

# Black Magic: The Art of Finding an Aftermarket Calibration



by Steve Garrett  
[members.atra.com](http://members.atra.com)  
[www.atra.com](http://www.atra.com)

You know, this profession sure has seen some changes over the years. Not too many years ago the only thing you had to worry about was building a quality transmission. Today, you can build the best unit in your county, install all the right parts, perform the repair like a deranged perfectionist, and still the unit comes back with a failure.

This scenario is starting to play out all over the country. No matter where you live, no matter how good you are, many technicians are seeing comebacks they'd have never seen just a few years ago.

It's an interesting situation because the technicians at the dealer level also experience this problem. The problem has gotten so bad that manufacturers have taken action in an attempt to limit their exposure.

So what's the source of these problems that seem to have no cause? It may be an aftermarket calibration. Most shops are aware that there are calibrations available that significantly increase engine torque over the stock calibration, but how does one find them, and why would they cause a problem?

The powertrain is designed to handle a specific amount of torque. In fact, many OEMs *detune* their calibrations due to the limitations of the stock drivetrain. While the aftermarket calibrations are typically designed for "off-road use only," we're all aware that these calibrations aren't remaining off road.

Many of the vehicles you're called upon to repair have performance enhancing software installed. It'd be nice to have a method to identify those non-OEM calibrations. On late model



Figure 1

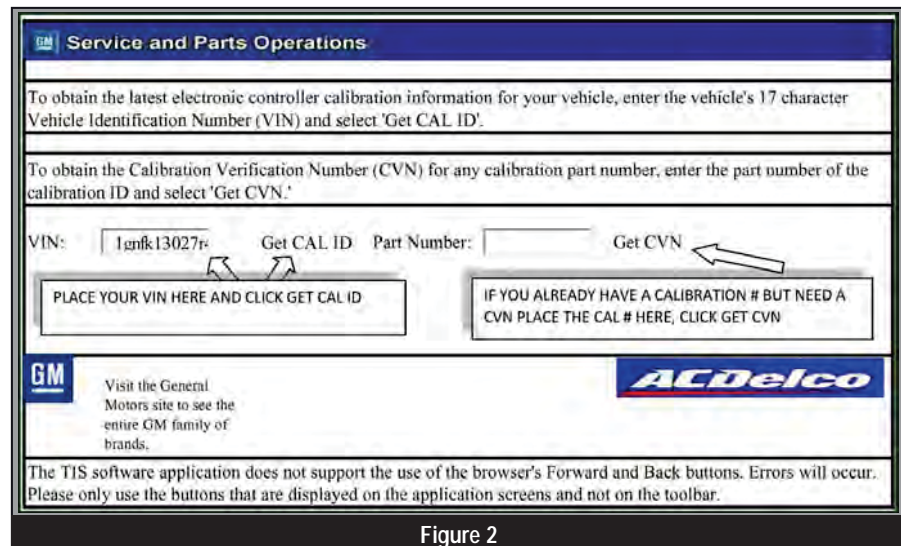


Figure 2

GM vehicles, you can do so by checking the Calibration Verification Number (CVN).

To locate the CVN for a vehicle:

1. Access the GM TIS2WEB web site

located at <http://tis2web.service.gm.com>. You can also search GM service and choose:

- GM Service and Parts Operations, then...

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- TIS, then...
  - Vehicle Calibration Information (figure 1)
2. Once at the web site, enter the vehicle VIN in the box and press GET CAL ID (figure 2).
  3. At the new screen, highlight the controller you wish to check for calibration. Click Next (figure 3).
  4. At the new screen you'll again be able to select the type of calibration information you're interested in.
  5. You also have another choice, which you should take advantage of: Click the box for Complete History, then click Next. This will give you access to all of the calibrations for the various modules (figure 4).
  6. The web site will now display your Calibration ID as a part number. The part number is typically listed as CAL ID on your scan tool. Compare the part numbers from the web site to the CAL ID number on your scan tool to determine if your software is current.

