

Hybrid hero Niro

A new sensibility: all the efficiencies, with little touches of toughness, no compromise of style or utility—and no pretenses or stigma

by Joe Sage



It took years for “Fuel Injected” to lose its status as a niche technology with special badging and pop song tributes by the Beach Boys. “Turbo” has been much the same. It’s been some 20 years now that “Hybrid” has made its mark with special badging and, as often as not, special styling that declared its owner’s sensibilities as loudly as a pair of Earth Shoes. For many, there has long been a stigma in that (though for others, it has probably been kind of the whole point).

With fuel injection, turbocharging and hybrid powertrains ever more ubiquitous in the dueling quest for both power and fuel economy, we think the time has come to mainstream the hybrid, to design a vehicle for its own style and purpose and just optimize the drivetrain in the course of things.

We’re gratified to learn that renowned Kia stylist Michael Torpey—who penned the first sketches for Kia Soul, widely recognized for recalibrating the entire Kia brand—has thought much the same thing. “There’s a lot to love about hybrids, but not their styling,” he confirms. Till now, Torpey was delighted to have a blank slate for the new Niro.

There are dedicated hybrids you recognize immediately, and there are hybrid adaptations of general models, recognizable by badging, maybe a different grille and aerodynamic wheels and tires.

Kia has invented a dedicated hybrid that could be mistaken for, well, a general model—the new Kia Niro, a hybrid that lives and breathes for a full

range of reasons and purposes, not just to be a hybrid. Plenty of people love hybrid engineering but haven’t liked cliché hybrid styling. They just plain want a well-executed new fuel-efficient vehicle. It seems prime time for such a move.

Kia VP of product planning Orth Hedrick confirms that their effort had to be “relevant but different. Folks love the hybrid’s economy, but they don’t like how it looks or drives.”

Torpey’s original study sketch for Soul was of a wild boar with a backpack, compellingly cute and powerful at the same time. He developed subliminal guideposts for Niro, referencing a hiking boot (for utility), a jet (for sleek technology) and a tiger. Targeted buyers are “optimizers,” he says. The vehicle had to have a nice stance, not that of an appliance. His cues come together in a vehicle he calls rugged, techno, capable, sporty/aggressive and of course aerodynamical. “The radical thing,” says Torpey, “is to do something that *doesn’t* look like a hybrid.” Draw attention, but “don’t overcelebrate the technology. We’re beyond that.”

His design projects rugged modern efficiency—strong shoulders, premium glass areas (daylight openings or DLOs) like Sorento or Sportage, and “little touches of toughness” throughout.

Senior designer Brian White took an equally refreshing path for the Niro’s interior. “Apart from

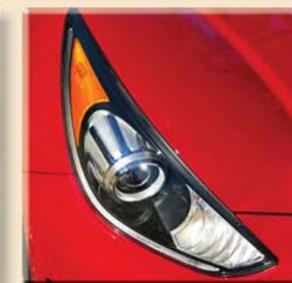


SPECIFICATIONS

ENGINE	.....	alum block/head 1.6L GDI DOHC 16v Atkinson cycle
HP/TORQUE	.....	104 hp / 109 lb-ft
MOTOR	.....	240v AC synch perm magnet
HP/TORQUE	.....	43 hp / 125 lb-ft
BATTERY	.....	Li-ion polymer, 240v, capacity 6.5 Ah, energy 1.56 kWh, power 42 kW
TOTAL SYSTEM HP/TORQUE	.....	139 hp / 195 lb-ft
TRANSMISSION	.....	6-spd dual clutch (DCT)
SUSPENSION	.....	F: independent MacPherson strut, stblzr, gas shocks; R: independent, multi-link, twin tube shocks
STEERING	.....	motor driven power steering
BRAKES	.....	active hydraulic boost, motor polarity reversal regenerative, F: vented, R: solid
WHEELS / TIRES	.....	16 in alloy / P205/60R16
		Touring/Launch: 18 in alloy / P225/45R18
LENGTH / WHEELBASE	.....	171.5 in / 106.3 in
TURNING CIRCLE	.....	(16") 34.8 ft / (18") 35.0 ft
WEIGHT	.....	3106 to 3274 lb
CARGO CAPACITY	.....	19.4 / 54.5 cu.ft
DRIVING RANGE	.....	511-595 miles
MPG	.....	FE, LX, EX: 51/46/49 to 52/49/50
		Touring/Launch: 46/40/43 (city/hwy/comb)
BASE PRICE	.....	FE: \$22,890
		LX: \$23,200
		EX: \$25,700
		Touring Launch Edition: \$28,000
		Touring: \$29,650

Options (as available w/ different trim levels and/or variously included w/ diff trim levels)

BLACK OR WHITE PEARL PAINT	.....	395
ADVANCED TECHNOLOGY PKG	.....	1900
SUNROOF ADVANCED TECH PKG	2300
TOURING LAUNCH EDITION	2300
DESTINATION CHARGE	895



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the interior of a car, there's only one other small space we all use," he coyly points out. "It should be simple. Yet hybrids only get more complicated." His approach is to apply plenty of tech, but to keep it "kind of invisible." Infotainment is on a tidy 7-inch or 8-inch screen, and the shifter is a simple PRNDL, no confusing joystick or pushbuttons.

Niro's global platform is the same as Kia Forte and Soul, but raised 40mm for easy access/egress and good visibility—a challenge for aerodynamics, but Niro's overall shape and smooth undercarriage achieve a Cd of 0.29 (compared with 0.27 for Forte or 0.35 for Soul EV). Its DE platform is the same size as a compact C platform, but provides a mid-size cabin. The hybrid battery is under the rear seat, providing good weight distribution while preserving a flat load floor with easy lift-over height.

