

**CR-V**

**HONDA**



**Press Guide**



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# Overview

Celebrating its tenth year in Australia in 2007, the Honda CR-V sets a new direction in the compact SUV segment.

With sedan like ride and handling and passenger interior, the all-new third generation 2007 Honda CR-V adds new levels of style, performance and refinement, while incorporating Honda's recently-developed Advanced Compatibility Engineering (ACE) Body Structure, introduced on the 2007 Honda Legend.

Introduced in Australia in 1997, the CR-V was Australia's number one selling SUV in 2000 beating both the Toyota Landcruiser and Nissan Patrol. It was also the number one selling Honda in Australia in 1999, 2000, 2001 and 2002. And even in its twilight year in 2006, the second generation CR-V captured 13% of the 2006 full year compact SUV segment\*.

(\* VFACTS Dec '06)

## CR-V Background

The CR-V broke new ground in the SUV/car crossover market with its long list of standard features, competitive pricing, renowned Honda quality and agile performance. It quickly set the benchmark for the segment.

Not only did the CR-V help establish a new breed of small, smart and functional vehicles, it also established itself as one of the best-sellers in the segment. The CR-V was the first Honda-designed and engineered SUV, combining 4-wheel-drive capability and utility with passenger-car drivability, comfort and convenience.

A truly a global product for Honda, being sold in more countries than any other Honda vehicle, the CR-V is among the best-selling vehicles for Honda, cumulatively reaching approximately 2.5 million customers in 160 different countries over its lifetime.

## Distinctive and Dynamic Design

A new double grille and a side profile with an arched window shape accent the CR-V's distinctive and upmarket presence. Adding to the clean lines, the spare tyre now resides under the rear floor, benefiting aesthetics, visibility and parking.

The CR-V's new direction goes beyond evolution and results in more style in a smarter and more sophisticated package. The CR-V is designed to offer the best balance of size and performance; ideal for professionals or families who need a vehicle that can perform multiple urban duties with the ability to also cater for active

outdoor lifestyles. Equally at home on a snowy mountain road or in a suburban street, the 2007 CR-V moves beyond conventional SUV styling with ultra-modern lines, a fashionable presence and meticulous attention to detail.

## **Manufacturing**

Worldwide, the CR-V is built in seven countries at eight factories, and for the first time in 2006, production began in North America.

With the introduction of the third-generation CR-V, Honda Australia is switching its source from Japan to Thailand and it joins Honda Australia's other Thai sourced vehicles, Accord, Civic and Jazz.

The foundation of the CR-V starts with unit-body construction for sedan-like on-road performance, maximised interior packaging, optimised safety construction and good fuel economy. Since unit-body construction allows for interior space to be maximised, the CR-V's packaging provides a generous 5-passenger interior space and superior cargo functionality and versatility relative to traditional SUV designs that are inherently less space-efficient.

## **Safety Equipment**

Through a comprehensive and evolving approach to vehicle safety, Honda seeks to provide a high level of occupant and pedestrian protection in all of our cars, regardless of size or price, as well as increased compatibility with its other vehicles.

The 2007 CR-V integrates Honda's most advanced safety technology with the revolutionary ACE Body Structure (introduced on the 2007 Legend). The ACE Body Structure enhances frontal collision energy management through a network of load bearing front frame structures that provide an increased opportunity for two vehicles to properly connect during a collision, including larger and smaller vehicles with differing bumper heights.

Unique in the automotive industry, the ACE Body Structure elevates real-world safety to a new level by better utilising the crumple zone and dispersing energy away from the passenger area through more load-bearing channels.

The 2007 CR-V range receives vehicle stability assist (VSA) for the first time.

Inside, every CR-V incorporates front and side airbags (curtain airbags on Sport & Luxury) as standard equipment, along with active front seat head restraints that are designed to reduce the chance of neck injury in the event of a rear collision.

Standard safety features include dual-stage, dual-threshold front airbags with a passenger-side Occupant Position Detection System (OPDS), anti-lock brakes (ABS), front seatbelts with pre-tensioners and load limiters, and a pedestrian friendly safety design at the front of the vehicle.

The 2007 CR-V sets a new standard for vehicle safety as one of the few vehicles ever to earn the US government's top Five Star safety rating for the driver and front passenger and rear seat outboard passengers in both frontal and side impact crash tests performed by the National Highway Traffic Safety Administration (NHTSA). The 2007 CR-V builds on Honda's industry-leading emphasis on safety and outdistances the competition by implementing new technology and features that go beyond conventional industry standards with innovations such as the ACE Body Structure and pedestrian safety.

## **Enhanced Body Design**

The unit-body construction features extensive use of strategically strengthened areas with expanded use of high strength steel to provide high levels of rigidity. Improved NVH was also targeted and the new model features extensive use of the latest noise absorption materials to help reduce engine and road noise for an ultra-quiet cabin.

## **Sedan-like Performance and SUV Versatility**

The CR-V uses a compact platform that features the safety-enhancing ACE Body Structure. It also provides extremely high levels of rigidity and an independent front and rear suspension for handling performance, which also results in space-efficient packaging. Comprised of a front MacPherson strut layout and a rear multi-link suspension, the highly rigid body and independent suspension offer an engaging driving experience rare for this class of vehicle.