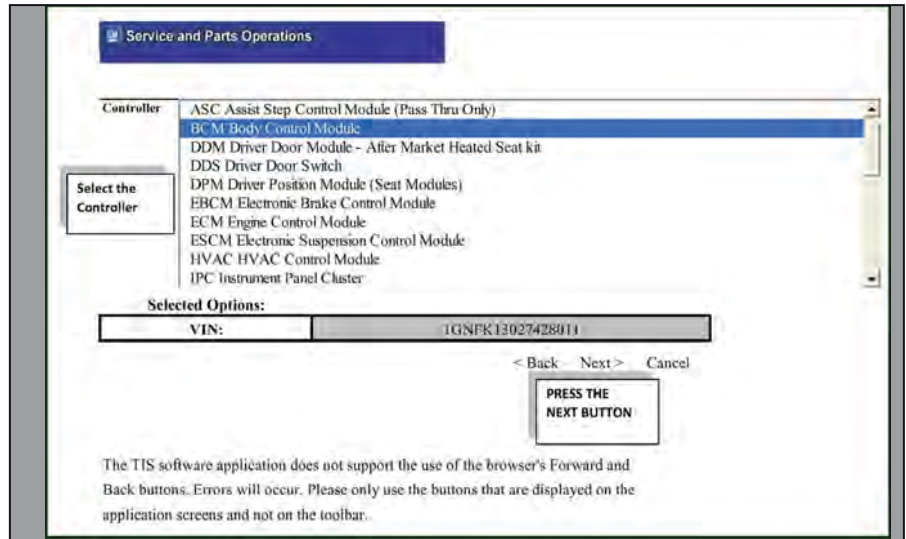


Figure 3

7. The web site also includes the CVN with the part number. On your scan tool you will typically find the CVN with the CAL ID information. Many scan tools include both the CVN and the CAL ID as part of their data list parameters; other scan tools don't, so you'll need to choose the OBD-II GENERIC feature and then select MODE 9 to access the information.
8. The CVNs listed on the web site should match the CVNs on your scan tool.

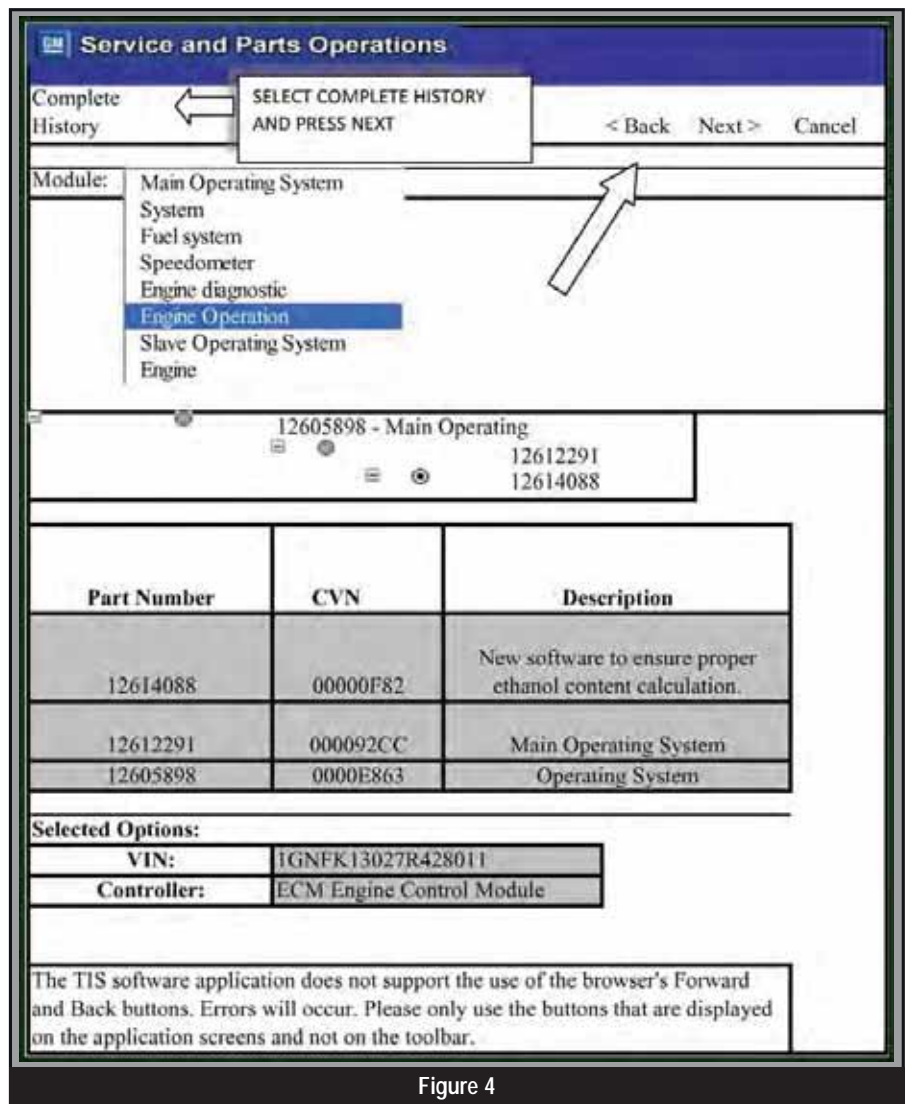


Figure 4

If all of the CVNs match, the vehicle has a GM calibration installed. If a CVN fails to match, you're dealing with an aftermarket calibration.

If you already have a calibration number and would like to get a CVN to check the calibration number against, place the calibration number in the CVN box on the web site and press GET CVN. The CVN will be displayed for the calibration number entered if it's a GM calibration. If the display states Error or Invalid Part Number, you probably have an aftermarket calibration.

As mentioned before, modifica-

tions to the calibration will impact your ability to keep these vehicles on the road. Like the dealer, you must protect your business from financial exposure if the vehicle's torque and horsepower have been modified.

In this instance, a little homework on your part can pay big dividends in the long run. Until next time, remember: "If there's a way to do it better, find it."





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*Bobby Hinson, B&R Transmissions, Matthews, NC*

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**Seal Aftermarket Products LLC**

2315 S.W. 32 Ave., Pembroke Park, FL 33023

Phone 954-364-2400 • Toll Free 800-582-2760 • Fax 954-364-2401

[www.sealaftermarketproducts.com](http://www.sealaftermarketproducts.com)

