



2014 Highlander Hybrid Product Information

HYBRID POWER SYSTEM	
Hybrid System Net Horsepower	280 horsepower (209 kw)
ENGINE	
Type, Materials	V6 aluminum block and heads DOHC 24-valve with VVT-i
Valvetrain	DOHC, 4-valve/cylinder
Displacement	3.5-liter
Bore x Stroke	3.70 x 3.27
Compression Ratio	12.5:1
Horsepower (SAE Net)	231 hp (172 kW) @ 5,800 rpm
Torque	215 lb-ft @ 4,800 rpm
Fuel System	Electronic Fuel Injection (EFI)
Recommended Fuel	87-octane unleaded (or higher)
Emission Certification	SULEV (California) Tier 2 – Bin 3 (all other states)
Evaporative Emission Certification	TBD
EPA Estimated Fuel Economy (city/highway/combined MPG)	28/28/28 *2014 Projected EPA MPG Estimates. Actual mileage will vary.
ELECTRIC MOTOR	
Motor Generator 1 (MG1)	
-Function	Generator, engine starter, transmission ratio control
- Type	Permanent magnet motor
- Max. Voltage	AC 650V
Motor Generator 2 (MG2)	
-Function	Drives front wheels, regeneration during braking
- Type	Permanent magnet motor
- Max. Voltage	AC 650V
- Max. Output	167 hp (123 kw)
- Max. Torque	247 lb.-ft.
Motor Generator Rear (MGR)	
-Function	Drives rear wheels, regeneration during braking
- Type	Permanent magnet motor
- Max. Voltage	AC 650V
- Max. Output	68 hp (50 kw)
- Max. Torque	103 lb.-ft.
HYBRID BATTERY PACK	
Type	Sealed nickel metal hydride (Ni-MH)



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HYBRID POWER SYSTEM – CONT.

Nominal Voltage	288V
Maximum Power Output	45 kW

DRIVETRAIN

Layout	AWD-i models equipped with front and rear electric drive motors
Transmission Type	Electronically controlled continuously variable transmission with planetary gear unit for gear reduction and power splitting; electronic all-wheel drive control system
Designation (Front/)	P313
Differential Ratio (Front)	3.542

CHASSIS AND BODY

Body/Frame	Unitized steel
Suspension - Front	MacPherson strut, coil springs
- Rear	Double Wishbone
Steering - Type	Electronic Power Steering (EPS): Rack and pinion with electronic power assist
- Overall Ratio	16:1
- Turns, Lock to Lock	2.74 turns
- Turning Circle Diameter (curb to curb)	38.7 ft.
Brakes - Type	Electronically Controlled Brake system (ECB) with regenerative control and incorporating Anti-Lock Brakes (ABS), Electronic Brake force Distribution (EBD), Brake Assist and Vehicle Dynamics Integrated Management system (VDIM)
- Front Type/Diameter	Ventilated Disc/ 12.9 in.
- Rear Type/Diameter	Solid Disc / 12.2 in.
Anti-lock Brake System (ABS)	4 channel, 4 sensor
Wheel Size	7.5 x 19 inches
Wheel Type and Material	Chromtec [®] Alloy
Tire Size	P245/55 R19
Tire Type	All-season steel-belted radial
Spare Tire/Wheel	Temporary 18-inch tire



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EXTERIOR DIMENSIONS	
Wheelbase	109.8 in.
Overall Length	191.1 in.
Overall Width	75.8 in.
Overall Height	70.1 in.
Tread Width (Front/Rear)	64.4/64.2 in.
Ground Clearance	8.0 in.
Coefficient of Drag	0.34
Angle of Approach/Departure	18/24 degrees

INTERIOR DIMENSIONS		
Seating Capacity	7	
Headroom	with moonroof	with panoramic moonroof
- First Row	39.5 in	39.8 in.
- Second Row	39.6 in.	37.8 in.
- Third Row	36.9 in.	35.9 in.
Legroom		
- First Row	44.2 in.	
- Second Row	38.4 in.	
- Third Row	26.7 in.	
Shoulder Room		
- First Row	59.3 in.	
- Second Row	59.0 in.	
- Third Row	55.0 in.	
Hip Room		
- First Row	57.2 in.	
- Second Row	57.1 in.	
- Third Row	45.6 in.	
EPA Interior Volume	154.9 cu. ft. w/moonroof 152.8 cu. ft. w/panoramic moonroof	
EPA Passenger Volume	141.10 cu. ft. w/Moonroof) 139.2 cu. Ft. w/panoramic moonroof	
EPA Cargo Volume	With standard moonroof	With panoramic moonroof
Behind 1 st row seat	78.6 cu. ft.	77.6 cu. ft.
Behind 2 nd row seat	42.3 cu. ft.	42.0 cu. ft.
Behind 3 rd row seat	13.8 cu. ft.	13.6 cu. ft.
EPA Class	Mid-size SUV	

