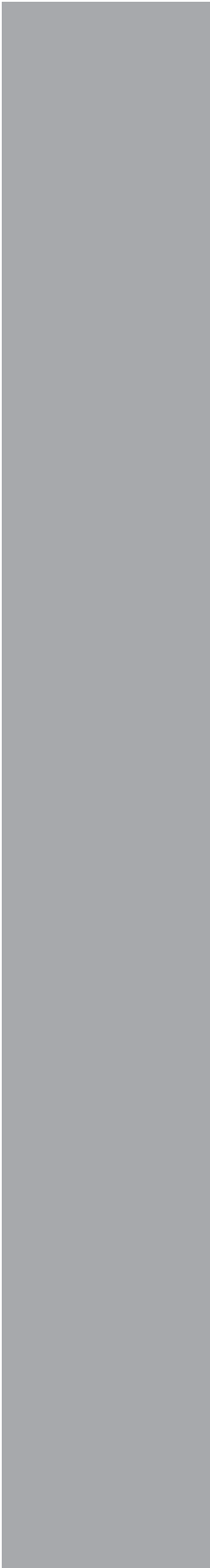

**2006 Annual Summary of Emission-
Related Recall and Voluntary Service
Campaigns Performed on Light Duty
Vehicles and Light-Duty Trucks**



2006 Annual Summary of Emission-Related Recall and Voluntary Service Campaigns Performed on Light Duty Vehicles and Light-Duty Trucks

Compliance and Innovative Strategies Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

Abbreviations and Acronyms

Acronym/Term: Definition:

ALLS	All States Trading Region
CARB	California Air Resources Board
CFV	Clean Fuel Vehicle
DTC	Diagnostic Trouble Code
ECU	Engine Control Unit
ECM	Engine Control Module
EGR	Exhaust Gas Recirculation
MIL	Malfunction Indicator Light
NHTSA	National Highway Traffic Safety Administration
NLEV	National Low Emission Vehicle
OBD	On-Board Diagnostics
PCM	Powertrain Control Module
TSB	Technical Service Bulletin
VECI	Vehicle Emission Control Information

Recall Type: Definition:

O	Ordered by EPA
V	Voluntary Recall by Manufacturer
VSC	Voluntary Service Campaign by Manufacturer
I	Manufacturer voluntary action with EPA Influence

Sales Area: Definition:

50S	Federal and California
CL	CA + NLEV (ALLS)
CA	California
FA	Federal (all altitude)
FC	FA + CA
NF	CFV + NLEV (ALLS) + CA
NL	NLEV - ALLS

Note:

For the purposes of this report only, a Recall Campaign is a direct owner notification requesting or recommending that the vehicle be brought into a service facility for inspection and/or repair regardless of whether there is an indication of failure. For the purposes of this report only, a Voluntary Service Campaign is a direct owner notification alerting the owner of a potential problem should there be an indication of failure, and how the problem will be remedied by the manufacturer should the problem affect the owner's vehicle. EPA recognizes that manufacturers may wish to voluntarily notify their customers of potential issues for which service may be required. However, under 40 CFR 85.1902 (d), any repair, adjustment, or modification program voluntarily initiated by a manufacturer to remedy any emission-related defect for which direct owner notification is provided is defined as a Voluntary Emissions Recall.

