



UI BULLETIN # 46 Rev. 1

SUBJECT: G Van High Idle

MODELS AFFECTED: G Full-Bodied Vans and Cutaways w/ 8.1L Engine (RPO L18)

MODEL YEAR(S): 2001

DATE: 3/16/2001

REVISION DATE: 6/20/2001

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ADVISORY

This is a revision to Upfitter Integration bulletin number 46, dated 3/16/01, to advise of a change to the wiring schematic of the high idle switch, the operation of the high idle and the procedure to adjust rpm speed of the high idle.

The purpose of this bulletin is to provide Upfitters and Special Vehicle Manufacturers (SVMs) with information regarding high idle availability. This bulletin also provides installation instructions to interface with the new high idle calibrations now available.

Upfitter Integration suggests the following procedures be followed carefully if your application requires a high idle feature for any 2001 G Van or Cutaway equipped with the 8.1L (RPO L18) engine.

Condition

Some Upfitters and SVMs are requesting high idle capabilities for 2001 G vans or Cutaways equipped with the 8.1L engine. High idle refers to the increase in engine rpm to values higher than normal base idle speed. High idle historically has been provided through additional mechanical hardware to regulate an increased engine rpm speed.

Cause

The high idle calibrations were not included in the original production PCM calibrations for 2001. The 2001 model year G Vans equipped with the 8.1L engine differ from their predecessors. Various engine functions, including idle speed, are now controlled through electronic means due to the incorporation of an electronically controlled throttle versus a mechanically controlled throttle.

Correction

The new calibration, which includes the high idle feature, can be programmed into the PCM with a GM Tech 2 scan tool. The GM Tech 2 scan tool connects to the data link connector under the dash above the driver's foot well area. The Tech 2 scan tool **MUST** be used to enable the high idle option and adjust the factory default settings to the desired high idle rpm.



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Correction (cont.)

A GM dealer will be able to perform the reprogramming of the PCM. A Vehicle Identification Number (VIN) will be required by the dealer to change the calibration. The dealer must call GM Techline Customer Assistance at 800-828-6860 for a VCI authorization number to access and obtain the calibration. Once the dealer performs the reflash of the PCM, the GM vehicle build record will be updated to reflect the new calibration in the vehicle.

Calibration Part Numbers

The new calibration part numbers, which include the high idle feature, are as follows:

9373572 All Federal Emission Applications, Models 05/06/03/32 and California Emission Applications, Models 03/32

9373573 California Emission Applications, Models 05/06

Parts List

Upfitters or SVMs requiring the high idle feature will need to install the following additional parts to allow the end user to activate the high idle feature:

- Momentary switch, either push button or lever type. Quantity of 1 required.
- Relay, GM part number 12088567 or equivalent*. GM relay is available through service parts from a GM dealer. Quantity of 1 required.
- Relay connector (Delphi Packard) part number 12110541. Quantity of 1 required. (recommended if relay is to be mounted under dash). Refer to Delphi Packard Handbook for appropriate mating terminal ends and secondary locks.
- Suitable electrical wire. Length and quantity dependent on switch and relay location.

*Equivalent Relay Specifications:

Relay Type: Normally Open
Voltage: 10 to 16 Volts DC
Contact Current Rating: 20 Amps Maximum

Optional parts if relay is to be installed in the underhood bussed electrical center (BEC):

- Terminal end, part number 12110844 for cavities B7 and A9. Quantity of 2 required.
- Terminal end, part number 12110843 for cavities B9 and A7. Quantity of 2 required.

Note: If the relay is installed in the underhood BEC, it is recommended that the location of the high idle relay be noted on the BEC label.



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Parts List (cont.)

To maintain electrical system reliability and durability, it is recommended to use the Packard Electric wiring repair kit, part number J 38125-B or J 38125-500, which is available through Kent Moore Tools, phone number 800-345-2233. This repair kit contains instructions, tools and terminal ends for making wiring repairs and adding circuits. In addition, Packard electrical components may be obtained from a GM dealer or from Pioneer Standard Co., phone number 800-PACKARD.

Installation Instructions

Refer to Figure 1 for the revised wiring schematic for the installation of the momentary switch and the relay. The relay may be mounted under the dash or in the underhood BEC, located above the driver's side inner wheel well. The location of the mounted switch, the relay and the routing of the wiring harness may differ depending on upfitter needs and requirements. Properly seal all connections and carefully secure the harness using tie straps to ensure proper routing and adequate clearance to prevent wiring chaffing and subsequent damage.

This new wiring schematic, with the addition of the relay, is different from the wiring schematic in Upfitter Integration bulletin #46 dated 3/16/01. The addition of the relay and wiring the relay to the Neutral Start Back Up (NSBU) switch mounted on the transmission, will allow the high idle to be engaged only when the transmission selector is in the "PARK" position. The NSBU is closed and will complete the circuit only when the transmission selector is in the "PARK" position.

Note: Refer to the appropriate section of the 2001 G van Service Manual for the PCM removal / installation procedures and PCM connector pinout identification as well as the underhood BEC locations.