## **What's new for 2007**

- Distinctive, upmarket styling
- Standard safety equipment includes ACE Body Structure and Active Front Head Restraints
- Car like interior style, comfort and refinement
- New body and chassis design results in smoother, more agile performance and quieter cabin
- 7 more kilowatts (125kW)
- New six-speed manual transmission
- Improved ingress/egress with optimised door designs and 32mm lower step-in height
- Dual-deck cargo shelf
- Unit-body construction with independent front and rear suspensions
- Standard front and side airbags,
- Curtain airbag for Sport & Luxury
- Vehicle Stability Assist (VSA)
- Drive by wire throttle



# BODY

## Overview

For 2007, the Honda CR-V takes on a bold new look. Featuring a new double grille, a side profile with arched side windows, sculptured lower body trim and a sporty interior that accentuates the CR-V's distinctive and chic character.

Safety has been significantly upgraded with the introduction of the Advanced Compatibility Engineering Body Structure (first seen on the Legend), that builds on the CR-V's strong safety reputation.

The ACE Body Structure is a key element of Honda's safety initiative that protects both occupants and pedestrians.

Adding to the clean lines, the spare tyre now resides under the rear floor, benefiting aesthetics and improving garage-ability. The tailgate now opens upward (instead of to the side as in the previous CR-V), improving convenience and providing a canopy when loading or unloading the vehicle.

## Design and Styling

The third-generation 2007 model has a more fluid design over the upright and traditional two-box SUV shape. This design concept merges a strong lower body with large diameter tyres to give the new CR-V a refined, sophisticated look and purposeful stance.

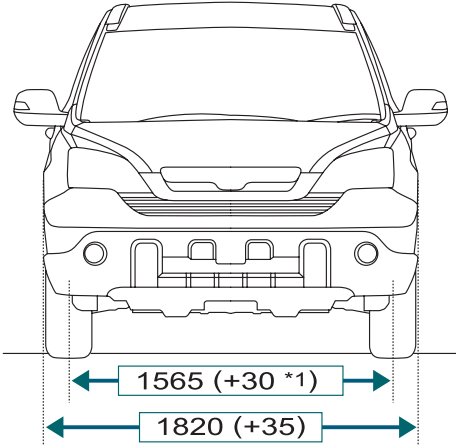
The double grille creates a strong presence while durability is further expressed by the modular lower body trim.

The arched side window shapes gives a sporty look, while the rear end design with full-length taillights conveys a unique 3-dimensional look.

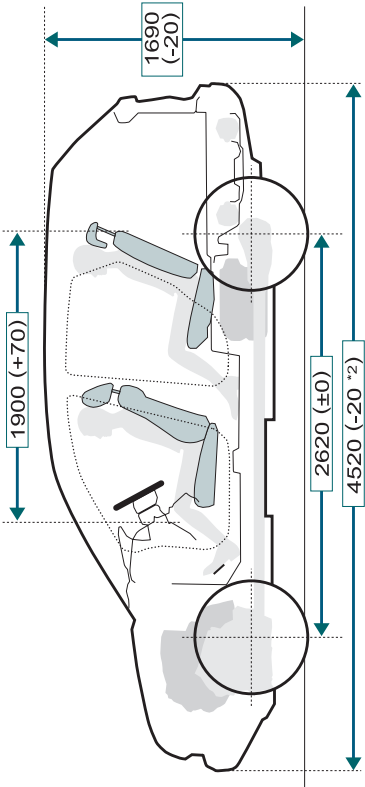
## The CR-V Enters a New Dimension

The 2007 CR-V is 100mm shorter (largely due to the relocation of the spare tyre); 35mm wider and 30mm lower than the previous model. Underneath, its wheelbase is 5mm shorter, with the front track 30mm wider and the rear track 20mm wider. Ground clearance has also been reduced by 20mm.

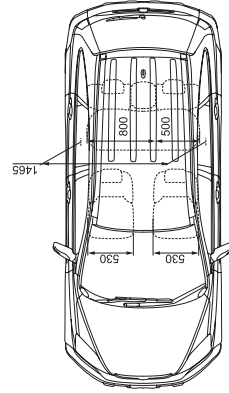
# Dimensions



in mm Difference from previous model in brackets  
\*1 Front (Rear: +25mm)

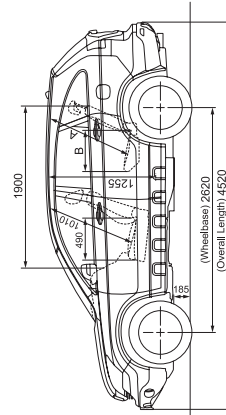


in mm Difference with previous model in brackets  
\*2 Model with tailgate-mounted spare wheel used for comparison. +100mm when compared with model without tailgate-mounted spare wheel.