2006 Emissions-Related Recall Campaigns

Mfr.	Mfr. Recall Number	EPA#	Type	Owners Notification	MY	Vehicle or Engine Class	Engine Family	Problem Description	Affected Vehicles	Sales Area	Total Number of Vehicles Recalled
BENTLEY	SC 06/10	2812	V	10/6/2006	2007	Continental GT, Continental GTC, Continental Flying Spur	7BEXV06.0501	A defect was found in the Air Flow Pressure Sensor which caused customer complaints from MIL illumination. This was caused by the absence of the sensor's reference port sealing feature. Remedy: A recall was issued by Bentley to correct the problem.	759	50S	759
BMW	06E-A03	2752	V	9/11/2006	2000 2001 2001 2002 2002 2003 2003 2004	M5, Z8 M3 Coupe, M3 Cabrio, M Coupe, M Roadster M5, Z8 M3 Coupe, M3 Cabrio, M Coupe, M Roadster M5, Z8 M3 Coupe, M3 Cabrio M5, Z8 M3 Coupe, M3 Cabrio	YBMXV04.9S62 1BMXV03.2S54 1BMXV04.9362 2BMXV03.2S54 2BMXV04.9S62 3BMXV03.2S54 3BMXV04.9S62 4BMXV043.2S54	On affected M-vehicles a communication problem with certain brands of scan tools may occur during the initialization procedure. If a scan tool starts with International Standards Organization (ISO) 14230 protocol before ISO 9141 no communication with the ECU can be realized and the vehicles fail the Inspection/Maintenance test. The MIL will illuminate. Remedy: BMW implemented a voluntary emissions recall campaign to remedy the problem on all affected vehicles by updating the ECU program software.	3,081 4,546 3,053 10,194 2,841 8,676 2,453 8,538	CL(CA+NLEV ALLS) NF(CFV+CA+NL) CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) NF(CFV+CA+NL) CL(CA+NLEV ALLS) CA	43,382
BMW	06E-A02	3050	V	6/1/2006	2002 2003 2004 2004	BMW 745i, 745Li BMW 745i, 745Li BMW 545i, 745i, 745Li, 645Ci, 645Ci Cabrio BMW X5 4.4i, X5 4.8is	2BMXV04.4LEV 3BMXV04.4LEV 4BMXV04.4LEV 4BMXT04.4N62	Defective Positive Crankcase Ventilation (PCV) valve from torn membrane caused by chemical reaction of carbonyl compounds (acetic and formic acid) in PCV gas stream. DTCs stored in ECM and MIL illumination lead owner to seek repair. The damaged membrane lets un-metered air into the intake system which drifts the air/fuel ratio out of specified range so exhaust emission standards. could be exceeded. Remedy: BMW implemented a recall. An improved silicone material is used in the PCV valve for production and repair kits. The crankcase ventilation valves are replaced on both cylinder banks of the affected vehicles using improved parts.	18,222 20,722 30,025 8,803	NF(CFV+CA+NL) NF(CFV+CA+NL) 50S 50S	77,772
BMW	06E-A01	3058	V	4/24/2006	2006	325i/iA/xi/xiA/xiTA; 330i/iA/xi/xiA; 525i/iA/xi/xiA; 530i/iA/xi/xiA/xiTA 325i/Ci/iT, 330i/Ci, 525i, 530i, X3 3.0 Z4 2.5i 325i, 330Ci, 530i X3 2.5, X3, 3.0 Z4 3.0i 330i, 330Ci, 530i	6BMXV03.0N52 5BMXV03.0UL2 5BMXV03.0LER 5BMXV02.5M56 5BMXV03.0E83 5BMXV03.0M5R 5BMXV03.0SMG	Faulty Digital Motor Electronics control module software may not correctly detect a potential emission relevant sensor failure. The scan tool cannot read out the Valvetronic position control fault code. Remedy: Authorized BMW center will reprogram the Digital Motor Electronics engine control module with an improved version of the software at no charge to the owner.	69,432 68,900 17,000 7,000 6,400 4,000 1,700	50S	174,432

2006 Emissions-Related Recall Campaigns

Mfr.	Mfr. Recall Number	EPA#	Type	Owners Notification	MY	Vehicle or Engine Class	Engine Family	Problem Description	Affected Vehicles	Sales Area	Total Number of Vehicles Recalled
BMW	06E-A04	3070	V	12/7/2006	2006	BMW M5, M6 Coupe	6BMXV05.0S85	A software error in the Digital Motor Electronics engine control module results in failure of the diagnostic system to detect certain emissions related problems and illuminate the MIL to warn the driver of a malfunction in affected vehicles. The OBD system may not detect a potential malfunction of the secondary air pump relay and/or would store "wrong" corresponding fault codes for the air flow sensor, the oxygen sensor and the throttle valve actuator. Remedy: The vehicle repair will be free of charge and consists of a software update of the DME engine control module.	4,256	CA	4,256
DAIMLER/ CHRYSLER	EDIR-2006-5 F07	2661	V	3/3/2006	2006	Dodge Viper	6CRXV08.3VM0	The VECI labels do not display the proper emission control system classification for two oxidation catalysts. Remedy: DaimlerChrysler will conduct a Voluntary Emission Recall (F07) of the affected vehicles and mail a revised VECI label to the owner for installation on the vehicle by owner or dealer.	513	50S	513
DAIMLER/ CHRYSLER	EDIR 2006-6-E & F02	2663	V	4/1/2006	2006 2006	Jeep Liberty Jeep Liberty	6CRXT03.7NE0 6CRXT0226N70	The wiring for left rear O2 sensor may contact the exhaust and melt, resulting in possible electrical shorts. The OBD oxygen sensor diagnostics will detect the melted wire insulation and shorted contact condition; then illuminate the MIL. There will be loss of fuel trim provided by this sensor signal, however fuel control will still remain closed-loop. Remedy: The issue has been corrected in production by reducing the wiring length. A safety recall (F02) will be conducted to secure excess slack in the O2 sensor wiring on suspect vehicles.	12,639 1,843	50S CA	14,482
DAIMLER/ CHRYSLER	2006-17-E F25	2736	V	9/4/2006	2000 2000 2002 2002 2000 2000	Grand Jeep Cherokee	YCRXT04.02B0 YCRXT0242230 2CRXT04.02D2 YCRXT04.02Z0 YCRXT0287231 YCRXT04.72B1	On some 2000 and 2002 Grand Jeep Cherokees the plastic material used to make the cooling fan blade may fracture and separate. Exhaust emissions may be affected if the engine overheats. Customers of affected vehicles frequently describe hearing a loud noise and noticing a rapid rise in coolant temperature or a coolant leak; plus, there may be steam from the engine compartment. Also, a safety recall (F25) was conducted; because, if the hood is open people nearby could be injured. Remedy: The electric radiator cooling fan will be replaced free of charge under recall F25.	48,422 30,790 44,434 21,672 15,816 23,260	FA CA 50S 50S CL(CA+NLEV ALLS) FA	184,394
DAIMLER/ CHRYSLER	2006-18-E F29	2740	V	6/30/2006	2007	Dodge Caliber Dodge Caliber Dodge Caliber Dodge Caliber	7CRXV0110M70 7CRXV01.8ME0 7CRXB0144M80 7CRXB02.4ME5	The thermostat monitor portion of the engine cooling system monitor is incorrectly configured so that a failed thermostat can never be detected twice in a row (to a matured MIL fault). After the first failure the monitor erroneously suspends itself and the MIL will not be illuminated if the thermostat fails. Remedy: DaimlerChrysler will conduct a voluntary emissions recall to re-flash the PCM of the affected vehicles.	101 569 5,689 23,242	CA FA CA FA	29,601
DAIMLER/ CHRYSLER	2006-19-E F37	2741	V	11/27/2006	2005 2006	Jeep Liberty	5CRXT02.82RX 6CRXT02.82RX	High torsional forces from the engine during low speed lock-up can lead to torque converter overheating with internal damage and improper lock-up. Exhaust emissions may be affected if converter doesn't lock-up properly, rattle-like sounds will come from torque converter area, DTC P0740 may set, and MIL may be illuminated. Remedy: Notice issued with recall to repair affected vehicles by installing a new torque converter and engine & trans. software modifications. Depending on service testing, some vehicles may require a transmission flush and pump replacement.	8,629 2,657	FA	11,286