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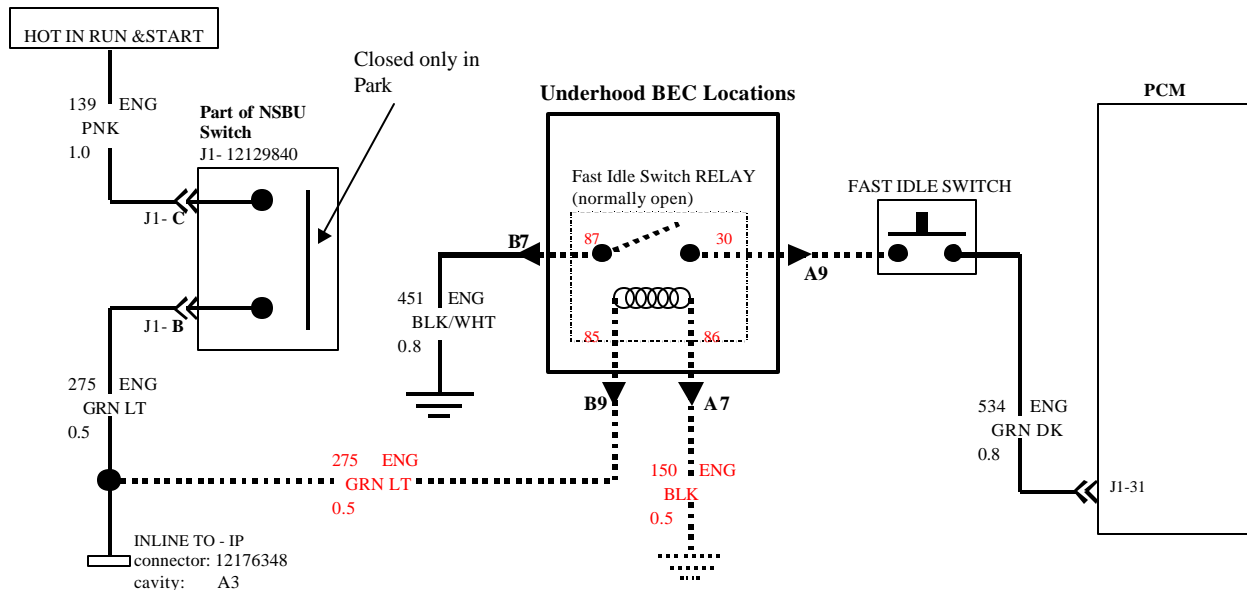
Selecting and adjusting the high idle rpm

The high idle feature of the new calibration is adjustable to meet the various needs of individual upfitters and SVMs. The default value of the high idle rpm is 800 rpm. The high idle rpm is adjustable in 50 rpm increments from a minimum value of 800 rpm to a maximum of 1300 rpm. To adjust the high idle rpm, the GM Tech 2 scan tool must be used. Refer to Attachment 1, 2001 G Van High Idle Adjustment Procedure Tech 2 Menu Screens, for the necessary steps and screen selections to properly adjust the desired high idle rpm.

The following chart may be used as a guideline to determine the desired resultant high idle rpm based on the current output of the generator at various engine rpm.

Engine RPM	Current Output (Amps @ 125 deg. C)
600	59
800	73
1000	81
1200	85
1300	86

FIGURE 1



Notes:

- The NEW splice, wires and relay are represented with dashed lines and solid arrow heads.



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ATTACHMENT 1
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2001 G Van
High Idle
Adjustment Procedure
Tech 2 Menu Screens



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ATTACHMENT 1 PAGE 2

Tech 2 Main Menu Screen

Main Menu
F0: Diagnostics *
F1: Service Programming System
F2: View Captured Data
F3: ...
F4: ...

* Selection

Tech 2 Vehicle ID Screen

Vehicle ID (Model Years)	
(3)	2003
(2)	2002
(1)	2001 *
(Y)	2000

* Selection



ATTACHMENT 1
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Tech 2 Vehicle ID Screen

Vehicle Identification
Passenger Car LD Truck, MPV, Incomplete * Medium Duty Truck Saturn

* Selection

Tech 2 System Selection Screen

System Selection Menu
(1) 2001 LD Truck F0: Powertrain * F1: Body F2: Chassis F3: Diagnostic Circuit Check

* Selection



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Tech 2 Vehicle ID Screen

Vehicle ID Select one of the following LD Truck Engine types
(1) V8 LB7 Diesel (G) V8 L18 8.1 L* (G) V8 L18 3500HD

* Selection

Tech 2 Vehicle ID Screen

Vehicle Identification Select one of the following Transmissions	
5 Speed Automatic Trans	(M74)
4 Speed Automatic Trans	(MT1) *
Manual Trans	(ML6)
Other	

* Selection



ATTACHMENT 1
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Tech 2 Powertrain Screen

Powertrain
F0: ... F1: Data Display F2: Special Functions * F3: Snapshot F4: ... F5: ...

* Selection

Tech 2 Special Functions Screen

Special Functions
F1: ... F2: ... F3: ... F4: ... F5: ... F6: Service Bay Test F7: PTO Options * F8: Engine Shutdown F9: ...

* Selection



ATTACHMENT 1
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Fast Idle Mode Settings Display

PTO Option	
Current PTO Settings	
PTO Fast Idle Option	Fast Idle
PTO Max. Engine Speed	XXXX RPM
PTO Standby Speed*	XXXX RPM
PTO Max. Engage Speed	XXXX RPM
PTO Engine Shutdown	(No)
PTO Engage Relay	(No)
PTO Feedback	(No)

Note:

No changes can be made to this screen.
Press change options to get to the next
menu

Change
Options

* Selection

PTO Operating Modes Screen

PTO Option
F0: Fast Idle *
F1: Preset PTO Speed Control
F2: Variable PTO Speed Control

* Selection



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Fast Idle Mode Settings Update Screen

PTO Options	
Fast Idle Option	
PTO Fast Idle Option	Fast Idle
PTO Max. Engine Speed	XXXX RPM
PTO Standby Speed*	XXXX RPM
PTO Max. Engage Speed	XXXX RPM
PTO Engine Shutdown	(No)
PTO Engage Relay	(No)
PTO Feedback	(No)

Press [Reprogram Options] when done

* Selection

Then scroll Decrease/Increase
to change high idle rpm setting

Decrease

Increase

Reprogram
Options