	22	1				
GMX-384, Aura	89,445	4,822				
4-SPD Auto, Hybrid - ME7	906	78				
6 SPD Auto, 6T70 - MH2	30,691	1,084				
4 SPD Auto, 4T45E - MN5	57,848	3,660				62,492

Malibu & G6 Volumes may be overstated and should be re-calculated for any potential field action usages.

Saturn Aura Automatic Transmission Shift Cable

2006 - 2008 Malibu-G6-Aura with MN5 4-speed transmission, Built with Leggett Platt Cables: Regular Warranty Claims for "Transmission Cable Replacement"

Build Dates: All MY 2006, 2007, and MY 2008 through 10/31/2007

Total Claims with verbatims indicating reason for replacement:	2006 - 2008 Malibu		2006 - 2008 G6		2007 -2008 Aura		Weighted Average
	Average Mileage at Claim	Number of Claims	Average Mileage at Claim	Number of Claims	Average Mileage at Claim	Number of Claims	Average Mileage at Claim
ALL CLAIMS	30,456	567	23,547	867	35,830	561	28,965
Will not start	36,787	21	36,063	11	38,018	52	37,454
Won't go into Park	37,255	29	32,965	13	40,200	42	38,064
Can't shift/ hard shift	40,765	72	36,394	30	38,429	65	39,070
Unintended motion	46,095	7	40,033	7	44,677	26	44,113
Average warning	5,330		3,639		6,249		5,042

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Saturn Aura Automatic Transmission Shift Cable

United States Regular Warranty Claims for Shift Cable Replacement (Labor Codes K5168 and K5180) GMNA Aura, G6 and Malibu vehicles built with Leggett-Platt cables (2004 MY through 11/1/2007 of MY 2008) - Regular Warranty from MinPro

Claims containing a
Verbatim Description
of Unintended
Movement

	GMX380 Malibu										Prod Vol	
	MN5 4 speed											
By Engine	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
LX9-ENGINE GAS, 6 CYL, 3.5L, SFI, V6, GM	374,273	2.17	{**}	812	{**}	USD	{**}	374,273		1		
LZ4-ENGINE GAS, 6 CYL, 3.5L, SFI, V6, OFFSET BORE, GM	62,848	1.53	{**}	96	{**}	USD	{**}	62,848		3		
L61-ENGINE GAS, 4 CYL, 2.2L, MFI, ALUM, DOHC	232,918	0.91	{**}	212	{**}	USD	{**}	232,918				
All Engines	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
MN5-TRANSMISSION AUTO 4 SPD, HMD, 4T45-E	669,902	1.67	{**}	1,120	{**}	USD	{**}	669,902		4		
GMX381 G6											Prod Vol	
MN5 4 speed												
By Engine	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
LX9-ENGINE GAS, 6 CYL, 3.5L, SFI, V6, GM	180,367	2.88	{**}	519	{**}	USD	{**}	180,367		1		
LZ4-ENGINE GAS, 6 CYL, 3.5L, SFI, V6, OFFSET BORE, GM	130,322	1.64	{**}	214	{**}	USD	{**}	130,322		4		
LE5-ENGINE GAS, 4 CYL, 2.4L, MFI, ALUM, DOHC, HO, ECOTE	111,164	0.97	{**}	108	{**}	USD	{**}	111,164		1		
All Engines	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
MN5-TRANSMISSION AUTO 4 SPD, HMD, 4T45-E	421,824	1.99	{**}	841	{**}	USD	{**}	421,824		6		
GMX384 Aura											Prod Vol	
MN5 4 speed												
By Engine	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
LZ4-ENGINE GAS, 6 CYL, 3.5L, SFI, V6, OFFSET BORE, GM	57,023	8.89	{**}	507	{**}	USD	{**}	57,023		28		
LE5-ENGINE GAS, 4 CYL, 2.4L, MFI, ALUM, DOHC, HO, ECOTE	941	8.50	{**}	8	{**}	USD	{**}	941		1		
All Engines	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
MN5-TRANSMISSION AUTO 4 SPD, HMD, 4T45-E	57,964	8.88	{**}	515	{**}	USD	{**}	57,964		29		
GMX381 G6											Prod Vol	
MH2 6 speed												
By Engine	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
LY7-ENGINE GAS, 6 CYL, 3.6L, SFI, V6, ALUM, 60 DEGREES, C	5,344	2.06	{**}	11	{**}	USD	{**}	5,344				
All Engines	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
MH2-TRANSMISSION AUTO 6 SPD, HMD, 6T70	5,344	2.06	{**}	11	{**}	USD	{**}	5,344				
GMX384 Aura											Prod Vol	
MH2 6 speed												
By Engine	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
LY7-ENGINE GAS, 6 CYL, 3.6L, SFI, V6, ALUM, 60 DEGREES, C	30,728	1.11	{**}	34	{**}	USD	{**}	30,728				
All Engines	AVS	IPTV	CPV	Total Cases	Total Cost	Currency	Adq Exp	Prod Vol				
MH2-TRANSMISSION AUTO 6 SPD, HMD, 6T70	30,728	1.11	{**}	34	{**}	USD	{**}	30,728				
TOTAL CLAIMS OF UNINTENDED MOVEMENT WITH LEGGETT-PLATT CABLES										39		

Saturn Aura Automatic Transmission Shift Cable

Malibu-G6-Aura Coded Warranty: 4-Spd Transmission Cable Replacement Claims (Unintended Vehicle Movement)

U.S. Vehicles built with Leggett Platt cables (MY 2004 through 11/1/2007 of MY 2008)

