



What's New on the '97 NSX?

The '97 NSX has three new features you should know about: a new engine (cars with M/T), a 6-speed manual transmission, and an immobilizer system.

A new 3.2L V6 engine is standard on all cars with M/T. It produces more horsepower (290) than any previous NSX engine. Because the cylinder lining is a fiber-reinforced material (FRM), you can't hone the cylinders.

To accommodate the engine's extra horsepower, there's a new, 6-speed manual transmission. It features a lockout mechanism (a reverse inhibitor solenoid) to prevent shifting into reverse while the car is moving.

Every '97 NSX is equipped with an immobilizer system that prevents unauthorized operation of the car unless the correct ignition key is used. This is the same system used on the 3.5RL, but when using the PGM Tester to work on it, you'll need the SN 722 software. (It'll be included in your February ACURALINK 2000 CD.) For details on the immobilizer, refer to S/B 96-008, *Information on the Immobilizer System*.

This month, your service manager received copies of the 1997 Acura NSX Technical Information Guide (order # E1294). It describes new features of the '97 NSX in detail.



Questionable FRTs

If you run into a warranty flat rate time (FRT) that you think is too low, here's something you can do about it: send in a Flat-Rate Operation Request for Review card. These cards are in the back of the Warranty Flat Rate Manual. If you're out of them, order more by calling Tech Line, and selecting Option 4 (Service Publications).

When you mail in a card, your dealer will be sent a letter of acknowledgment, and the FRT will be reevaluated:

- by factory-trained Honda technicians in a normal shop environment.
- without using air tools.
- three times if it's a difficult repair (the average of the three will be used).

If the existing FRT is too low, it'll be increased in the warranty claims processing system right away. In addition, an ACURALINK message will be sent to all dealers about the new FRT, and the revised time will be published in the next issue of the Flat Rate Manual.



Intermittent DTC P1491 on RLs & TLs

If DTC P1491 is stored on a '96 RL, a '95-96 2.5TL or a '95-96 3.2TL, you'll need to use the S/M to troubleshoot the EGR solenoid valve, its wiring, and its vacuum lines. But if you have an intermittent DTC that can't be reproduced with the "Problem verification" info in the S/M (even with a jumped SCS connector), use the PGM Tester to check the EGR system. Here's how:

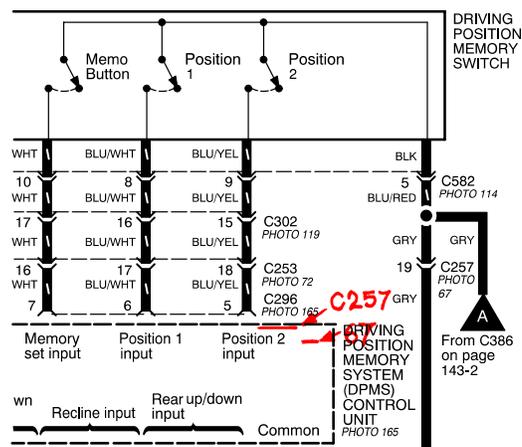
1. Connect the PGM Tester, turn the ignition switch ON (II), and select DATA LIST.
2. With the ignition ON and the engine off, monitor EGR VLS (valve lift sensor) voltage while you do these steps:
 - Disconnect the vacuum hose from the EGR valve, and connect a vacuum pump to the valve.
 - With no vacuum applied to the valve, check that the VLS reads about 1 volt.
 - When you slowly apply 5 inches of vacuum, check that the VLS voltage increases to about 4 volts.

If VLS voltages are OK, the DTC is probably caused by a malfunctioning EGR valve; replace the valve, and erase the code. If VLS voltages are not OK, check the EGR system using the troubleshooting chart in section 11 of the appropriate S/M.



