Latest PGM Tester Software Is SN011

PGM Tester software version SN011 (4/14/00) is on the HONDANET CD we sent to your service manager this month. To load SN011 into the Tester, use your 8MB program card and the normal updating procedure (see your October ’98 S/N).

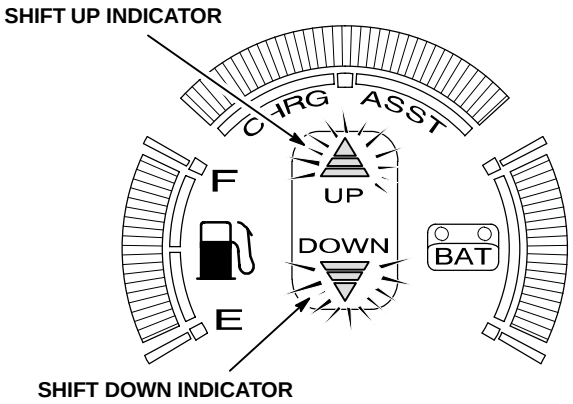
Here’s some important info on SN011:

- On ’00 CR-Vs, clearing PGM-FI or A/T codes won’t set a false misfire DTC like it did with previous software versions. (This condition originates from the vehicle’s PCM, not the Tester software.) To avoid a false DTC, SN011 resets the PCM whenever you clear a code. But remember that resetting the PCM can cause the idle to fluctuate for up to 10 minutes until the PCM “learns” the proper IAC (idle air control) values. For more info, see *Idle Learn Procedure* in the 4/00 ServiceNews.
- Unlike SN010 (3/5/00), SN011 allows you to send snapshots and freeze data to Tech Line with your DTM (data transfer module).

How the Insight Shift Indicators Work

The shift up/down indicators on the Insight show you the best time to shift up or down for fuel economy. While the “up” indicator comes on at obvious times (when you’re supposed to upshift), the “down” indicator comes on only if the car is

- climbing a hill and losing speed,
- going faster than 12 mph, and
- at a throttle opening greater than 555.

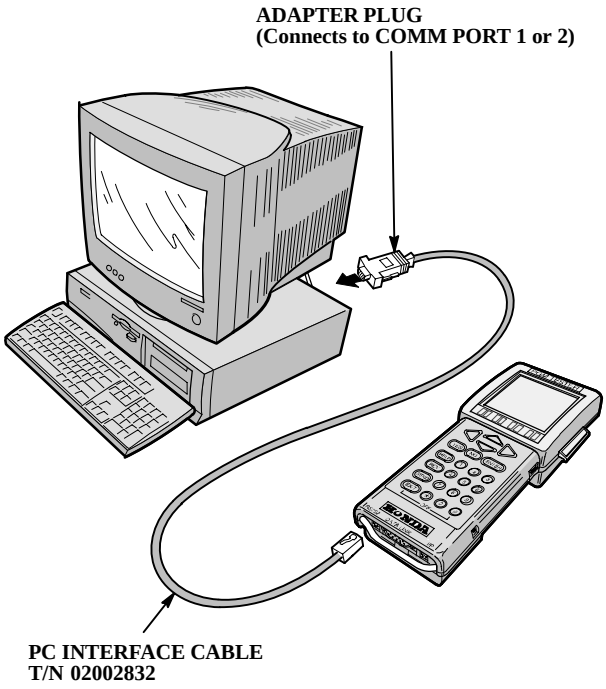


The shift down indicator is also likely to come on if the IMA (integrated motor assist) battery is in a low state of charge and maximum IMA isn’t available.

New Cable for PGM Tester Software Updates

Last month (4/00), we sent your service manager a new tool to replace the two-piece cable you use to install PGM Tester software. The tool, PC Interface Cable, T/N 02002832, connects your PC to your PGM Tester. Because the previous cable had the same look and color (gray) as many other computer cables, some of you thought you could do software updates with any generic cable. But if you try to update with anything but the PC Interface Cable, you’ll get an error message.

The new cable is easy to identify: It’s blue, not gray, and the end that connects to the PC has a built-in adapter plug.