Model	Model Year	Trans RPO	Engine RPO	All States			Salt States			Non-Salt States		
				Number of Claims: LP cable	Claims per Thousand Vehicles	Average Mileage at Occurrence	Number of Claims: LP cable	Claims per Thousand Vehicles	Average Mileage at Occurrence	Number of Claims: LP cable	Claims per Thousand Vehicles	Average Mileage at Occurrence
Malibu	2005	MN5	LX9	1	0.01	112518	1	0.02	112518	0	0.00	0
	2007	MN5	LZ4	2	0.04	54124	2	0.09	54124	0	0.00	0
	2008	MN5	LZ4	1	0.06	85489	1	0.21	85489	0	0.00	0
	All	MN5	All	4	0.006	76564	4	0.014	76564	0	0.000	0
G6	2005	MN5	LX9	1	0.02	34503	1	0.03	34503	0	0.00	0
	2007	MN5	LZ4	2	0.02	48245	2	0.04	48245	0	0.00	0
	2008	MN5	LE5	1	0.04	12717	0	0.00	0	1	0.08	12717
	2008	MN5	LZ4	2	0.06	59144	0	0.00	0	2	0.12	59144
	All	MN5	All	6	0.014	43666	3	0.015	43664	3	0.014	43668
Aura	2007	MN5	LZ4	16	0.39	40391	12	0.56	41185	4	0.20	38010
	2008	MN5	LE5	1	0.87	8	1	4.20	8	0	0.00	0
	2008	MN5	LZ4	12	0.74	49333	11	1.33	49750	1	0.13	44747
	All	MN5	All	29	0.495	42699	24	0.796	43395	5	0.176	39357

No warranty claims indicated "Unintended Vehicle Movement" for 6-spd transmission vehicles

Saturn Aura Automatic Transmission Shift Cable

U.S., Canada & Mexico Warranty - Transmission Shift Cable Replacement (4-Speed MN5 trans and Leggett Platt cables)
Regular & extended warranty from GART

Model	Model Year	United States		* }	* }	Production		
		IPTV of Cable Replace	IPTV of Unintended Movement			2004 -2007 MY + estimated 2008 Partial MY Production for US, CA, MX		
						US	Canada	Mexico
Malibu	2004	5.00	0.00	* }	* }	131,251	12,315	5,851
	2005	1.47	0.00			211,771	18,935	9,636
	2006	0.69	0.00			171,126	18,024	7,006
	2007	0.99	0.02			126,031	12,909	7,605
	2008 thru Oct2007	1.93	0.03			33,152	0	0
	2004 thru Oct2007 MY2008	1.89	0.01			673,331	62,183	30,098
G6*	2005	5.74	0.02	* }	* }	62,323	9,941	565
	2006	1.35	0.01			152,820	21,265	1,423
	2007	1.48	0.01			147,029	13,280	232
	2008 thru Oct2007	1.45	0.03			59,504	5,548	78
	2005 thru Oct2007 MY2008	2.06	0.01			421,824	50,034	2,298
Aura	2007	9.67	0.39	* }	* }	41,156	3,057	0
	2008 thru Oct2007	15.74	0.78			16,769	764	0
	2007 thru Oct2007 MY2008	11.43	0.50			57,925	3,821	0

n/a: Production Volume was zero

Saturn Aura Automatic Transmission Shift Cable

TREAD Analysis

MODEL	MODEL YEAR	4 Speed Trans			
		Trans Shift Related		Unintended Motion	
		# of records	IPTV	# of records	IPTV
Aura	2007	54	1.29	16	0.38
	2008 (thru Oct 2007)	19	1.13	5	0.30
	2008 (After Oct 2007)	11	0.36	6	0.20
G6	2005	18	0.29	5	0.08
	2006	25	0.15	4	0.02
	2007	34	0.21	18	0.11
	2008 (thru Oct 2007)	8	0.13	4	0.07
	2008 (After Oct 2007)	25	0.28	6	0.07
Malibu	2004	45	0.34	11	0.08
	2005	11	0.05	2	0.01
	2006	9	0.05	3	0.02
	2007	22	0.17	9	0.07
	2008 (thru Oct 2007)	7	0.21	1	0.03
	2008 (After Oct 2007)	6	0.07	2	0.02

Saturn Aura Automatic Transmission Shift Cable

TREAD Analysis

MODEL	MODEL YEAR	4 Speed Trans				6 Speed Trans			
		Trans Shift Related		Unintended Motion		Trans Shift Related		Unintended Motion	
		# of records	IPTV	# of records	IPTV	# of records	IPTV	# of records	IPTV
Aura	2007	54	1.29	16	0.38	6	0.26	5	0.22
	2008 (thru Oct 2007)	19	1.13	5	0.30	0	0.00	0	0.00
	2008 (after Oct 2007)	11	0.36	6	0.20	0	0.00	0	0.00
G6	2005	18	0.29	5	0.08	n/a	n/a	n/a	n/a
	2006	25	0.15	4	0.02	n/a	n/a	n/a	n/a
	2007	34	0.21	18	0.11	1	0.23	0	0.00
	2008 (thru Oct 2007)	8	0.13	4	0.07	1	1.06	0	0.00
	2008 (after Oct 2007)	25	0.28	6	0.07	1	0.26	0	0.00
Malibu	2004	45	0.34	11	0.08	n/a	n/a	n/a	n/a
	2005	11	0.05	2	0.01	n/a	n/a	n/a	n/a
	2006	9	0.05	3	0.02	n/a	n/a	n/a	n/a
	2007	22	0.17	9	0.07	n/a	n/a	n/a	n/a
	2008 (thru Oct 2007)	7	0.21	1	0.03	0	0.00	0	0.00
	2008 (after Oct 2007)	6	0.07	2	0.02	4	0.12	3	0.09

