

## What is a CASE relearn?

**CASE** (Crankshaft Angle Sensor Error relearn) is an advanced way for the truck to detect misfires, using the crankshaft and camshaft position sensors. When a computer is completely rewritten with the latest GM calibration, the CASE information is lost. To relearn that information, a dealership or a shop with a Tech II scan tool must perform the procedure, which takes around 5-10 minutes. **The only time you need a CASE relearn is when using our core program (option #1).** The check engine light for the CASE relearn is disabled on our loaner PCMs, so that it will not illuminate. This does not hurt performance nor disrupt driving in your truck.

## Security relearn procedure:

After installing the PCM, most of the time you will need to perform a Security Relearn Procedure. This can be done at your home and requires no tools. **If your vehicle starts after installing the PCM, you do NOT need to do it.**

1. Attempt to start the truck by turning the key to the Start/Run position. Try to crank the vehicle.
2. Observe that the vehicle fails to start and the security light is illuminated.
3. Release key to the ON/RUN position (not the ACC position or OFF)
4. Allow the vehicle to sit with key in the ON/RUN position for no less than 11 minutes. Security light will turn off after this.
5. When the light goes off, turn key to OFF position and allow the vehicle to remain in the OFF position for no less than 30 seconds.
6. Repeat #1-#5 for four cycles or until vehicle starts.

**NOTE:** Since this is a fairly long procedure (35 minutes) I would limit all electrical sources, such as shutting off headlights and AC fans to prevent discharge of battery. It is safe to wait longer than the allotted times above, but it is not safe to wait less.

## Got questions?

Call us at 704-307-4227 or email: [sales@pcmforless.com](mailto:sales@pcmforless.com)

Address for sending in PCMs/loaners/cores:

PCMforless  
106 Performance RD  
 Mooresville, NC 28115



Customized programming for your:

## Trailblazer/Envoy



Sold to: \_\_\_\_\_

## Available Programs:

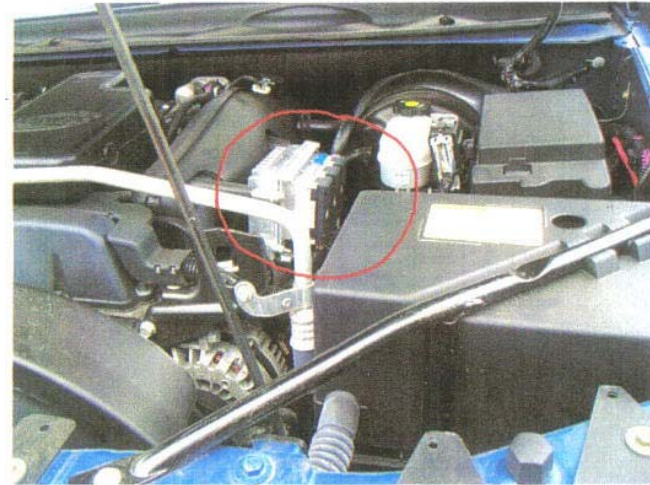
- 1. Core exchange:** We send you a PCM, flashed with a tune per your order sheet. You then install it and have a CASE relearn performed. You have the option of keeping your stock PCM or returning it for the core refund\*.
- 2. Send in your PCM:** You send in your PCM, we tune it and reflash it, and return it to you.
- 3. Loaner program:** We send out a stock PCM for you to borrow. You install it and send us your vehicle's PCM for us to tune. After receiving it back from us, you return the loaner to get your core charge back.
- 4. Dashhawk Loaner program (08+ only):** We send you a tuned PCM and a Dashhawk to do your own CASE relearn with. After installing the core and performing the relearn, you can return your stock core and the dashhawk to get your core refunds.

**To receive credit for core/loaner/dashhawk charges, it must be postmarked within 7 days of receiving your tuned computer.**

\* To be eligible for a core refund your PCM must be in good aesthetic condition and proper working order.

## Removal and Installation of your PCM:

In the Trailblazer, the PCM is located on the driver's side of the engine. 02-05 PCM's look like a small gray brick. For 06+, it is a flat silver box, roughly 7"x7", and is retained via a plastic holder. If you have an '08+ automatic, there is also a Transmission Control Module; a 3"x 3" silver box located right near the PCM. We recommend disconnecting the battery.



The PCM in a 2002-2005 can be removed by loosening the 7mm bolt on each of the three connectors, pulling the connectors off, and then loosening the 10mm bolts holding the PCM to the engine.

In a 2006+, pull up on the three red locking pins on the front of each plug, then across the front of each plug you will see a gray lever. Pull it all the way to the top of the plug and pull the plug out. Disconnect the three connectors that go into the PCM. Then simply dislodge the PCM from the plastic bracket.

In a 2008+, you will do the same thing, except you will also need to remove the TCM also. There is one connector going to it that needs to be removed, and then you can pull it out of the bracket.

Simply reverse the steps to reinstall the PCM/TCM. If doing option #1 or #4, you will most likely need to perform a Security Relearn (instructions located on the back).