If you need additional cables, order them through the Honda Tool and Equipment Program at 888-424-6857.

PDI Tip: Peel Off Switch & Button Film

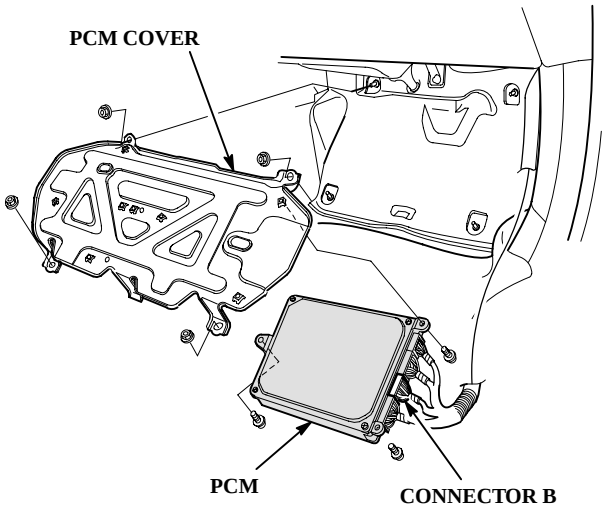
ServiceNews thanks Jason Flanagan of Capitol Honda for this PDI tip:

The faces of most dash switches and buttons are covered with clear plastic film to protect them during vehicle assembly. Peel the film off at PDI. If you don’t, sunlight and high interior temps will eventually discolor the film and cause it to stick.

Diagnosing DTC P1705: ’96–97 Accord L4 A/T

Code P1705 (A/T Gear Position Switch) can be set if the PCM “thinks” the A/T shifter is in two gears at the same time. Here’s how to diagnose the DTC:

1. Look at the PGM Tester freeze data to see which two gear positions caused the DTC.
2. Make sure you have the radio anti-theft code, then write down the radio station presets.
3. Disconnect the negative cable from the battery.
4. Pull back the front passenger’s carpet to expose the PCM cover, then unbolt the cover from the floor (4 nuts).



5. Separate the PCM from the cover (3 screws).
6. See if any of the wires to PCM connector B were chafing on the PCM cover. (A chafed wire can short to ground and cause the DTC.) Here are the wires in connector B to check, and the circuits they represent:

Connector B Terminal #	Wire Color	Circuit
B8	GRN/BLU	D3 switch
B16	GRB/RED	Reverse switch
B17	GRN/YEL	2 switch
B18	LT. BRN/WHT	1 switch
B24	PNK/GRN	D4 switch
B25	LT GRN	Park/Neutral

7. Repair the wire(s) if needed. (See S/B 95-023, *Terminal Replacement Instructions*, filed under SPECIAL TOOLS in your pre-’97 S/B binder.)

   NOTE: If the wires are OK, refer to the A/T section of the appropriate S/M for troubleshooting info.

8. Reinstall the PCM. If the wires were chafing, stick some wool felt on the cover to insulate them.
9. Reconnect the battery, enter the radio station presets, and set the clock.

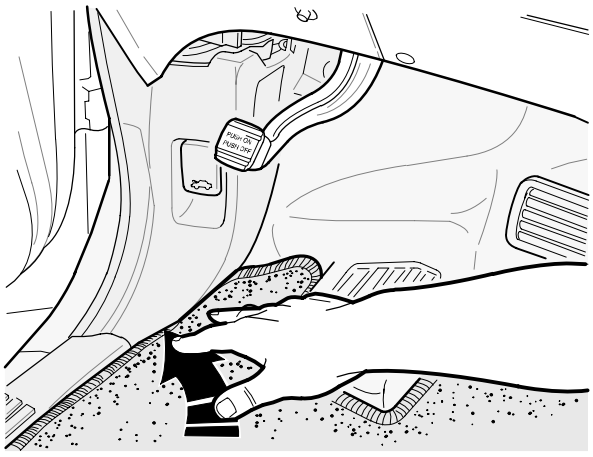
Avoid Drive Belt Damage

When you install a drive belt, make sure *all* of its ribs fit into the grooves on the engine pulleys. If a belt is run with just one rib off the grooves, the pulley flange can cut the belt in half, lengthwise. A misinstalled drive belt can even rub through the timing belt cover, destroying the timing belt and causing major engine damage.