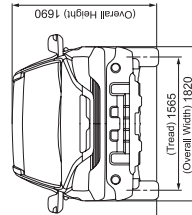


A (Left/Center/Right) 970/965/945  
B (Left/Center/Right) 480/455/480

## Tri-Perspective Diagram



■ Tri-Perspective Diagram (2x, without sunroof) in millimeters

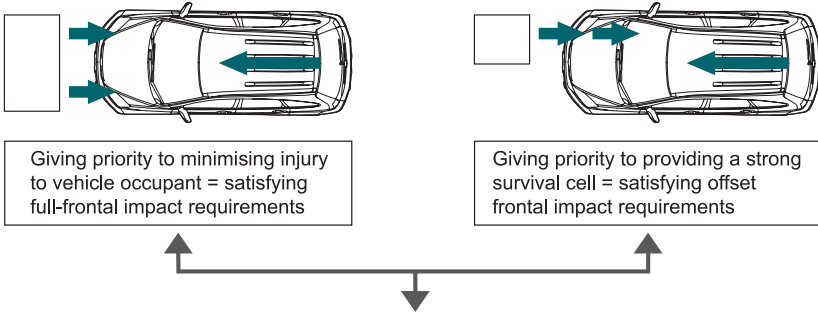


\*Japanese model shown.

# CR-V Body Structure

The CR-V's body is new from the ground up.

## Advanced Compatibility Engineering Body: Satisfying Conflicting Requirements



**Meeting both requirements for increased protection**

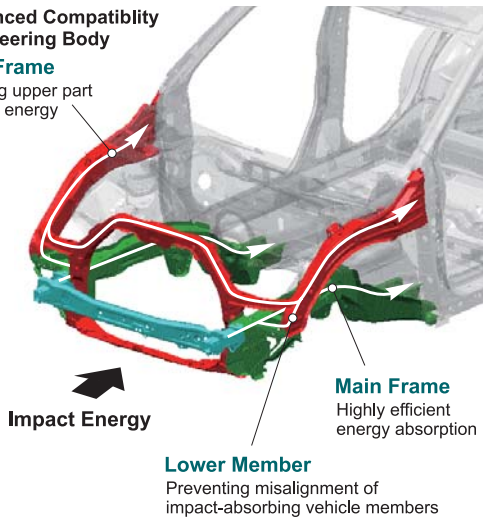
The body construction now includes Honda's Advanced Compatibility Engineering™ (ACE™) Body Structure that enhances frontal collision energy management through a network of load bearing structures in the front of the vehicle.

This newly developed front-end frame structure (first seen on the Legend) incorporates newly-shaped upper and lower frame members to significantly enhance energy dispersion in a frontal collision through more load bearing channels in the body.

### Advanced Compatibility Engineering Body

#### Upper Frame

Absorbing upper part of impact energy



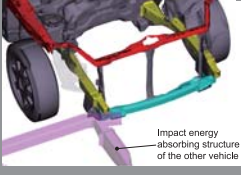

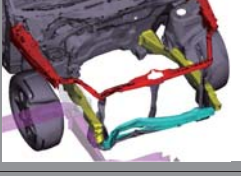
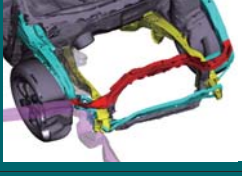
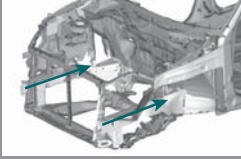
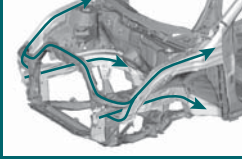
#### Main Frame

Highly efficient energy absorption

#### Lower Member

Preventing misalignment of impact-absorbing vehicle members

The ACE Body Structure is configured for high energy absorption. In the event of a frontal collision, the body structure with its front-mounted polygonal main frame is designed to prevent structural penetration while distributing forces evenly through multiple major load bearing pathways - and away from the passenger compartment.

	Previous model body construction	New CR-V body construction
<p><b>Preventing Misalignment of Impact-absorbing Vehicle Members</b></p> <p>Lower member designed to prevent misalignment of impact-absorbing vehicle members</p>	<p><b>Before Impact</b></p> 	
	<p><b>Upon Impact</b></p> 	
<p><b>Impact Energy Dispersion</b></p> <p>Impact energy is spread over a larger surface for efficient energy dispersion</p>		

***Preventing Misalignment with Impact Absorbing Frame of Other Vehicle/Dispersing Collision Impact: Comparison***

For comparison, a conventional body structure generally concentrates the loads from a collision through two pathways running longitudinally through the lower portion of the frame.

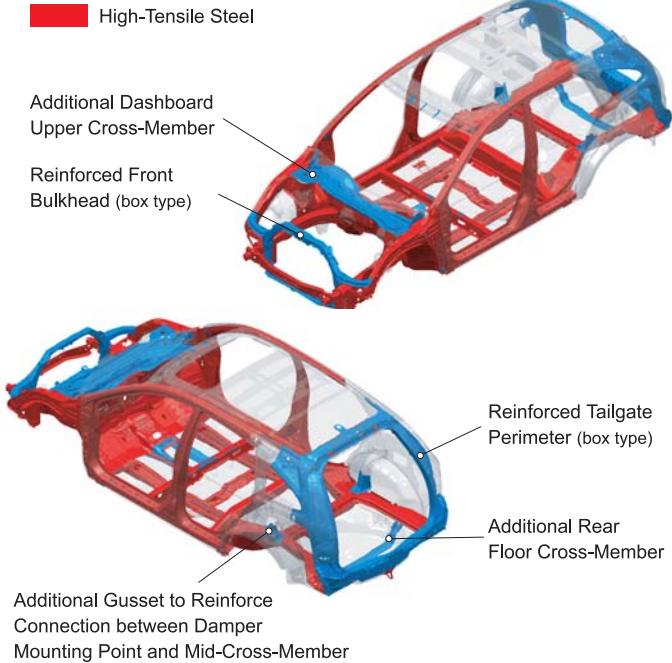
In the ACE Body Structure for example, frontal impact force can be distributed from the front of the vehicle through the side sills, floor frame and A-pillar in order to reduce the cabin deformation. The result is that the ACE Body Structure maximises energy distribution during a collision because impact forces can be distributed through more of the vehicle’s mass and away from the passenger compartment.

