## Honda's advanced technology supporting low-carbon and comfortable lifestyles.



## Maximize the use of electricity from solar power generation

It is possible to use a maximum of 5.5 kW from electricity generated via solar power.



#### Automatic transfer switch

During power outages, autonomous operation mode is automatically activated, supplying electricity from sources such as solar power and EV. Users do not have to touch the switch.



## Stable Energy Supply

Depending on the time and weather during electrical usage, the optimal energy type is automatically selected. Stabilized and efficient energy is always supplied.



## Easy-to-install Wall Mount Type

commercial transformer makes the Power Manager very light and compact. It can be mounted on a wall thus saving space in a garage compared to a pole time install. Adopting a high-frequency insulation method without using a garage, compared to a pole-type installation.





## Charge/Discharge connector that can be mounted to either side

The charge/discharge connector that plugs into the EV can be installed on either side of the charge/discharge box.





## Single-phase 3-wire 200 V Compatible

By adopting a single-phase 3-wire system, even during power outages, it is compatible with both 100 V and 200 V power





### Quiet design with only Approx. 40 dB(A)

Operational noise is subdued, creating a library-like quietness.



#### International Standardized CHAdeMO Protocol has been adopted

CHAdeMO, the international standard for DC quick charging for electric vehicles is adopted. By communication between the car and the charger, optimal DC power supply is available for charging and discharging.





### International standard ECHONET Lite™ applied

By adopting Japan's domestic HEMS standard protocol, it is possible to operate equipment compliant with ECHONET Lite™.



#### Complied with international standard IEC 62909-1

Complied with international standards that establish function, safety and other general requirements of utility-interactive bidirectional devices which have 2 or more input ports for distributed power sources such as EV, solar power, and home



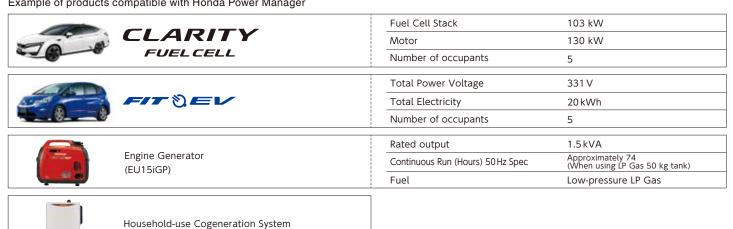


### Main Specifications

Main Specifications			
Power Supply Unit		Charge / Discharge I	Jnit
lame	V2H Compatible DC Normal Charger	Charge / Discharge	DC Charging / Electric Vehicle Specific Charge and Discharge
Model	UEAJ	Unit Method	System Guideline V2H DC Version 2.1 (Category 3) Compliance $^{\!$
ated Voltage / Frequency	AC 200 V (Single Phase, 3-Wire), 50 Hz/60 Hz	Rated Output	5.5 kW
kternal AC Input Terminal (During Power Outage)	O**1	Charging Unit Weight	Approximately 14 kg
olar Power Capacity	Rated 5.5 kW	External Dimensions	D 200× W 190 × H 600 mm
rotection	Earth Leakage Breaker Function, Lightning Surge Protection	Charging Cable Length	CHAdeMO Protocol Approximately 4 m
ower Supply Unit Weight	Approximately 80 kg	Functions	Start / Stop Button, Operation Mode Switch, Error lamp,
xternal Dimensions	D300 mm × W900× H600 mm		Emergency Stop Button, Connector Holder with a lock, EVPS Supply Terminal
nvironmental Conditions	-15 ℃~40 ℃		
Oustproof and Waterproof	JIS C 0920 IP44 Equivalent	Switch	
nstallation Area (Method)	Outdoor (Wall-Mounted Type)		
Communication Interface	Ethernet	External Dimensions	D110 × W590 × H320 mm
Communication Protocol	ECHONET Lite™	Switch weight	Approximately 7 kg
applicable Standards	IEC 62909-1	Power Outage Response	○*³ (Automatic switch)
1 Maximum 1 kW / 100 V Household-use Cogeneration System. Power generator connection possible*4			

- \*\*2 Some of the functions are not available on vehicles with different versions of the V2H Guideline.
  \*\*3 Automatic switch single phase 3-wire 100 V, 200 V Maximum 4 kVA compatible \*\*4 Dependent on adaptor equipment

#### Example of products compatible with Honda Power Manager



For Honda Smart Community Activities, Inquiries

Please scan the QR code on the right, or access via the following URL. http://www.honda.co.jp/smartcommunity/



The above information is as of May 2018.