Niro's 1.6-liter gasoline direct injection engine is dedicated to this vehicle, featuring narrow bore, long stroke and 40 percent thermal efficiency, the highest in the Kia lineup. Its 104 hp, combined with 43 hp from the electric motor, achieves 139 hp combined output, but it's the 195 lb-ft of torque that packs a punch. We had ample power for cruising the Texas Hill Country around San Antonio—all while achieving city fuel mileage as high as 52 mpg (exceeding the team's original goal of 50).

Making their first dedicated hybrid a crossover was Kia's biggest challenge, as the format is normally sure to increase weight. This was tackled multiple ways: 53 percent of the body is built of advanced high-strength steel, with extensive use of industrial adhesives—which also helps deliver a quiet cabin, as well as anticipated top crash test ratings—while aluminum is used extensively in body panels and suspension. This multi-disciplined approach "is like a belt and suspenders," jokes Hedrick, but delivers light weight, rigidity, low NVH and weight ranging from 3106 to 3274 pounds, incredible for a battery-packing crossover.

For the transmission, Hedrick tells us Kia "greatly resisted use of a CVT," popular with engineers for achieving high fuel economy numbers, but less popular with many drivers. Instead, Niro has Kia's first 6-speed dual clutch gearbox, for sporty performance while still achieving weight reduction.

Hedrick says the final result is "like low-fat ice cream, not miserable no-fat ice cream." Noble goals are well and good, but Kia Niro's pleasurable drive every day is even better.

A consistent request—or lament—from hybrid shoppers has been to "please improve how these things drive." Niro not only has advanced suspension (see sidebar) and quad-mount front subframe bushings, but new technology exclusive (as of now) to Niro—Eco-DAS (Driver's Assistance System), with coasting guide and predictive energy control, a Kia first. This includes what amounts to

3D vision, the ability to, for example, know a hill is coming, with an opportunity to power up it and regenerate on the far side. Other features include autonomous emergency braking with pedestrian detection, lane departure, blind spot warning, rear cross traffic warning and smart cruise control.

Harman Kardon has once again teamed up with Kia on Niro, so you can rock out in your quiet cabin with an 8-channel 315-watt audio system with remarkable original-dynamics-restoring Clari-Fi.

There are four trim levels, starting at \$22,890. The engine is the same in all, though the \$29,650 Limited has lower fuel economy numbers, due in part to its higher level of inclusions, but mostly to its 18-inch alloy wheels and tires, compared to 16-inchers on other trim levels. Lest you bemoan that tradeoff, remember this: a common reaction from a lot of people when they first see a new hybrid is to ask whether they can upgrade the wheels. The normal answer is no, they are essential to aerodynamics and low rolling resistance overall. But in the Niro, you have this option available.

There is also a limited-run Touring Launch Edition, with Aurora Black Pearl or Snow White Pearl paints, 18-inch Hyper Gray alloy wheels, black roof rails, a metallic color grille insert and other goodies. The Launch Edition forgoes a couple of other Touring details, such as HID headlights and sunroof, actually bringing it in lower, at \$28,000.

Kia continues to aim high and to set records.

Sales are up 3.5 percent year-over-year, on track to hit seven million vehicles this year—and they do it without a pickup truck or a big utility vehicle, the volume-generating mainstays of most big brands. They do it by delivering value, defined in some industries as "quality or price? pick one." But Kia has maintained its highly competitive pricing—still a big draw for the brand—while achieving the number one spot on the prestigious JD Power Initial Quality Study last year, the first non-luxury brand to do so in 27 years and the second ever. They're also on the Interbrand Best Global Green Brands Top 50 list (ahead of such haloed brands as Disney, Starbucks and Microsoft).

It's from this enviable basis that Kia is bringing fully 20 all-new or redesigned vehicles to market by 2020. In addition to Kia Niro, they have shown the all-new Stinger and a completely redone Rio. Riding this wave, Kia is investing some \$3.1 billion in its West Point, Georgia plant, where thousands of American workers build Sorento and Optima now, representing 38 percent of Kia US sales.

Kia now offers four green-powertrain vehicles (Optima Hybrid, Optima Plug-in Hybrid, Soul EV and the new Niro, which is already arriving in dealerships). Of the 20 new vehicles coming up, eleven will be EVs, hybrids, plug-in hybrids or even fuel cell vehicles. When you meet the Kia Niro, you will know their learning curve on this is complete. The rest is just implementation. ■

Kia Niro sets Guinness MPG record Lowest Fuel Consumption by a Hybrid

The new Kia Niro hybrid crossover has achieved the Guinness World Record® title for Lowest Fuel Consumption by a Hybrid Vehicle, on a coast-to-coast drive from Los Angeles to New York City.

Wayne Gerdes of Carlsbad, California and codriver Robert Winger of Williamsburg, Virginia drove a Niro EX—not altered in any way for the attempt—3,715.4 miles from Los Angeles City Hall to New York City Hall using only 48.5 gallons (4.1 tanks) of gasoline. Arriving in downtown Manhattan, the 2017 Kia Niro officially received the Guinness World Record title for its record-setting mark of an incredible 76.6 mpg.

"We're extremely pleased with the Niro's record-breaking performance," said Orth Hedrick, VP of product planning for Kia Motors America. "We set out to build a vehicle that offers real-world utility, great looks and fantastic mileage, and setting the Guinness World Record title confirms our achievement." ■

