



Confidence in Motion

SUBARU TO DEBUT HYBRID SUVs

Wednesday December 18, 2019

Subaru has confirmed its March 2020 launch into the hybrid arena, also revealing it has already achieved significant sales success with its new technology Forester and XV Hybrid e-Boxer All-Wheel Drive (AWD) variants.

Subaru has already clocked up 500 sales with fleet customers, with ongoing high interest. The innovative Sports Utility Vehicles (SUV) feature identical petrol-electric engines that add a new dimension and choice to Subaru's range.

XV Hybrid offers over 14% improvement in fuel efficiency over equivalent petrol variants in the urban cycle and over 7% improvement in the combined cycle, while Forester offers improvement of over 9% (compared to 2.5-litre petrol variants) in the combined cycle and over 19% in the urban cycle (when tested in accordance with ADR81/02).

One XV Hybrid AWD variant will be available and two Foresters: Hybrid L AWD and Hybrid S AWD.

Subaru Australia Managing Director, Colin Christie, said: "While we initially see both our e-Boxer mild hybrid system models as niche options in our range, we've already got significant interest from fleet customers and also Subaru fans who have long indicated pent-up demand for new technology engine options.

"Of course all this new technology is underpinned by our customer must-haves: fun, safety, reliability and great engineering.

"And we're confident that the wonderful retained value and whole-of-life cost benefits enjoyed by other new Subarus will also carry over to our hybrids."

Both hybrid models feature e-Boxer power - a 2.0 litre horizontally opposed Boxer engine linked via Motor Assist to a high voltage lithium ion battery, offering fuel economy benefits, particularly in congested city driving.

The four cylinder 2.0 litre engine produces 110 Kilowatts of power at 6,000 rpm and 196 Newtonmetres of torque at 4,000 rpm and features the efficient intake/exhaust Active Valve Control System (AVCS).

The electric motor produces 12.3 kW of power and 66 Nm of torque, and is self-charging, via kinetic energy captured by regenerative braking and coasting.

The direct injection petrol engine, Motor Assist and battery combination produce smooth, linear and responsive acceleration.

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The e-Boxer logic adjusts the power split between petrol and electric to match driving conditions. It automatically changes between three modes:

- Motor Assist EV driving
- Motor Assist electric (EV) + petrol engine driving, and;
- Petrol engine driving

From standstill or at low speed, the vehicle is powered by the electric motor only, for quiet, zero-emission driving.

Depending upon vehicle and battery condition, it can operate in fully electric mode up to 40 km/h. When driving in fully electric mode (both forward and reverse), the Pedestrian Alert system emits a sound, to alert people in close proximity. The system operates when the vehicle speed is 24 km/h or less.

At medium speeds, combined power from both the electric and petrol engine produce responsive, linear and more fuel efficient acceleration.

At high speed, the Boxer petrol engine exclusively powers the vehicle, while regenerative braking or coasting with foot off the accelerator, recharges the lithium ion battery.

Depending upon driving style, the e-Boxer hybrid system can offer improved fuel consumption particularly in urban, stop-go traffic.

It also eliminates the unnatural braking feel common to electric-only vehicles.

The e-Boxer hybrid system uses kinetic energy by converting it into electricity, delivered to the battery located in the sub cargo floor, together with the drive motor inverter and DC/DC converter. All are installed in a high-strength frame, with sound dampening and moisture-repelling qualities.

The electric motor assist and battery pack are aligned longitudinally, with the motor located near the vehicle's centre of gravity, while the battery and other components are above the rear axle, also contributing to low centre of gravity and optimising front/rear weight distribution.

An unobtrusive cooling system draws air from the cabin to help maintain the battery at operating temperature and to help ensure better longevity.

In Forester Hybrid S, driver selectable SI-Drive – Subaru's powertrain performance management system – allows the driver to tailor throttle characteristics by choosing between "Intelligent" and "Sport" modes, for flexible, convenient and enjoyable driving.

Subaru's smooth and efficient Lineartronic Continuously Variable Transmission (CVT) is mated to the e-Boxer system for ultra-smooth power delivery and torque.

Motor Assist enhances X-Mode off-road capability, through better low speed torque control.





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X-Mode makes it easier for drivers to safely navigate bad roads, slippery surfaces and steep hills, with just one switch. X-Mode's status is indicated visually on the Multi-Function Display (MFD) screen.

When X-Mode is engaged, at 40 km/h or less, status information is displayed on the MFD and instrument cluster, including Hill Descent Control and Vehicle Dynamics Control.

X-Mode centralizes control of the engine, All-Wheel Drive, brakes and other critical components to help ensure safe driving even on poor surfaces.

Hill Descent Control helps maintain a constant speed when the vehicle is travelling down hill. As with the entire Subaru new vehicle range, the hybrid models are anticipated to gain a five-star rating for occupant safety.

All Subaru hybrids purchased by private buyers for private use offer a five year unlimited kilometre warranty, plus an eight-year 160,000 km lithium ion battery warranty.

SPECIFICATION

XV Hybrid AWD adds to XV 2.0i (petrol variant) specification:

- EyeSight driver assist, featuring:
 - Pre-collision braking
 - Adaptive cruise control
 - Pre-collision throttle management
 - Lead vehicle start alert
 - Lane departure warning
 - Lane keep assist
- Vision assist:
 - Blind spot monitoring
 - Lane change assist
 - High beam assist
 - Rear cross traffic alert
 - Reverse automatic braking
- Pedestrian alert system
- Energy flow display
- Leather finish steering wheel and gear shift
- Premium cloth trim
- Charcoal seat trim colour
- Auto dimming rear view mirror
- Front LED fog lights
- Dusk-sensing auto-off headlights
- Power folding door mirrors with indicators
- Black slim roof rails
- Rain sensing front windscreen wipers



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Compared to the Forester 2.5i-L (petrol variant), Forester Hybrid L AWD adds:

- Energy flow display
- Pedestrian alert system
- Premium black cloth trim
- Blue illumination instrument cluster
- Chrome coloured exterior door handles
- Front LED fog lights
- Front, side and rear silver coloured cladding
- Matte silver finish door mirrors

Forester Hybrid S AWD adds (to Forester 2.5i-S petrol variant specification):

- Energy flow display
- Pedestrian alert system
- Blue illumination instrument cluster
- Leather look instrument panel finish
- Chrome coloured exterior door handles
- Black rear garnish



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