2006 Emissions-Related Recall Campaigns

Mfr.	Mfr. Recall Number	EPA#	Type	Owners Notification	MY	Vehicle or Engine Class	Engine Family	Problem Description	Affected Vehicles	Sales Area	Total Number of Vehicles Recalled
DAIMLER/CHRYSLER	2006-22-E	2757	V	10/1/2006	2006 2006	Dodge Ram 1500 Dodge Ram 1500	6CRXT04.75S0 6CRXT04.76UO	The oxygen sensor electrical diagnostics (shorted high and shorted low) on some Dodge Ram 1500s equipped with 4.7L & manual transmission do not allow a shorted high or a shorted low event fault to mature. The diagnostic can only count one shorted event so this prevents the MIL from illuminating. Other diagnostics will detect subsequent problems caused by a shorted oxygen sensor but there still is reduced overall OBD capability. Remedy: DaimlerChrysler will supply all dealers with an ECM calibration refresh which will assure OBD functionality.	320 791	50S 50S	1,111
DAIMLER/CHRYSLER	2006-31-E1	2826	V	11/1/2006	2005 2006	Chrysler Pacifica Chrysler Pacifica Chrysler Pacifica Chrysler Pacifica	5CRXT03.8NE0 5CRXT03.52N0 6CRXT03.8NE0 6CRXT03.52N0	The vehicles have a saddlebag type fuel tank where fuel is moved from secondary side to primary side until secondary side is empty. Several fuel delivery problems may cause hesitation or stalling that could cause a crash without warning. NHTSA Recall no. 06V-432 addresses these problems involving the fuel pump module (fuel shut-off) and PCM software (excess vapor purge) for evaporative emissions control. Remedy: All vehicles to receive PCM calibration refresh to assure correct purge functionality. The fuel pump module will be replaced, if required. Chrysler recall F44 provides that owners may obtain the repair service any time after receipt of the notification.	17,090 76,453 4 37,951	50S 50S 50S 50S	131,498
GENERAL MOTORS	ML-MW201	2842	V	12/19/2006	2007	Cadillac STS	7GMXB03.6149	Certain vehicles with 3.6L engines were produced with ECM calibration fuel trim diagnostics turned off. This violates emission regulations for OBD II which requires functional fuel trim diagnostics. Remedy: The dealers will use technical service bulletin 06213 to reprogram the ECM at no charge to the customer.	4,758	50S	4,758
GENERAL MOTORS	ML-MW156	3066	V	3/1/2006	2004 2004	Cadillac XLR Cadillac SRX	4GMXV04.6067 4GMXT04.6161	Incorrect engine control module programming causes a certain canister purge solenoid circuit to malfunction. The malfunction(s) will disable other OBD monitors without storing a Diagnostic Trouble Code or illuminating the Malfunction Indicator Light. Remedy: Voluntary emission recall 06503 will be conducted in March of 2006 on 2004 MY vehicles to install corrected OBD calibrations at no charge to the owner.	3,861 13,563	50S FC (FA + CA)	17,424
HONDA/ACURA	EDIR-05-012-00 EDIR-05-012-01	2560	V	12/9/2005 * Reported to EPA in 2006	2005	Accord Hybrid	5HNXV03.01B4	The OBD system may falsely detect a misfire immediately following a code clear with a scan tool unless the technician performs the learning procedure. The MIL illuminates. Battery damage may also occur. Honda has made available instructions on how to clear the codes. Remedy: The PCM will be reprogrammed free of charge with appropriate programming by a Honda dealership per TSB #05-038.	6,600	50S	6,600
HONDA/ACURA	VERR-06-007-01	2692	V	7/28/2006 7/28/2006	2006 2006	Insight (CVT) Insight (MT)	6HNXV01.0VK5 6HNXV01.0YJV	After certain continuous driving period, the OBD system falsely detects a malfunction of engine off timer. The cause of the failure is incorrect programming of the OBD system. A PCM with improved programming has been applied to the assembly line and is made available for repair under running change #S2. When this defect occurs, the MIL comes on with DTC P2610. Remedy: The recall requires that the Programmed Fuel Injection Control System software be updated in the ECM (TSB #06-053) at no charge to the owner. The ECM/PCM will be reprogrammed with remedied programming by Honda dealership.	218 274	50S 50S	492