WEIGHTS AND CAPACITIES

Curb Weight	4,861 lbs. (Limited & Platinum Package)
GVWR	6,270 lbs. (Limited & Platinum Package)
Payload	1,305 lbs. (Limited & Platinum Package)
Maximum Towing Weight	3,500 lbs.
Maximum Tongue Weight	350 lbs.
Fuel Capacity	17.2 gal.

STANDARD EXTERIOR FEATURES

Hybrid Limited

- Projector-beam halogen smoked-chrome accent headlights with auto on/off feature
- LED Daytime Running Lights (DRL) with on/off feature
- Integrated fog lights
- Hybrid Synergy Drive[®] blue accent badges
- Color-keyed heated power outside mirrors with memory, turn signal and blind spot warning indicators, puddle lamps and folding features
- Color-keyed outside door handles
- Power tilt/slide moonroof with sunshade and jam protection
- 19-inch five-spoke Chromtec[®] alloy wheels with P245/55/R19 105S tires
- Black front and rear mudguards
- Washer-linked variable intermittent windshield wipers and intermittent rear wiper
- Windshield wiper de-icer
- UV reduction glass on all windows
- High Solar Energy-Absorbing (HSEA) glass on front and rear side windows
- Privacy glass on rear side, quarter, and liftgate windows
- Flip-up rear hatch window
- Adjustable power liftgate with jam protection
- Color-keyed rear spoiler with LED center high-mount stop lamp
- Chromtec[®] roof rails
- Smart Key System on front doors and liftgate with Push Button Start and remote keyless entry system with illuminated entry
- Rear liftgate window defogger

STANDARD INTERIOR FEATURES

- Three-zone automatic climate control with air filter, separate second-row control panel, individual temperature settings for driver, front passenger and rear-seat passengers and second- and third-row vents
- Integrated Backup camera with dynamic gridlines
- 4.2-inch color LCD Multi-Information Display in meter cluster with odometer, current/average fuel economy, cruising range, average speed, AWD torque distribution, cruise control guide, navigation with turn-by-turn directions, audio status, hands-free incoming call notices, telephone information, Eco driving indicator, and energy monitor
- Perforated leather-trimmed front and second-row seats, heated and ventilated front row seats, eight-way power-adjustable memory driver's seat including power thigh support and lumbar support, four-way power adjustable front passenger seat, and second-row captain's chairs with side table
- SofTex[®]-trimmed 60/40 split fold-flat third-row seat with sliding headrests and recline function
- Cruise control
- Leather-trimmed tilt/telescopic three-spoke steering wheel with metallic accents and audio, Multi-Information Display, Bluetooth[®] hands-free phone, voice command, cruise controls, and multi-media information controls
- Optitron instrumentation with blue-illuminated speedometer and tachometer/Hybrid power system meter and 4.2-inch color LCD Multi-information Display screen
- Soft-touch upper door trim with wood-grain accent, leatherette-trimmed door armrest area with satin chrome interior door handles
- Blue LED ambient lighting on interior of front and rear doors and in-dash shelf
- Power windows with auto up/down and jam protection in all positions
- Power door locks with shift-linked automatic lock/unlock feature
- Auto-dimming Electric Chromic (EC) rearview mirror
- Overhead console with maplights, sunglasses storage, conversation mirror, and Homelink[®] universal transceiver
- 24.5-liter soft-touch roll-top center console with removable utility tray
- Soft-touch in-dash shelf with easy cable management
- Eight cupholders and four bottle holders
- Dual sun visors with sliding function and illuminated vanity mirrors
- Three 12V auxiliary power outlets (two front and one second-row area)
- One 110V auxiliary AC power outlet (second row seat)
- Four cargo area tie-down cargo hooks
- Cargo area lights
- Front and second-row seat reading lights
- Second-row retractable window sunshades
- Digital clock
- Driver Easy Speak – driver voice amplification

