

#### A Monthly Publication for GM Dealership Service Professionals

This information pertains to 1994-2003 vehicles with 6.5L or 6.6L Diesel Engine (VINs F, P, S, Y, 1 – RPOs L65, L49, L56, L57, LB7).

**TIP:** The use of diesel fuel additives is

**Diesel Fuel Additives** 

not required or recommended for the 6.5L diesel or the 6.6L Duramax® Diesel engine under normal conditions. The filtering system is designed to block water and contaminants without the use of

additives. However, some customers may desire to use fuel additives to improve the characteristics of available diesel fuels.

#### Water Emulsifiers and Demulsifiers

Fuel additives must be selected carefully. There are two common methods that fuel additives use to cope with water in the fuel.

**Demulsification** causes water particles to combine together to form larger particles, which drop out of suspension. This allows the

fuel filter/water separator to separate the water from the fuel as it is designed to. **Emulsification** keeps water particles suspended in the fuel. Alcohol is frequently used as the emulsifier. Emulsification can allow water to get past the fuel filter/water separator, in most cases causing damage to the fuel system.

IMPORTANT: Only alcohol-free water demulsifiers should be used in General Motors Diesel engines. Both Racor® and Stanadyne® diesel fuel additives are alcohol-free and utilize water demulsifiers to cope with water in the fuel. Other brands may be available in different areas. Before using them, be sure they clearly state that they are alcohol-free demulsifiers.

(We believe these sources and their products to be reliable. General Motors does not endorse, indicate any preference for or assume any responsibility for the products from this firm or for any such items, which may be available from other sources.)

#### COMMON DIESEL FUEL CONCERNS

#### **Fuel Waxing/Icing**

Fuel distributors blend number 1 and continued on page 2



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#### **Techline News**

#### Tech 2 Replacement – Fact or Fiction?

Did you hear the one about the guy who bought the latest high-tech (you fill in the blank) and it was obsolete before he opened the box?

Or version 7.0 of a hot computer game being released before version 6.0 went on sale?

So, naturally you're skeptical about the life expectancy of the Tech 2, right? Your shop could really use an additional one, but you don't want to buy something that's going to be obsoleted right away. What to do?

#### Designed for Expansion

When the Tech 2 came out in 1996, it had 10 times the mass storage capacity of the Tech 1 it replaced, and four times the display space on the screen. The processor went from 8 bits to 32 bits, so it was considerably faster.

That was then; this is now. Is the Tech 2 able to keep up?

To put your mind at ease, remember that the Tech 2 was designed to be changeable and expandable, right from the start. This is evidenced by the fact that it contains two memory card slots. And the fact that the 32 MB card was released in December 2001 to replace the previous 10 MB card. With that one step alone, the Tech 2's storage capacity was tripled.

**REMINDER:** The 32 MB card is the primary card to be used. If you have not already done so, remove the 10 MB card from your Tech 2. The 10 MB card has been the source of some commu-

nication errors.

With the onset of GMLAN (TechLink, Mar. 2003), the CANdi module now enables the Tech 2 to communicate with a whole new data protocol. Other such communication modules may be developed in the future, to extend the useful life of the Tech 2 even further.

Some of the components used in the manufacture of early Tech 2s are no longer available. So, tool engineers have found ways of redesigning circuits for later Tech 2s to use currently available components. <u>These Tech</u> <u>2s work exactly as the</u> <u>original did.</u> This extra development work was done to ensure that the Tech 2 did not become obsolete, as parts supplies changed.

This kind of refinement is costly, and would not be undertaken if the Tech 2 continued on page 2

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#### continued from page 1

number 2 diesel fuels for seasonal requirements in a particular region. No other blending of fuels is recommended. However, a customer may desire to use a winter fuel additive to prevent fuel waxing or icing during extreme cold snaps. If a winter fuel additive is used, it should not contain alcohol or other water emulsifiers that may compromise the water removal effectiveness of the fuel filtering system.

#### **Bacteria and Fungi Growth**

Bacteria and fungi growth can occur in diesel fuel when there is water present, especially during warmer weather. The best prevention against bacteria and fungi growth is to use clean fuel that is free of water. There are diesel fuel biocides available to kill bacterial growth in the fuel system. However, the dead bacteria can cause blockages throughout the fuel system. If bacterial growth is found in the fuel system, the proper method of removal is to flush the fuel system using service manual procedures, replace the fuel filter element, and refill the tank with clean diesel fuel. If a customer desires to use a biocide after flushing the fuel system, it should not contain alcohol or other water emulsifiers.

