

# **DACIA JOGGER HYBRID 140**



# CONTENTS

**INTRODUCTION ..... 3**

    Tried and tested technology within the Group ..... 3

    Great responsiveness thanks to the innovative gearbox ..... 4

**A DUAL ENGINE COMBINING  
RESPONSIVENESS, DRIVING PLEASURE, AND  
EFFICIENCY ..... 5**

    Responsiveness and energy optimization ..... 5

    Energy regeneration and regenerative braking ..... 7

**DACIA’S FIRST HYBRID ENGINE ..... 8**

    Where efficiency and driving pleasure come together ..... 8

    Behind the wheel of the Jogger HYBRID 140 ..... 9



# INTRODUCTION

With Jogger, Dacia boasts one of the most affordable and versatile 7-seater family cars. It combines the length of an estate, the spaciousness of a minivan, and the features of an SUV.

Robust and athletic, it offers an excellent level of comfort for all passengers, even for adults seated in the 3rd row.

The all-new hybrid model boasts all the advantages of the original Jogger without compromising on either storage room and or spaciousness. Proof that Dacia Jogger is a versatile vehicle, it was designed from the outset to accommodate the traction battery used with hybrid engines. Mounted under the floor panel in of the spare wheel, much the same as the LPG tank on models featuring the ECO-G 100 engine.

## Tried and tested technology within the Group

Having developed true multi-modal hybrid motors, as opposed to merely fitting out traditional combustion motors with electric capabilities, the Jogger HYBRID 140 guarantees:

- Electric start 100% of the time
- A pleasure to drive in all conditions thanks to enhanced electric driving capacity, even when accelerating.
- Excellent fuel efficiency, especially thanks to the automatic transmission feature when coupled with the clutchless dog box
- Efficient regenerative braking and high battery recharging capacity. The culmination of years of experience for Renault Group in Formula 1 and electric vehicles.

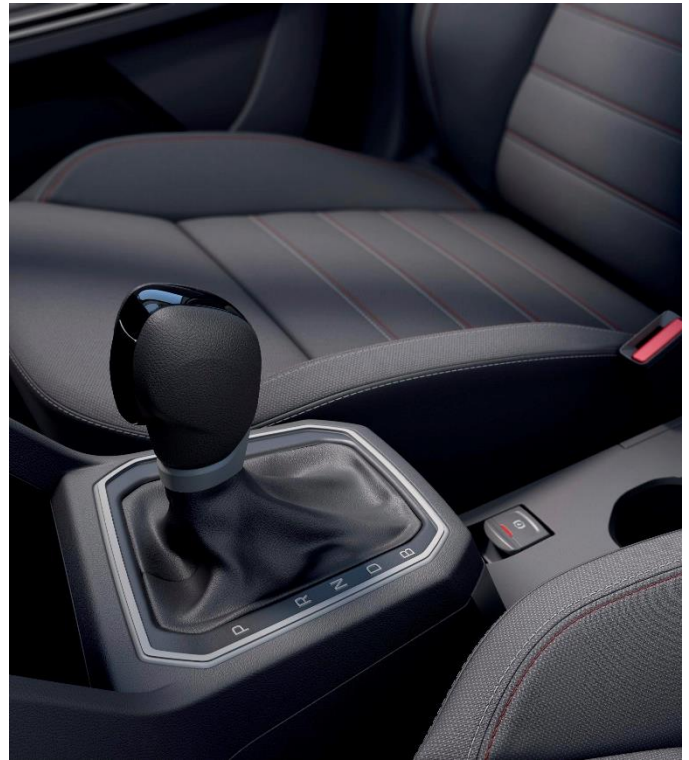
These features mean the Jogger HYBRID 140 can run in all-electric mode up to 80% of the time on city roads, for 40% fuel savings compared to an equivalent petrol engine in urban cycle with similar driving styles.

Kinetic energy can be recovered during slowing and braking, then transformed into electrical energy to recharge the battery. The battery can also be recharged by using the ICE motor using energy management rules designed in a way to run at optimum output (for example, when Jogger is on the motorway) to get the most power from the fuel used. This means the battery charges whenever energy output exceeds the required power.

Excess energy can then be used to alleviate pressure on the combustion engine during hard acceleration, or to ensure a full-electric ride when the preferred route goes through urban zones.

