

VEHICLES DISPLAYED AT JAPAN ELECTRIC VEHICLE ASSOCIATION STAND

Toyota has worked on electric car development since 1969. And in 1991, we developed the Townace Van EV, and to gather more data, we started monitor sales in 1992. In 1993, we developed a Crown Majesta EV, which was leased to the Tokyo metropolitan government. We have made many efforts in this field, such as placing RAV4 EV cars in the hands of monitor drivers, and we believe we are leading the world in electric vehicle development. Many hurdles — such as improved battery technology — remain to be cleared, but Toyota is striving to find workable solutions. At the 31st Tokyo Motor Show, two Toyota electric vehicles are on display at the Japan Electric Vehicle Association Pavilion — the RAV4 EV and the Coaster hybrid EV.



RAV4 EV Main Specifications

| | | |
|-------------------------|----------------|--|
| Based on | | RAV4L |
| Length x Width x Height | | 3,695mm x 1,695mm x 1,610mm |
| Curb weight | | 1,350kg |
| Seating capacity | | 4 |
| Top speed | | 125km/h |
| Range (urban drive) | | 180km |
| Transaxle | | Single speed (front wheel drive) |
| Motor | Type | Permanent magnet motor |
| | Max. output | 45kw |
| | Max. torque | 165Nm/2,600rpm |
| Batteries | Type | Valve-regulated nickel-metal hydride |
| | Voltage/number | 12V/24 |
| Tires | | 195/80R16 |
| Equipment | | Regenerative braking system Electric hydraulic power steering |

RAV4 EV

This electric vehicle was based on a RAV4. By using a high-efficiency motor with permanent magnets, we were able to make the drive train more compact, even though it is more powerful, with better acceleration. The valve-regulated batteries are placed beneath the floor, providing ample interior space and assuring high stability. An on-board charger allows the use of ordinary household current to charge the batteries. In addition, the regenerative braking system feeds energy back to the batteries when engaged, extending the driving range on a single charging. This car won overall honors at the first Scandinavian Electric Car Rally in 1995.

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Coaster Hybrid EV Main Specifications

| | |
|--------------------------|-----------------------------|
| Based on | Coaster bus |
| Length x Width x Height | 6,990mm x 2,070mm x 2,580mm |
| Curb weight | 4,150kg |
| Seating capacity | 14+1 (Wheelchair) |
| Generator engine | 1,331cc (4E-FE) |
| Engine speed ranges used | 1,000-3,000rpm |
| Power generated | 20kW |
| Top speed | 80km/h |
| Motor | Type AC induction motor |
| | Max. output 70kW |
| | Max. torque 405Nm/1,650rpm |
| Batteries | Type Sealed lead-acid |
| | Voltage/number 12v/24 |
| Equipment | Regenerative brake system |
| | Wheelchair lifter |

Coaster hybrid EV

This is a new hybrid electric bus with both gasoline engine and electric motor. This system uses the gasoline engine to generate electricity, which is stored in the batteries, and the electric motor to drive the bus. Compared to a diesel Coaster bus, the emissions are cleaner and the bus is quieter. Also, unlike pure electrical vehicles, the hybrid bus's range is not limited to the energy stored in its batteries during a single charge. The special vehicle on display is equipped with a wheelchair lifter to enable the physically challenged to ride the bus.