Saturn Aura Automatic Transmission Shift Cable

Employee Vehicle Inspections

4-Spd Transmission

Leggett and Platt Cables

MY	Model	Engine	Vehicles Inspected	Ripped Jacket
2007	Aura	LZ4	12	7
2008	Aura	LZ4	2	1
Total	Aura		14	8
2005	G6	LX9	6	0
2007	G6	LZ4	5	0
2007	G6	LE5	4	0
Total	G6		15	0
2004	Malibu	LX9	2	0
2005	Malibu	LX9	2	0
2007	Malibu	LZ4	2	0
2007	Malibu	L61	5	2
Total	Malibu		11	2

Kongsberg Cables

2008	Aura	LZ4	1	0
2008	Aura	LE5	3	0
2008	G6	LZ4	2	0
Total			10	0

Saturn Aura Automatic Transmission Shift Cable

Employee Vehicle Inspections

4-Spd & 6-Spd Transmission

Leggett and Platt Cables

Model Year	Model	Engine	Trans	How Many Inspected	Ripped Conduit Jacket
2007	Aura	LZ4	MN5 4 sp	12	7
2007	Aura	LY7	MH2 6 sp	5	0
2008	Aura	LZ4	MN5 4 sp	2	1
2008	Aura	LY7	MH2 6 sp	4	0
2005	G6	LX9	MN5 4 sp	6	0
2007	G6	LZ4	MN5 4 sp	5	0
2007	G6	LE5	MN5 4 sp	4	0
2004	Malibu	LX9	MN5 4 sp	2	0
2005	Malibu	LX9	MN5 4 sp	2	0
2007	Malibu	LZ4	MN5 4 sp	2	0
2007	Malibu	L61 4 cyl	MN5 4 sp	5	2

Saturn Aura Automatic Transmission Shift Cable
Similar cables are shared by Aura, G6, & Malibu



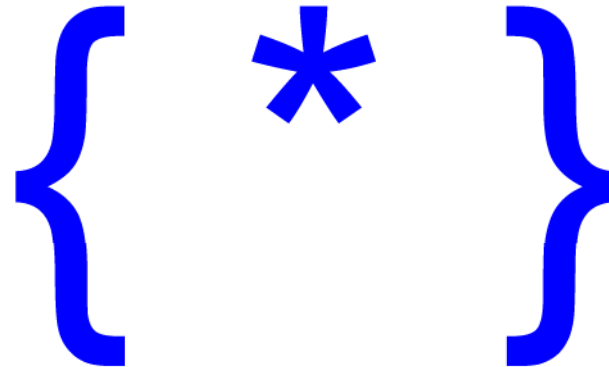
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Saturn Aura Automatic Transmission Shift Cable

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Verbatims:

Locking tabs broken
Found shift cable lock tabs broken
Cable broken at trans cable, Cable came apart
Plastic shifter broken at retainer
Cable broke, snapped
Cable snapped in two at trans
Cable loose in bracket
Cable is separating
Cable Broken at trans bracket
Cable broke at mounting on transmission, Wou
Shift cable tabs broken at area where cable is held in bracket
Shift cable broke causing this concern due to weak material
Cable outer cover by transaxle mount broken and sliding



Saturn Aura Automatic Transmission Shift Cable

2007 MY Aura

Reported Incidents		Total	4 Speed MN5 Trans		6 Speed MH2 Trans		NOTES:
			Cable Failure	Verbatim said Unintended Movement	Cable Failure	Verbatim said Unintended Movement	
Warranty	Regular	322	297	13	25	0	No verbatim comments available.
	Extended	93	93	NA	0	NA	
VOQ's	Includes 8 from Opening Resume, plus 4 added by NHTSA 8/11/2011.	12	9	7	1	1	2 VOQ's do not have VIN
GM Records	CAC, TAC, Legal	111	94	23	17	4	
TOTAL from All Sources		538	493	43	43	5	

Saturn Aura Automatic Transmission Shift Cable

322 Regular Warranty Claims for cable replacement, 4-spd & 6-spd

2007 MY Saturn Aura Warranty Claims	Quantity	Unintended Motion	Can't shift or Hard Shift	Will not start	Will only start in neutral	Can't turn/remove Key	SES light	Won't go into park
6 speed	25	0	8	2	1	1	1	2
4 speed	297	13	39	23	3	2	1	22
Total Claims	322	13	47	25	4	3	2	24

Labor Code	Description
K5167	Range Selector Lever Cable Adjustment
K5168	Range Selector Lever Cable Replacement
K5175	Control Cable - Adjust
K5180	Cable, Shift Control - Replace

12 VOQs for 2007 MY Aura, 4-spd & 6-spd

2007 MY Saturn Aura VOQ's	Quantity	Unintended Motion	Can't shift or Hard Shift	Will not start	Will only start in neutral	Can't turn/remove Key	SES light	Won't go into park
6 speed	1	1	1					
4 speed	9	7	4	4	1	1	1	1
Unknown	2	2	1					
Total VOQ's	12	10	6	4	1	1	1	1

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4/29/2013

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110175+Aura+Shift+Cable,+FP

ERC+mailout+10-21-11-p

2007-2008 Saturn Aura Automatic Transmission Shift Cable



62,492 Vehicles (U.S. & Canada)

2007MY & 2008MY built thru Oct 2007, w 4-spd Auto Trans MN5/ME7

Cost Estimate: \$tbd

N-110175, Ref: PE11-021

Condition:

General Motors has received complaints alleging that the transmission shift cable failed, and:

1. The vehicle rolled away after the passengers exited the vehicle with the shifter in Park;
2. The vehicle experienced unintended movement/acceleration with the shifter in Park; or,
3. The vehicle accelerated in the opposite direction than the driver intended.

Effect of the Condition:

The driver may experience increased effort selecting a drive gear or moving the shift lever. As time increases the driver may not be able to restart the vehicle or shift the vehicle into PARK. If these warnings are ignored, the cable could fracture and shift function could be lost.