**Offset Rear Collision Design**

The solid unit body of the CR-V was designed from the outset to define a new standard for torsional and bending rigidity in the compact SUV segment, achieving a rigidity balance similar to a sedan for sedan-like handling performance, ride comfort and a quieter cabin.

Even with enhanced collision safety construction and larger dimensions, the overall vehicle weight remains similar to the previous model. This has been achieved by optimising the framework layout and sectional shapes, streamlining the joint structures, and utilising 58 percent high-grade, high-strength steel (up 24 percent over the previous model). Additionally, bending rigidity has been improved by 84 percent.

### ■ High-Rigidity Body Structure



### Door Construction

The doors are built on a robust structure that provides a solid feel and sound when closing. The door latches are carefully engineered to latch securely with a light closing pressure, and to emit a quality sound. Sound insulation performance was enhanced by connecting the ends of a door-opening seal, doubling the door seals and adding a layer of sound absorption material. The CR-V's front doors use the lower step-in height, the wider opening angle of the rear door from 67 to 80 degrees, and triple-stage stopper construction, for ease of ingress/egress in tight parking situations.

## Pedestrian Safety Design

The CR-V takes the wellbeing of pedestrians into account in its construction. Accordingly, engineers optimised parts of the front end structure to help absorb energy in the event of a collision with a pedestrian. Research shows that these features can dramatically improve a pedestrian's chance of survival if struck by a moving vehicle.

### **Key pedestrian safety features include:**

- Bonnet designed to deform if contact is made with either an adult or a child pedestrian
- Energy-absorbing guard mounts and supports located under the bonnet
- Sufficient clearance between the bonnet and hard engine parts
- Deformable windshield wiper pivots
- Crushable bonnet hinges

## Aerodynamics

The A pillar, side mirrors, wiper layout, underfloor pans and strakes have all been designed to minimise air turbulence. These designs result in improved fuel economy and less wind noise. Other measures contributing to reduce wind noise levels include reducing the width of body seams, mounting glass flush with the surrounding body panels, and using double seals around all doors.

## Tailgate

New for 2007 is the lightweight, easy-to-open top-hinged tailgate that replaces the side-hinged tailgate design of previous models. The top-hinged design, which opens vertically, allows for universally-convenient cargo loading from the left or right sides of the vehicle – while also providing a canopy during cargo transfer. A convenient benefit, the canopy provides some protection from nasty weather and doubles as a sunshade.

From a cargo functionality standpoint, the 950 mm door opening height is taller by 45 mm and wider by 10 mm to 1390 mm.

The hydraulic dampers and special hinges allow the lightweight tailgate to be operated effortlessly. Overall, the CR-V tailgate provides convenient and user-friendly one-step operation in the real world where juggling grocery bags, backpacks, keys and other assortments are the usual operating procedure.

Previously mounted on the tailgate, the spare tyre now resides inside the vehicle under the cargo floor. Moving the spare tyre inside also helps reduce the overall length of the vehicle by 7.9cm, helping the CR-V fit better into a short parking space.

## Tight Tolerances

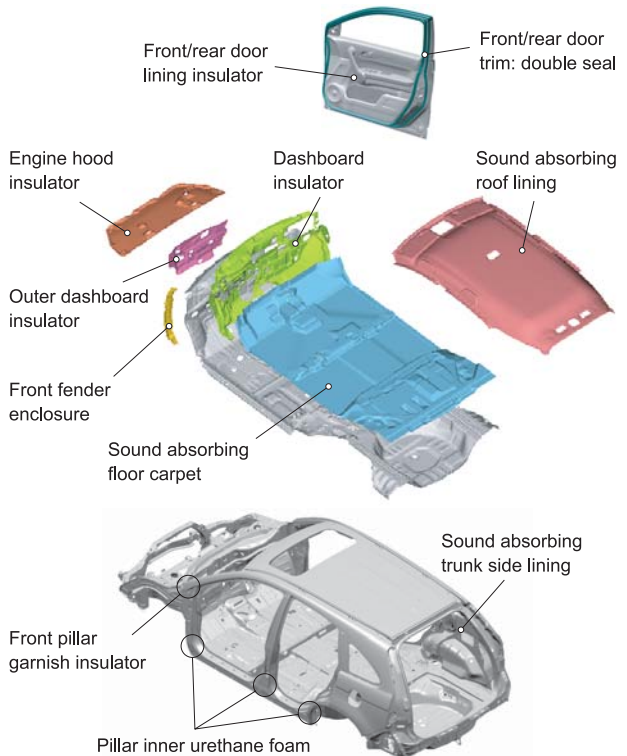
Hondas have always been synonymous with outstanding fit and finish. This attention to detail is evident in the minute sizes of gaps between body panels and interior components. The CR-V features what is known as a “zero” gap for the front and rear bumpers, or less than a single millimetre. This gives the bumpers a more integrated appearance, yet keeps collision costs to a minimum by isolating various body components so fewer components require replacing in the event of an accident.

