

# Mirror Image

Say what? The photo's backwards?

In many respects, the Honda Accord is a mirror image of other transverse engine Japanese cars rolling through your doors. So we thought we'd take some of the fear of working on Hondas out of the picture by putting the front of the engine over on the right side where you're used to seeing it.

Honda not only puts the cam belt and sprockets on the left side, but the engine turns counter clockwise. In fact, Honda does a lot of things that make it a unique member of the Japanese fleet.

If sales figures are any indication, these little oddities haven't hurt Honda. The Accord has become the equivalent of the Chevy Impala to the current generation of people who have patios with gas grilles and 2.6 children who play Nintendo.

But does the Accord offer opportunities for the independent repair shop? It has a reputation for dependability, and some Honda dealers are reporting that over 90 percent of their service bay income comes from customer pay—not warranty work. Breaking into this love/love relationship requires

some hard work for independent repair shops, but it can be done.

## Grab Bag

This month we've assembled a grab bag of assorted tips and information ranging from seemingly simple problems like overtightened drain plugs, to a rollercoaster warm idle on the carbureted 1987 Accord in our stall. For the most part, the information in our article will concentrate on 1984 through 1989 vehicles. The carburetor adjustment procedures shown in our final steps were done on an '87 Accord which uses the newer "round top" carb.

Ignition timing and idle adjustments are a little more complicated than simply turning a single screw or rotating a distributor housing.

Our special thanks to Harold Lamprecht of Rising Sun Automotive in Chagrin Falls, Ohio, to Tom Wilson of High Road Automotive in Seattle, Washington, and to Steve Kirgan at Hondamen in Copiague, New York.

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## Accord Quick Tips

- **If you use a pickle fork to free a ball joint from its socket during a related repair, you'll probably ruin the rubber grease boot.** These boots are available separately, and they're a lot less expensive than a new ball joint.

- **When measuring brake pad wear, always measure from the end of the wear indicator to the face of the friction lining.** Do not measure to the pad's steel backing plate. The friction lining on new pads is 10 mm, measured from the face of the pad to the steel backer. But you only wear away 7 mm of pad before the wear indicators hit the rotor face. If you measure 5 mm of remaining pad and think half the pad is left, you only have 2 mm to go before the wear indicators start making noise.

- **Honda manual transaxles do NOT use gear oil.** Use only the engine oil recommended in the owner's manual. We mention this because it seems to be a common problem.

- **Fuel pumps are a common replacement item on 1982-85 Accords.** A Honda dealership technician suggested that you may be able to get a dead pump running by jumpering it direct, but that the same pump will probably be dead again tomorrow morning.

- **Distributors are a common repair item.** Vacuum advances on older, single diaphragm units are still dropping dead with regularity. Repair parts are available, so unit repairs are possible. Don't forget to replace a damaged or missing seal between the cap and distributor housing, or you'll end up with water inside the cap. The ignition may still work, but we had numerous reports of rust frozen centrifugal advances in distributors placed in service without the seals.

And for the umpteenth time—if you have difficulty setting ignition timing on a Honda, check the vacuum advance before you start elongating the adjustment slot in the distributor base. If the advance diaphragm is bad, you'll crank the timing so far

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ahead of its proper base setting that you'll end up with ping or even engine damage.

• **Outer CV joint/boot kits are available from aftermarket sources.** This means that joints can be replaced short of replacing the entire shaft/joint assembly. The outer joints may not want to come off easily, however. One shop we talked to has actually cut the joint lengthwise using an exhaust cutoff tool. Then they split the outer joint, ball cage, and inner joint to get them off the splines.

• **If you see a no start, or the car starts but shuts down when warm, check the ignitor screwed to the side of the distributor.** Install new ignitors using a good quality silicone grease at both the electrical connections, and also between the ignitor body and the distributor housing. This extra grease acts as an insulation when things heat up under the hood.

