



Media Issue Brief

SAFETY

Honda has a long history of leadership in the development and application of advanced technologies and designs to enhance the safety of all road users, including automobile occupants, motorcycle riders, and pedestrians. This commitment to safety is based on Honda's goal of being a company that "society wants to exist" and it complements the company's leadership in reducing vehicle emissions, improving vehicle fuel efficiency, and advancing alternatives to gasoline.

Safety for Everyone

- ◆ The Honda "Safety for Everyone" initiative in North America is a comprehensive approach to vehicle safety that seeks to provide enhanced levels of occupant protection and help with crash avoidance in all Honda and Acura passenger vehicle designs, while also making an active commitment to enhance safety for the occupants of other vehicles and pedestrians.
- ◆ In 2006, the company fulfilled its October 2003 commitment to equip ¹virtually all Honda and Acura vehicles with a core suite of safety features provided as standards equipment, regardless of vehicle size or price. This includes:
 - Driver and front passenger front and side airbags (passenger side with Occupant Position Detection System)
 - Side curtain airbags for all rows
 - Anti-lock brakes (ABS)
 - Vehicle Stability Assist (VSA) with rollover sensor on all light truck models
 - Pedestrian safety measures, and other standard safety equipment and features

VSA

- ◆ Honda proactively began research on Vehicle Stability Assist (VSA) technologies in the late 1990s as an extension of its ABS development activities. Since then Honda has proactively introduced this technology into vehicles starting with those which have a higher center of gravity such as SUVs. Currently, VSA is standard equipment on all Honda and Acura light trucks. For the 2009 model year, all Honda and Acura vehicles will offer VSA as standard or optional equipment. (Note: Electronic Stability Control (ESC) technology is mandated for introduction in all vehicles in the U.S. in 2011.)

Crash Test Ratings Leader

- ◆ In the 2009 model year, Acura became the first-ever automotive nameplate to earn a "Top Safety Pick" rating from the Insurance Institute for Highway Safety (IIHS) and five-star NCAP and SINCAP ratings for ALL models in its lineup.
- ◆ All Acura models and all Honda light truck models earn top 5-Star government crash ratings in NHTSA frontal (NCAP) and side (SINCAP) impact tests, including the Ridgeline, the first 4-door pickup truck ever to earn five-star NCAP and SINCAP ratings

¹ Only the Honda S2000 roadster does not come standard with side curtain airbags or side airbags with OPDS.

VEHICLES ACHIEVING NCAP/SINCAP FIVE-STARS AND IIHS “GOOD” RATINGS

The NHTSA’s NCAP frontal crash test tends to focus on occupant injury scores, measured by anthropomorphic crash test dummies. In general, a vehicle with a relatively softer body that can absorb a great deal of crash energy tends to achieve higher NHTSA crash test ratings. In contrast, the IIHS Frontal Offset crash relies on a relatively stiff body structure that does not deform too much in this severe test configuration. Due to the conflicting nature of these two tests, it is difficult to design a vehicle that can perform well in both tests. It is even more difficult to design a vehicle that achieves the highest ratings in both of these different tests, but the fact that a vehicle does is significant because it indicates that the vehicle has excelled in tests which are designed to simulate a variety of real world crash situations

Honda and Acura Vehicles Achieving NCAP/SINCAP Five Stars and IIHS “Top Safety Pick” Ratings

- ◆ American Honda is an industry leader in achieving this engineering challenge – with ten (10) 2009 models, more than any other automaker, that earn NCAP and SINCAP 5-Star ratings from the NHTSA *and* a “Top Safety Pick” rating from the IIHS. They are:
 - 2009 Acura RL
 - 2009 Acura TL
 - 2009 Acura TSX
 - 2009 Acura MDX
 - 2009 Acura RDX
 - 2009 Honda Ridgeline
 - 2009 Honda Pilot
 - 2009 Honda Element
 - 2009 Honda Odyssey
 - 2009 Honda CR-V

Compatibility and the ACE™ Body Structure

- ◆ Honda has played a leading role in addressing the issue of compatibility in collisions between vehicles of different size, mass and ride height.
- ◆ In 2005, Honda introduced the Advanced Compatibility Engineering™ (ACE™) body structure on the Acura RL, to enhance occupant protection in a frontal collision between vehicles of different sizes and ride heights.
- ◆ 17 of the 20 Honda and Acura models currently sold in the U.S. incorporate the ACE body structure. These include the Honda Fit, Insight, Civic Sedan, Civic Coupe, Civic GX and Civic Hybrid, Accord Sedan and Accord Coupe, CR-V, Odyssey, Pilot and FCX Clarity, and the Acura RL, TL, MDX, RDX, and TSX.

Pedestrian Safety

- ◆ As part of its commitment to improving safety for all road users, Honda has also led the U.S. industry in the application of features designed to reduce injuries to pedestrians in a collision -- such as collapsible hood hinges and breakaway windshield wiper pivots, with a focus on reducing severe head injuries, which account for 60 percent of pedestrian fatalities.
- ◆ In advancing its designs, Honda first sought to better understand the dynamics of pedestrian collisions with the development of POLAR II, widely recognized as the world's most advanced pedestrian safety test dummy. Tests conducted with POLAR II led to the development of the above noted features.
- ◆ Honda has introduced its third-generation Polar III test dummy with an enhanced ability to measure crash forces in the lower back and upper leg areas.
- ◆ More than 9 million Honda and Acura vehicles purchased by U.S. customers, including all model year 2008 and newer vehicles (except the S2000), feature pedestrian injury mitigation features and designs.

Advanced Safety Testing

- ◆ Honda operates two of the world's most sophisticated crash test laboratories for development of improved safety designs and technologies.
- ◆ The Tochigi, Japan, facility was the world's first indoor omni-directional car-to-car crash testing facility and has played a critical role in the development of enhanced designs for occupant and pedestrian safety as well as vehicle-to-vehicle compatibility.
- ◆ Honda R&D America's Raymond, Ohio, development center performs advanced testing on all U.S.-developed models. The facility features the world's first pitching test sled, which aids efficiency by enabling economical and speedy crash test simulations with certain interior safety components, such as seats and seatbelts, prior to conducting a crash test with an actual vehicle. It also features one of the world's highest resolution impact barriers, which enables precise measurement of the distribution of impact load forces on a vehicle allowing for even more advanced vehicle designs.

Industry-Leading Air Bag Technologies

- ◆ Honda has long been a leader in introducing the industry's most advanced air bag systems, including:
 - The first front passenger airbag to deploy vertically from the instrument panel, rather than directly at the passenger.
 - Occupants in the outboard seating positions of every row of every new Honda (except S2000) and Acura vehicle are protected by side curtain airbags.

Other Pioneering Efforts

- ◆ Honda has been a leader in developing next generation safety technologies, including a Collision Mitigation Braking System (CMBS) (introduced on the 2006 model year Acura RL) as well as continuing research toward future collision avoidance systems and designs for automobiles and motorcycles.
- ◆ The 2006 Honda Gold Wing touring motorcycle is world's first production motorcycle to offer a fully-integrated rider airbag system.

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