2006 Emissions-Related Recall Campaigns

Mfr.	Mfr. Recall Number	EPA#	Type	Owners Notification	MY	Vehicle or Engine Class	Engine Family	Problem Description	Affected Vehicles	Sales Area	Total Number of Vehicles Recalled
ISUZU	ML-MW171	2703	V	3/13/2006	2006	Ascender	6GMXT04.2186	Isuzu vehicles were delivered to dealers in California and two Northeast States (Massachusetts and New York) with Federal Emissions Calibration software and emissions label, a limited number of which were sold to retail customers. None of the affected vehicles were delivered to or sold in Vermont or Maine. Remedy: To correct the condition all of the subject vehicles will receive the proper emissions calibration software and vehicle emissions label.	32	CA	32
JAGUAR	R726	2865	V	10/26/2006	2006 2006 2007	XJ8, XJ8L, VDP LWB XJR, SUPER V8 XJR, SUPER V8 XJ8, XJ8L, VDP LWB	6JCXV04.2DN 6JCXV04.2DSK 7JCXV04.2DSK 7JCXV04.2DNK	Some fuel tanks were not made to specification and will leak when fully filled. If there is fuel odor, or fuel leaking from Fuel Delivery Module, Jet Pump Module and/or cluster valve seals; MIL is likely to be illuminated. Fuel may leak onto the ground which could result in a fire. Remedy: Fuel tank replacement is being carried out per NHTSA Safety Recall Action R726 and technical service bulletin R726. All repairs will be performed by Jaguar dealers.	4,800 708 120 571	50S 50S 50S 50S	6,199
KIA	04.28.06.01	3068	V	8/1/2006	2006	Rio (JB)	6MXV01.6BM5	The original design included a coin box behind the cover to the OBD connector which was in violation of the CARB regulation Title 13 California Code of Regulations Section 1968.2 (f) 2.2. Remedy: The recall by Kia shows that the access problem requiring removal of a coin holder-type fuse cover to the OBD connector will be solved by replacing the original cover with a flat-type fuse cover. This will minimize efforts to access the diagnostic connector of the OBD system.	24,837	50S	24,837
LAMBORGHINI	2006 /04/13 2006/05/09 2006/07/10	2705	V	8/28/2006	1996 1997 1998 1999 2001 2002 2003 2004 2004	DB 132 Diablo DB 132/144 Diablo DB 132/144 Diablo DB 132/144 Diablo DB 132/144 Diablo L 147 Murcielago L 147 Murcielago L 147 Murcielago L 140 Gallardo	TN5.7VJGFHK VNL5.7VJGFHK WNLXV05.7DB8 XNLXV05.7DB8 1NLXV06.0321 2NLXV06.2472 3NLXV06.2472 4NLXV06.2474 4NLXV05.0404	A condition exists in the ECM software of all MY1996 to MY2004 Lamborghini vehicles sold in the US market causing the following fault. The OBD readiness status of installed monitor components and systems within the OBD are cleared at key off event. Production software improvements were made starting MY2005. Remedy: Recall (issued 7/21/2006) will upgrade the Engine Management System software at service department of authorized dealer.	24 75 104 160 148 98 169 121 697	50S 50S 50S 50S 50S 50S 50S 50S 50S	1,596
MAZDA	4106E	2739	V	6/1/2006	2006 2006	Mazdaspeed 6 2.3L Mazdaspeed 6 2.3L	6TKXV02.35EA 6TKXV02.3NE1	Incorrect PCM calibration causes ignition timing retard and turbo boost pressure limitation to operate excessively when constant engine knocking occurs under high ambient temperature and high load driving even with premium fuel. Remedy: PCM will be reprogrammed by Mazda dealer and recall label #4106E will be attached on driver's door.	6,500	50S	6,500