## Noise and Vibration Dampening

The CR-V’s level of quietness is similar to many luxury SUVs. This is due in part to the high levels of rigidity of the CR-V platform and the application of advanced noise and vibration absorption materials. Extensive lightweight sound absorption materials have been applied to the floor, firewall, cargo area, and roof along with additional sound insulation materials for side pillars.

Traditional use of melt sheets (sheets that dampen noise and vibration) are also used. Additionally, the doors have two seals for reduced noise intrusion.

### ■ Sound Insulation and Absorption Materials



## Exterior Lighting

The CR-V's headlight design provides sharp illumination. The projector-style headlamp assemblies feature a clear one piece outer lens that wraps around the vehicle's front corners with the inboard turn signals housed inside. The round outboard halogen lamps provide both low and high beam illumination. The halogen headlights cast a wide and broad beam, while also providing brighter illumination of objects in closer proximity.

The tall rear taillights envelop the D-pillar and feature a reflective inner-cube design as the background pattern during illumination. The lenses are solid red for brakes and clear for the turn indicator lights (amber illumination).

## Fuel Tank

The CR-V is equipped with a six-layer resin fuel tank that offers relatively lower weight, increased capacity, and reduced emissions. The CR-V also incorporates a return-less fuel supply system that helps reduce vapour generation. Capacity is 58 litres.

## Available Colours - Exterior and Interior

**There are six exterior colours available for the 2007 CR-V.**

<b>Colours</b>	<b>Exterior</b>	<b>Interior</b>
	<b>Taffeta White</b>	<b>Ivory</b>
	<b>Nighthawk Black</b>	<b>Ivory or Black</b>
	<b>Royal Ruby Red</b>	<b>Black</b>
	<b>Satellite Mist</b>	<b>Ivory</b>
	<b>Alabaster Silver</b>	<b>Black</b>
	<b>Sparkle Grey</b>	<b>Black</b>



# INTERIOR

## Overview

The Honda CR-V's stylists sought to create a high-quality, car-like interior with Honda's renowned ergonomics and clever approach to storage integration with fashionable, modern architecture, as demonstrated by the use of richly tactile textures and metallic panel highlights.

Extensive safety equipment includes side and front side airbags as standard equipment on all models with curtain airbags standard on the Sport & Luxury. New for 2007, active front seat head restraints are also standard equipment.

## CR-V Interior New Technology and Features

- All-new interior with modern and sophisticated architecture
- Dual-deck rear cargo shelf (Sport & Luxury models)
- Upgraded audio systems
- Front seat active head restraints
- Tilt and telescopic steering wheel
- Wider front seating surfaces
- Instrument panel centre-mounted shifter
- Centre console
- Vanity mirror
- Sunglasses holder (Sport & Luxury models)
- Standard side and front airbags
- Curtain airbags standard (Sport & Luxury models)
- Dual level glovebox
- Conversation mirror (Sport & Luxury models)

## Interior Dimensions

The 2007 CR-V has a large interior.

	2007 CR-V	2006 CR-V
<b>Seating Capacity</b>	5	5
<b>Cargo Volume behind 2nd row (m<sup>3</sup>)</b>	1.01	0.94
<b>Cargo Volume behind 1st row (m<sup>3</sup>)</b> - rear seats folded forward	2.06	2.03
<b>Leg Room (mm) - Front/Rear</b>	1049/977	1049/977
<b>Hip Room (mm) - Front/Rear</b>	1419/1386	1384/1358
<b>Shoulder Room (mm) - Front/Rear</b>	1445/1422	1445/1437
<b>Head Room (mm) - Front/Rear</b>	1038/980 933/977 w/ sunroof	1038/993 988/993 w/ sunroof

## Enhanced Design with Improved Style and Premium Features

The increased body width allows for wider and more supportive seats while a centre console not only provides the requisite cup holders and sub-tray, but also provides an additional 12V power outlet and an auxiliary audio jack on all models. A dual-deck cargo shelf, (on Sport & Luxury models), provides additional storage options in the cargo area while providing enough clearance underneath for grocery bags or items such as a folded stroller.

For 2007, all audio systems are more powerful. Auxiliary audio input jacks are standard equipment on all models, allowing for portable music device playback through the CR-V's speakers. The base model has a four-speaker audio system with a single-disc CD player. Sport and Luxury models receive a six CD player. All CR-V audio systems have MP3/WMA CD playback capability and Speed-Sensitive Volume Control (SVC) that automatically adjusts the volume based on vehicle speed.

