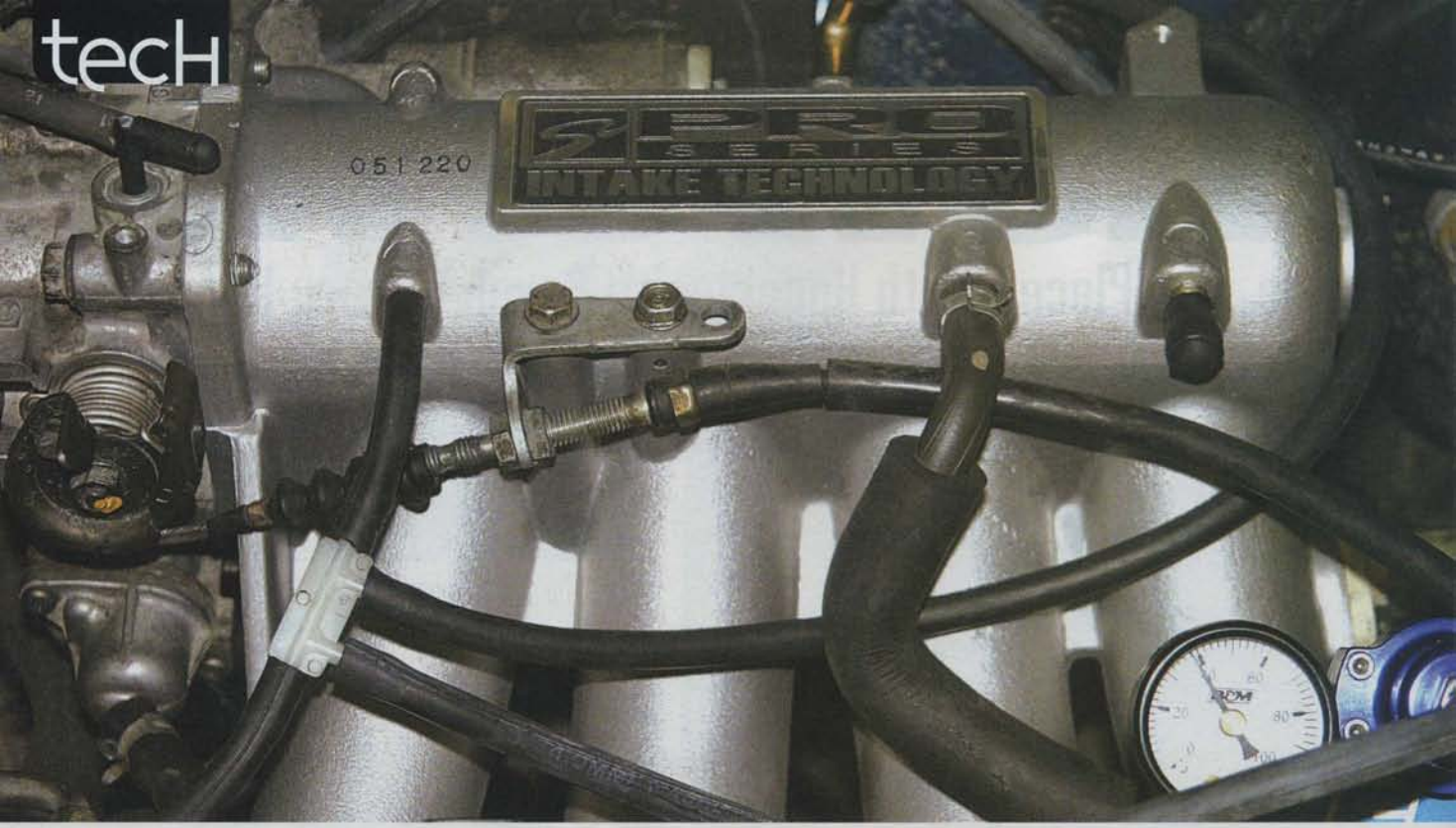


D-SKUNKING

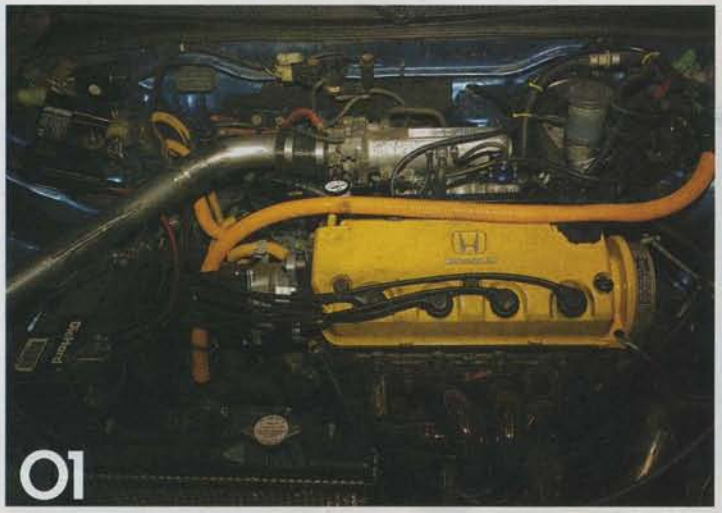
THE SKUNK2 PRO SERIES INTAKE MANIFOLD FLOWS MORE HONDA D-SERIES POWER

WORDS: SEAN L. GREENE / PHOTOS: SEAN L. GREENE

IT'S NOT OFTEN THAT WE COVER D-SERIES TECHNICAL ARTICLES DUE TO THE FACT THAT THE B-SERIES AND K-SERIES MODELS HAVE BECOME THE ENGINES OF CHOICE AMONG ENTHUSIASTS TODAY. THIS IS SOMEWHAT MISLEADING BECAUSE HONDA'S SINGLE-CAM SCREAMER CAN BE UPGRADED TO MAKE SOME SERIOUS POWER. YOU JUST HAVE TO BE WILLING TO DO SOMETHING A LITTLE DIFFERENT FROM WHAT EVERYONE ELSE IS DOING.

Life for the D-series enthusiast is good because there's an incredible number of performance parts available, and as long as people continue to swap in B- and K-series engines, there will always be a huge surplus of stock components. The owner of a '90 Honda CRX had fabricated a custom turbo system on a D16Y8, which is a VTEC engine found in '96 to '00 Honda Civics. This engine swap is a great power boost for those who have a 1.5-liter Honda Civic or CRX because the D16Y8 has VTEC. The only problem is that in order to avoid a complex wiring job, you have to retain the intake manifold that came with the less powerful engine. By retaining the manifold, all you have to do is run two wires from the ECU to the VTEC solenoid on the engine. So what do you do if you want more power?

Skunk2 makes an intake manifold that will allow you to leave the wiring intact and enjoy a significant boost in power and torque thanks to the long intake runner and large plenum design of the Skunk2 manifold. The installation of the intake manifold