#### Low Cetane Number

The cetane number is one indicator of a diesel fuel's ability to ignite. There are many indicators of overall fuel quality such as cleanliness, specific gravity, volatility, viscosity, detergency, corrosion inhibiting abilities, and lubricity. Increasing the cetane number alone is not a fix for poor quality fuel. Additionally, increasing the cetane number beyond the engine's requirements will not increase performance. However, the cetane number of diesel fuel is not always consistent and some customers may desire to use a cetane improver to ensure full performance of their engine. If such an additive is to be used, it must not contain alcohol or other water emulsifiers.

#### **Poor Lubricity**

The 6.5L diesel and the 6.6L Duramax® Diesel engines are designed to operate on today's low sulfur fuel without the use of additives. A fuel additive designed to increase lubricity is not a fix for poor quality or contaminated fuel, but some customers may desire to use a lubricity additive to aid in the longevity of their fuel system components. If such an additive is to be used, it must not contain alcohol or other water emulsifiers.

#### **FUEL SOURCE ISSUES**

If a vehicle is properly maintained but has fuel contamination issues, consider obtaining fuel from a different source. Purchasing fuel from a high volume fuel retailer increases the likelihood that the fuel is fresh and of good quality.

- Thanks to Andy Sutherland

#### **Techline News** continued from page 1

were approaching the end of its life.

#### What's Coming

Many of the operating features of the original Tech 2 resulted from surveys of retail technicians. This is an ongoing process. At present, surveys are being used to gain insight into where the handheld diagnostsic computer needs to go in the future. Should it be a laptop? Or a PDA? Have wireless capabilities? Have handwriting recognition?

At present, the Tech 2 replacement isn't even in spec form yet. There is a lot of research and development needed before anything like a "Tech 3" becomes a reality. This won't be soon, and when it does happen, it won't be a surprise. There will be plenty of advance information and notice before a new tool becomes essential.

Diagnostic tools can have a very long lifespan. In fact, the Tech 1 is still being sold after 13 years!

Diagnostic technology certainly doesn't stand still. There's always a need and a desire to diagnose it faster and display it better. Research and development are ongoing. But a significant milestone such as a Tech 2 replacement is not on the horizon.

#### What Should You Do?

Remember, the Tech 2 isn't going to be replaced until a vehicle operating system comes along that the Tech 2 can't be made to talk to. This is not in the foreseeable future.

So, if you need an additional Tech 2, you can purchase it with confidence that it will remain useful and current for a long time to come. Contact GM Dealer Equipment at 1.800.GMTOOLS (1.800.468.6657).

- Thanks to Mark Palmer, John Cicala, Jeff Flood and Mark Stesney

IDL	Know-How Broadcasts for May			
- Thanks to Tracy Timmerman	Emerging May 13, 9:00 AM, Issues 2003 3:30 PM Ea		9:00 AM, 12:30 PM, 3:30 PM Eastern Time	
	10270.17D 2004 Chevrolet Passenger Cars New Model Features	May 29, 2003	9:00 AM, 12:30 PM, 3:30 PM Eastern Time	



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General Motors service tips are intended for use by professional technicians, not a "do-it-yourselfer." They are written to inform those technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions and know-how to do a job properly and safely. If a condition is described, do not assume that the bulletin applies to your vehicle or that your vehicle will have that condition. See a General Motors dealer servicing your brand of General Motors vehicle for information on whether your vehicle may benefit from the information.

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# Brake Pipe Flaring Tool

GM has begun installing vinyl-coated double wall brake pipes on some vehicles. This will eventually spread to other vehicle lines

The black coating offers additional protection to the metal pipe. However, it interferes with the flaring process, so it must be stripped from pipes before flaring can be done.

Some pre-formed brake pipes are available for service replacement. Others must be fabricated from bulk pipe. If you must fabricate a pipe, or repair a pipe on a vehicle, you will have to form flares on the ends of the pipes.

TIP: When installing any brake pipe to the vehicle, be sure to torque the nuts to the proper specification. Refer to the appropriate SI section for details.



J-45505 Brake Line Flaring Kit

The Brake Pipe Flaring Set J-45505 contains all of the tools necessary to cut, strip and flare brake pipe. These tools have been made as small as practical, to permit them to be used in cramped areas on the vehicle.

TIP: This flaring set will work with noncoated brake pipes as well.

Refer to the photographs. Instructions are included on a label attached to the lid of the storage case.

The brake pipe cutter can be adjusted to cut tubing from 1/8-inch to 5/8-inch (3 - 16 mm).

The stripper is equipped with two guide rollers and an adjustable stripping blade. Simply insert the pipe between the rollers until it contacts the stop. This controls the length of coating that is removed. Then snug the rollers and twist the stripper to remove the vinyl coating.