2006 Emissions-Related Recall Campaigns

Mfr.	Mfr. Recall Number	EPA#	Type	Owners Notification	MY	Vehicle or Engine Class	Engine Family	Problem Description	Affected Vehicles	Sales Area	Total Number of Vehicles Recalled
MAZDA	4206F	2788	I	8/31/2006	2004 2005 2005 2006	Mazda RX-8	4TKXV01.3CNA 5TKXV01.35NM 5TKXV01.3NC1 6TKXV01.35DA	Due to insufficient control of oil supply, the engine may suffer from the lack of engine oil under certain driving conditions. If the vehicle continues to be driven with such condition, the sealing capability of combustion chamber may be degraded, causing drivability or emission problems. Due to wrong PCM calibration, carbon may deposit on spark plugs or plugs may be flooded during engine start, causing difficult start condition. In addition, as a result of wrong service procedure when recovering from difficult start condition, the catalytic converter may be damaged on some vehicles. Remedy: Mazda at no charge will reprogram the PCM for latest calibration and inspect plus repair/replace if necessary: spark plugs, engine, and catalytic converter.	37,300 17,700 17,700 5,800	50S 50S 50S 50S	78,500
MERCEDES-BENZ	MB002-2005	2582	V	4/1/2006	2002 2002 2003 2003 2004 2004 2005 2006	SLK 32 AMG, C32 AMG CL 55 AMG, S 55 AMG SLK 32 AMG, C 32 AMG CL 55 AMG, S 55 AMG, E 55 AMG CL 55 AMG, S 55 AMG, E 55 AMG SLK 32 AMG, C 32 AMG CL 55 AMG, S 55 AMG CL 55 AMG, S 55 AMG, SL 55 AMG, E 55 AMG, CLS 55 AMG, SLR	2MBXV03.2LBI 2MBXV05.5LBI 3MBXV03.2LBI 3MBXV05.5LBI 4MBXV05.5LBX 4MBXV03.2LBI 5MBXV05.5LBI 6MBXV05.5LB1	An air injection pump, designed to operate during engine warm up periods, may fail to turn off at specified time. This will cause the pump to overheat and burn out. When the pump fails a MIL light will illuminate. Remedy: Mercedes and ECU-supplier have identified a software modification which will prevent random electromagnetic impulses from affecting the air injection pump. The ECU software will be updated and the pump relay replaced.	2,761 1,973 1,335 4,152 3,401 515 1,318 3,659	CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) 50S 50S 50S 50S	19,114
MERCEDES-BENZ	2006-070003	2790	V	10/1/2006	2005 2006	E320 CDI	5MBXV03.2B10 6MBXV03.2B10	Due to a spare part documentation error on certain model year 2005/2006 E320 CDI Diesel vehicles, glow plugs were installed by dealerships as part of the workshop visit which were not released for use in the E320 CDI engine. Since these glow plugs are extending deeper into the combustion chambers than serial glow plugs it might occur under adverse positions of glow plug and piston in their permissible tolerance bands that a piston hit the glow plug at top dead center, thereby damaging both components. Remedy: In this campaign the glow plugs on the affected vehicles will be replaced at no charge to owner.	92	FA	92
MITSUBISHI/ D-STAR	06XMED0160	2669	V	8/1/2006	2004 2004 2005 2005	Galant	4DSXV02.4GRB 4DSXV02.4G6G 5DSXV02.4G6G 5DSXV02.4GRB	Inadequate software calibration that may result in damage to the warm-up catalytic converter and subsequent illumination of the "Service Engine Soon" lamp when operated under certain specific driving conditions. Emissions may exceed standards and performance reduced (flow restriction thru catalyst) if vehicle operated for extended period after MIL is illuminated. Remedy: Reprogram ECU with Read-Only Memory upgrade free of charge without regard to mileage or time-in-service. If vehicle accumulated mileage exceeds 80,000 Federal or 150,000 CA, and Service Engine Soon is illuminated; then warm-up catalytic converter is replaced free of charge, if recall is completed within 6 months of the date of this notice.	24,957 7,889 5,245 18,375	FA CA CA FA	56,466