Great responsiveness thanks to the innovative gearbox

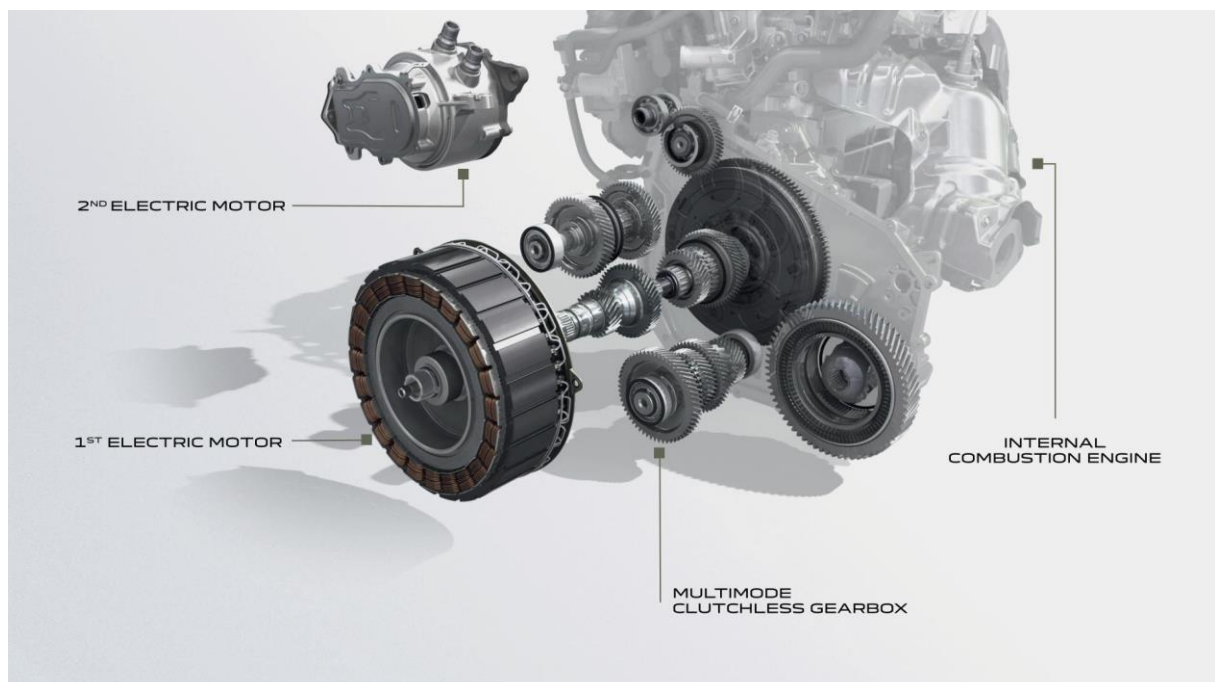
Combined with the combustion-electric pairing, the clutch-less gearbox guarantees a full-electric start. It **significantly reduces gaps in acceleration when changing gears**, thereby enhancing driving comfort and performance while accelerating.





# A DUAL ENGINE COMBINING RESPONSIVENESS, DRIVING PLEASURE, AND EFFICIENCY

The hybrid technology used by Jogger has been widely tried and tested within Renault Group. It harnesses the **simple, intelligent architecture and unique testing processes**. It is therefore particularly reliable and durable. **The 1.6L engine is paired with two electric motors** - a 36kw (49HP) motor and an HSG (High-Voltage Starter Generator) - **and an innovative multi-mode clutch-less dog box**. The innovative combination of electric motors with the dog box helps optimize gear changes making them smoother in the process.



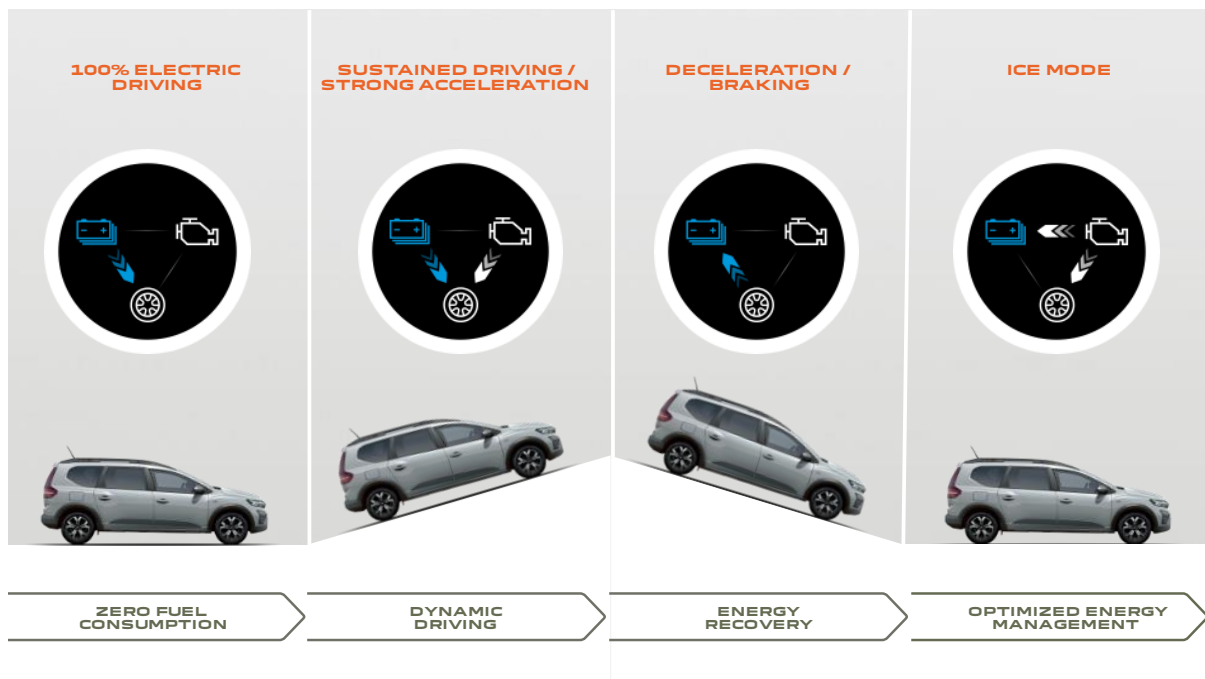
## Responsiveness and energy optimization