**Brake Line Cutter** 



Brake Line Stripper

After cutting, it's necessary to use the deburring tool to remove burrs from both the inside and outside of the cut end of the pipe.



Brake line with coating stripped off

Select the appropriate die set and install into the hydraulic hand pump. Install the proper nut on the pipe. Then insert the pipe into the die and operate the handle. The hydraulic ram creates the properly shaped flare with minimal effort.





90° double inverted flare

**TIP:** Be sure to use the proper die type. Past and present GM vehicles use either single lap or double lap flares. Using the incorrect type can lead to brake system failure

- Thanks to Tim Pierce, Jim White and Pat Devost

# **Fuel Level** Sensor

This information applies to 2000-2003 Cavalier, Sunfire, Malibu, Alero and Grand Am with an inaccurate fuel gauge level reading.

If normal diagnostics lead you to replace the fuel level sensor, here is some late-breaking news.

A new fuel level sensor is manufactured with gold contact surfaces to provide protection against sulfur and contamination in the fuel.

TIP: The previous sensor/pump module is no longer available. The fuel level sensor and the fuel pump module are available as separate replacement parts.

TIP: If you are dealing with an inaccurate gauge condition, install the sensor. If you are dealing with a fuel system performance condition, install the fuel pump module.

Fuel Level	Fuel Pump
Sensor	Module
22709333	(excludes
	sensor)
	88957239

Details will be given in an upcoming bulletin.

- Thanks to Steve Oakley



# **Blue Fog Lamps**

The 2003 Limited Edition Grand Prix has special blue fog lamps. The replacement bulb is different from current Grand Prix lamps. The replacement bulb has a wire pigtail and is available from GMSPO under AC Delco part number 11513798.

TIP: It is not necessary to replace the entire fog lamp when the lamp burns out. Replace only the bulb.

- Thanks to Fred Tebbets

# **Instrument Panel Top Pad Gap**

On 2002-03 Impala and Monte Carlo, a gap condition may exist between the Upper I/P pad to I/P trim plate, which may be objectionable to a customer.



It is possible to correct or improve the appearance of the Upper I/P pad without replacement. Loosen the attachment screws at or near the area of the gap and retighten while firmly holding the Upper I/P Pad down, closing the area of the gap. Repositioning the I/P Upper Pad in this fashion should eliminate the gap, without requiring the replacement of the I/P Pad.

Thanks to Gary McAdam

# **OnStar Wake Up Cycle Change**

To create a more streamlined OnStar enrollment process, the vehicle assembly centers are making a change to the OnStar module wake up cycle. These will occur according to the schedule in the accompanying tables.

Remember, in order for OnStar to perform remote functions while the vehicle is off (door unlock, alerts, theft tracking, etc.) the OnStar module must wake up at specified intervals and ready itself to receive a call from the OnStar call center. This wake up cycle is commonly referred to as DRx (Discontinuous Receive).

Previously, unconfigured OnStar equipped vehicles did not perform this wake up cycle; the module was always asleep with the ignition off. The wake up cycle started only after the OnStar system was configured.

Beginning in January of 2003, the following change is being made. Unconfigured vehicles will wake up every 10 minutes for a period of approximately 1 minute. This wake up cycle starts after each ignition cycle, and ends after 24 hours. The OnStar module will then return to sleep mode until the ignition is cycled again. Once the vehicle is configured, the module will return to the traditional wake up cycle. The vehicle will wake up 1 minute out of every 10 minutes over a 48 hour period following an ignition cycle.

TIP: Be aware of this change when performing battery parasitic drain diagnosis.

*TIP*: The OnStar module can be shut down using the Class 2 Message Monitor of the Tech 2. This does not affect the DRx cycle; the OnStar module will still wake up at the scheduled time.

- Thanks to Dale Tripp and Mike Batchik

Models With Modified Wake-up Cycle beginning Jan. 31, 2003

2003 Hummer H2	2003 LeSabre
2003 Saturn ION	2003 Cadillac CTS
2003 Bonneville	2003 Saturn VUE*
2003 Aurora (V8)	2003 Saturn LS/LW*
2003 Cavalier	2003 Monte Carlo*
2003 Montana	2003 Impala*
2003 Sunfire	2003 Cadillac DeVille*
2003 Silhouette	2003 Cadillac Seville*
2003 Aztek	2004 Cadillac SRX*
2003 Venture	2004 Cadillac XLR
2003 Rendezvous	2004 Grand Prix

\* Vehicles will be transitioning from Gen 4 OnStar to Gen 5 OnStar sometime after Jan 31, 2003. The wake up cycle modification will occur concurrent with this change.