## Ease of Vehicle Entry and Exit

Sitting lower than the previous model by 32mm, entry and exit feels more sedan-like. The door openings are also larger so getting in and out of the CR-V is easy and natural. In addition, the seat cushion's height approximates the hip height of an average height adult, so passengers do not have to "climb" in and out of the seats.

Door openings feature a durable, non-skid plastic surface that provides a sure footing for standing when accessing the roof. Additionally, the tailgate has a low load-in height to make placing objects in the cargo area a convenient process.

## **Instrument Panel Design and Meters**

The instrument panel design has a modern 'fresh look' with futuristic meters set against white and blue backlit gauges. The odometer readout is one feature of the multifunction information display that shows outside temperature, vehicle mileage and trip mileage, and average fuel consumption and is operated via an illumination controller on the gauge.

### **The CR-V instrumentation includes the following:**

- White and blue backlit gauges (speedometer, tachometer)
- Digital Odometer and Digital Trip meters
- Exterior Temperature gauge (all models)
- Door/tailgate Open indicator
- Instantaneous and average fuel economy
- Kilometres-to-empty indicator
- Low oil pressure indicator

## **Audio Systems**

### **CR-V Base**

The CR-V includes an AM/FM radio, CD player with MP3/WMA capability, auxiliary input jack, four speakers and steering wheel-mounted audio controls.

### **CR-V Sport & Sport Luxury**

These models have an AM/FM radio, built-in 6-disc CD changer with MP3/WMA playback, auxiliary input jack, CD/MP3 text display, six speakers (including two dashboard tweeters) and steering wheel-mounted audio controls (volume and channel preset).

## **Three-Spoke Steering Wheel with Tilt and Telescope Column**

The three-spoke steering wheel on the CR-V matches the vehicle's sporty character with a smaller diameter (38cm) combined with a quicker steering ratio. All models include manual tilt and telescope steering wheel adjustment for the perfect driving

position. All models include cruise control buttons on the right side of the steering wheel. All models also get audio controls on the left side of the steering wheel for volume, mode and channel selection.

## **Reclining Front Bucket Seats with Adjustable Head Restraints**

The CR-V front seats have been completely redesigned with wider (+10mm) seat frame and more supportive seat construction thanks to progressively tuned foam bolsters. The driving position has been optimised in relation to the steering wheel and vehicle controls, and folding armrests are installed on the inboard portions of the seat. An innovative front seat active head restraint system enhances the seat's ability to minimise the potential for a neck injury in the event of a rear collision.

Both front seats manually recline and move forward and back. The driver's seat features a manual height adjustment control with 4cm total travel. A ratchet-style lever on the right side of the seat adjusts the height.

The Luxury model gets an 8-way power adjustable seat including power lumbar support.

Seat construction integrates several significant technologies. High strength steel now comprises the majority of the seats internal steel framework. Composite components are used in the base and the seatback to minimise weight and proactively influence seat cushion feedback. The 4mm wider foam cushions employ various densities in the bolsters compared to other areas in the seat to provide the right level of comfort (softness) and support (firmness) in all the right places.

## **40/20/40 Split Rear Fold and Tumble Seats**

The 40/20/40 Split Rear Seats provide generous seating surfaces that are both comfortable and functional. To increase storage space, the seats can be folded down and tumbled forward to more than double the cargo area storage space and accommodate long, bulky items like a mountain bike or large boxes.

Designed for practicality and convenience, the fold and tumble seat design allows for a flat cargo floor. When folded, the three head restraints can remain in the seat backs (no removal necessary). Maximum cargo length equals about 1295mm and the maximum width ranges between approximately 990mm (at wheel wells) to 1371mm (rear cargo area side panels). The rear seats slide forward and backward to allow for the optimisation of the cargo area and second row passenger legroom. A new feature for 2007, the seatbacks have a 40/20/40 split design to allow for centre (or side) pass-through of long items.

## Storage Areas and Dual-Deck Cargo Shelf

Approximately 20 convenient storage areas are accessible throughout the interior, ranging from an upper and lower glove box to eight individual cup holders. New for 2007, a centre console replaces the retractable centre tray table. Each front door has a storage pocket and a bottle holder. A two-tier glove box is standard, with the upper glove box replacing the previous open tray storage by using a flip-down cover. Up front, there are two cup holders in the centre console. In the rear seat area, the centre armrest folds down to reveal two more cup holders.

A new dual deck cargo shelf system, available in the Sport and Luxury, allows for two levels of storage in the rear cargo area. The shelf provides 330mm of vertical space underneath – enough room for a collapsed stroller or similar item – while still retaining a convenient area to place smaller items on top up to 10 kilograms. The shelf is hinged at the front for easy access to items underneath. The cargo shelf can also be placed on the floor for conventional cargo area space utilisation.

### ■ Double-Deck Cargo Shelf Hinge Construction



Hinge construction designed to allow forward double-folding for improved access to luggage and user-friendliness

## Climate Control

All CR-V models are equipped with air conditioning as standard equipment. The manual controls are mounted centrally on the instrument panel for easy accessibility and utilise large, rotary knobs for temperature settings and fan control (12-speeds). A new feature for 2007 is the addition of push button selection for directing air through the various vents inside the vehicle, i.e. defrost, heater, split level, etc.