In combining two electric motors, an innovative multi-mode gearbox, and a combustion motor, the variety of operating modes is extensive.

- **Full-electric starting:** the innovative gearbox's lack of a clutch means the car can start accelerating in full-electric mode without having to utilise the combustion motor. As such, hybrid vehicles use the primary electric motor to start every single time. Quite a nice addition with immediately available torque for a particularly responsive start.

- **Automatic adaptation to driving situations:** the technology is based on a **series-parallel architecture**, combining the best aspects of each form of hybrid motor (series, parallel, and series-parallel). Engines work either alone or together by directing their power output toward the wheels or the battery. The power train manages the engine output according to whatever the car may need in terms of acceleration and power, and also in terms of battery regeneration. This happens according to 15 different drive modes that reflect the various combinations of motors and gears being used.

When driving, **changes between modes are almost imperceptible** and require no input from the driver. The system automatically chooses the best mode for the situation in order to reduce emissions, optimise fuel economy, and guarantee a responsive and pleasant ride.

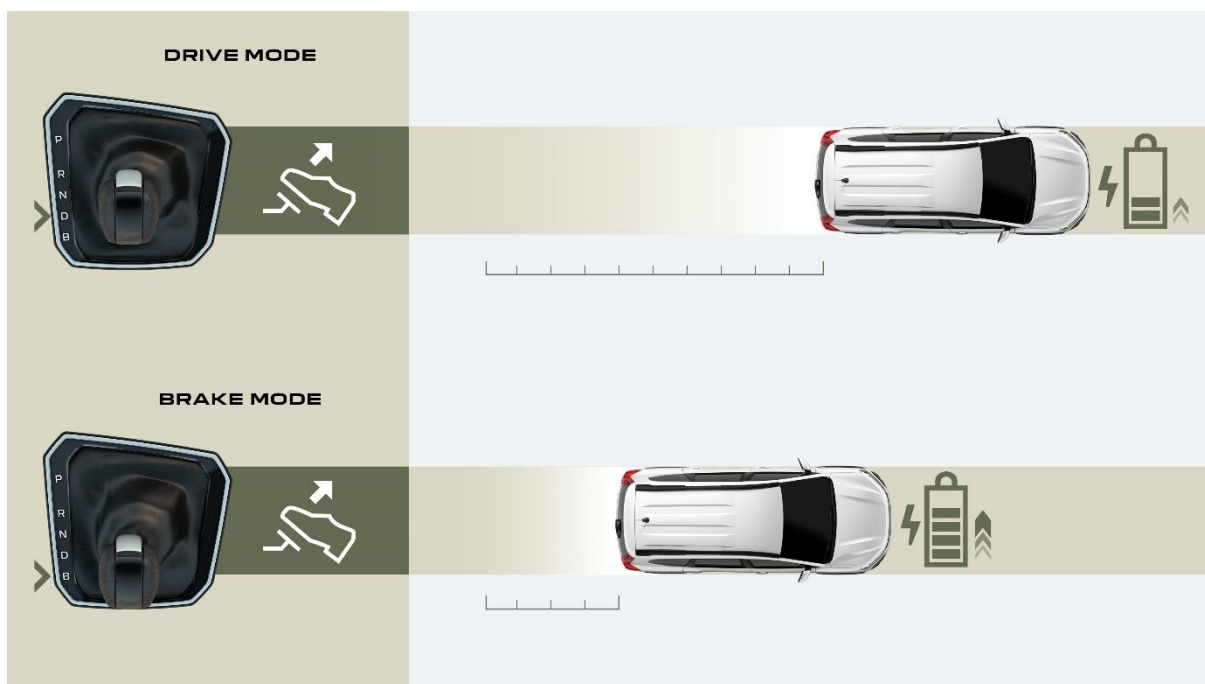


## Energy regeneration and regenerative braking

The technology also help optimise energy management while slowing and braking.