• **Honda timing belts have caused problems at times.** 1984-85 Accords were the most notable example. All Honda techs told us that whenever they find an original belt in one of these cars (identifiable

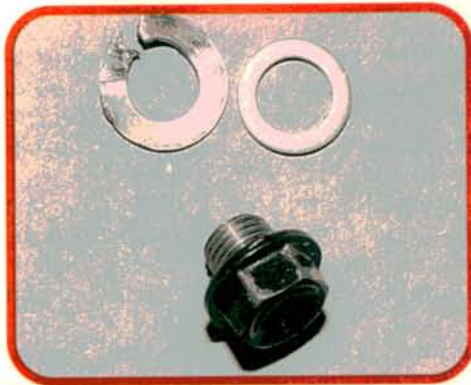
by the white lettering on the belt), they suggest immediate replacement to the customer, regardless of mileage. New belts have red lettering and seem to last for 100,000 miles. Newer models have the improved belt.

If there is a small punch mark above the last digit of the VIN on the firewall on 1984-85 Accords, the belt has already been replaced at the dealership. We're planning a follow up article on belt replacement.

• **Honda recommends—and independent Honda specialists agree—that you don't want to remove a Honda carburetor and turn it over to overhaul it.** On Car kits are available from Honda, and come with great instructions for on-car overhauls. Application numbers run through the 1984 model year, but several techs said they use the kits with success on 1985 models as well. Rumor has it that Honda On Car kits may become available for round top carbs in the future.

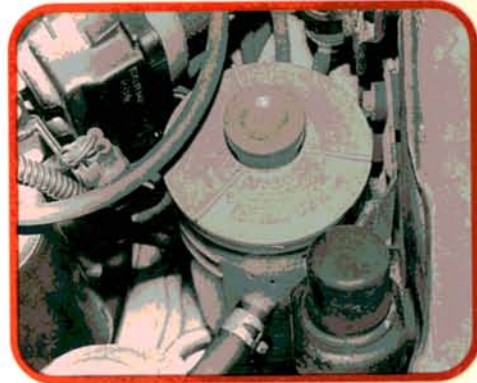
—By Ralph Birnbaum

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1

We heard complaints of overtightened, stripped oil pan drain plugs. The soft drain plug seal is supposed to crush as the plug is tightened. But after the boys at the quick lube reuse it 20 times, the washer is so squashed it won't seal. Then somebody tries to stop the leak by overtightening the plug. Always replace the washer.



2

Another quick lube caution: Honda is so serious about the use of Genuine Honda power steering fluid that they printed the caution on the reservoir in three separate languages. Don't let your brother-in-law or the local drain-and-fill substitute ATF or Oil of Olay, or you'll have problems.



3

Fuel contamination was an often mentioned problem. There are two fuel filters on the Accord, a small in-line filter (arrow) in the engine compartment, and this often neglected main filter hidden behind the left rear wheel, below the filler neck. The filter mounts in a metal bracket complete with locking tab.



4

Another source of fuel contamination is rusted out fuel filler necks. The filler necks get hammered by stones and salt until they perforate and let splash from the left rear wheel enter the fuel tank. The damaged neck in our photo is from an '87 Accord. Newer necks are protected by a shield.



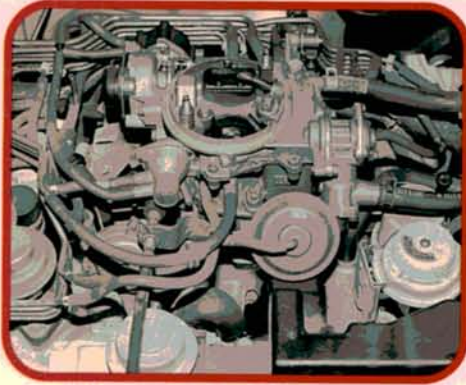
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Bad diaphragms on air intake doors (still) lead to carb icing on cold, damp days since no preheated air reaches the carb. The car starts and runs well for a few miles, then chugs and loses power. The customer pulls off the road, engine heat defrosts the carb, and the car runs again until the ice returns.



