



## The Best Way to Control Evaporator Odor

Condensation, dust, and pollen in the evaporator housing cause mold to grow inside it. The mold's musty odor is what you smell when you turn the A/C on. This happens in all vehicles, not just Acuras. As you'd expect, it's worse in areas with high humidity.

Although treatments are available to reduce odor (usually you spray them into the air inlet), we're still looking for one that provides lasting results. Until then, the best way to reduce evaporator odor is to remove the evaporator and clean it. Yes, it's time-consuming, but it's the only way to get it clean. Here's what to do:

1. Recover the refrigerant.
2. Remove the evaporator housing as described in section 22 of the appropriate S/M (section 1B of the SLX S/M).
3. Separate the housing, carefully remove the evaporator core, and then the foam insulation (if it's not attached to the housing).
4. Wash the case halves, the foam insulation, and the evaporator in a solution of mild dish soap and water, then let all the pieces dry thoroughly. (Don't use bleach; it'll damage the evaporator!) If the foam insulation is moldy or smells bad, replace it.
5. Remove any debris you find in the evaporator housing, the blower, the fresh air intake duct, and the cowl.
6. Reinstall the evaporator, making sure its drain hose is clear and not kinked.
7. Recharge the A/C with the appropriate refrigerant (R-134a or R-12).

After you clean the evaporator, pass these tips along to your customer to minimize future odor problems:

- If possible, don't use perfumes or interior deodorizers. Also, don't smoke in the vehicle. These things make the odor worse.
- Keep the evaporator case dry by leaving the blower fan on (at least on low), even if you aren't using the A/C. (Use the various ventilation modes to direct air where it's wanted or away from where it's not wanted.) If needed, use the temperature control to warm the air to a comfortable level.

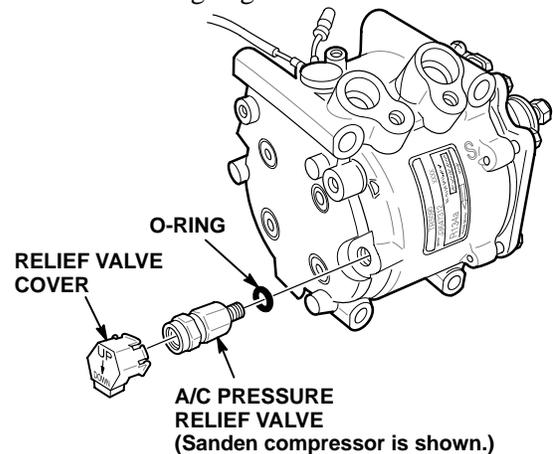
- In dry weather (low humidity), keep the ventilation system in the Fresh mode all the time or as much as possible.
- In humid weather, or if the air has a lot of dust or pollen in it, keep the system in the Recirculation mode.
- The last few blocks before reaching your destination, turn off the A/C, but *leave the blower fan on*. This stops the A/C's condensing action, and it helps to dry the inside of the evaporator.



## A/C Pressure Valves Are Replaceable

If a car with an R-134a system comes into your shop with a blown A/C pressure relief valve, you can replace the valve (you don't usually need to replace the compressor). The pressure relief valve acts like a fuse. It "blows" when the pressure and temperature of the refrigerant become too high for normal system operation. High temps and pressures can be caused by things like

- an overcharged A/C system,
- a condenser fan not working, or even
- an overheating engine.



When you replace a pressure relief valve and recharge the A/C, it's a good idea to do an A/C performance test (see S/B 96-004). If the test reveals any abnormal system pressures or dash air vent temperatures that aren't cold enough, continue to troubleshoot the A/C until you find and correct the problem so the valve doesn't blow again.



## No Start or Won't Crank: RL & NSX

If a '96-97 3.5RL or '97 NSX customer complains that the engine won't start or that the starter doesn't crank, check the operation of the immobilizer indicator light\*. If it stays on, doesn't come on, or flashes continually, replace the immobilizer control unit and *all of the customer's keys*. Here are the P/Ns you need:

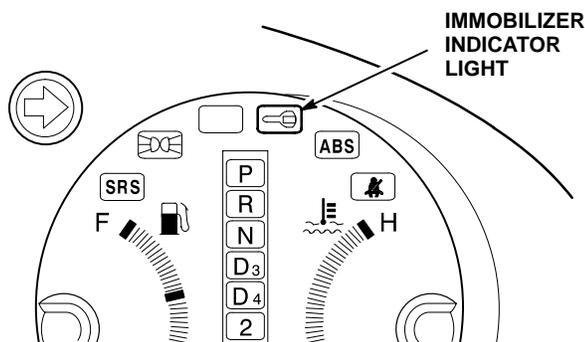
**Immobilizer Unit Set, RL: P/N 04809-SZ3-A01, NSX: P/N 04809-SZ3-A02** (Includes the immobilizer control unit, a master key blank, and the learning key blank.)