2006 Emissions-Related Recall Campaigns

Mfr.	Mfr. Recall Number	EPA#	Type	Owners Notification	MY	Vehicle or Engine Class	Engine Family	Problem Description	Affected Vehicles	Sales Area	Total Number of Vehicles Recalled
MITSUBISHI/D-STAR	EMR-06-003	2832	V	11/1/2006	2006	Eclipse	6DSXV03.8GRC	Incorrect software parameters may cause illumination of the MIL because of DTC P0421 and/or P0431. Catalytic converter replacement may be necessary. Remedy: All affected vehicles get free of charge PCM reprogramming. If affected vehicle has a MIL (Service Engine Soon) lamp on and DTC P0421 and/or P0431 set before reprogramming the PCM; the warm-up catalytic converter is replaced, using an exhaust manifold repair kit.	12,209	CA	12,209
NISSAN/INFINITI	06V-54	2743	V	3/21/2006	2005	Murano	5NSXT03.5G7A	A fitting for vapor recirculation, which is welded on the fuel tank on Nissan Murano vehicles is coming off as indicated by the MIL. Remedy: A recall 06V-54 will be implemented. The fuel tank will be replaced with a new one.	14,268	CA	14,268
NISSAN/INFINITI	R505/05V-555	2744	V	2/13/2006	2003 2003 2003 2003 2004 2004 2004 2005 2006	G35 Sedan A/T 350Z, G35 Sedan/Coupe FX35 FX45 350Z, G35 Sedan/Coupe G3 5 Sedan AWG FX35 FX45 FX45 FX45	3NSXV03.5C7A 3NSXV03.5C7B 3NSXT03.5C7B 3NSXT04.5C8A 4NSXT03.5G7A 4NSXV03.5G7C 4NSXT03.5G7A 4NSXT04.5M8A 5NSXT04.5M8A 6NSXT04.5M8A	On some 2003 - 2004 Nissan vehicles the fuel filler hose may crack and result in fuel and vapor leakage. The MIL may illuminate. Remedy: A recall (R505/05V-555) will be implemented. Nissan to replace the fuel filler and vapor hoses with new ones.	54,200 65,721 17,640 6,462 36,081 31 26,596 3,799 1,877 6	CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) CA CA CA CA CA	212,413
NISSAN/INFINITI	NHTSA06V223000	2760	V	6/9/2006	2006 2006	Altima and Sentra Altima and Sentra	6NSXV02.5G5A 6NSXV02.585A 6NSXV02.5S5A 6NSXV02.5N5A	Excessive engine oil consumption may occur as a result of improper performance of the piston rings. If the oil is not maintained at least at the minimum level, engine damage can occur and in extreme cases may result in an engine fire. Remedy: Dealers will reprogram the electronic control module (engine computer). Vehicle will also be inspected to determine if it has been consuming engine oil at a higher than normal rate. A service bulletin (NTB06-045a) was issued as part of this recall. In a small percentage of vehicles, engine replacement will be needed.	69,228 21,323 491 1,893	50S CA 50S 50S	92,935
NISSAN/INFINITI	R0606	2775	V	8/21/2006	2003	Altima S Sedan Sentra SE-R Sedan	3 NSXV02.5D5A 3NSXV02.5C5A	Engine may stop running due to a brief interruption in the crank angle sensor output signal. The location of the sensor in the engine has large enough variations in temperature to cause a brief interruption in the signal output from the sensor. The ECM logic doesn't have enough time to diagnose the condition, so the engine may stop running (vehicle stall). Remedy: The ECM will be reprogrammed to prevent stalling incidents due to signal interruptions from the crank angle sensor. A service bulletin, NTB06-051 was issued for this recall.	186,279 14,587	50S	200,866

2006 Emissions-Related Recall Campaigns

Mfr.	Mfr. Recall Number	EPA#	Type	Owners Notification	MY	Vehicle or Engine Class	Engine Family	Problem Description	Affected Vehicles	Sales Area	Total Number of Vehicles Recalled
SUBARU	#WWX-08	2704	V	6/9/2006	2004	Legacy, Outback	4FJXV02.5NKR	Some 2004 CA Partial Zero Emission Vehicle (PZEV) certified Subaru Legacy /Outback 2.5L NA models will experience MIL illumination and the storage of DTC P0420 (catalyst system efficiency below threshold). The P0420 illumination condition has been confirmed to be from a unique mixture of excess fuel supply and air that reacts in the catalytic converter resulting in abnormal catalyst degradation. Remedy: SUBARU is conducting a customer service campaign. The repair will include reprogramming the ECM; and possibly catalytic converter replacement, but only if DTC P0420 is present.	21,516	50S	21,516
SUZUKI	SC-32	2747	V	7/15/2006	2006	Verona	6DXV02.5D04	Incorrect ECM control logic causes leak detection monitoring of the evaporative emission control system to be disabled during subsequent driving cycles if OBD detects a noisy signal from the differential fuel tank pressure sensor and stores pending DTC P0454. If monitor disabled, the MIL will not illuminate if an evaporative emission control system leak occurs during subsequent driving cycles. Remedy: Suzuki will conduct an emissions-related recall to reprogram the ECM in affected vehicles with corrected software.	2,000	50S	2,000
TOYOTA/LEXUS	60I	2792	V	12/15/2006	2001 2002 2001 2002 2003	RAV4 Highlander Highlander	1TYXT02.0FFH 2TYXT02.0FFH 1TYXT02.4FFP 2TYXT02.4FFP 3TYXT02.4FFP	MIL illumination can occur for catalytic converter from DTC P0420/P430 due to improper program logic in Engine Control Module (ECM) and early deterioration of oxygen storage capacity in the catalytic converter. Remedy: Toyota initiated a Special Service Campaign to reprogram the program logic in ECM with improved logic at a Toyota dealership. All owners were notified for this no charge reprogramming. Customers may request reimbursement, if they have previously paid for the program update or, in the rare instance, the replacement of the Catalytic Converter for this specific condition prior to receiving the owner letter.	87,000 72,000 13,000 21,000 27,000	CL(CA+NLEV ALLS) CL(CA+NLEV ALLS) CL(CA+NLEV ALLS)	220,000
VOLKSWAGEN/ AUDI	38513	2544	V	7/28/2006	2002	A4, Passat	2ADXV01.8342	The crankcase ventilation hose is broken or cracked and shows visible signs of deterioration. In most cases a MIL and / or oil leakage and / or engine starting problems will occur. Remedy: A recall has been issued to replace the crankcase breather hose with a new hose of improved material.	77,106	CL(CA+NLEV ALLS)	77,106
VOLKSWAGEN/ AUDI	M6	2637	V	8/18/2006	2004 2005	Golf/Jetta/New Beetle with 1.9L TDI Engine Golf/Jetta/New Beetle with 1.9L TDI Engine	4VWXV01.9236 5VWXV01.9236	Internal coolant leak in EGR cooler assembly leads to customer complaint from Engine coolant light (low coolant)/MIL being on. NOx emission values increase when EGR cooler is blocked at the regulating flap and cooler connecting pipe. Remedy: The vendor's manufacturing process was optimized to assure the elimination of any internal leaks in the EGR cooler. Dealers will replace the EGR cooler on affected vehicles, Recall M6.	18,690 21	FA FA	18,711