{ * }

Frequency: 10.8 cumulative IPTV, 2007-08 , 4-spd automatic transmission
(2007 SOP thru 2008MY Oct 2007), Replace & Adjust Labor Ops

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2007-2008 Saturn Aura Automatic Transmission Shift Cable

Discovery:

This condition was reported by the NHTSA on 5-20-11, Reference PE-11021.

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Immediate Improvement /Containment:

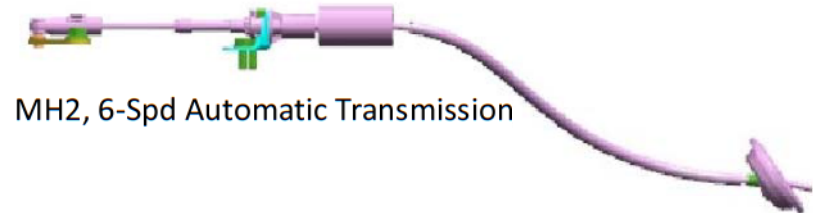
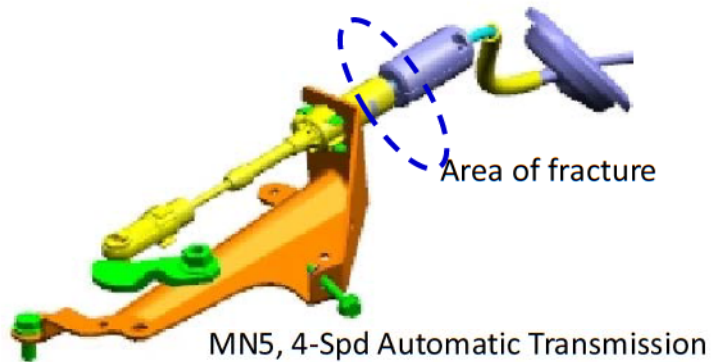
No immediate action is required because the subject L&P shift cables have been out of production and service since October 2007. The current supplier, Kongsberg Automotive, meets all engineering requirements.

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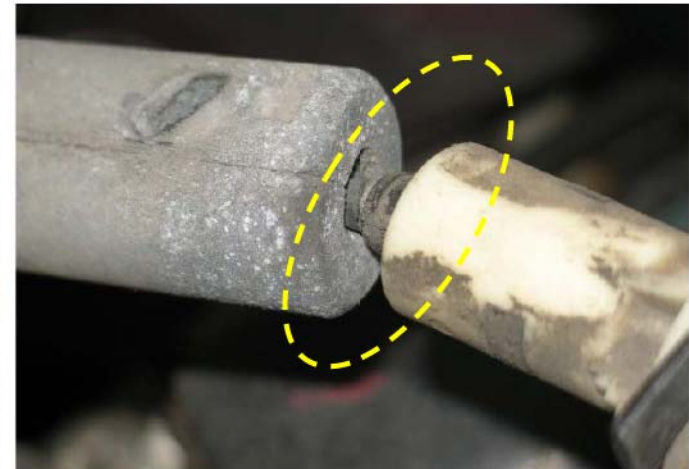
Saturn Aura Automatic Transmission Shift Cable

Suspect Population:

Saturn Aura, 4-speed automatic transmission, MN5/ME7
2007MY & 2008MY built through Oct 2007



MN5, 4-Spd Automatic Transmission - Underhood

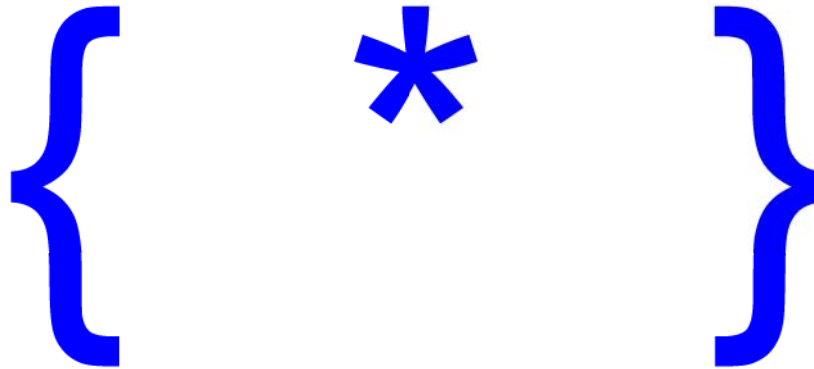




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Saturn Aura Automatic Transmission Shift Cable

Engineering Analysis:



Field Reports:

Relevant Historian Recalls:

Cost Estimates:

{ * } Indicates GM Confidential Business Information Redacted

Saturn Aura Automatic Transmission Shift Cable

Engineering Analysis:

{ * }

Field Reports:

-VOQs

-Warranty

{ * }

Relevant Historian Recalls:

Cost Estimates:

Saturn Aura Automatic Transmission Shift Cable
 VOQ summary for 2004 - 2008 Aura-G6-Malibu

VOQ's

- All VOQs, but one, indicated a 4-speed transmission (*)
- Saturn Aura VOQs were elevated at 0.20 VOQs/1K

	Responsive VOQs	Unintended Motion
Malibu	6 0.01 IPTV	3 < 0.01 IPTV
G6	5 0.01 IPTV	1 < 0.01 IPTV
Aura	18 0.20 IPTV	12 0.19 IPTV

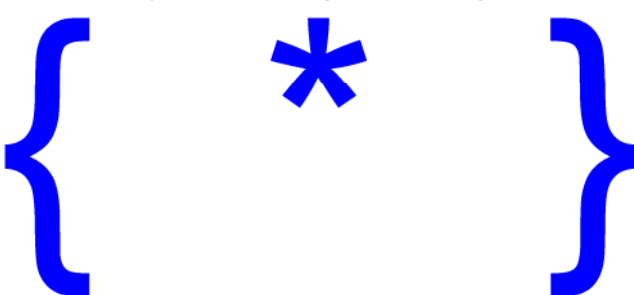

(*) One 2007 Aura 6-spd verbatim indicated the cable was adjusted

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Saturn Aura Automatic Transmission Shift Cable

