



FUEL CELL TODAY

Opening doors to fuel cell commercialisation

Daihatsu's Move FCV-K-2

Stefan Geiger, Fuel Cell Today – April 2003
(based on materials from Daihatsu Motor Co.)

Daihatsu's MOVE FCV-K-II received Japan's Ministry of Land, Infrastructure and Transport's approval for use on public roads at the beginning of this year.

At the heart of the MOVE FCV-K-II is a 30 kW fuel-cell system based on a high-performance Toyota FC Stack, which is installed beneath the floor at the rear of the vehicle. The car also has a nickel-metal hydride secondary battery, as well as an electric motor.



Fig 01: Daihatsu Move FCV-K-2 vehicle. Source Daihatsu Motor Co.

The fuel cell hybrid system, which is powered by high-pressure hydrogen, was developed jointly by Daihatsu and Toyota Motor Corporation. The two companies intend to continue their joint research and development of fuel cell vehicles.

Daihatsu first began development of a fuel cell vehicle in 1972 and has undertaken full-scale R&D since 1996. In 1999 the company exhibited the Move EV-FC, a fuel cell vehicle using a methanol reformer, at the Tokyo Motor Show. Daihatsu began technical collaboration with Toyota in 1999 and exhibited the Move FCV-K-2 at the

2001 Tokyo Motor Show while continuing with in-house road tests. The two Move FCV-K-2 models approved by the Japanese government for use on public roads are refined versions of the model originally shown at the Tokyo show.

Daihatsu will soon begin road-testing the two government-approved cars in Japan. The company will especially focus on collecting various driving data related to the FCV-K-2's potential use as a vehicle for city commuters, and conducting further development toward future applications.

Features of the Move FCV-K-2

l / w / h	3,395 / 1,475 / 1,705 mm
Fuel	Compressed Hydrogen
Fuel Cell	Toyota FC stack
Maximum Output	44 hp (32 kW)
Secondary battery	Nickel metal hydride
Range	120 km (~ 75 miles)
Maximum filling pressure	250 bar
Top speed / acceleration	105 km/h (~65 mph)