Honda SPORT HYBRID

i-MMD
(Intelligent Multi Mode Drive)

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Honda Cars R&D(HGID) Honda Cars India Ltd.

Honda Environment Roadmap

- Alternative fuel vehicles
- Electrification
- Internal Combustion Engine
- Body and Chassis technologies

- Fuel Cell Electric Vehicle
- Battery Electric Vehicle
- Plug-In Hybrid Electric Vehicle
- Hybrid Electric Vehicle
- Clean Diesel
- Gasoline
- Diesel
- HCCI
- Denso
- Multi-speed transmission
- Down Sizing
- Direct Injection
- Variable Cylinder Management
- CVT
- Friction reduction
- Friction reduction of drivetrain
- Weight saving design of iron material
- Composite lightweight material for body structure
- Under floor smoothing
- Aero dynamics
- Composite lightweight material
- Down Sizing
- Direct Injection
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- Composite lightweight material
Accord Hybrid/Accord Plug-in

Technical Specifications of current models on sale in US

<table>
<thead>
<tr>
<th>ENGINE</th>
<th>Type</th>
<th>Maximum Power</th>
<th>Maximum Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.0 L DOHC-VTEC E-VTC</td>
<td>105KW</td>
<td>165 Nm</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MOTOR</th>
<th>Maximum Power</th>
<th>Maximum Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>124KW</td>
<td>307 Nm</td>
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</table>

<table>
<thead>
<tr>
<th>BATTERY</th>
<th>Type</th>
<th>Fuel Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Li-ion</td>
<td>Hybrid 50/45/47MPG (City/Highway/Combined)</td>
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<tr>
<td></td>
<td></td>
<td>Plug-in 47/46/46MPG (City/Highway/Combined)</td>
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<tr>
<td></td>
<td></td>
<td>115MPGe (Electric only)</td>
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<tr>
<td></td>
<td></td>
<td>13 Mile (All Electric Range)</td>
</tr>
</tbody>
</table>

Common system employed to construct both HEV and PHEV

Overall system configuration (Accord Plug-In)

- Intelligent power unit (IPU)
  - DC/DC converter
  - Battery control unit
  - High capacity Li-ion battery
  - Onboard charger

- Battery characteristics
  - Power density
  - Energy density

- Equip i-MMD system with practical plug-in EV capability by installing a high capacity battery and an onboard charger
Efficiency enhancement

- **i-MMD realizes outstanding fuel efficiency**

Acceleration performance

- Smooth and powerful acceleration due to Li-ion Battery and high power motor
Summary

• Honda launched first hybrid vehicle in India on 2008.
• We want to introduce New generation hybrid technology in our line up by 2016.
• Before launching, pilot lot feasibility test drive planed in India.
• We expect incentive for E-mobility even for CBU import, initially.

Thank you.