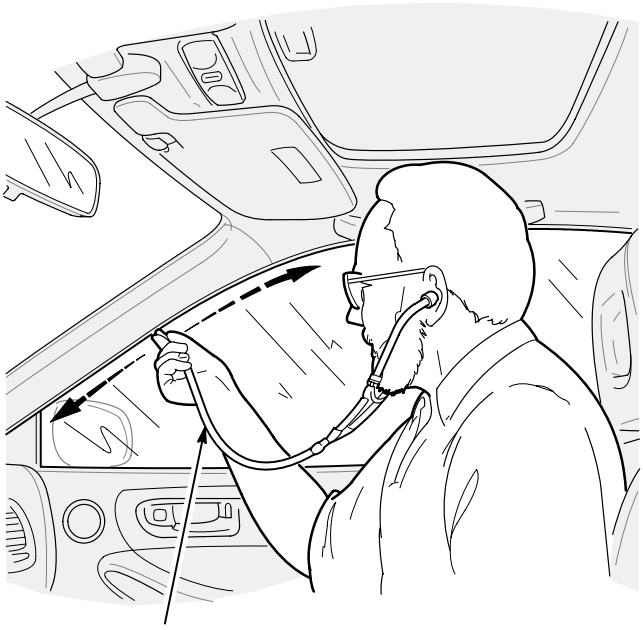
ACURA ServiceNews November 1999

Use Stethoscope for Wind Noises

A mechanic's stethoscope is handy for finding wind noises. Just remove its probe, and, with an assistant driving the car, drag the end along the glass where it meets the run channel. Listen for differences in the noise level all the way around the glass, and fix the areas where the noise is really loud. Be careful with your diagnosis, though; stethoscopes amplify all noise, making normal glass-to-run-channel noise seem abnormally loud.



STETHOSCOPE WITH THE PROBE REMOVED
Drag along the edge of the glass to find wind noises.

ECT Sensor May Cause Hot No-Start

On all models with PGM-FI, the wrong ECT (engine coolant temperature) sensor voltage may cause an intermittent hot no-start. To confirm the problem, check the ECT sensor voltage when the engine won't start; if it's more than 1 V replace the sensor.

At normal coolant temperature, ECT sensor voltage should be 0.5 V to 0.7 V. If the sensor reads more than 1V, it sends a cold engine signal to the ECM/PCM at normal coolant temperature, causing a rich air/fuel mixture, and may prevent the engine from starting.

Identify & Minimize Seat Belt Complaints

All seat belt parts returned under warranty are carefully inspected to find the cause of the failure. In most cases, the parts are undamaged, or damaged by contaminants or cuts in the belt webbing. The two most common seat belt complaints are "belt retracts but doesn't extend" and "buckle doesn't work."

If the belt retracts but doesn't extend, the "problem" may actually be a safety feature. Beginning with '96 Acuras ('95 on 2.5TLs), the seat belt retractors on passenger lap/shoulder belts have locking mechanisms for securing child seats. Here's how they work:

When you pull the belt all the way out, you engage the locking mechanism. In this mode, the belt will continue to retract, but will lock up if you try to pull it out again. This allows you to get the belt around a child seat and adjust it snugly. To return the belt to its normal mode, unbuckle it and let it fully retract.

If the buckle doesn't work, inspect it with a flashlight. Contaminants like soda, juice, or even a coin or toothpick can interfere with the retraction mechanism. If you find any contaminants inside, replace the buckle and, to avoid having the customer pay for another costly repair, tell him or her what caused the problem. (A contaminated buckle isn't covered under warranty because it's a customer-caused problem.)

Here's a final precaution: When you work on seat belt buckles, retractors, and other critical seat belt parts, never take apart, clean, lubricate, or repair them. Seat belt parts contain many small components that are easily damaged if you try to service them.