**Master Key Blank, P/N 35113-SZ3-A01**  
(For a complete set, you need one of these.)

**Valet Key Blank, P/N 35114-SZ3-A01**  
(This is only needed if the customer wants one.)

**Warranty Tip:** Since all returned immobilizer parts are inspected, make sure you keep one original key and the learning key with the old control unit. If you don't, your dealer will be debited for the parts.

\* Here's how the immobilizer indicator light should work:



- When you turn the ignition switch ON (II), the light comes on for about two seconds. This means that the control unit recognizes the code sent by the transponder and the correct key has been used.
- When you turn the ignition switch OFF (0), the light blinks five times and then goes off. This means that the control unit is armed.



## Starter Grinds or Doesn't Engage

NOTE: This article applies to most Acuras except RLs and NSXs.

Does the starter grind or spin without turning the flywheel?

Does the starter continue to run even after you turn the key from START (III) to ON (II)?

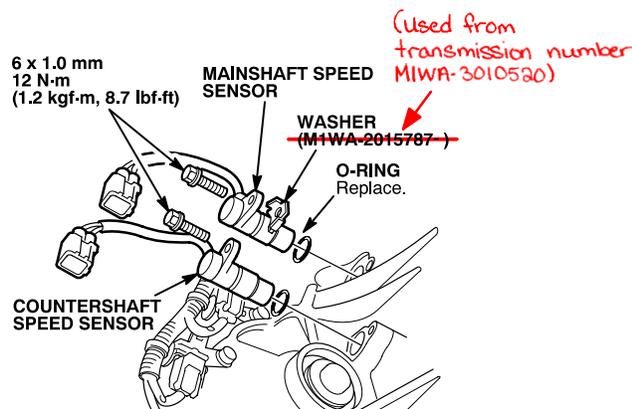
If either of these things happen, look for an aftermarket device (security system, starter cut-off switch, etc.) installed between the ignition switch and the starter. These components can cause erratic starter operation.

- If the starter works OK when you bypass the aftermarket device, advise the customer that it should be removed from the car.
- If the starter still doesn't work when you bypass the aftermarket device, or if no such device is installed, check for a problem with the starter, the starter solenoid, the starter wiring, and the flywheel ring gear.



## Mainshaft Speed Sensor S/M Fix

On page 14-94 of the '95-97 2.5TL S/M, you need to correct the transmission number listed under the mainshaft speed sensor (MSS) washer. Transmissions *prior* to the listed number do not use the washer, but ones *from* the listed number do use it. If you install the MSS washer on an A/T that doesn't use it, you may get a poor MSS signal to the TCM. If you don't install the MSS washer on an A/T that needs it, the mainshaft gear will damage the sensor. Here's the corrected info.



NOTE: The P/N for the mainshaft speed sensor washer is 90560-PL5-N00.



## The Basics of RFG and Oxygenated Fuel



You've probably heard a lot about RFG (reformulated gasoline) and oxygenated fuel, but how much do you know about them? For instance, all RFGs contain an oxygenate, but did you know that not all oxygenated fuel is RFG. Actually, there are many differences between these fuels and conventional fuels. Here's the latest info.

### What's RFG?

Although RFG and conventional fuel share most of their chemical components, RFG has less benzene (a known cancer-causing agent), and it contains an oxygenate (more about oxygenates later). In its summer grade, RFG is less volatile than conventional fuel. (Volatility is a measure of the fuel's tendency to turn from liquid to vapor.) Lower volatility means that engines running on RFG aren't as prone to vapor lock and hot restart problems.

Use of RFG was first proposed to Congress by the Environmental Protection Agency (EPA) in the Clean Air Act of 1990. By '95, use of RFG was required in several metropolitan areas where smog is a major problem. RFG will soon be required in many other regions too. In '98, stricter fuel regulations will further improve RFG by

- reducing volatility for better control of vapor lock and prevention of hot restart problems,
- lowering the sulfur content to make catalytic converters more effective, and
- reducing olefins to cut down on fuel system deposits.

### What's Oxygenated Fuel?

Oxygenated fuel is a conventional gasoline with a chemical oxygenate added to it. The oxygenate can be an alcohol or an ether. The most commonly used alcohol is *ethanol*. The most commonly used ether is *MTBE* (methyl tertiary butyl ether).

*Ethanol* is made by fermenting corn or grain. It was first used as an octane enhancer in the '70s. Back then, fuel blended with ethanol was called "gasohol." To oxygenate the fuel, a 10 percent dose of ethanol is added. Today, ethanol is used in about 10 percent of all gasoline sold in the U.S.