Total number of Vehicles affected by Recall Campaigns: 1,768,120

2006 Emissions-Related Voluntary Service Campaigns

Mfr.	Mfr. Recall Number	EPA#	Type	Owners Notification	MY	Vehicle or Engine Class	Engine Family	Problem Description	Affected Vehicles	Sales Area	Total Number of Vehicles Recalled
FORD	06N07	2831	VSC	12/1/2006	2004 2005 2006	Ford Taurus/Mercury Sable	4FMXV03.0VFZ 5FMXV03.0VFZ 6FMXV03.0VFZ	Some 2004-2006 Taurus/Sables with Flex Fuel Vehicle (FFV) 3.0l may experience a long or hard crank during cold starting while operating on Ethanol 85% (E85) under circumstances that result in a leaner fuel mixture than desired. Remedy: A revised calibration was implemented and TSB 06-5-5 was issued to assist service technicians in diagnosing and correcting the concern. Customer Satisfaction Program was issued 12/01/2006 which added 10 YR and 100,000 mile coverage as a one time reflash of PCM.	45,100 90,300 8,500	50S	143,900
GENERAL MOTORS	ML-MW196	2686 2687 2751 2751 2751 2776 2776 2776 2777 2777 3043	VSC	11/9/2006	2004 2004 2004 2004 2005 2003 2003 2004 2004 2004 2004	Chevrolet Aveo Chevrolet Malibu Saturn L300 Saturn LW300 Saturn L300 Sabb 9-3 Sabb 9-3 Sabb 9-3 Cadillac SRX Cadillac XLR Chevrolet Malibu	4GD XV01.6D02 4GMXV03.8041 4GMXV03.0061 4GMXV03.0061 5GMXV03.0061 3GMXV02.0002 3GMXV02.3001 4GMXV02.0002 4GMXT04.6161 4GMXV04.6067 4GMXV02.2028	Owners may experience a condition where the fuel tank gas cap won't tighten properly or the fuel cap won't come off, or is broken. These conditions can cause the illumination of the Malfunction Indicator Light (MIL). Additionally, a DTC can be set if fuel cap does not seal adequately at the filler neck surface. Remedy: If this condition occurs on an owner's vehicle within 10 years of the date the vehicle was originally placed in service or 120,000 miles, whichever occurs first, the condition will be repaired for the owner at no charge. Special Coverage Service Bulletin No. 06081 was issued for this evaporative emissions problem.	55,208 73,301 10,931 1,499 6,789 7,418 17,885 29,188 13,554 3,852 26,916	FC (FA + CA) FC (FA + CA) FC (FA + CA) FC (FA + CA) NF (CFV+CA+NL) NF (CFV+CA+NL) NF (CFV+CA+NL) FC (FA + CA) FC (FA + CA) 50S FC (FA + CA)	246,541
GENERAL MOTORS	ML-MW199	3056	VSC	12/4/2006	2000 2000 2001 2002	Chevrolet Camaro Pontiac Firebird Chevrolet Camaro Pontiac Firebird Chevrolet Camaro Pontiac Firebird Chevrolet Camaro Pontiac Firebird	YGMXV05.7081 YGMXV05.7083 1GMXV05.7081 2GMXV05.7081	The component that failed is the catalytic converter. The failure is lost oxygen storage capacity in the catalyst. The probable cause is that the catalyst technology used in this application is not robust against the potential operating exhaust temperatures. Typical customer complaint is MIL illumination. Remedy: A Special Coverage Extended Warranty will be implemented for potentially affected vehicles to cover servicing of the catalytic converter to 10 years/120,000 miles, whichever occurs first. Dealers are to service all vehicles subject to this campaign at no charge to owners, subject to the terms of the special coverage.	13,073 12,228 6,521 4,349 12,231 11,587 23,741 19,851	50S 50S CA CA CA CA CA CA	103,581
HONDA/ACURA	PUDR_WER-04-005-00	2269	VSC	5/13/2006	2000 2001 2001 2002 2002 2003 2003 2004 2004	Insight (MT) Insight (MT) Insight (CVT) Insight (CVT) Insight (MT) Insight (MT) Insight (CVT) Insight (MT) Insight (CVT)	YHNXV01.0LA4 1HNXV01.0FH6 1HNXV01.0HEV 2HNXV01.0CCE 2HNXV01.02N4 3HNXV01.01A4 3HNXV01.0PCE 4HNXV01.02A6 4HNXV01.0NCE	Overcharging of the Integrated Motor Assist (IMA) battery causes deterioration of the battery unexpectedly. The MIL illuminates. The cause of failure is inappropriate calibration of the Battery Condition Monitor Module. An improved battery ECM calibration has been applied to the assembly line and is made available for repair under Running Change/Field Fix #E5 and for warranty service, TSB 04-028. Remedy: Warranty extended on Battery Control Module to 10 years or 150,000 miles. The Battery Control Module and Motor Control Module will be replaced with improved ones at Honda dealerships. A failed IMA battery will be replaced with a new one under warranty extension.	1,861 800 656 559 250 112 310 46 164	NF (CFV+CA+NL) NF (CFV+CA+NL) NF (CFV+CA+NL) NF (CFV+CA+NL) NF (CFV+CA+NL) CL (CA+NLEV ALLS) 50S 50S 50S	4,758
MERCEDES-BENZ	2005-020004	2362	I-VSC	2/1/2005 * Reported to EPA in 2006	2000	S CLASS, CL CLASS	YMBXV05.0GNB	The ceramic monolith substrate in the catalysts of certain model 2000 S and CL class MERCEDES-BENZ vehicles may be damaged under certain circumstances. This will illuminate the OBD MIL until vehicle is serviced. Remedy: MBUSA will notify owners that their vehicle will be repaired under extended warranty which will increase from 8/80,000 to 10/unlimited.	20,147	CL (CA+NLEV ALLS)	20,147