The new controls simplify mode selection. From a mechanical standpoint, the climate control system is designed to be efficient and lightweight, utilising a high capacity condenser with an integrated receiver/drier to route liquid refrigerant through a sub-cooling condenser after cycling through the main condenser - thus increasing efficiency.

The Sport and Luxury models get an independent climate control system.

## **Interior Lighting and Progressive Illumination**

Similar to the Accord Euro and Accord, the CR-V receives a self-illuminating instrument package that gives the CR-V a “welcoming” feel.

Interior switches are illuminated to make them easy to locate at night, including those on all four doors and the steering wheel. The CR-V has blue low-level ambient lighting in the ceiling that illuminates the front centre console area. Courtesy lights are illuminated when the doors are open.

## **Power Windows and Power Door and Tailgate Locks**

Power windows and power door and tailgate locks are standard equipment. The driver’s window has convenient auto up and down operation. Selectable childproof door locks are standard on the rear doors.

## **Keyless Entry System**

Keyless entry is standard equipment. The CR-V uses Honda’s key design which has an integrated transmitter in the key handle with lock and unlock buttons. The key can also raise and lower the windows

## **Engine Immobiliser**

Complementing the keyless entry system is a standard engine-Immobiliser system. A special electronically coded key prevents the car from being started-even if a mechanical duplicate of the key is used. A transponder, built into the key, signals the Immobiliser control unit that the key is genuine. If the car is hot-wired, or an unauthorised key is used, the engine will not start.

## **12V DC Accessory Outlets**

The CR-V provides two 12V DC accessory outlets; one is located on the instrument panel’s centre stack and the other is located in the cargo area.

# Safety

## Overview

Honda's mission for the CR-V is to provide an extraordinarily high level of safety that meets and exceeds all current regulations and standards. These goals embrace Honda's fundamental safety philosophy.

### **Specific Safety Targets include:**

- 5-Star rating in (USA), NHTSA NCAP and SINCAP test procedures
- "Good" ratings in Insurance Institute for Highway Safety (IIHS) front offset and Side Impact Crashworthiness Evaluation (SICE) and the seat/head restraint tests
- Advanced control of intrusion into the passenger compartment during a side collision with an SUV
- Improved protection in the event of frontal collisions with larger vehicles
- Enhanced crash compatibility with smaller vehicles in a car-to-car collision compared to previous generation vehicles
- Advanced protection for pedestrians in event of a collision

### **Result:**

The 2007 CR-V has achieved a 5 Stars rating for the NHTSA tests - the best results possible.

This includes voluntary improvements in the IIHS ratings test called SICE, which limits the intrusiveness if hit by an SUV in a side collision. Finally, the CR-V adopts pedestrian head protection measures that are above and beyond NHTSA standards, which currently do not regulate this safety issue.

## **Advanced Dual Stage, Dual Threshold Front Driver's and Front Passenger's Airbags**

The CR-V is equipped with dual-stage, dual-threshold supplemental restraint system (SRS) airbags for the driver and front passenger. These airbags are designed to minimise the potential for airbag injury while providing head and chest protection for the occupants in the event of a frontal collision. This front airbag system features front passenger seat sensors designed to further enhance occupant protection.

## **Driver's Front Side Airbag and Front Passenger's Side Airbag with Occupant Position Detection System**

Every CR-V is also equipped with seat-mounted front side airbags in the outboard sections of the backrests to help safeguard the driver and front passenger from side-impact injury. An innovative occupant position detection system is used to assure that the passenger's side airbag has a clear path for deployment. In the event a child (or a small-stature adult) leans into the deployment path of the side airbag, a seven-segment "antenna" system built within the backrest signals this condition to an electronic control unit (ECU) also located within the seat. The ECU then deactivates the side air bag from functioning and triggers a "SIDE AIRBAG OFF" indicator light in the instrument cluster. After the front occupant returns to a normal seating position, the side air bag module automatically resumes full-functional status.



***Airbag System Operation***

## **Side Curtain Airbags**

CR-V Sport and Luxury occupants are protected by Honda's Side Curtain Airbag with Rollover Sensor system. The side curtain airbags deploy from modules in the roof in the event of a sufficient side impact, providing a significant level of head protection in the window area. In the unlikely event of a rollover, a roll rate sensor and multiple G sensors determine the rate of roll and deploy the side curtain airbags accordingly.

Like the other airbag systems in the CR-V, the side curtain system utilises multiple sensors to determine the most appropriate timing of deployment of the airbags.



## **Active Front Seat Head Restraints**

An innovative front seat active head restraint system is used to enhance the seat's ability to minimise the potential for neck injury from rear end collisions. The ability to manage rear collision forces to be relatively equal on the head, neck and spine is a key component to minimising injuries. In the event of a rear collision, a person's body would be pushed against the seatback. The pressure from the seatback is transmitted mechanically from the lumbar plate via links that push the head restraint upward and forward to comparatively equalise the forces acting on the head, neck and spine at the same time as the collision.