To avoid problems, double-check your belt installations, and check the belts on all vehicles coming in for service, too.

Front Floor Mat Fit: ’99–00 Odyssey

For proper fit of the front floor mat on a ’99–00 Odyssey, tuck its sides under the left and right kick panels. If you don’t do this, the mat can bunch up, curl at the edges, and look like it’s not up to our normally high quality standards.



Tuck the sides of the mat under the kick panels.

Tips on Diagnosing CR-V, Element Rear Differential Noise

Before you diagnose rear differential noise on a ’97–03 CR-V or '03 Eement with all-wheel-drive, you may need to review some all-wheel-drive basics. The rear differential uses differences in wheel speed to determine when 4WD is needed. It does this by comparing propeller shaft speed to rear driveshaft speed. When the front wheels are turning faster than the rears, the propeller shaft tries to spin faster than the rear driveshafts will allow. This creates hydraulic pressure in the clutch assembly of the the rear differential, which engages the clutch and applies power to the rear wheels. That’s CR-V, Element all-wheel-drive, in a nutshell.

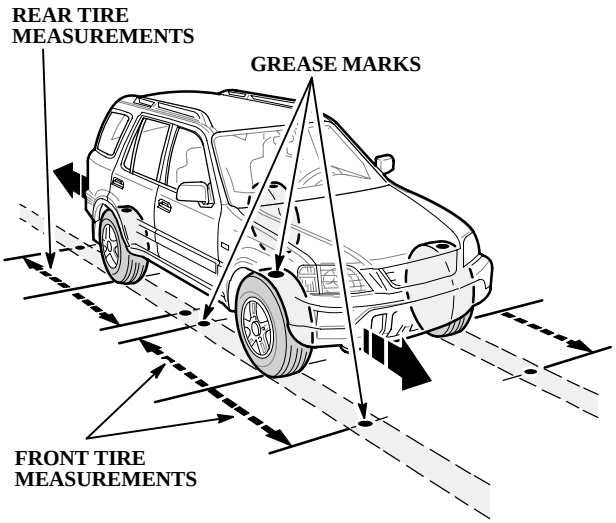
When diagnosing rear diff noise, you’ll be concentrating on two areas: rear diff fluid and tires, in that order. Here are some tips to keep in mind:

Rear Differential Fluid

- Worn CVT fluid in the rear diff can cause a howl or whine during low-speed turns, or when decelerating from above 50 mph.
- Extensive 4-wheel-drive use can cause the CVT fluid in the rear diff to wear out even faster than the severe driving condition replacement interval of 60,000 miles. (Replacement under normal conditions is 90,000 miles.)
- The rear diff should be filled only with Genuine Honda CVT Fluid, P/N 08798-9018. If CVT fluid isn’t available, you can temporarily use Genuine Honda ATF, but make sure you replace the ATF with CVT fluid as soon as possible.
- While draining the rear diff, check the condition of the fluid:
  - –If it’s contaminated with water, the fluid will have the consistency of a milkshake.
  - –If the fluid is dark or smells burned, check the tires as described in the Tires section of this article.
- To get the new fluid into the rear diff clutch assembly, drive the vehicle for 2 to 3 minutes in tight left and right circles or in full-lock figure-8s. If the diff fluid was severely worn, you may need to repeat this change-and-drive process two or three times to eliminate the noise.

Tires

- All four tires must have the same pressure. The recommended cold inflation pressure for front and rear tires is 26 psi.
- All four tires must have the same depth of tread left. They should be rotated every 7,500 miles.
- Cupping or other irregular wear patterns could cause the tires to buzz or hum at certain speeds, and that noise could be mistaken for rear diff noise. Install a set of known-good tires, and see if the noise goes away.
- All four tires must be the same size, make, and grade. Differences in tire size can trick the rear diff into “thinking” the wheels are slipping, causing it to apply power to the rear wheels all the time. If you aren’t sure the tires are the same size, measure their rolling circumference:
  1. With the tires inflated to 26 psi, apply a small dab of grease to the top of each tire on the center of its tread.
  2. Roll the vehicle forward and then backward so each tire makes two grease marks on the floor.