*MTBE* is created from a chemical reaction between isobutylene and methanol. Like ethanol, MTBE was originally used as an octane enhancer. To make oxygenated fuel, a 15 percent dose of MTBE is added. MTBE vapor has a distinct ether smell which many people find unpleasant. But even though it smells bad, MTBE vapor is considered less of a health risk than fuel vapors like benzene.

Recently, MTBE has become a hot debate item; it's been linked to contamination of ground water supplies in some areas of the country. Further government research is still needed before we know if MTBE will continue to be used as a fuel oxygenate.

Whether it's made with ethanol, MTBE, or another alcohol or ether, the primary function of oxygenated fuel is to increase fuel octane, provide more complete combustion, and reduce CO (carbon monoxide) emissions. For CO reduction, oxygenated fuel is sold in many parts of the country during the winter months.

On pumps that dispense oxygenated fuel, you'll see a sticker with this info:

THE GASOLINE DISPENSED FROM THIS PUMP IS OXYGENATED AND WILL REDUCE CARBON MONOXIDE POLLUTION FROM MOTOR VEHICLES. THE REQUIRED REGULATORY COMPLIANCE PERIOD IS: NOVEMBER 1 THROUGH FEBRUARY 29.

### Usage, Cost, and Benefits

Year-round, RFG makes up about 30 percent of the gasoline sold in the country. And in 30 metropolitan areas where RFG isn't required, oxygenated fuel is the only fuel sold during winter months. Both fuels cost about 10 cents more per gallon than conventional fuel.

RFG and oxygenated fuels produce about 20 percent less air pollution than conventional fuels because they burn cleaner and evaporate slower. *Using these new fuels eliminates over two billion pounds of air pollutants per year. This is the equivalent of removing 8 million cars from the road.*

Use of RFG and oxygenated fuel will continue to rise. By the year 2000, they'll make up most of the fuel sold in the U.S.



## A/T Flushing Procedure Revised

Here's the best procedure to use whenever you flush the A/T on a FWD Acura. This new procedure is even more thorough than the one we told you about in the April issue of *S/N* (*Check Mainshaft Speed Sensor DTC on 2.2CLs*).

1. Set the parking brake, and raise the vehicle.
2. Drain the trans, and refill it with Genuine Honda ATF, P/N 08206-9001.
3. Start the engine, shift into D4, and release the parking brake.
4. Raise the engine speed to 50 mph, making sure the A/T shifts through all forward gears, and that the torque converter goes into lockup.
5. Apply the brakes, then shift to reverse and to neutral. Repeat steps 4 and 5 four more times.
6. Repeat steps 2 through 5 two more times.
7. Drain the transmission, and install the drain plug with a new washer.
8. Refill the trans with Genuine Honda ATF.



## Mirror Housing S/B Also for Integra

Service Bulletin 97-039 is an S/M supplement that describes how to replace the outside mirror housings on '97 TLs. You can also use this procedure when replacing the mirror housings on '97 Integras.



## Early Pads Help '97 NSX Brake Noise

Under severe conditions the brake pads used on the '97 NSX-T are more durable than pads used on '91-96 NSXs. This also means that they're more likely to squeal when you apply the brakes. If a '97 NSX-T customer complains about squealing brakes, remove the pads and install '91-96 pad sets, P/N 45022-SL0-010 (front) and 43022-SL0-000 (rear).



## Configure Tester for Immobilizer System

To use the PGM Tester for rewriting or canceling immobilizer system functions on RLs or NSXs, you need to make sure the Tester "destination" is properly configured. To do this, go into the "Tester Setup" menu, and make sure the destination is set to "USA."



## Don't Rekey Ignition Switches

On '94 and later Acuras, don't attempt to rekey an ignition switch. If you do, as several technicians and even locksmiths will tell you, you won't be able to reassemble the switch. If you need a new lock in the switch, the best thing to do is install a new switch, and then rekey the rest of the locks.



## Clear the Radio Error Code

To clear error code "ERR3" on '97 Integra or 3.0CL radios, remove the 7.5A Backup/Radio fuse from the under-hood fuse relay box for at least 15 seconds. This is the same info we gave you for the '97 2.2CL in the November '96 issue of *ServiceNews*.



## Oil Drain Plug Leak Revisited

Now that all oil pan drain plug washers in stock have been updated to the correct hardness, you don't need to coat them with Hondabond. (We had asked you to do this in the March '97 issue of *S/N*.) The P/N for the updated washer is the same as the previous one, 94109-14000.

**ACURA** ServiceNews

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