Regular & extended warranty from GART

Transmission Shift Cable Replacement (4-Speed MN5 trans, Leggett Platt cables)

		United States		{ * }	{ * }	Production		
Model	Model Years	Cable Replace	Unintended Movement			2004 -2007 MY + estimated 2008 Partial MY Production for US, CA, MX		
		(IPTV)	(IPTV)			US	Canada	Mexico
Malibu	2004 thru Oct2007 MY2008	1.89	0.01			673,331	62,183	30,098
G6*	2005 thru Oct2007 MY2008	2.06	0.01			421,824	50,034	2,298
Aura	2007 thru Oct2007 MY2008	11.43	0.50	57,925	3,821	0		

{ * }
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n/a: Production Volume was zero

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Saturn Aura Automatic Transmission Shift Cable

Engineering Analysis:

{ * }

Field Reports:

-VOQs

-Warranty

{ * }

Relevant Historian Recalls:

Cost Estimates:

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Saturn Aura Automatic Transmission Shift Cable

Engineering Analysis:

{ * }

Field Reports:

-VOQs

-Warranty

{ * }

Relevant Historian Recalls:

Cost Estimates:

Relevant NHTSA Investigations & Recalls Automatic Transmission Shift Cable– Unintended Vehicle Motion

NHTSA IR	OPEN DATE	CLOSE DATE	VEHICLE	MY	ALLEGED CONDITION	Warning (Y/N)	RECALL	# OF VEHICLES	VOQs	VOQs/1K VEHICLES	MANUFACTURER COMPLAINTS WARRANTY	CIPTV
EA09013	2009 0818	OPEN	FORD EXPLORER MOUNTAINEER	2002-2005	Customers who believed they had shifted to "PARK", alleged UNINTENDED VEHICLE MOVEMENT. Customer reports of higher than expected shift efforts into/out of "PARK" could be result of a groove being worn into swing arm ramp of steering column.	Y	OPEN	1,500,000	18 VOQs 9 w CRASH 4 INJURY 3-30-11 NHTSA Ltr 32 VOQs. Movement 12 w CRASH 28 VOQs. Shifting	0.01 0.04	200 COMPLAINTS 85 w CRASH 31 INJURY 883 Reports	0.13 - Complaints 0.72 - Overall 0.59 - Reports
None		n/a	Pontiac G6	2004-2008	Transmission shift cable fails	Y	n/a	427,168 (421,824 4-spds) (5,344 6-spds)	5 VOQs	0.01	841 4-spd Warranty 11 6-spd Warranty	1.99 4-spd Warranty 2.06 6-spd Warranty
None		n/a	Chevrolet Malibu	2004-2008	Transmission shift cable failed	Y	n/a	669,902 (all 4-spd)	6 VOQs	0.01	1,120 4-Spd Warranty	1.67 4-spd Warranty
RQ00010	20000313	20010112	FORD F250 FORD F350 FORD F450 FORD F550	1999	The rust preventative coating the surface of the parking brake lining material which reduces the frictional characteristics at the lining and rotor interface	N	98V101000 Noncompliance	700,854	13 VOQs 5 w CRASH 1 INJURY	0.02	144 COMPLAINTS 40 w CRASH 2 INJURY 1,258 WARRANTY	0.21 - Complaints 2.00 - Overall 1.79 - Warranty
EA04025	20040826	20051222	DODGE RAM 2500 w A/T DODGE RAM 3500 w A/T	2003-2004	THE VEHICLE MAY EXPERIENCE A REVERSE POWERED ROLLAWAY INCIDENT AFTER AN ATTEMPTED SHIFT INTO "PARK" WITH THE ENGINE RUNNING AND THE PARK BRAKE UNSECURED - FALSE PARK	N	05V462000 Product Improvement See 573 Letter	183,058 (Open) 250,285 (Close)	9 VOQs 6 w CRASH 2 INJURY 81 VOQs (close) 69-C,14-1,2-D	0.05	50 Complaints 42 w Crash 3 w Injury 250 Complaints 205 w Crash 27 w Injury, 2 deaths	0.27 - Complaints 1.00 - Complaints
PE03057	20031208	20040409	2500/3500 C/K Trucks	1999-2003	Park Brake friction linings may wear out prematurely	N	Upgraded to EA04011	155,000 (Open)	8 VOQs 2 w Crash Injury	0.05	not provided	
PE10046	20101122	20110405	KIA OPTIMA	2007	AUTOMATIC TRANSMISSION SHIFT CABLE MAY DETACH FROM THE SHIFTER ASSEMBLY. IF THIS OCCURS, THE VEHICLE MAY ROLL.	N	11V153000 Voluntary Safety	41,000 (Open) 70,115 (Close)	3 VOQs 4 VOQs	0.07 0.06	not provided 135 Complaints 4 w/Crash 2,026 Warranty	n/a 1.94 - Complaints 30.8 - Overall 28.90 - Warranty
EA01003 (PE00038)	20010111	20020325	JEEP / WRANGLER	1994-1995	PARKING BRAKE 'PEDAL' MAY FAIL TO HOLD	N	02V041000 Safety	124,826 (open) 316,148 (close)	13 VOQs 6 Crashes 17 VOQs 6 w/CRASH	0.10 0.05	78 COMPLAINTS 51 W/CRASH 3 INJURIES 2395 WARRANTY	0.62 - Complaints 19.81 - Overall 7.58 - Warranty
PE11021	20110520	OPEN	Saturn Aura	2007-2008	Transmission shift cable failed	Y	-	65,105 88,692 57,964	8 VOQs 1 Crash 18 VOQs (11 Rolls, 4-spd)	0.12 0.20 0.19	549 Warranty, all 515 Warranty, 4-spd	1.11 6-spd Warranty 8.88 4-spd Warranty
EA04011	20040409	20050610	2500/3500 C/K Trucks	1999-2003	Park Brake friction linings may wear out prematurely. If the parking brake does not hold, unintended vehicle movement could occur which could lead to a crash.	N	05V161000 Safety	70,226 (Open) 70,226 (Close)	10 VOQs 2 w Crash 1 Injury 8 VOQs 3 w Crash	0.14	55 Complaints 17 Crashes 3 w Injury 2,854 Warranty	0.78 - Complaints 41.42 - Overall 40.64 - Warranty
PE08052	20080902	20081110	DODGE CHARGER POLICE CRUISER (V8)	2007-2009	GEAR SHIFT CABLE MAY SEPARATE FROM BRACKET. RESULTING IN UNINTENDED VEHICLE MOTION.	N	08V583000 Safety	20,383 (Open) 20,383 (Close)	5 VOQs 5 VOQs	1.06 1.06	70 Complaints 0 Crashes 289 Reports	3.54 - Complaints 18.10 - Overall 14.67 - Reports

