

Overview: 2018 INFINITI Q70 Hybrid continues to stand out as a true luxury performance driver's hybrid

The 2018 INFINITI Q70 Hybrid stands out as a true luxury performance driver's hybrid, while embracing the essence of all things INFINITI—style, performance, luxury, craftsmanship and technology – with an added infusion of 33 miles per gallon highway fuel efficiency. For 2018, the Q70 Hybrid model adopts the new INFINITI global naming structure, adding LUXE to the Q70 model designations. Other changes for 2018 include revised package content and naming.

The Q70 Hybrid's inspired – and green – performance is based on an innovative yet elegantly simple gasoline/electric drivetrain, which ensures that zero-emissions electric propulsion is used more often, for longer periods and at higher speeds than in typical hybrids. The Q70 Hybrid can drive on electric power alone at speeds up to 62 mph and can travel on electric propulsion for up to 1.2 miles at a time. INFINITI's internal testing has shown that in mixed driving, the vehicle is able to drive in electric only mode for as much as 50 percent of the time.

INFINITI Direct Response Hybrid® System

At the heart of the 2018 Q70 Hybrid is a front-engine, rear-wheel-drive layout based around an innovative INFINITI Direct Response Hybrid® one-motor, two-clutch parallel hybrid system. It acts as either a propulsion unit, alone or in tandem with the V6, or as a power generator. As well as charging the battery in the normal way, the motor recovers energy otherwise lost during deceleration and braking.

The first of the two clutches is a dry clutch installed between the V6 engine and the electric motor. It facilitates full decoupling of the V6 when the car is in electric drive and power regeneration modes. Decoupling the V6 reduces mechanical losses and boosts efficiency of the electric motor. The proven 302-horsepower 3.5-liter DOHC 24-valve V6 was chosen for torque characteristics (258 lb-ft at 5,000 rpm) that perfectly complement the electric motor's output. It combines with the electric motor and high-power battery to produce 360 horsepower (hybrid system net power). Fuel economy is rated at 33 miles per gallon highway, 28 mpg city and 30 mpg combined.

Both the gasoline V6 and electric motor deliver their power to the rear wheels via a 7-speed automatic transmission. The electric motor's high torque from zero rpm provides strong performance from a standing start and contributes to the sporting feel.

The Q70 Hybrid's lithium-ion battery pack is designed to quickly alternate between charging/discharging and, size for size, offers twice as much power as conventional Nickel-Metal Hydride batteries. Along with its fast charge/discharge response and 1.4 kWh capacity, the lithium-ion battery pack is laminated to enhance the cooling performance. Temperature stability is further improved by the use of manganese positive electrodes, helping provide exceptional battery reliability.

The batteries are located behind the rear seat, but the Q70 Hybrid offers plenty of luggage room, with the trunk able to accommodate four golf bags or two large suitcases.

Extra weight, the bane of many hybrids, is kept in check in the Q70 Hybrid by the lightweight batteries and features such as the single electric motor, no torque converter and innovative steering and braking systems. The weight gain over the non-hybrid Q70 has been kept down to less than 260 pounds.

Innovative Steering and Braking Systems

The INFINITI Q70 Hybrid is equipped with innovative steering and braking technologies, which have been designed to deliver both environmental benefits and natural driving feel. The Hybrid Electric Power Steering is an electro-hydraulic system with “on-demand” assistance. It offers the advantages of both types of steering – the natural and smooth feel of hydraulic power steering and the improved fuel efficiency of an electric system. The assist motor cuts in only when the wheel is turned, further boosting efficiency. The system is more compact and lighter than traditional power steering setups, achieved by integrating multiple parts. In addition, the Hybrid Electric Power Steering system helps reduce fuel consumption by approximately two percent.

The Electric Driven Intelligent Brake system is similarly designed primarily to suit sport sedan buyers’ needs, while at the same time contributing to the Q70 Hybrid’s efficient operation.

An electric booster motor is utilized to operate the brake cylinders, saving mass that would otherwise be added by a reserve pressure tank. The primary benefit of the system is that by controlling both regenerative and friction braking--depending on motor operation and battery condition--the INFINITI Q70 Hybrid operates more efficiently, recovering otherwise wasted energy. The simplicity of these elegant mechanical solutions, with their emphasis on compactness, lightweight and fewer parts, is made possible by advanced computerized control.

The Q70 Hybrid utilizes the proven front mid-ship platform, along with the Q70’s independent double-wishbone design in front and multi-link independent system in the rear. The suspension system also features front and rear stabilizer bars and double-piston shock absorbers that have been specially tuned for use with the Q70 Hybrid. Stylish 18-inch aluminum-alloy wheels and 245/50R18 all-season performance tires are standard.

The INFINITI Q70 Hybrid also offers a feature designed to help alert pedestrians to its presence. The Approaching Vehicle Sound for Pedestrians system uses a range of distinctive sounds to help alert pedestrians that the vehicle is approaching. The system automatically works from start-up to approximately 15 miles per hour, cutting back in at approximately 15 miles per hour as the vehicle slows.

