

SERVICE FOCUS

Lexus Hybrid Drive

**Gasoline engine**

- Provides power to the wheels under heavy loads, above certain speeds and to charge the HV Battery.

Regenerative braking system

- Motor is used as a generator to convert braking energy into electricity.
- Effective in stop-and-go city traffic.

- Turns on and off under certain conditions like stop-and-go traffic, to improve fuel economy and reduce emissions.

Auxiliary Battery

- Powers the 12V system in the vehicle, including lights, windows and electrical accessories.

Power control unit (Inverter)

- Converts AC voltage to DC voltage.
- Provides power to the electric air conditioning compressor.
- Unlike conventional vehicles, a hybrid can run the air conditioning without running the engine.

High voltage battery

- One of two power sources to drive the vehicle, the other power source is the engine.
- Can power the vehicle on its own, or work in conjunction with the gasoline engine when loads require.
- When powering the vehicle on its own, tailpipe emissions are reduced to zero.

Electric Motor

- Charges the high voltage battery.
- Propels the vehicle.

Hybrid transaxle

- Plays a dual role.
- Provides both electrical and engine power to the wheels.
- Acts as a generator to charge the high voltage battery.