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Saturn Aura Automatic Transmission Shift Cable

Backup

S:\PRODUCT INVESTIGATIONS\NHTSA Investigations\N110175 - PE11-021 - Shift Indicator



Service Part Numbers:	MN5/ ME7 4 Speed Transmission	
	Shift Cable	Bracket
Saturn Aura	25907379	25907374
Chevy Malibu	20922586	25907374
Pontiac G6	20922585	25907374

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2008-2010 Malibu, Aura, G6 Automatic Transmission Shift Cable



2008-2010 MY Malibu (386), Aura, G6 w/4-spd auto trans (ME7 & MN5)

564,500 Vehicles

Cost Estimate: { ** } { * } { ** } { * }

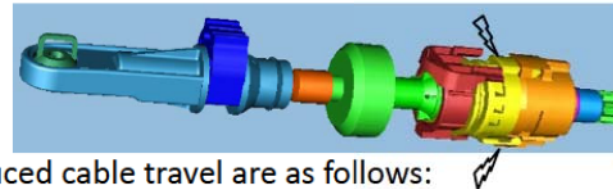
N-120106

Condition:

Some vehicles with 4-speed transmissions have a shift cable with conduit end locking tabs near the transmission bracket that could fracture. (Supplier: Kongsberg Automotive)

Effect of the Condition:

Fractured locking tabs may occur without warning, resulting in a reduction of cable travel at the transmission as the shifter is moved into the Park position. The most significant effects of this reduced cable travel are as follows:



1-The transmission gear position may not match the gear indication on the shifter. When transmission is not in 'Park': Auto door locks don't unlock, vehicle won't start or may roll. 2-The operator would be able to remove the key from the ignition with shifter in Park position, while the transmission is not in Park (vehicle may roll).

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Frequency: Regular Warranty, Cable Replace: 3.56 IPTV
Rolls + UM: 0.45/1000 vehicles
Unintended Motion: 0.02/1000 vehicles

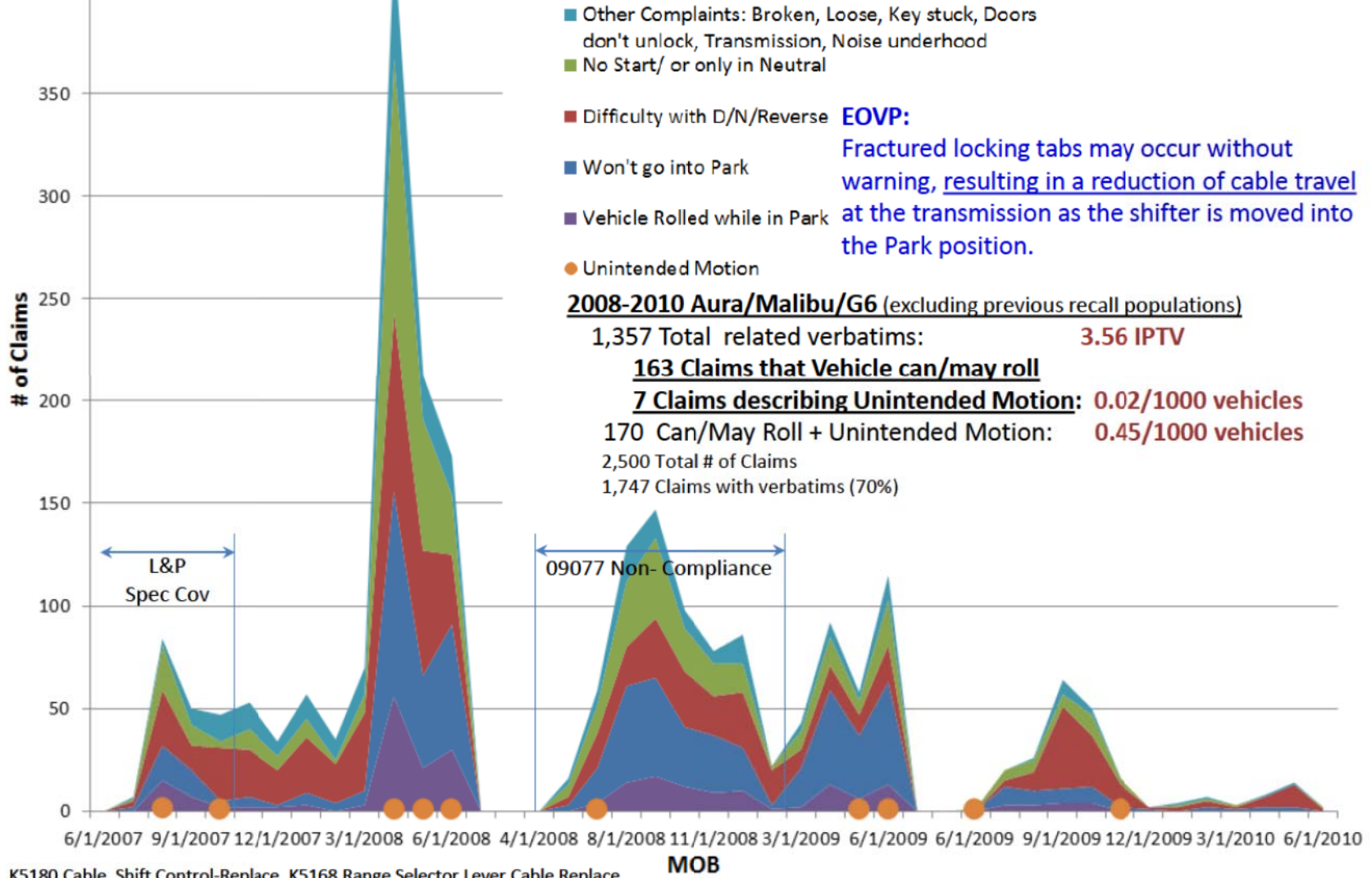
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**2008 - 2010 Aura/Malibu/G6- Warranty Claims, Shift Cable Replace (8-7-12)
w/4-spd Auto Transmission - ME7/MN5**