#### Models with modified Wake-up Cycle Estimated Dates

GMC Savana and Chevrolet Express	Feb. 2003
Envoy XL, Envoy XUV, Trailblazer EXT	Feb. 2003
Full-Size Truck (less H2)	Mar. 2003
Trailblazer, Envoy, Bravada	Mar. 2003

### Recent Essential Tool Shipments

Several essential tools were shipped to dealers recently.

#### J-34730-40 Fuel Pressure Gauge Quick Connect Adapters



#### Hummer H1

These adapters are used with the J-29658-D Fuel Pressure Gague kit and J-34730-1A Fuel Pressure Gauge and Hose Assembly to test and diagnose the supply and return fuel systems.

#### J-45268-115 TXV Adapter



2004 Grand Prix, Impala, Monte Carlo, SLR, Malibu, Corvette

This adapter is used to replace the TXV when doing an A/C flush with the ACR2000. The TXV must be removed to allow refrigerant to flow through the A/C system.

#### J-46405 Seal Installer



1997-Current Corvette, XLR

The axle shaft seal has been updated for improved performance. The J-36797 Seal Installer no longer fits. The new installer fits both the new seal and the first design seal.

- Thanks to Ryan Jankowski



## Increased Steering Effort

This condition affects 2003 Chevrolet Cavalier, Pontiac Sunfire, Grand Am, Oldsmobile Alero equipped with 2.0 Litre L61 EcoTech engine (VIN Code F).

A customer may comment on increased steering effort at vehicle start up on mornings with low ambient temperatures (below 30° F, -2°C).

It may be difficult to confirm this condition, as it may be somewhat intermittent. Normal testing of the steering system (flow meter, test drive, etc.) after vehicle warm up may also be inconclusive. The cause of this condition is a priming issue with the power steering pump. The problem is not within the steering rack. The correct repair procedure is to replace the power steering pump.

Delphi Engineering is currently taking steps to identify and resolve this issue.

#### - Thanks to Steve Oakley



## Air Suspension Diagnostic Code

This condition may occur on a 2003 Hummer H2 with Electronically Controlled Air Suspension (ECAS).

While using a Tech 2, if you should encounter a DTC 0660 stored in history, simply delete the code. This can occur upon a rapid ignition cycle from 'accessory' to 'crank,' while the ECU is performing a self test. A 'green' engine causes a significant voltage drop during initial crank. There is no effect on the function of the air suspension and will not be cause for concern for a customer.

**TIP:** The code will disappear on its own after 100 key cycles and should not reset.

- Thanks to Terry Nicholas

# Delphi P04 PCM

The Delphi P04 Powertrain Control Module (PCM) may set both 5-volt reference DTCs simultaneously during a specific failure condition. Depending on the vehicle platform, these are DTCs P1635/1639 or P0641/0651.

The failure condition resulting in both 5volt reference codes being set occurs when the Intake Air Temperature (IAT) sensor signal circuit is shorted to battery voltage during start-up. The most likely failure will be an IAT sensor signal circuit that is shorted to a switched ignition voltage circuit. When the PCM circuitry is exposed to this high voltage, a miscalculation may occur in the analog-to-digital (A/D) counts, used in the PCM software. If this miscalculation exceeds a calibrated threshold, the PCM may set both P1635/1639 or P0641/0651.

To correct this condition, test the IAT sensor signal circuit for a short to voltage and repair as necessary. Be sure to verify that the IAT sensor itself has not been damaged. Correct and repair any other DTCs or faults that may be present. There has not been any reported damage to PCMs as a result of this failure.

Use the table to determine which vehicle platform/engine combinations are using the P04 PCM:

· · · · · · · · · · · · · · · · · · ·							
	1998	1999	2000	2001	2002	2003	
Park Avenue	3.8L	3.8L	3.8L	3.8L	3.8L	3.8L	
LeSabre	3.8L	3.8L	3.8L	3.8L	3.8L	3.8L	
Firebird	3.8L	3.8L	3.8L	3.8L	3.8L	3.8L	
Camaro	3.8L	3.8L	3.8L	3.8L	3.8L	3.8L	
Impala	-	-	3.4L	3.4L	3.4L	3.4L	
Monte Carlo	3.1L/3.8L	3.1L/3.8L	3.4L/3.8L (police)	3.4L/3.8L	3.4L/3.8L	3.4L/3.8L (police)	
Lumina	3.1L/3.8L	3.1L/3.8L	3.1L	3.1L	-	-	
Grand Prix	3.1L/3.8L	3.1L/3.8L	3.1L/3.8L	3.1L/3.8L	3.1L/3.8L	3.1L/3.8L	
Grand Am	3.1L	3.4L	3.4L	3.4L	3.4L	3.4L	
Bonneville	3.8L	3.8L	3.8L	3.8L	3.8L	3.8L	
Alero	-	3.4L	3.4L	3.4L	3.4L	3.4L	
Malibu	3.1L	3.1L	3.1L	3.1L	3.1L	3.1L	
Regal	3.8L	3.8L	3.8L	3.8L	3.8L	3.8L	
Century	3.1L	3.1L	3.1L	3.1L	3.1L	3.1L	
Venture	3.4L	3.4L	3.4L	3.4L	3.4L	3.4L	
Silhouette	3.4L	3.4L	3.4L	3.4L	3.4L	3.4L	
Transport	3.4L	3.4L	-	-	-	-	
Montana	-	-	3.4L	3.4L	3.4L	3.4L	
Eighty-Eight/LSS	3.8L	3.8L	-	-	-	-	
Riviera	3.8L	3.8L	-	-	-	-	
Intrigue	3.8L	3.5L/3.8L	3.5L	3.5L	-	-	
Rendezvous	-	-	-	-	3.4L	3.4L	
Aztek	_	-	-	3.4L	3.4L	3.4L	
Achieva	3.1L	-	-	-	-	-	
Cutlass	3.1L	3.1L	-	-	-	-	
Skylark	3.1L	-	-	_	_	_	

- Thanks to Jim Hanna

# Chemical Damage To Polycarbonate Headlamp Lenses

This information applies to 2003 and prior passenger cars and trucks and 2003 Hummer H2. Refer to bulletin 02-08-42-001.

Most late model vehicles have polycarbonate headlamp lenses. This material is used because of its temperature and high impact resistance. A variety of chemicals can cause crazing or cracking of the headlamp lens. Headlamp lenses are very sensitive. Exercise care to avoid contact with all exterior headlamp lenses when treating a vehicle with any type of chemical, such as those recommended for rail dust removal. Rubbing compound and cleaner waxes may also attribute to this condition. This could result in the need to replace the entire headlamp housing.

Also, crazing or deformations of the lens may occur if a shop mat or fender cover is draped over the fender and covers a portion or all of the headlamp assembly while the DLR or headlamps are on. This action restricts the amount of heat dissipated by the headlamps.

Once heat buildup is generated by the headlamp, a degradation of the headlamp lens begins. This degradation of the lens can be unnoticeable at first and eventually show up as spider cracks. In more extreme cases, it will begin to melt the lens of the headlamp.

- Thanks to Bob Broughton and Katie Callahan

# **Splice Corrosion**

Owners of some 2003 Pontiac Sunfires may comment that the left headlamp is dim, the high beam indicator is on, and the SVS lamp may be illuminated. The Tech 2 scan tool may reveal a code B2601. Some customers may also comment on the left or right fog lamp appearing dim or not illuminating.

The forward electrical harness has splices that may be inadequately sealed from corrosive elements. Road splash, especially during winter months may force water into the harness causing increased resistance and eventual separation of the splices.

#### Locating the Affected Splices

**TIP:** You may be able to locate the affected splices visually before removing the electrical tape wrap. A green mark or spot may have leeched out through the tape leaving a visual indicator of where to begin removing the tape. Carefully cut and remove the electrical tape wrapping the wire harness.

In the case of dim high beam, investigate splice 107 (pink) and splice 108 (dark blue) for corrosion. These splices are located next to the windshield wiper reservoir and are associated with circuit 593. High resistance in these splices can cause the driver side headlamp to dim.

**TIP:** Splice number 118 (light blue) is located in very close proximity to the other splices, and is protected in the same manner. This splice involves the left front turn signal circuit on the vehicle. It is recommended that it be repaired and protected at the same time.

In the case of dim fog lamps, investigate splice 213 (purple) and splice 113 (orange). see visual signs of corrosion. If evidence of corrosion is found, re-splice the connection in the same manner as the other wires.

#### **Repair Procedure**

Strip back the wires until clean noncorroded wire is available.

Resplice the wires, using GM crinp and seal connectors P/N 12089189 only. These connectors are equipped with an



IMPORTANT: In the same area as the orange and purple splices but more toward the driver's side, you will find a black wire splice. Inspect this splice for signs of corrosion. Do not cut into or in any way disturb this splice unless you

internally knurled crimp joint and heat shrink tubes.

Insert the bare wires fully into the body of the connector. Using the J-38125-8 crimping tool, fully crimp the body of the connector.

Using the J-38125-5 Ultra Torch from your J-38125-C Terminal Repair Kit, progressively heat the connector by waving the torch quickly over both the plastic shrink tube (to activate it) and body of the connector to get the internal sealant to flow.

