

DOCTOR DOCTOR *It Hurts When I Shift...*

Honda Relearn Procedure;

a Shock to the Heart



by Randall Schroeder

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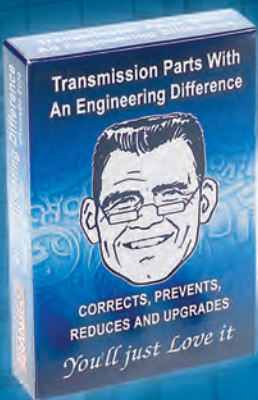


IMPORTANT: To achieve a successful adaptive learn, it's important that there are no trouble codes in any modules.

In hospitals (shops) today, technicians are faced with many different forms of surgical procedures to help their patients (transmissions) live prosperous lives after the repair. With today's transmissions electroni-

cally controlled for both shift timing and pressure control feel and durability, every manufacturer requires some sort of a relearn to make sure the patient gets a happy "restart to life."

FROM TRANSGO[®]



TF-DETENT

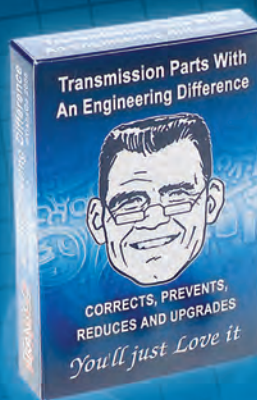


Manual Valve Body Detent Ball Bore Repair:

Allows use of worn Valve Body without special tools. Keeps manual Valve properly indexed.

Proper indexing of the manual valve is crucial. In a few caring minutes this simple fix can save you a world of grief later on.

Fits: All 42-48RE & RH model 4 speeds,
All 65 & Up 727 & 904 3 speeds.



SK® 09D

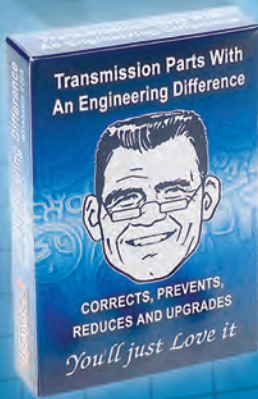


Reduces/Corrects/Prevents

Rough shifts, flares during up shifts & kick down.
Rough coast downshifts, no pressure rise, TCC slip/shudder.

Fits: VW Touareg and Porsche Cayenne

Great News! To fix these complaints.
No need to buy a \$1,200 Valve Body.



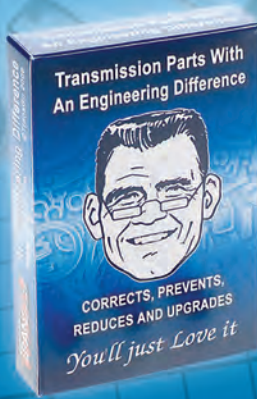
HONDA-LK



Corrects/Prevents/Reduces

Repeated Hot Trip Converter Blues.
(Severe Overheating) Fixes 3 Transmissions.

Fits: 4 & 5 speed 98-04 Honda Odyssey and
Acura 3.2TL.



SK® 340



Corrects/Reduces

Rough shifts when cold, soft shifts, lazy kick down.
Reduces TCC Slip/Overheating.

Fits: 4 Speed Toyota 340, 341, 343 & Jeep AW4.

It just ain't FIXED without it!

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Some manufacturers have a self learn that simply occurs after the battery's been disconnected (resets all the learned values in all modules). Some require touching the battery cable ends together when disconnected and accessing a load command, such as a brake switch to drain the memory cells. Many use a scan tool to reset the computer with a simple prompt that calls out terms such as:

- Stock Shift Settings
- Fast Learn
- Quick Learn
- Base Settings
- ...and the list goes on.

IMPORTANT: To achieve a successful adaptive learn, it's important that there are no trouble codes in any modules.

In some automotive lines, such as Honda, which we'll be discussing in this article, relearn takes a bit of effort after the repair, and isn't reset using a scan tool. Always find out if there's a special procedure on the vehicle you're working on; all electronic units will have some form of relearn procedure.

We'll equate the relearn procedure to the medical procedure of *using a defibrillator* to save a life. Doctors at times are faced with a patient where normal lifesaving techniques have been done with no response and have to resort to zapping the heart with the defibrillator to get it beating again.

Here in the automotive field, it's the same... but different. The computer needs to be jump-started to operate properly. On late model Hondas, there is a simple, after-repair process that's often overlooked since it is not on a scan tool prompt. Called *PCM Idle Learn*, it needs to be performed after every repair. This procedure not only adjusts the learned values of shift timing, but also shift pressures. Realistically, you should perform a PCM Idle Learn after any of these procedures:

- Disconnecting the battery
- Resetting the PCM (upgrading)

- Replacing the PCM
- Servicing the throttle body
- Replacing the idle air control (IAC) valve
- Removing the No. 13 CLOCK BACK UP fuse
- Removing the BATTERY power fuse
- Removing the BACK UP, ACC fuse
- Removing any wires under the hood or under the dash
- Disconnecting connectors under the hood or dash
- Disconnecting ground wires G1, G2, G101 and G102

Note: There's no need to perform a PCM Idle Learn if all you did was clear the DTCs with Honda's dedicated scan tool.

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As you can see, whenever you work on these units, there's a good chance you're going to perform at least one of these procedures. Which means you need to perform a PCM Idle Learn procedure.

The relearn process is very simple. Remember, make sure there are no trouble codes set in any system. After the repair and the transmission's been refilled, brain-dead the system by disconnecting the battery or by removing the fuses. Then follow these simple steps for the relearn:

1. Make sure all electrical items (A/C, audio, rear window defogger, lights, etc.) are off.
2. Start the engine and hold it at fast idle with no load (in park or neutral) until the radiator cooling fan comes on, or until the engine coolant temperature reaches 194°F (90°C).
3. Let the engine return to idle for a minimum of five minutes with no loads (If the radiator fan cycles during this five minutes, add the length of time that the fan runs).

This procedure performs the PMC idle relearn on most Honda units. In some applications (remember, refer to factory procedures) you'll need to allow the engine to run with the transmission in Drive until the fan cycles one time without the wheels moving, then allow it to idle for five additional minutes.

On your initial test drive after the relearn, perform at least five, minimum throttle upshifts before becoming more aggressive with the throttle. Give it just enough throttle to allow the shifts to happen. Verify shift timing and pressures have been reset and you're done.

Sound simple? It is, but those are the procedures that are most often overlooked, and they're the ones that can help make sure your repairs leave your shop shifting properly.

Until next time, keep those transmissions in great shifting health.

The Doctor...



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CARFAX Detailed History

Date:	Mileage:	Source:	Comments:
04/20/2008	5	Michigan Motor Vehicle Department	Title or registration issued. First owner reported. Registered as rental vehicle.
12/02/2008	5,100	Your Shop Your City, Your State 703-555-5555 www.yourshop.com	Manufacturer's recommended maintenance performed Radio/sound system checked
04/15/2009	7,155	Michigan Motor Vehicle Department	Registration issued or renewed
09/11/2009	10,462	Your Shop Your City, Your State 703-555-5555 www.yourshop.com	Manufacturer's recommended maintenance performed Tire repaired Vehcels checked State inspection complete
4/13/2010	15,802	Michigan Motor Vehicle Department	Registration issued or renewed
12/20/2010	20,813	Your Shop Your City, Your State 703-555-5555 www.yourshop.com	Manufacturer's recommended maintenance performed Tires rotated and balanced Exterior lights checked Exterior light bulbs replaced

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