Warranty Claim Verbatims



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2008-2010 Malibu, Aura, G6 Automatic Transmission Shift Cable

Backup

Country	Aura-Units	Country	Malibu-Units	Country	G6-Units
CA	1,653	AN	14	CA	15,410
US	31,135	AW	7	MX	148
Total	32,788	BS	25	PR	10
		CA	24,165	US	197,889
		KY	39	VI	4
		MX	4,991	Total	213,461
		PA	2		
		PR	309		
		US	255,644		
		VI	23		
		Total	285,219		
Total Aura/Malibu/G6 built with KA Cables after 10-31-07				531,468	
Minus N-090077 Units				35,500	
Total N-120106 Units				495,968	

Plus additional Malibu units added (built May-Oct 2007): 69,500

Potential for added Aura units serviced before 11-1-2007: 2,600



Model Year
2008

Model
Malibu, Aura, G6 Automatic
w/4-spd Trans ME7 & MN5

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e,+FPET+Mailout-p

2008-2010 Malibu, Aura, G6 Automatic Transmission Shift Cable



2008-2010 MY Malibu (386), Aura, G6 w/4-spd auto trans (ME7 & MN5)

564,500 Vehicles

Cost Estimate: \$ { ** }

N-120106

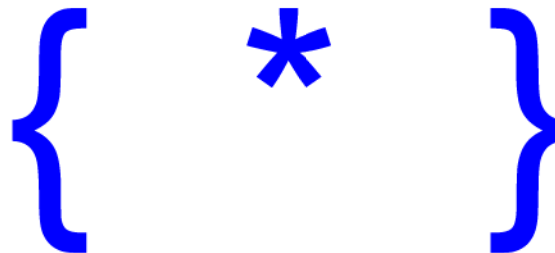
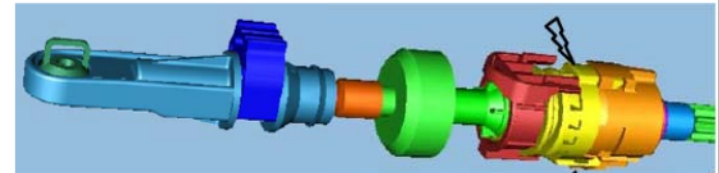
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- 1-The transmission gear position may not match the gear indication on the shifter. When transmission is not in 'Park': Auto door locks don't unlock, vehicle won't start or may roll.
- 2-The operator would be able to remove the key from the ignition with shifter in Park position, while the transmission is not in Park (vehicle may roll).



Frequency: Regular Warranty, Cable Replace: 3.56 IPTV
 Rolls + UM: 0.45/1000 vehicles
 Unintended Motion: 0.02/1000 vehicles



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2008-2010 Malibu, Aura, G6 Automatic Transmission Shift Cable

Discovery:

June 2009: 09V077 Non-compliance recall, 2009 4-Spd Malibu/Aura/G6 (twist lock regrind condition)

Nov 2011: Discovered additional 2008 MY Kongsberg claims during NHTSA IR investigation (Leggett & Platt cable, 2007-2008 Aura)

June 2012: Discovered additional 2010 MY Kongsberg claims during an warranty audit of Kongsberg clean quality breakpoint post builds

Current Status:

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- EA11-015, 'All 2007-2008 Malibu/Aura/G6' received 3-20-12, remains open. EA response was sent 5-7-12.

Immediate Improvement /Containment:

- None required. 4-spd transmissions were discontinued after 2010 MY. 6-spd transmissions in the current Malibu do not exhibit the condition due to lower [cable loading](#).

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Responsibility: Chassis SMT

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**2008 - 2010 Aura/Malibu/G6- Warranty Claims, Shift Cable Replace (8-7-12)
w/4-spd Auto Transmission - ME7/MN5**

Warranty Claim Verbatims

- Other Complaints: Broken, Loose, Key stuck, Doors don't unlock, Transmission, Noise underhood
- No Start/ or only in Neutral
- Difficulty with D/N/Reverse
- Won't go into Park
- Vehicle Rolled while in Park
- Unintended Motion

EOVP:
Fractured locking tabs may occur without warning, resulting in a reduction of cable travel at the transmission as the shifter is moved into the Park position.