Tech Line Holiday Hours

So that our hard-working staff can spend some time with family and friends, Tech Line will be closed November 25 (Thursday), November 26 (Friday), December 24 (Friday), December 30 (Thursday), and December 31 (Friday).

Their holiday hours for the last week of December are 7:00 A.M. to 3:30 P.M., PST, Monday thru Wedensday (December 27-29).

PGM Tester ’00 Model Workaround

The PGM Tester SN911 (7/23/99) version software doesn’t allow you to access the immobilizer, SRS, or ABS/TCS on ’00 models. Until these capabilities are introduced on the SN000 version software, use this procedure:

1. With the ignition switch off, connect the PGM Tester to the vehicle DLC.
2. Turn the Tester ON, and select *Honda Systems.*
3. Follow the screen prompts until you reach the screen that says *No Communication. Do You Want To Start Stand Alone Mode?* Then select *No.*
4. Follow the screen prompts until you reach the *System Select* screen display. Then turn the ignition switch ON (II).
5. Select the system you want to work on: *Immobilizer, SRS, or ABS/TCS.* From here, the Tester should work OK.

The SN000 version software will be *on an 8MB card,* and contain this info:

- Coverage for ’00 vehicles and previous years/models
- All basic functions for ’00 vehicles (unlike SN911)
- Normal screen navigation for system access (unlike SN911)

On or about November 30, 1999, dealers will be mailed an SN000 card as part of their required special tools package.

A/T Torque Converter Leak

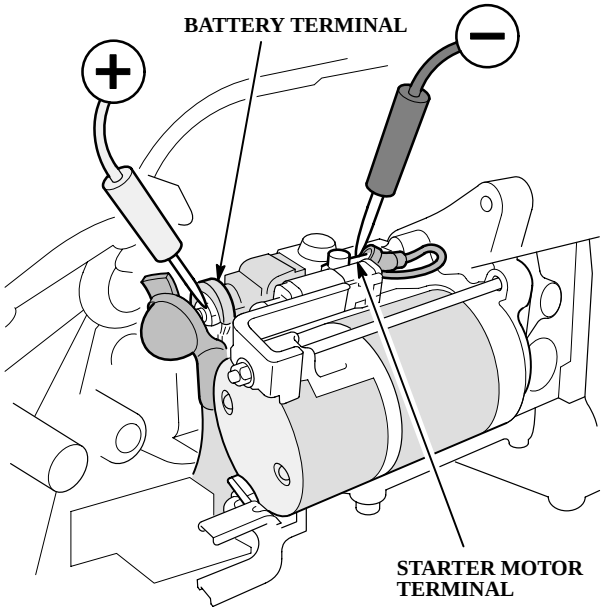
Before you replace a leaking seal on the torque converter, look at the direction of the arrow on the seal; *it should point counterclockwise on models with L4 engines or clockwise on V6 models.* If the arrow points the wrong direction, the seal probably caused the leak.

When you install a new seal, *make sure its arrow points the correct way.* The L4 and V6 torque converter seals are identical, *except for the direction of the arrow.*

Starter Won’t Crank: ’96–98 3.2TL

If the starter on a ’96–98 3.2TL won’t crank, replace it. If the starter has an intermittent no crank, do a voltage drop test on its solenoid. Here’s how:

1. Set a voltmeter to the 12V DC range.
2. Attach the positive (+) voltmeter lead to the battery terminal on the starter solenoid; attach the negative (–) lead to the starter motor terminal on the solenoid.



3. Crank the starter while you read the voltmeter.
   - If the reading is more than 1V, replace the starter.
   - If the reading is less than 1V, look for loose or corroded connections between the starter and the battery.

SRS Troubleshooting for 3.5RL

Because the earlier and later model RLs have different SRS systems, each has its own SRS troubleshooting section in the ’96–00 3.5RL S/M. Troubleshooting for ’96–98 RLs starts on page 24-35. For ’99–00 RLs, it starts on page 24-84.