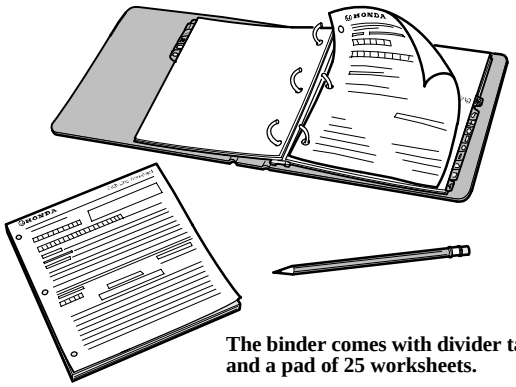


  3. Take an accurate measurement between the grease marks made by each tire. If the front and rear measurements on each side differ more than 2 inches, the vehicle will always be in 4WD. This will quickly wear out the fluid in the rear diff and cause it to howl.

Are You Using Your Tech Line Worksheet Binder?

Tech Line handles about 15,000 calls a month. The data from these calls shows that many are made by different techs in the same shop for the same vehicle problem. Obviously, we'd like to reduce these duplicate calls so we'd have more time to give you better service. And that's where the Tech Line Worksheet Binder comes in. Using it is the best way to keep an accurate record of Tech Line calls made from your shop. Here's how to use it:

Before you call with a vehicle problem, fill out a Tech Line worksheet. Then use that info to explain the problem during the call. After the call, write down the fix (if one was suggested), and file the worksheet under the appropriate tab in the binder. Keep the binder close to the phone so that each caller can quickly review it to find out if someone else already called about the same problem.



The binder comes with divider tabs and a pad of 25 worksheets.

If a Tech Line suggestion didn't help, but you still found a way to fix the vehicle, we want to know. Fax the worksheet, with the repair info that *did* work, to Tech Line at 310-783-3530 (or call Tech Line, choose option 3 from the phone menu, and leave a message). This helps Tech Line keep up with the latest repair tips, and lets us spread the info to other techs. When you're done with the worksheet, file it under the appropriate tab in the binder.

Once everyone in your shop is using the binder, you'll probably come up with other ways to use it. Here are a couple of suggestions:

- Hold weekly or monthly meetings where everyone shares the latest problems and solutions they've discussed with Tech Line.
- When you see an S/B or S/N article that fixes a problem you've talked to Tech Line about, write the S/B number or S/N date on the appropriate worksheet. This could save you or someone else the wasted time of a call.

As you find other ways to use the info in your binder, call Tech Line and let them know about it so we can share your ideas with other techs.

About a year ago (4/99), we sent a Tech Line Worksheet Binder to your service manager. If you need another one (it comes with divider tabs and a pad of 25 worksheets), call Helm at 800-782-4356, and reorder number E2295. Each binder costs $7. Additional worksheets (pads of 50) are free; use reorder number E2012.

Where To Direct Your Tech Line Calls

To get the best possible service when you call Tech Line, choose the phone menu option that matches what you need.

Press 1, Engine Performance, for calls on driveability, surging, misfire, emissions, and PGM-FI DTCs.

Press 2, General, for calls on engine mechanical, A/T, M/T, chassis, brakes, steering, body, electrical, accessories, HVAC, SRS DTCs, ABS DTCs, and trans DTCs.

Press 3, Message Center, to tell us about a problem you fixed with Tech Line's help. Message Center calls are used to update our database of vehicle fixes and to report vehicle problems and solutions to the factory.

Press 4, Service Publications, to get S/Bs, accessory installation instructions, and Tech Line information bulletins faxed to you through the fax-on-demand system. (To use fax-on-demand, see *Service Info Is Yours 24-Hours-A-Day* in the April '99 S/N.)

NOTE: If your dealership computers are connected to the HIN (Honda Interactive Network), you can log-in to ISIS (Integrated Service Information System) to view and print these publications.

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