6

Don't forget to check the bimetallic air bleed inside the air cleaner housing if the diaphragm in the air mix door is good, but no vacuum reaches it on a cold engine. The spring is designed to close below 100 degrees F, and open to bleed vacuum away from the diaphragm once intake air warms to 100 F.



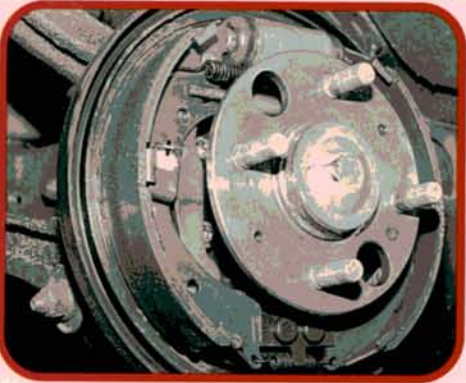
7

A cold stall or rough idle cold problem may be caused by a leaking carb base insulator block. Honda suggests checking the bases by spraying carb cleaner at the base. If the added enrichment keeps a cold engine running, the base is leaking. A new, improved base is available from Honda to cure the problem.



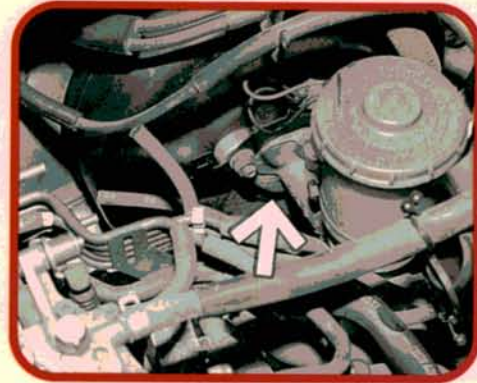
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Some techs said they have to sell the added cost of OE brake pads, but most swore by the kits for sure stops and no noise. The kits include hardware, backing plates for the pads, and a bag filled with Molykote M 77. Apply the paste to both sides of the backing plates to further reduce chances of noisy brakes.



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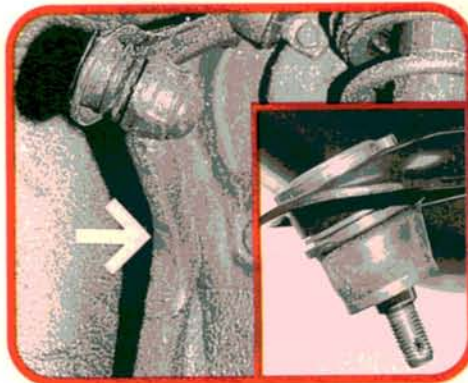
Rear brakes are fairly simple. New linings are 4.5 mm thick with a wear limit of 2 mm. Be sure to check the wheel cylinder dust boots for signs of brake fluid. The jury was out on whether or not fluid changes prolong the life of the wheel cylinders, but Honda techs said they replace a lot of them.



10

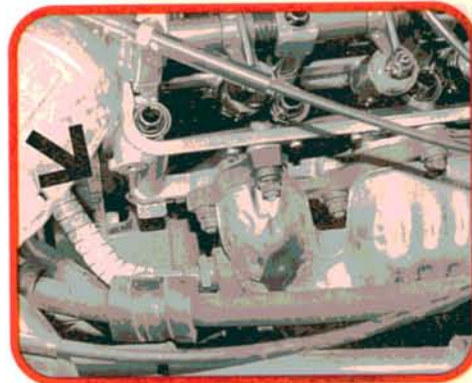
Brake master cylinders should also be checked for fluid leaks where they bolt to the booster. Some will even show telltale signs of fluid leaking down the front of the booster can. Let these leaks go on too long, and the fluid will run into the booster can and ruin the booster diaphragm.

