

Classic CR-X meets Insight. Somewhat. The Honda CR-Z.



HONDA CR-Z POWERTRAIN

Based on the system introduced in the original 2000 Honda Insight, and now in its sixth iteration, the simple and compact Integrated Motor Assist (IMA) system is a parallel hybrid powertrain that increases efficiency through electric power assist, energy regeneration and idle-stop capabilities. The CR-Z's gasoline engine provides primary power, for responsive performance, a broad torque band and a sporty engine note. A 10-kW ultra-thin electric motor works in tandem to provide additional power and electricity generation as needed. Electricity is stored and delivered through a compact, lightweight 100.8-volt battery and power control system. The CR-Z offers a pro-rata degree of what any electric does: instant torque at low RPMs. Its broad torque band contributes to quick acceleration and fewer shifts with the manual transmission, while

we're positing parentage, the Insight now seems halfway between the Toyota Prius and the CR-Z. The Insight seems similar to the benchmark shape of the Prius, and it could take a second glance to appreciate the difference. The CR-Z nails its own style more effectively.

OUR TEST HONDA CR-Z 3DR EX NAVI

ENGINE.....	1.5L i-VTEC 16-valve 4cyl: 122hp, 123 lb-ft
with Integrated Motor Assist (IMA)
TRANSMISSION.....	CVT (continuously variable)
DRIVE.....	Front-wheel drive
ADDTL TECH:	Idle stop feature, electric rack-and-pinion steering, creep aid, Sport/Normal/Econ 3-mode system, ECO assist system, theft immobilizer, AT-PZEV rating.
SAFETY:	Front, side, side curtain airbags, door beams; ABS and brake assist; EBD, VSA, tire pressure monitoring, front/rear crumple zones, ACE body structure, more.
INTERIOR:	Nav with voice recognition, 360-watt 7-speaker premium audio, leather-wrapped steering wheel with wheel-mounted controls, MP3-USB-Bluetooth interfaces, filtered automatic climate control, mesh sport seats, PW, PL, tilt/telescope, aluminum pedals, cruise, exterior temp, storage, extra lighting, mats and more.
EXTERIOR:	16"x6.0" alloy wheels, intermittent wipers, rear wiper-washer-defroster, heated power mirrors with turn signals, HID headlights, remote entry and more.
Base price.....	\$23,210
Full tank of fuel.....	n/c
Destination charge.....	750
TOTAL.....	\$23,960

Note: The base model CR-Z with MT starts at \$19,200.

We get in, close the door, and it *thinks* like a Rolls-Royce. The CR-Z greets us with a blank blue display, but

once running offers three modes, each reflected in instrument lighting: Sport (red), Normal (blue) or Econ (green, of course). Econ is blue until you're in motion and proving your frugality; as it turns out, Normal can also change to green when you're well behaved. The meter quickly (and questionably) shows we are getting 100 MPG. All part of the fun. We notice considerably more drivetrain noise in Sport. The car seems to set itself back to Normal when shut off, so we stick with that quite a bit; but when power bordered on gutless, we punched Sport, and it gave us just the little afterburner effect we needed.

Settings for mirrors and instruments are simple. The seats are comfortable and, though manual, easy to adjust. Ditto the tilt/telescope wheel. The CVT shifter couldn't be simpler: PRND and that's it. We're surprised to have a navigation screen but no backup camera. We suspected the split rear window and sloped roof would limit visibility. The inside mirror gives a slim view, sort of a double peephole, but over-the-shoulder 3/4 visibility is not that bad, considering it's more than adequate, all in all. Finding the hatch latch was finicky, and when raised, it was a stretch to bring back down, even at 6'2". The manual, however, warns against not having it fully raised, at risk of a sudden drop.

First impressions are of straightforward performance. We barely notice there are no shift points in the CVT and don't care. The CR-Z is peppy on surface streets and a freeway ramp. Our first freeway merge presents us with an Escalade and an aggressive BMW jockeying for available space. We give the CR-Z a little gas and feel its torque right away; we continue through the CVT's seamless curve and gain our spot easily.

An over-the-shoulder parking lot glance reveals a small car with tons of appeal: a cool little size, cool little shape and a sporty nature overall. Its 16-inch wheels make a world of difference: we wonder why it's taken small car designers this long to figure out what a difference that makes in look and feel.

We had the CR-Z for a mix of weather: when it was hot, and the engine self-killed at a red light, the cool air kept flowing; but at 31° one morning, the heat would quit immediately. The cool air was probably not refrigerated, so we are left with some concern that engine management might cut off vital a/c during stops in an Arizona summer.

The idle-stop feature proves somewhat disturbing to us. The gasoline engine is a little rough coming back to life sometimes, too. We're not sure whether this gets better or worse the longer you have it, but a dead engine at a red light is disconcerting.

When compared to all 2010 models in the US (the most recent data available at press time), the 2011 CR-Z's combined EPA rating of 37 mpg for the CVT model would place it among the top five of all models (along with the Civic Hybrid and Insight). ■

the CVT on our test car offers more fuel economy.

- The 3-mode Normal-Sport-Econ drive system can maximize either performance or economy. Sport mode enhances power delivery from the IMA system. Combined, the gasoline engine and electric motor produce a peak output of 122 hp at 6000 RPM and 128 lb-ft of torque at 1000-1750 RPM on manual transmission models (123 lb-ft at 1000-2000 on CVT-equipped models). Individually, the gasoline engine produces 113 hp (84 kW) @ 6000 RPM and 107 lb-ft of torque at 4800 RPM. The electric motor can add a maximum of 13 hp (10 kW) at 1500 RPM and 58 lb-ft of torque at 1000 RPM. Peak outputs for the gasoline engine and the electric motor occur at different RPM ranges, resulting in a broad power curve and a wider range of performance than a similar-sized conventional gasoline-powered vehicle or an electric-only vehicle.

- Since peak output for the CR-Z's gasoline engine and electric motor occur at significantly different RPM ranges, the combined rating for horsepower and the combined rating for torque represent the operational capability measured at the output shaft when the two systems are functioning together as a single system. Therefore, combined power ratings for Honda hybrids represent peak power delivery in real-world operating conditions and take into account the unique RPM when each peak occurs. Combined power numbers are not simple addition of the peak numbers for the gasoline engine and electric motor. This is why 112 hp (gasoline engine) plus 13 hp (electric motor) equals a combined output of 122 hp (not 125 hp combined). ■