Verify and Fix Vehicle Pull or Drift

If a vehicle pulls or drifts at highway speed (any model except SLX), use this info to verify the problem and fix it:

To verify the direction and severity of the vehicle's drift, have an assistant drive behind you with a same model vehicle. Then with each of you using a stopwatch, compare the time it takes both vehicles to drift over one lane.

- If it takes your vehicle the same time to drift over a lane as your assistant's, the drift is probably normal.
- If your vehicle drifts *away from* the crown of the road, there's nothing wrong with the wheel alignment or the tires; this drift is normal, and it varies according to the slope of the crown.
- If your vehicle drifts *up* the road's crown, follow these alignment tips:

Setting the Camber

Drift caused by camber stagger (side-to-side camber difference more than 20′) causes the vehicle to pull toward the side with more positive camber. To reduce camber stagger, equalize the camber on both sides by shifting the rear beam, the lower control arm pivots, and the upper control arm pivots. Tighten the pivot bolts with the wheels on the ground, and use a torque wrench to ensure all bolts are properly tightened so they don't slip and change the settings.

Setting the Caster

Drift caused by caster may indicate a 30′ or more caster difference side-to-side. To reduce the difference on all vehicles with adjusting shims (except CL), add a shim to the radius rod opposite the side of the pull. This reduces caster on the side where you added the shim, and has the same effect as increasing caster on the side that pulls. When changing the caster, never add more than three shims per side.

To reduce side-to-side caster difference on a CL, remove a radius rod caster shim from the side that pulls. (Removing a shim increases caster on that side by 20′.)

Setting the Toe

To reduce drift, set front and rear toe to the maximum toe-in specs. Especially on rear wheels, more toe-in tends to decrease a vehicle's sensitivity to drift.

Rotating the Tires

If the vehicle still drifts after you set the alignment, swap the front tires, and test-drive the vehicle to see if the drift changes direction and/or severity. If the drift changes, the tires are influencing it. Rotate the tires front to rear and side to side until the best tires (the ones that produce the least drift) are on the front.

If rotation doesn't solve the drift, try reversing a tire on its rim (as long as its sidewalls are symmetrical). Reversing a tire may get two tires with the same directional force to cancel each other and eliminate the drift. In extreme cases, you may need to replace a tire.

ABS Groans During Self-Check

On all models with a compact ABS, the system can make a brief groan or grunting noise when you back out of the garage or when you drive forward after the vehicle's been sitting a long time. The noise is normal; it's the ABS running a self-check. The self-check happens when the wheel speed exceeds 6 mph, forward or backward.

On some models, self-check happens at every start-up; others self-check once a day at start-up, and some self-check at every 20th start-up.

To show customers how the ABS self-check works, connect the PGM Tester to the vehicle DLC, and run the function test. (This test cycles the ABS solenoid and runs the ABS pump.) The noise from the function test may be louder than the ABS self-check, but it'll help you find out if the noise is ABS related or from another source.

S/M Fix: Multiplex Input Test

Page 22-251 of the '99–00 3.2TL S/M has an error in step 13 of the passenger's multiplex control unit input test. Make this correction to the test for cavity A18:

Cavity	Wire	Test condition	Test: Desired result
[illegible]	BLU/WHT	Driver's door key [illegible] switch [illegible] neutral	Check for voltage to ground: There should be 5 V or more.
A18	GRN/RED	Driver's door lock switch in LOCK	Check for voltage to ground: There should be less than 1 V.
	UN LOCK	Driver's door lock switch in neutral	Check for voltage to ground: There should be 5 V or more.