Exterior and Interior Design: Pure INFINITI

Like the gasoline engine-equipped Q70, the Q70 Hybrid features an elegant yet sporty exterior and interior design. The dramatic exterior design gives the premium sedan an upscale image, led by LED headlights, double-arch grille with high-quality waved mesh finish and chrome surround, and integrated LED fog lights. The rear features LED combination lights and chrome rear finisher.

The Q70 Hybrid's balanced, rear-wheel-drive proportions and stance, with a long, low hood and high rear deck, provides a roomy cabin, uncompromised by the compact battery design (located behind the rear seat). The wave-style doors are constructed from aluminum for light weight, despite the material's difficult formability. Standard exterior features include a power sliding tinted glass moonroof with one-touch open/close, tilt feature and sliding sunshade, dual exhaust with polished tips, power-folding heated outside mirrors with reverse tilt-down and integrated LED turn signals, rain-sensing variable intermittent front windshield wipers and courtesy lamps built into the outside door handles. An Adaptive Front lighting System with auto-leveling headlights is available as part of the ProACTIVE Package.

The 2018 INFINITI Q70 Hybrid is offered in seven available exterior colors: Hagane Blue, Hermosa Blue, Chestnut Bronze, Liquid Platinum, Graphite Shadow, Black Obsidian and Majestic White (with premium pearl finish).

Inside, the Q70 Hybrid's instrument panel features hybrid-unique instrument meters, meter display and IT screen displays, providing battery and other essential system information. It allows the driver to view hybrid system and available navigation system information simultaneously. Fine Vision electroluminescent gauges, gear-like rings on the instrument cluster meters and INFINITI analog clock complete the elegant design.

The Q70 Hybrid interior also offers standard leatherette seats (leather-appointed seats are offered with the Essential Package), heated 10-way power driver and front passenger's seats including 2-way power lumbar support, and dual occupant memory system for the driver's seat, steering wheel and outside mirrors. An entry/exit assist system for the driver's seat and steering wheel, heated front seats, sequential welcome lighting illuminated entry system and dual-zone automatic temperature also contribute to the Q70 Hybrid's outstanding level of standard luxury appointments.

Available technology equipment includes INFINITI InTouch™ Navigation with 8-inch color touch-screen display, lane guidance and 3-D building graphics, Voice Recognition for navigation functions, including one-shot voice destination entry; INFINITI InTouch™ Services with six months of safety, security and convenience services; Bluetooth® Hands-free Phone System; INFINITI Intelligent Key with Illuminated Push Button Ignition; HomeLink® Universal Transceiver and RearView Monitor.

Other interior highlights include a large center console, power windows with one-touch up/down and auto-reverse feature, power door locks with automatic locking feature, power trunk release, retained accessory power for windows and moonroof, available Bose® 2-channel 10-speaker premium audio system, SiriusXM® Satellite Radio (SiriusXM® subscription required, sold separately), HD Radio, Radio Data System, USB connection port for

iPod® interface and other compatible devices, steering wheel audio controls and speed-sensitive volume control.

The Q70 Hybrid LUXE also features a standard Active Noise Control system, which generates “canceling” sound from four door speakers and subwoofer to reduce unpleasant engine harmonics. Four interior colors are offered with the Q70 Hybrid LUXE depending on which options are selected – Graphite, Stone, Java or Wheat.

The Sensory Package adds such notable features as the Bose® Studio Surround® sound system with digital 5.1-channel decoding and 16 speakers (including two personal speakers mounted in the shoulders of each front seat), power rear sunshade, unique quilted seat pattern with additional seat bolstering, suede-like headliner and a premium stitched meter hood.

The Sensory Package also features semi-aniline leather and specially developed soft touch material for the armrests, door inserts, center console and kneepads. The Package’s genuine White Ash wood trim has been enhanced with real silver powder (Japanese Ash wood trim is offered on Q70 Hybrid models without the Sensory Package).

Like the gasoline-powered Q70, the Q70 Hybrid LUXE is available with a number of innovative technologies as part of the ProACTIVE Package, including Lane Departure Warning and Lane Departure Prevention systems, Blind Spot Warning and Blind Spot Intervention™ systems, Forward Emergency Braking, Backup Collision Intervention and Predictive Forward Collision Warning. Other available safety features include Intelligent Brake Assist with Predictive Forward Collision Warning and Front Pre-Crash Seat Belts.

In addition, every 2018 INFINITI Q70 Hybrid comes equipped with standard INFINITI Advanced Air Bag System with dual-stage supplemental front air

bags with seat belt sensors and occupant classification sensor; standard front seat-mounted side impact supplemental air bags; and standard roof-mounted curtain side impact supplemental air bags for front and rear-seat outboard occupant head protection.

Also included are standard 3-point seat belts with Automatic Locking Retractor (ALR) and Emergency Locking Retractor (ELR) (driver's seat ELR only), front seat belts with pretensioners and load limiters, front seat Active Head Restraints with 4-way manual adjustments, along with Zone Body construction with front and rear crumple zones and LATCH System (Lower Anchors and Tethers for CHildren).

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