STANDARD AUDIO SYSTEM

- Entune Premium JBL Audio with Navigation and App Suite – includes the Entune Multimedia Bundle (8-inch high resolution touch-screen with split screen display, AM/FM CD player, MP3/WMA playback capability, 12 JBL[®] Green Edge[™] speakers, auxiliary audio jack, USB 2.0 port with iPod[®] connectivity and control, advanced voice recognition, hands-free phone capability, phone book access and music streaming via Bluetooth[®] wireless technology), Entune App Suite, Intelligent Touch controls, SiriusXM Radio with 90-day complimentary trial, HD radio, HD predictive traffic and Doppler weather overlay, AM/FM cache radio, and Gracenotes album cover art

STANDARD SAFETY AND SECURITY

- STAR Safety System™ - includes Electronically Controlled Braking (ECB), Vehicle Dynamics Integrated Management (VDIM), Enhanced Vehicle Stability Control (Enhanced-VSC), Traction Control (TRAC), Anti-lock Brake System (ABS), Electronic Brake-force Distribution (EBD), Brake Assist (BA) and Smart Stop Technology (SST)
- Driver and front passenger Advanced Airbag System
- Driver and front passenger seat-mounted side airbags, driver knee airbag, front passenger seat cushion airbags, and all-row Roll-Sensing Side Curtain Airbags (RSCA)
- Driver and front passenger Whiplash-Injury-Lessening (WIL) seats
- Driver and front passenger seatbelt warning sensor
- Three-point seatbelts for all seating positions; driver-side Emergency Locking Retractors (ELR) and Automatic/Emergency Locking Retractor (ALR/ELR) on all passenger belts
- Adjustable front seatbelt shoulder anchors and driver and front passenger seatbelt pretensioners with force limiters
- LATCH (Lower Anchors and Tethers for Children) includes lower anchors and tethers on outboard second-row seats and tether anchor on middle of third-row seat
- Child-protector rear door locks
- Collapsible steering column
- Front and rear energy-absorbing crumple zones and side-impact door beams
- Energy-dissipating interior trim
- Tire Pressure Monitor System (TPMS)
- Hill Start Assist Control (HAC)
- Downhill Assist Control (DAC)
- Anti-theft system with alarm and engine immobilizer
- Blind Spot Monitor (BSM) with Rear Cross Traffic Alert (RCTA)
- Rear Parking Assist Sonar

STANDARD MECHANICAL FEATURES

- Hybrid engine: 3.5-liter V6 Double Overhead Cam (DOHC), 24-valve engine with Variable Valve Timing with Intelligence (VVT-i); 280 hybrid system net hp (209kW)
- Electronically Controlled Continuously Variable Transmission (ECVT) with ECO mode and EV mode
- Electronic On-Demand AWD system with intelligence (4WD-i)
- Independent MacPherson strut front suspension, double wishbone rear suspension, and front and rear stabilizer bars
- Electric Power Steering (EPS); power-assisted rack-and-pinion
- Power-assisted ventilated 12.9-inch front disc brakes; solid 12.2-inch rear disc brakes with Electronically Controlled Braking (ECB) System; integrated regenerative braking

FACTORY OPTIONS

- Driver Technology Package: Includes Safety Connect (includes Emergency Assistance, Stolen Vehicle Locator, Roadside Assistance and Automatic Collision Notification. Available by subscription), Pre-Collision System with Dynamic Radar Cruise Control, and Lane Departure Alert with Automatic High Beam Headlights
- Platinum Package: Includes Driver Technology Package, Panoramic Moonroof, heated steering wheel, and heated perforated leather second-row captain's chairs
- Rear-seat Blu-Ray[®] DVD entertainment system with nine-inch display, RCA jacks, remote, and two wireless headphones

AVAILABLE EXTERIOR COLORS

- Alumina Jade Metallic
- Moulin Rouge Mica
- Crème Brulee Mica
- Nautical Blue Metallic
- Silver Sky Metallic
- Attitude Black Metallic
- Predawn Gray Mica
- Blizzard Pearl
- Shoreline Blue Pearl

BASIC LIMITED WARRANTY COVERAGE

- 3-year/36,000-mile Comprehensive
- 5-year/60,000-mile Powertrain
- 5-year/unlimited-mileage Corrosion Perforation
- 8-year/100,000-mile Hybrid-related Component Coverage