was fairly straightforward, with the only complications coming from elements of the swap itself. For example, we found that the pre-OBD-I throttle body couldn't be used with the Skunk2 manifold because of the size of the opening and because the bolt patterns were different. Another

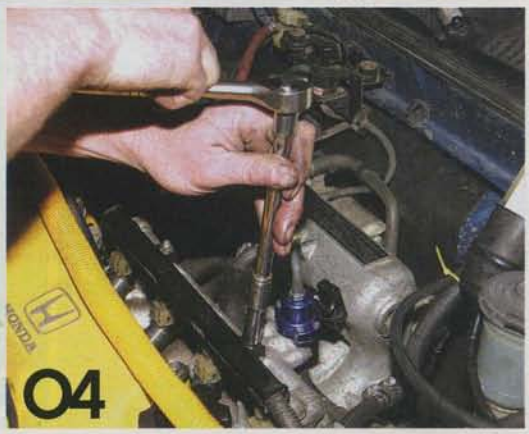


01 This is the D16Y8 with the pre-OBD intake manifold installed. Note the MAP sensor on the firewall just behind the throttle body.

02 The first step is to remove the intercool er piping from the throttle body.

03 The fuel feed line is removed from the stock fuel rail.

04 Next, the two bolts that mount the fuel injector harness to the fuel rail are unbolted.



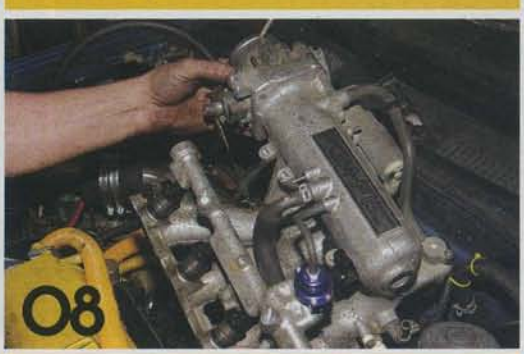
SKUNK2 HAS ENGINEERED THE RUNNERS IN THE PLENUM SO THAT THERE IS MINIMAL AIR TURBULENCE.

difference was that the OBD-I throttle body had the MAP sensor mounted on it while the pre-OBD vehicle had the MAP sensor mounted on the firewall. A way around this problem is to actually tap the orifice on the throttle body for a fitting that would allow a vacuum tube to the external MAP sensor. Overall, the Skunk2 intake manifold is an upgrade you'll feel whether you have a forced induction or naturally aspirated setup. The fit and finish are great, but there's one thing we'd like to see fixed, which is a fitting for the engine coolant that was too close to the intake runner. This made fitting the clamp over the hose difficult, but it was an annoyance that we were able to deal with. HCi

A small flat screwdriver is used to remove the clip and harness connector from the fuel injectors.