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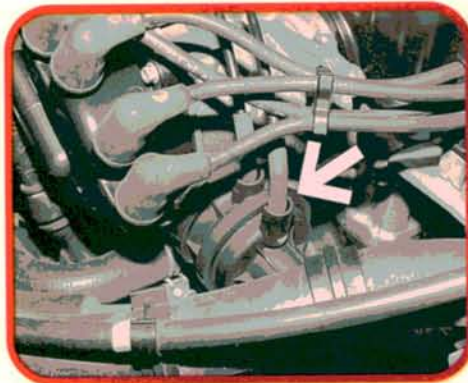
**11**

On high milers, grab the long arm (arrow) on the rear suspension knuckle and give it a shake. Look for play in the ball joint connecting the upper arm to the knuckle. In a single day at a host shop, we saw two joints so badly worn that they “klunked” when shaken. The joint and upper arm are an assembly.



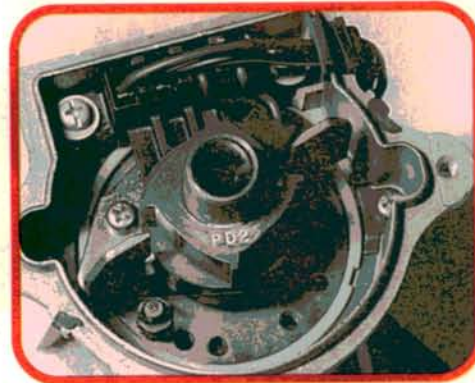
**12**

Check timing on dual diaphragm distributors as follows. Warm the engine. Pull and plug both distributor vacuum hoses. Timing should be 3-4 degrees BTDC. Connect the hose to the inner port and look for timing to advance to the red mark on the flywheel. The timing hole is covered by a rubber plug (arrow).



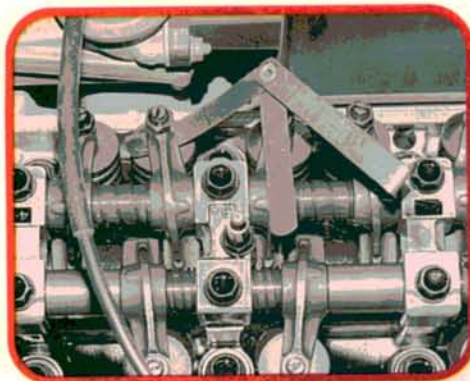
**13**

Now connect your vacuum pump to the outer diaphragm and pump it up. Timing should advance another 4-6 degrees beyond the red mark. Reconnect the vacuum hose to the outer diaphragm. Then set the timing at idle with both hoses connected, using the timing specs listed on the underhood sticker.



**14**

Base plates are another common replacement item. Make sure they turn freely, but that they aren't loose or sloppy. If you remove the reluctor to do repairs on a distributor, make sure you reinstall it with the letter code facing up. Install it upside down and the timing will be off by about 30 degrees.



**15**

Valve adjustments are done cold (engine temperature of 100 degrees F or less). Some shops lay a large fan over the engine to cool it while performing the rest of the maintenance. Adjust intake lash to 0.12-0.17 mm (0.005-0.007 in) and exhausts to 0.25-0.30 mm (0.010-0.012 in).



**16**

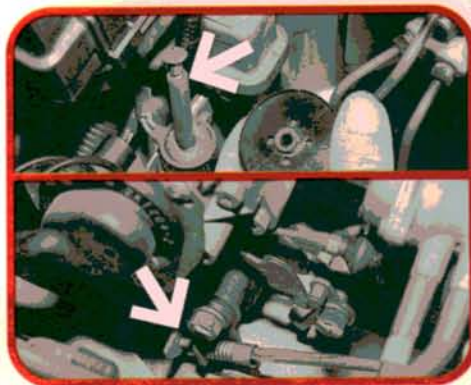
Our 1987 Accord came with a complaint of an irregular idle. Idle speed would come down from 2500 RPM, pause for a moment at 750, then drop so low it would stumble and almost stall. Then it would bounce back up to 750 RPM and stay there. A propane enrichment test told us the mixture was properly adjusted.