# Design a smart future with various energy sources



(V2H Compatible DC Normal Charger)



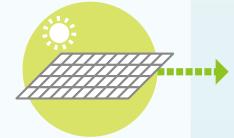




## Through the use of solar power and clean air vehicles, energy use is minimized.



## Residential Renewable Energy



## Solar power

Solar power is the most common type of renewable energy for residential-use.



## Wind power

Small-size wind generator systems for household use can be installed easily.

# Power Manager



# Conversion from DC power to AC power

Power Manager converts DC power generated from sources such as renewable energy to AC power which is of similar quality to office and residential outlets.

# Optimal energy supply during power outage

During power outages, the Power Manager can use electricity not only from solar power and EV but also from gas engine cogeneration systems and engine generators for optimal energy supply.

For electrical load during a power outage, prior confirmation is required.





### Electric Vehicle (EV)

Expectations to expanded usage of V2H (Vehicle to Home) which utilizes EV battery power at home.



### Fuel Cell Vehicle (FCV)

Clarity FUEL CELL can supply approximately 7 days\* worth of electricity to an average household.

# All in one controlling and management of various energy resources in the most optimal way.

Power Manager controls a wide range of energy resources from renewable energy such as solar power and wind power, EV, gas cogeneration system which generates power and supplies heated water, to electricity generated by a gasoline generator. Power Manager can optimally manage the various types of energy and supplies economical and stable low-carbon power to daily life at offices and public facilities, all in one.

## EV and FCV\* as power outlets at offices and homes

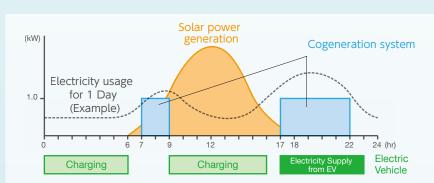
Power Manager can be used not only to charge EV's but also to take electricity from EV batteries and FCV'S and supply to offices and homes. At peak hours of electricity consumption, by utilizing surplus electricity, of solar power generation or electricity stored at night when the electricity cost is cheaper, users can save on bills, CO<sub>2</sub> emission is reduced, and can contribute to peak shaving.



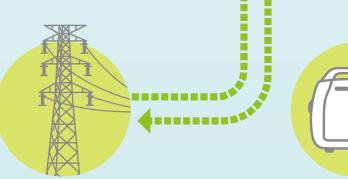
\*Electricity supply from FCV is available only during power outages.

## Generate and Use Energy in daily life.

Matching your lifestyle from the energy consumption patterns, solar power is utilized to a maximum during the day, and cogeneration systems with hot water supply functions are used in the morning and at night. In addition, the efficient use of electric vehicles and other such resources allows energy to be astutely combined and used so that energy is both created and consumed at home, making it possible for the home to be a self-sustaining energy source.



Power Manager directly controls the solar power generation output so that electricity can be converted to household-use power without any waste.



## Electric Power Company



### Generator

Can generate power from both gasoline and portable gas cartridges and is used as the most familiar power source during a power outage.

## Cogeneration system

Can generate power from gas and utilizes the generated heat for hot-water supply or heating.

## Electricity Flow

## Through VPP, the Power Manager brings a rich and sustainable low-carbon society.

The Power Manager is one of the VPP items that allow electricity to work bidirectionally. In the near future, when it becomes possible to control regional energy demands by connecting the Power Managers scattered in the region, dependence on large scale power plants would no longer be required, and local consumption of energy would be possible.

VPP: Virtual Power Plant. Through technology in energy management, renewable energy generation facilities and/or storage battery energy facilities within a region can be connected to a network, functioning as if it were a power plant.