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MITSUBISHI/D-STAR	FMS-013	2836	VSC	11/1/2006	2003	Mitsubishi Outlander 4WD	3MTXT02.4GNG	The front exhaust pipe bellows may corrode and leak due to contact with road salt in cold weather climates. This will allow untreated exhaust gases into the environment. Remedy: Warranty for front exhaust pipe bellows will be extended to 8-years/80,000 miles. Owners will be mailed a letter explaining extension and requested to insert the letter in their warranty portfolio for future use should they encounter the condition. TSB-06-15-001 has been issued to assist technicians in the repair.	21,699	50S	21,699
VOLVO	VSC 155	2655	I-VSC	4/1/2006	1999 1999 1999 1999 1999 1999 1999 2000 2000 2000 2000 2000 2000 2000 2001 2001 2001 2001 2001 2001 2001 2002 2002	S70 AWD, V70 AWD, V70 XC S70, V70, C70 (Turbo) S70, V70 S80 (Turbo) S80 S70, S70 AWD, V70, V70 AWD, V70 XC, C70 S70, V70 S80 (Turbo) S80 V70 XC AWD C70, S60, V70, V70 AWD S60, V70 S80, S80 Executive S80, S80 Executive C70 (w/o S60, V70) S60, V70	XVVXV2.43AW2 XVVXV2.43PA2 XVVXV2.43TF2 XVVXV2.78EN2 XVVXV2.92BU2 YVVXV2.43PA3 YVVXV2.43TF3 YVVXV2.78EN3 YVVXV2.92BU3 1VVXT2.43L5T 1VVXV2.43L5T 1VVXV2.43U5N 1VVXV2.78T6T 1VVXV2.92L6N 2VVXV2.43L5T 2VVXV2.43U5N	Electronic Throttle Module (ETM) failure may illuminate Electronic Throttle System light or MIL. Symptoms may include, uneven engine idle, and/or "limp home mode" that could restrict vehicle speed to 10-30 miles per hour. Faults of the ETM are stored as DTCs in the ECM. If OBD II detects a fault that might increase emissions, the MIL is illuminated. Remedy: A software upgrade will be performed at the next service interval, and ETM warranty extended to 10 years or 200,000 miles, whichever comes first.	17,645 17,233 29,576 10,478 15,398 32,323 28,965 12,984 23,238 27,243 36,318 25,131 8,330 17,091 3,360 27,654	CL (CA+NLEV ALLS) NF (CFV+CA+NL) NF (CFV+CA+NL) CL (CA+NLEV ALLS) CL (CA+NLEV ALLS) NF (CFV+CA+NL) 50S CL (CA+NLEV ALLS) 50S NF (CFV+CA+NL) NF (CFV+CA+NL) 50S 50S NF (CFV+CA+NL) 50S 50S	332,967

Total number of Vehicles affected by Voluntary Service Campaigns: 873,593

Total number of Vehicles affected by Recalls and Voluntary Service Campaigns: 2,641,713

SUMMARY	
Total number of Voluntary Recalls:	35
Total number of Voluntary Service Campaigns:	7
Total number of Recalls and Voluntary Service Campaigns:	42