S/M Fix: Replacing SLX Valve Shims

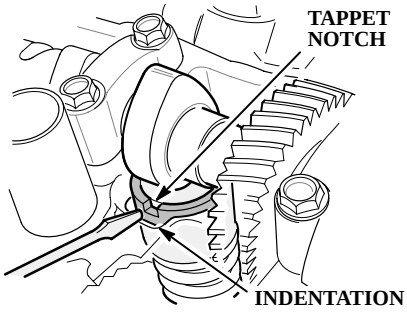
On page 6A-61 of the ’98 SLX S/M, and 6A-62 of the ’99 SLX S/M, the shim replacement procedure for valve adjusting is wrong. If you replace the shims according to the S/Ms, you can damage the valve adjusting tool, the valve tappets, or even the cylinder head. Cross out the shim replacement procedure in both S/Ms, and write in this note: *See the November ’99 S/N or Service Training Module EN-28 for the valve shim replacement procedure.*

Before you adjust the valves and replace the shims, follow these two tips:

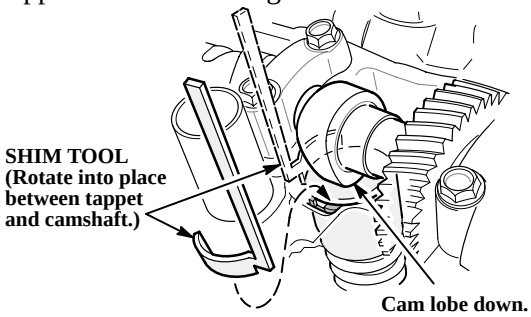
- Valve adjustment must be done on a cold engine with the camshaft bracket (cap) bolts torqued to 10 N·m (7 lb-ft).
- To ease engine turning during valve adjustment and shim replacement, remove the spark plugs beforehand.

Here’s the shim replacement procedure:

1. Turn the crankshaft until the nose of the cam lobe on the first valve you need to adjust is pointing away from the valve.
2. Rotate the valve tappet with a pick or a small screwdriver until the tappet notch is centered on the indentation in the head.

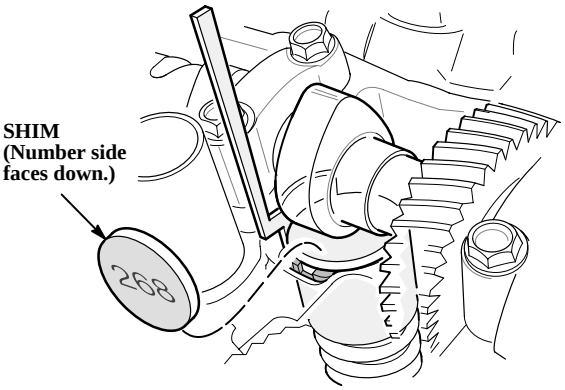


3. Turn the crankshaft clockwise until the cam lobe is holding the valve all the way open.
4. On the side of the tappet closest to the cam bearing, insert the valve adjuster holder tool (J-42689-AH) between the camshaft and the tappet. Make sure the tool rests on the edge of the tappet without touching the shim.



5. Slowly turn the crankshaft *counterclockwise* so that as the valve closes, the tool is caught between the camshaft and the tappet, holding the valve open slightly.

   NOTICE Don’t turn the crankshaft too far or in the wrong direction. If you do, you might break the tool, or worse yet, damage the cylinder head.
6. Insert a pick or a small screwdriver into the tappet notch, and pry out the shim.
7. Wipe off the shim, and measure its thickness. Use the shim selection info on page 6A-61 of the S/M (or in Service Training Module EN-28) to select the correct shim.
8. Install the correct shim, number-side down, into the tappet. Make sure it’s fully seated.



9. Release and remove the tool by turning the crankshaft clockwise again; keep turning it until the cam lobe again points away from the valve.
10. Recheck the valve clearance. The cold engine specs are

    Intake: 0.23 mm to 0.33 mm
    Exhaust: 0.25 mm to 0.35 mm

    - If the clearance is OK, repeat this procedure on the other valves needing adjustment and replace their shims as needed.
    - If the clearance is still wrong, repeat this shim replacement procedure on the valve you just checked until it’s correct.

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