Cut a 3M® Electrical Moisture Sealant Patch in half. Apply the patch to the splice as indicated on the package.

Refer to an upcoming bulletin for further details.

- Thanks to Steve Oakley



# Neutral Start Backup Switch

Some 2001-2003 Sierra and Silverado trucks equipped with Allison Series 1000 Automatic Transmission (M74) may have multiple DTCs including any or all of the following: P0708, P0847, P0872, P0875, When replacing this switch, observe these important points.

First, if the NSBU does not easily slide off the selector shaft, use a file to remove any burrs or raised metal where the selector lever seats against the shoulder of the shaft. If the new NSBU is forced over this raised metal, it may fit

the shaft loosely, causing possible repeat DTCs.



P1711, P1713; partial or no PRNDL display; and no movement.

This condition may be caused by water contamination and corrosion inside

the NSBU (Neutral Start Backup switch) located on the side of the transmission.

Install a new NSBU, P/N 29540479 that has better sealing to resist internal corrosion. Replacement procedures can be found in SI document 652003. Adjustment procedures can be found in SI document 652060 . Finally, before starting the vehicle, be sure to clear all DTCs.

- Thanks to Mark Gordon



#### **TAC** Tips

#### Exhaust Boom or Vibration

Vehicles with the 4.2L L6 engine may exhibit a boom or vibration coming from the exhaust, at or near idle.

The following may help reduce the vibration. Unbolt the downpipe from the exhaust manifold outlet and replace the donut seal. When you tighten the downpipe to the manifold, have a second technician hold the rear end of the downpipe so the two exhaust hangers stay centered in the rubber bushing holes. Keeping the rods centered in the bushing holes makes a noticeable improvement.

- Thanks to GM Technical Assistance

#### Vehicle Customization or Personalization Inoperative

On 2003 Buick Rendezvous and Pontiac Aztek, the Body Control Module (BCM) was revised to accommodate vehicle system changes. Because of memory capacity, on vehicles without Driver Information Center (DIC), certain customization options had to be deleted.

Vehicles with DIC retained customization of some features controlled by the BCM, depending on vehicle options.

These decisions were made after final editing of Owner's Manuals and Service Manuals, so the Owner's Manual contains customization information pertaining to earlier models.

Service replacement BCMs contain the revised programming and supercede previous BCM part numbers.

*IMPORTANT:* If the original BCM is replaced in past model year vehicles, previously available customization features will be lost.

- Thanks to GM Technical Assistance

#### Bulletins continued from page 8

Reception Diagnostic Information; 2002 GMC Envoy, Oldsmobile Bravada with RPO U84

03-08-46-001; Information Required by Technical Assistance Center from Dealers Calling with ONStar and/or XM Radio Concerns; 2000-03 Passenger Cars and Trucks, Hummer H2

02-08-46-010B; replaces 02-08-46-010A; Programming OnStar Module for Canadian French Voice Recognition; specified 2003 Vehicles with OnStar

03-08-49-002; I/P Cluster Lens May Craze or Crack (Replace I/P Cluster Lens Only); 2003 Chevrolet Cavalier 03-08-50-003; Seat Heater and/or Memory Power Seat Inoperative (Replace Memory Seat Control Module); 2003 Cadillac Escalade, ESV, EXT, Chevrolet Avalanche, Silverado, Suburban, Tahoe, GMC Sierra, Yukon, XL, Denali, Denali XL, Hummer H2

03-08-50-004; Power Seat Switch Bezel Pops Out, Trim Comes Off (Install Retainer to Bezel); 2002 Buick Park Avenue, Ultra

03-08-56-001; Shock Sensor Elimination; 1999-2000 Cadillac Escalade, GMC Yukon Denali

03-08-64-002; Door Locks and/or Power Windows Inoperative (Re-route Wires); 2001-03 Chevrolet Tracker 03-08-64-003; Outside Rearview Mirror Shake or Vibration (Replace Outside Rearview Mirrors); 1996-2002 Chevrolet Express Van, GMC Savana Van

03-08-66-002; Wind Noise Heard from Rear of Vehicle (Adjust Primary Seal Flange); 1999-2003 Oldsmobile Alero, Pontiac Grand Am

03-08-66-003; Deck Lid Pull Down Effort too High (Replace Deck Lid Supports); 2003 Cadillac CTS

03-08-67-001; Proper Positioning of Roof Luggage Carrier Crossrails to Avoid Windnoise; 2002-03 Chevrolet S-10 and GMC Sonoma Crew Cab Pickup with Sport Appearance Package (RPO ZR5)

#### **Bulletins - March 2003**

This review of service bulletins released through mid-March lists the bulletin number, superseded bulletin number (if applicable), subject and models.