2008-2010 Aura/Malibu/G6 (excluding previous recall populations)

1,357 Total related verbatims: **3.56 IPTV**

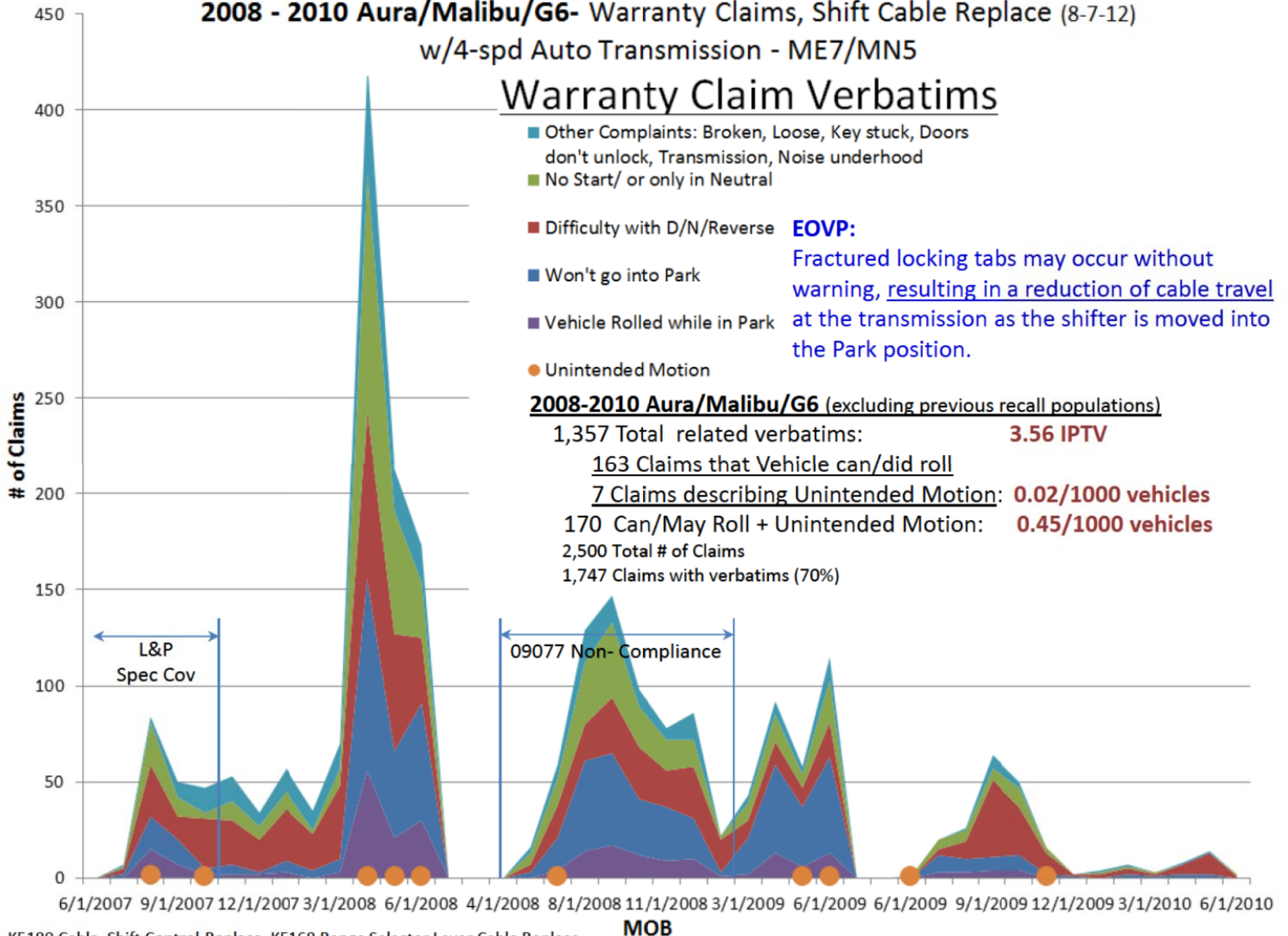
163 Claims that Vehicle can/did roll

7 Claims describing Unintended Motion: **0.02/1000 vehicles**

170 Can/May Roll + Unintended Motion: **0.45/1000 vehicles**

2,500 Total # of Claims

1,747 Claims with verbatims (70%)



K5180 Cable, Shift Control-Replace, K5168 Range Selector Lever Cable Replace

2008-2010 Malibu, Aura, G6 Automatic Transmission Shift Cable

Summary

VOQs: (2008-2010 Malibu/Aura/G6)

20 complaints of vehicle rolled while in 'park': **0.04 VOQs/1000 Vehs**

4 of the 20 reported a crash

0 injuries, 0 deaths

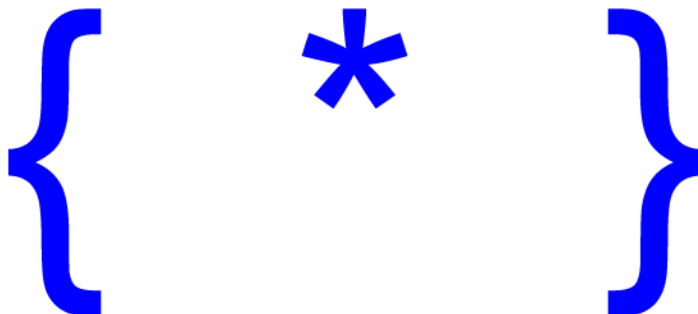
Warranty Claims:

Regular Warranty (Filtered), Cable Replace: **3.56 IPTV**

Rolls + UM: **0.45/1000 vehicles**

Unintended Motion: **0.02/1000 vehicles**

Suspect Vehicles with Kongsberg Transmission Shift Cable:



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2008-2010 Malibu, Aura, G6 Automatic Transmission Shift Cable

Backup

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Model Year
2008

Model
Malibu, Aura, G6 Automatic
w/4-spd Trans ME7 & MN5

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