DPMS Connector Callout Fix for ETM

On page 143-1 of the '94 and '95 Legend ETM, you'll need to correct one of the connector callouts between the DPMS and its control unit. **Connector C253 should be changed to C257, and the photo number for the connector is 67, not 72.** Correct the ETM like this:

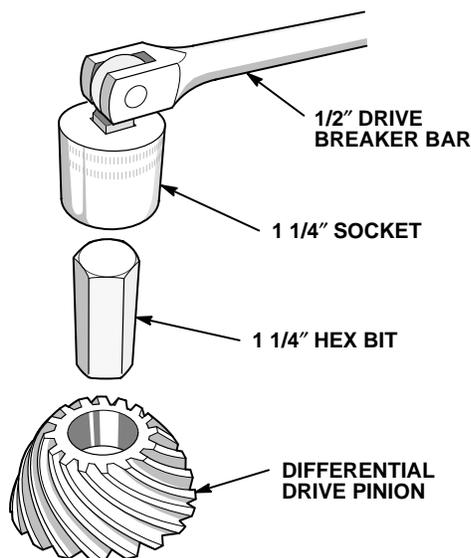




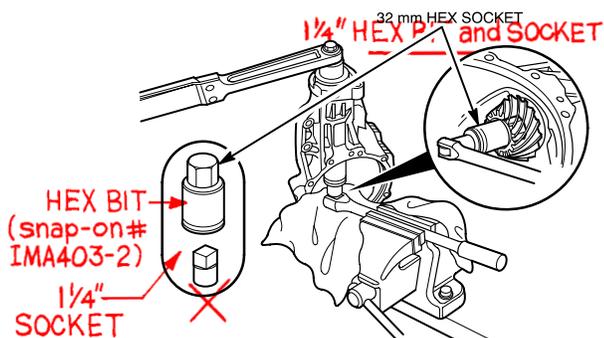
Pinion Gear Tools for Vigor

To remove the differential pinion gear on a '92-94 Vigor, you need a 17 mm hex wrench (for the Type A gear) or a 32 mm hex socket (for the Type B gear). Page 15-2 of the '94 Vigor S/M Supplement shows the tool setup for removing and installing both types of pinion gears.

These tool setups are accurate, but we discovered that the 32 mm hex socket used for Type B is almost impossible to find, even from Snap-on. An alternate Type B setup is to use a 1-1/4, hex bit and a 1-1/4, socket (1/2, drive) attached to a 1/2, drive breaker bar. The 1-1/4, hex bit is available from Snap-on (#IMA403-2). Here's what the setup looks like:



Add the 1-1/4, hex bit info to page 15-2 of the '94 Vigor S/M Supplement by marking up the page like this:



And write this note in the '92 S/M (pages 15-13, 15-20, and 15-22) and in the '93 S/M (pages 15-12, 15-18, and 15-20): *Refer to page 15-2 of the '94 Vigor S/M Supplement for Type B pinion gear disassembly and reassembly info.*



Cylinder Honing

Even though it's covered in the S/Ms, we thought this info on cylinder honing would be helpful to those of you who do engine overhauls. (Cylinder honing does not apply to the '97 NSX 3.2L engine.)

Question: How do I know when honing is needed and when it's not?

Answer: Honing is needed only when the cylinder has scoring or vertical scratches deep enough to catch your fingernail. Light scratches that don't run the full length of the cylinder don't need to be removed. Also, don't hone if the cylinders are glazed or polished; neither of these conditions has much effect on ring seating.

When you hone, keep a close eye on the bore size because you can only hone up to the cylinder's service limit. If the cylinder doesn't clean up by the time you reach the limit, you'll need to bore *all* of the cylinders and use oversize pistons.

Question: What type of hone should I use?

Answer: Use a rigid hone only. Ammco, Snap-on, and Sunnen all carry rigid hones. Don't use a "bottle-brush" or a spring-type hone; they don't keep the cylinder bore straight.

Question: What should the hone's grit or grade be?

Answer: Use a 400- to 600-grit fine finishing hone.

Question: What type of lubricant should I use?

Answer: Use honing oil. It acts as a coolant, allows you to hone faster, produces a controlled finish, and lengthens the life of the hone. In a pinch, you can use a 50/50 mixture of *clean* parts cleaning solvent and *clean* ATF, but *never hone the cylinders when they're dry.*

Question: After honing, what's the best way to wash the cylinders ?

Answer: Dissolve some laundry detergent in a bucket of hot water (*Tide* is a good choice). Then scrub the cylinder walls with this mixture and a stiff-bristled brush. After washing the cylinders, rinse them with clean water, dry them with a lint-free towel, and immediately spray them with a moisture-dissipating oil such as WD-40. *Never clean the cylinders by just rinsing them or wiping them out; if you do, you won't get out all the cylinder honing debris, and you'll probably damage the engine.*

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