

Introducing the FCHV-5

Toyota continues to lead the world in developing fuel cell hybrid vehicles, pursuing the target of zero emissions for the benefit of the global environment, while satisfying the needs of our mobile society. The new FCHV-5 features an onboard CHF (clean hydrocarbon fuel) reformer, allowing for the use of existing gasoline supply infrastructure where hydrogen is not available. The FCHV-5 is a very practical new ecocar.

While the FCHV-5 shares its fuel cell stack, motor, and several other main components with the FCHV-4, its CHF reformer with newly developed catalyst, heat exchanger, and other components offers the advantage of a highly efficient means of onboard hydrogen production, pursuing excellent acceleration and fuel economy.

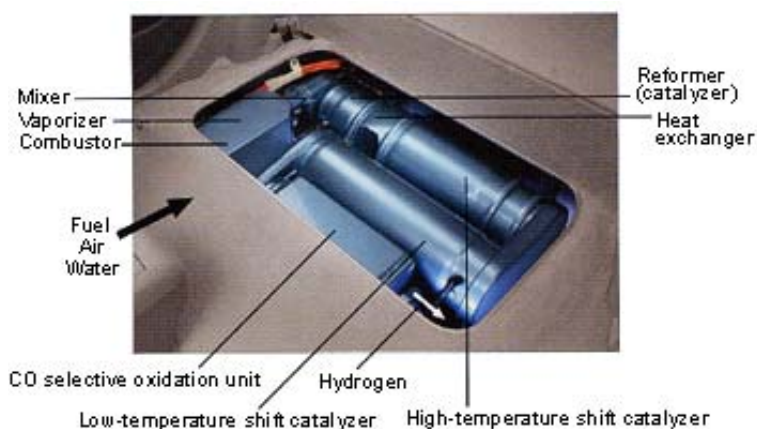
Toyota continues to strive to optimize the layout of the FCHV-5's fuel cell related components and has already been able to locate all such components beneath the floor of the vehicle, so as not to compromise interior cabin space. The effort to make the system more compact, as well as the effort to cut down on the system's start-up time is being continued.



FCHV-5

Like the FCHV-4 body, the FCHV-5 body is based on the Kluger V (Highlander in North America).

CHF Reformer



Black arrow indicates the flow of fuel, air, and water.

Fuel, air, and water pass through the combustor vaporizer, catalyzers, etc. and exit in the form of hydrogen (white arrow).

Specifications

	FCHV-4	FCHV-5	FCHV-BUS1
Vehicle			
Base platform	Kluger V (Highlander in North America)		Hino low-floor city bus HU2PMEE
Dimensions (in mm)	4,735(L) x 1,815(W) x 1,685(H)		10,515(L) x 2,490(W) x 3,360(H)
Seating capacity	5 persons		63 persons

Fuel Cell Stack

Type Polymer electrolyte fuel cell

Motor

Type Permanent magnet

Maximum output 80 kW 80 kW x 2

Maximum torque 260 Nm 260 Nm x 2

Fuel

Type	Hydrogen stored in high pressure tank	Hydrogen extracted by reformer from CHF	Hydrogen stored in high pressure tank
------	---------------------------------------	---	---------------------------------------

Secondary Battery

Type Nickel-metal hydride battery