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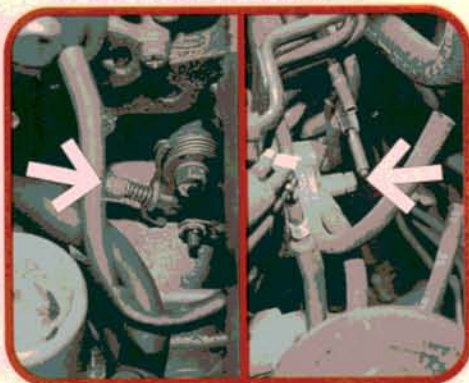
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Frequency Control Valve C is located on the right inner fender, behind the battery (arrow). It controls vacuum to the Throttle Controller on the carb when engine speed goes above or below 730 RPM. The original shop manual procedure for idle adjustments on '87-88 Accords with A/T was complicated, so try this.



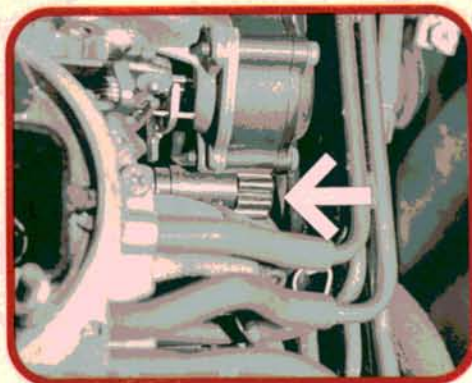
18

Run the engine until it's fully warmed up. Remove the air filter cap from Frequency Control Valve C. Plug the open vacuum port. Locate the adjusting screw for the Throttle Controller (below the choke element). Back the screw off its stop. This keeps the controller from affecting the idle speed.



19

Go to the left side of the carb. Locate the A/C Idle Boost Controller near the accelerator pump rod. Back off the adjusting screw on the Boost Controller until it's off its stop. Go to the diaphragm cover at the rear of the controller, and turn in the thumbscrew on the cover until it seats (right photo).



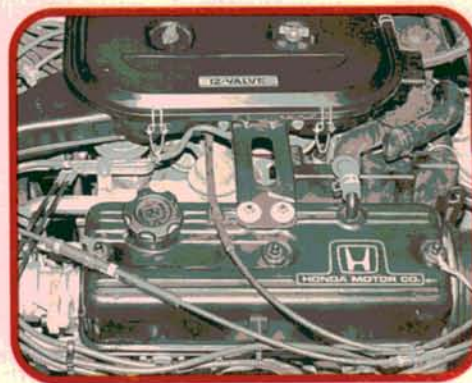
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Go to the back of the carburetor and find the large thumbscrew for the curb idle adjustment. Adjust the curb (base) idle to 600 to 650 RPM. Now go back to the idle control screw (the first one we backed off) and adjust the idle to 700 to 730 RPM. Have an assistant apply the brakes and drop the car into gear.



21

Adjust the screw on the Idle Boost Controller until the idle returns to 700 to 730 RPM (still idling in gear). Turn on the A/C. Use the small adjusting screw (arrow) on the Idle Boost Controller cover to adjust the idle to 700 to 730 RPM. Replace the cap on the solenoid air bleed at Frequency Control Valve C.



22

We asked Honda techs about the very low RPM settings used in this modified procedure. We were told that slightly higher RPM settings were needed to obtain a smooth idle on cars with higher mileage. That's why we suggested the slightly wider range of settings. Our '87 runs just fine with 20-30 extra RPM.