#### **GENERAL INFORMATION:**

03-00-89-001; Paint Code Corrections; 2003 Chevrolet Suburban, Tahoe, GMC Yukon, XL

03-00-89-002; New Owner Orientation Clinic Materials Now Available Online; 2003 and Prior Passenger Cars, Trucks, Hummer H2

03-00-89-003; GM Goodwrench Limited Lifetime Service Guarantee; 2003 and Prior Passenger Cars, LD Trucks and Hummer H2

#### STEERING:

00-02-35-003B; replaces 00-02-35-003; Clunking Noise Under Hood and Can Be Felt in Steering Wheel (Lubricate Intermediate Steering Shaft Assembly); specified 1999-2003 Chevrolet, GMC, Cadillac and Hummer H2 Vehicles with Recirculating Ball Steering

03-02-35-001; Noise/Clunk from Steering Column (Replace Upper Intermediate Shaft); 2003 Cadillac CTS

03-02-35-002; Minor Scratches to Wood Steerling Wheels (Refinish); 2000-03 Cadillac DeVille, Escalade, Seville, CTS with Wood Steering Wheels

#### SUSPENSION:

99-03-10-009A; replaces 99-03-10-009; Wheel Balance Weight Usage; specified 1999-2003 Chevrolet, GMC, Cadillac and Hummer H2 Vehicles

03-03-09-001; Rear of Vehicle Appears to Sit Low, Low D Trim Height Measurement (Replace Rear Coil Springs); 2003 Chevrolet Tahoe with Off-Road Chassis Package (RPO Z71), 3rd Row Seat (RPO AS3), and Off-Road Appearance Package (RPO BHP)

03-03-10-002; Use of Correct Installation Procedure for Loose Hubcab Assembly; specified 1998-2003 Chevrolet and GMC Trucks

#### **DRIVELINE AXLE:**

03-04-17-001; Whine Noise from Rear Axle (Diagnose and Replace Rear Shaft with a Tuned Torsional Damper Rear Propeller Shaft); 2002-03 Cadillac Escalade EXT, Chevrolet Suburban, Avalanche, GMC Yukon XL, Denali

03-04-20-001; Revised Rear Axle Assemble Procedure and Special Tools; 1997-2003 Chevrolet Corvette

03-04-20-002; Revised Output Shaft Seal Replacement Procedure; 1997-2003 Chevrolet Corvette

#### **BRAKES**:

02-05-26-002A; replaces 02-05-26-002; Scraping Noise from Rear of Vehicle (Replace Parking Brake Shoe Kit and Clean Drum in Hat Rotor); specified 1999-2003 Cadillac, Chevrolet and GMC Trucks

03-05-23-001; Brake Pulsation/Vibration, Contamination/Corrosion Between Hub and

Rotor and/or Drum and Axle Flange (Clean Rotor and Hub and/or Drum and Axle Flange Mounting Surface), 1999-2003 Chevrolet Tracker

# ENGINE/PROPULSION SYSTEM:

99-06-01-012A; replaces 99-06-01-012; Remanufactured Supercharger Replacement Units; specified 1992-2003 Vehicles with 3.8L Supercharged V6 Engine (VIN 1 – RPO L67)

01-06-01-010B; replaces 01-06-01-010A; Polymer Service Pistons; specified 1996-99 Vehicles with 3.1L Engine (VIN M – RPO L82)

02-06-03-001; Starter Cranks After Key is Released on Cold Start (Normal Condition); 2003 Chevrolet Silverado, Suburban, Tahoe, GMC Sierra, Yukon, XL with 5.3L Engine (VIN Z – RPO L59)

02-06-04-010; 6.6L LB7 Duramax Diesel Fuel Pressure Regulator Replacement; 2001-03 Chevrolet Silverado, GMC Sierra 2500/3500, Chevrolet Kodiak, GMC Topkick C4500/C5500 with 6.6L Duramax Diesel Engine (VIN 1 – RPO LB7)

02-06-04-054A; replaces 02-06-04-054; Increased Accelerator Pedal Effort (Clean Throttle Body and Adjust Blade); 1999-2002 Chevrolet Silverado, Suburban, Tahoe, Avalanche, GMC Sierra, Yukon, XL with 4.8L or 5.3L V8 Engine (VINs V, T, Z – RPOs LR4, LM7, L59)

03-06-01-002; New Polymer Coated Piston and Rod Assembly; specified 1997-2003 Vehicles with 3.1L or 3.4L V6 Engine (VINs E, J – RPOs LA1, LG8)