- **Battery regeneration while slowing:** when the accelerator pedal is lifted and the gear stick is in 'Drive', the main electric motor runs as a generator. It recovers kinetic energy produced by the car as it slows down and converts it into electricity that is fed back to the battery.
- **'B' Mode:** in order to recuperate more energy, the gear stick can be put into the brake position (B). It increases regeneration capacity; within the battery's maximum charge, and a slow-down speed of approximately 7 km/h.
- **Regenerative braking:** when the brake pedal is depressed, it initiates an electric assisted braking system. Should it be required, further 'mechanical' braking is applied via the brake pads. Here again, the electric motor provides additional braking power and can recover excess energy that is fed back into the battery - without exceeding storage capacity.

The 'B' mode is particularly suitable for a vehicle like the Jogger that has been designed for family and leisure use. When the vehicle is carrying or towing extra weight, regenerative braking provides an optimised engine brake that is much in such conditions.



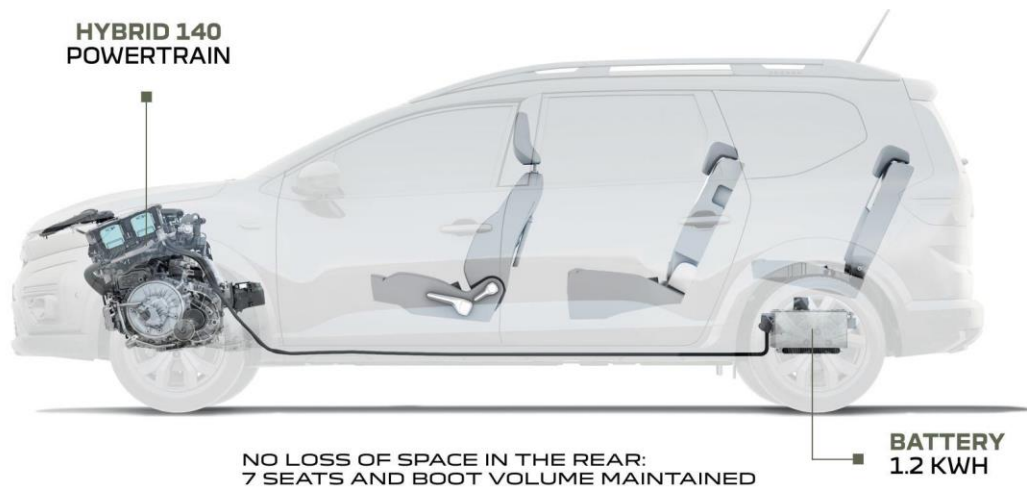
# DACIA'S FIRST HYBRID ENGINE

Where efficiency and driving pleasure come together

The hybrid motor on the Jogger HYBRID 140 offers maximum efficiency and unparalleled dynamic responsiveness on the road, and can accelerate from 80 to 120km/h in just 8.7 seconds for the 5-seater model (8.8 seconds on the 7-seater).

Regenerative braking, combined with the high self-charging capacity of the 1.2 kWh (230 V) batteries, and the efficiency of the system, helps optimise energy use. This means it can spend **up to 80% of the time on city roads in full-electric mode, which equates to 40% fuel savings compared to a petrol engine in urban cycle**, all without changing the way you drive. In all-electric mode, the Jogger HYBRID 140 can reach 65-70km/h and an occasional top-speed of 160 km/h (depending on battery charge and local legislation).

## DACIA JOGGER HYBRID





In combined cycle, the Jogger HYBRID 140 runs at 4.8L/100 km and emits 108g/km CO<sub>2</sub> (WLTP France values, 4.9L/100km and 111g/km CO<sub>2</sub> on 7-seater). Values may vary depending on the country line-ups and number of seats). The luggage compartment volume is not impacted by the battery that has been cleverly housed in place of the spare wheel: 708 dm<sup>3</sup> in 5-seater, and 160 to 595 dm<sup>3</sup> in 7-seater. And a maximum boot volume still as high as 1,819 dm<sup>3</sup>! As such, Jogger remains faithful to its vocation as a versatile, spacious family car.

### Behind the wheel of the Jogger HYBRID 140

Jogger HYBRID 140 offers a unique driving experience, all due to the system's inherent intelligence and optimised energy management rules. The preferred drive train combination takes into account what the driver wants (power demand), and the optimal output being constantly calculated. This benefits both performance and fuel use.

Drivers need not worry about a thing, Jogger does it all imperceptibly. Driving becomes a considerably enjoyable and relaxing experience, without comprising on the joy of driving thanks to the combination of an efficient hybrid engine (140hp, 205Nm in EV mode) with an agile, responsive chassis.