The vacuum hose for the brake booster is removed from the intake manifold port.

At the other end of the intake manifold, the coolant hose is removed.



Once all of the nuts are removed from the flange on the intake manifold, it can be removed from the cylinder head.

Here's a side-by-side comparison of the plenums on the two intake manifolds.

The idle air control valve is removed from the stock intake manifold.

Brake cleaner is used to dislodge and dissolve any oil blow-by that may have accumulated in the unit.

While the fuel rail won't be reused with the Skunk2 manifold, the RC Engineering fuel injectors will, so they must be removed from the stock unit.

RTV sealant is applied to the mounting surface of the idle air control valve.

Next, the idle air control valve is bolted up to the Skunk2 intake manifold.

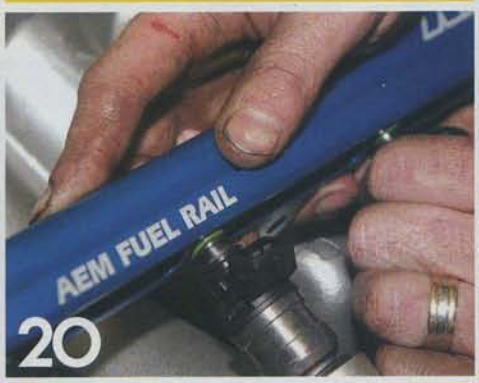
The rubber injector grommets from the stock manifold are installed in the Skunk2 manifold.

The fuel rail mounting studs from the stock manifold need to be removed and installed in the Skunk2 manifold. This method is the easiest way to remove stubborn studs.

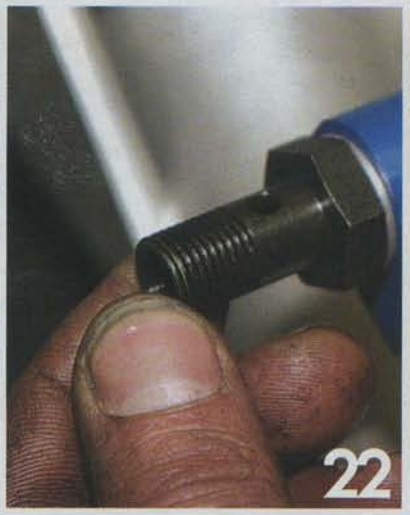
The RC Engineering fuel injectors are installed in the Skunk2 intake manifold.

The stock air intake temperature sensor is installed in the Skunk2 manifold in the same location that it was in the stock unit.

New injector O-rings came with the AEM fuel rail, and they are installed on the RC Engineering injectors.



Now the fuel rail is installed on the injectors.



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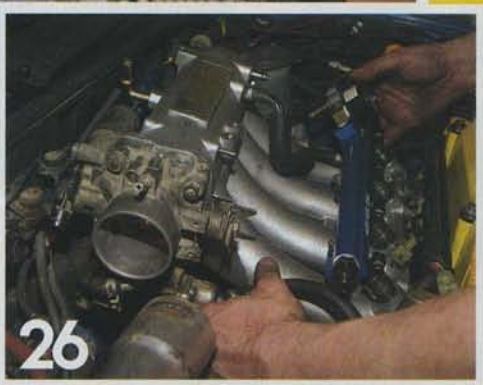
21 Once the fuel rail is installed, it is bolted down using the stock hardware.

22 Teflon paste is applied to the threads of the feed fitting prior to being threaded into the fuel rail.

23 The fuel pressure regulator and gauge are installed onto the AEM fuel rail.

24 The surface of the throttle body is cleaned prior to installing a new gasket.

The vacuum hose for the breather system is hooked up to the plenum of the Skunk2 intake manifold.



With the new gasket in place, the Skunk2 intake manifold can finally be installed onto the cylinder head.

All of the nuts for the intake manifold are installed and tightened.

A slight modification to the throttle cable bracket must be made.

The bracket can now be bolted up to the plenum.

Once the support bracket under the manifold is installed and the remaining coolant and fuel lines are connected, the installation is complete.