03-06-01-003; Flywheel/Flexplate Replacement; 2003 Passenger Cars and LD Trucks

03-06-04-011; Programming/Re-Programming, Setup, Configuration of Modules (TBCM, BCM, PCM, VTD, Radio, IPC, DTCs) 2002 Chevrolet TrailBlazer, EXT, GMC Envoy, XL, Oldsmobile Bravada

03-06-04-012; Inspection of All Related Wiring Harness Connections When Diagnosing Miscellaneous DTCs, Intermittent Driveability Concerns, Hard Start, No Start, Incorrect Gauges, Inoperative A/C Systems, SES Lamp Illuminated, 4WD Lamp Illuminated, IP Gauges Inoperative, Cruise Inoperative; 2003 and Prior Cars, LD Trucks, Hummer H2

03-06-04-013; SES/CEL and/or ABS Warning Light Illuminated, Erratic Speedomter and/or Erratic Shifting, Multiple DTCs set (Reposition Surge Tank Hose Clamp and Repair Wires); 2003 Cadillac DeVille

03-06-05-003; Rattle or Buzz Type Noise from Exhaust System (Install Clamp); 2001-03 Buick Rendezvous, Chevrolet Venture, Oldsmobile Silhouette, Pontiac Aztek, Montana with FWD only

#### TRANSMISSION/TRANSAXLE:

99-07-30-017A; replaces 99-07-30-017; Automatic Transmission Oil Cooler Flushing and Flow Check Procedures; 2003 and Prior LD Trucks and Hummer H2

02-07-30-029B; replaces 02-07-30-029A; Powertrain Quality Center for Engine and Transmission Assembly and Transfer Case Replacement; 2003 and Prior Passenger Cars, LD Trucks, Hummer H2

03-07-30-001; Transmission Slipping or Torque Converter Clutch (TCC) Inoperative with No SES Light Displayed and No DTC P1870 (Reprogram PCM and Diagnose Vehicle Using P1870 Diagnostic Table); 2003 Chevrolet TrailBlazer, EXT, GMC Envoy, XL, Oldsmobile Bravada

02-07-30-012B; replaces 02-07-30-012A; Hydra-matic 5L40-E Serviceable Components and Labor Operations; 2003 Cadillac CTS with 2.6L or 3.2L Engine (VINs M, N – RPOs LY9, LA3)

02-07-30-052B; replaces 02-07-30-052A; Automatic Transmission Oil Cooler Flush and Flow Test Essential Tool J-45096 TransFlow; 2003 and Prior Passenger Cars and LD Trucks with Automatic Transmission, Hummer H2

03-07-31-001; Low Clutch Pedal Reserve, Poor Clutch Pedal Feel, Transmission Difficult to Shift (Inspect Clutch Cable and Install Clutch Cable Retention Block); 2003 Chevrolet Kodiak, GMC Topkick with Manual Transmission

03-07-30-002; Transmission Cooling System Service Tool J-45096, TransFlow Information; 2003 and Prior Passenger Cars and LD Trucks with Automatic Transmission, Hummer H2

#### **BODY AND ACCESSORIES:**

99-08-64-016A; replaces 99-08-64-016; Use of Silicone for Weatherstrip Maintenance; 2003 and Prior Passenger Cars and Trucks, Hummer H2

01-08-51-004A; replaces 01-08-51-004; Premature Aluminum Hood Corrosion/Blistering (Refinish); specified 1999-2003 Buick, Chevrolet, Oldsmobile, Pontiac models

01-08-64-012C; replaces 01-08-64-012B; Door Glass Sash Out of Run Channel (Repair Door Glass Sash Channel); 1999-2003 Oldsmobile Alero, Pontiac Grand Am

01-08-64-018B; replaces 01-08-64-018A; Front Door Window Glass Won't Roll Up or Out of Channel (Replace Guide); 1999-2003 Oldsmobile Alero, Pontiac Grand Am

02-08-44-020A; replaces 02-08-44-020; No Audio Out of Speakers at Times (Reprogram Radio and/or Replace Amplifier); 2003 Cadillac Escalade, EXT, Chevrolet Avalanche, Express, Silverado, Suburban, Tahoe, GMC Savana, Sierra, Yukon, XL, Hummer H2

03-08-42-001; Dome Lamp Replacement Procedure; 2003 Cadillac CTS

03-08-44-002; Radio and/or HVAC Systems Change While Driving (Reprogram Driver's Door Module); 2002 Chevrolet TrailBlazer, EXT, GMC Envoy, XL, Oldsmobile Bravada

03-08-44-003; Revised Radio Poor