## **Front Seatbelts with Pretensioners and Load Limiters**

Both front seat belts have seat belt pretensioners and load limiters that work together to help protect the driver and front passenger in a collision. The components work automatically in a 1-2 sequence. In the first few milliseconds of a collision, the pretensioners automatically tighten the front seat belts. Research has shown that seat belts that are snugly secured around the occupants provide better protection. If the deceleration forces rise above a predetermined threshold, the load limiter releases a small length of seatbelt webbing to reduce the pressure on the occupant in a controlled manner. This helps reduce the injuries that seatbelts can cause in a severe high-speed collision.

# Chassis

## Overview

Honda is well-known for making its vehicles enjoyable-to-drive with precise steering, responsive suspension tuning and refined road manners. Precise handling also contributes to accident avoidance manoeuvrability - one of the key reasons Honda pays so much attention to every aspect of the suspension. The CR-V comes with the highest levels of chassis-related active safety equipment in the segment with Vehicle Stability Assist (VSA) and 4-channel anti-lock braking (ABS), electronic brake distribution and Brake Assist.



***Body-in-White***

From the driver's perspective, every aspect of the CR-V has been improved. Compared with its predecessor, the 2007 Honda CR-V chassis delivers higher levels of sportiness and ride comfort with enhanced suspension geometry and a lower centre of gravity. The changes add up to greater responsiveness, increasing driving enjoyment while also offering a smooth and comfortable ride.

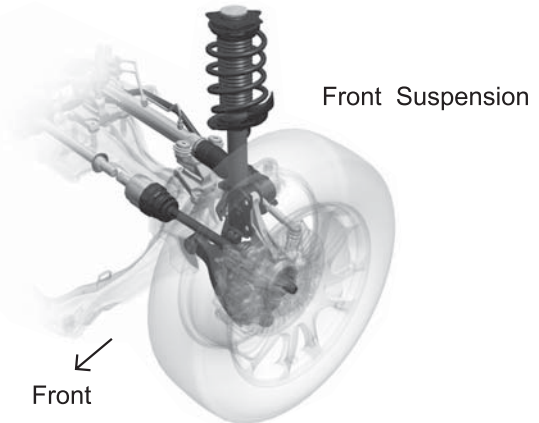
## New CR-V Chassis Technology and Design

- 261.9cm wheelbase (- 5mm)
- Wider track (+ 3cm front / + 2cm rear)
- MacPherson strut front suspension
- Multi-link rear suspension
- Advanced Logic 4-channel ABS system
- Larger 17-inch wheels (+1 inch) and 225/65R17 tyres
- Larger 296mm front disc brakes, 304mm solid rear disc brakes
- Standard VSA and Brake Assist

## MacPherson Strut Front Suspension

The MacPherson strut front suspension incorporates new geometry with a high caster angle and inversely wound springs for improved straight line stability, along with improved toe-control dynamics for more responsive steering. To improve steering rigidity and reduce friction, the steering box has also been mounted lower. Significant changes to steering angles, bushings, materials, springs and shocks result in linear suspension movement at the upper limit of vehicle dynamics and flatter cornering. When cornering, the inner wheel remains closer to perpendicular (relative to the ground plane) throughout a greater range of travel, which improves tyre adhesion. To improve ride comfort, the compliance angle on the lower control arm was optimised to transmit less harshness. Further enhancements include reduced centre offset with the wheel to minimise the potential for torque steer and shimmy.

The front suspension is specially designed and tuned for compact packaging and supple ride comfort, while the long wheel travel allows it to soak up harshest roads. The geometry has been optimised with both a high caster angle and “trail,” to provide sharp on-centre response and stability.



### **Other features of the front suspension that help the CR-V achieve car-like handling include:**

- High-friction upper strut mounts provide a good on-centre steering feel, along with increased linearity while reducing steering shimmy
- Asymmetrical coil springs improve steering quality
- Large-diameter lower arm compliance bushing reduces NVH
- Large-diameter steering box with rigid bushings adds stiffness and improves linear steer feel
- 20mm front stabiliser bar

## Multi-Link Rear Suspension

Like many others in the Honda range, the 2007 CR-V is equipped with a multi-link rear suspension that helps provide a smoother ride, improved handling and additional cargo space. The dynamics offered by the three-link suspension create excellent stability under cornering and braking. The independent multi-link rear suspension system with aluminium knuckle fits compactly underneath the rear seating and storage areas and provides excellent ride and handling characteristics, with low NVH. The suspension uses large-diameter trailing arm bushings to reduce harshness and improve ride comfort. Front and rear stays increase the subframe mounting point rigidity, further improving stability and steer feel.



### Rear suspension features:

- Anti-squat geometry to reduce pitching under acceleration
- 19mm rear stabiliser bar

### Springs, Dampers and Stabiliser Bars

The suspension has been tuned to minimise front-end dive under braking and decrease squat under acceleration, as well as, reduce body roll when cornering. The spring rates, combined with precise damper tuning, provide a good balance between the CR-V's fun-to-drive character and everyday ride comfort.

As with every vehicle that utilises a strut suspension design, the strut bears the load of the weight of the vehicle. Drive forces during the suspension's compression stage can sometimes influence steering precision feel because as the springs compress, they exert torsional force in the opposite direction on the steering mechanism and sometimes make the car pull to one side. To neutralise this effect, Honda engineers applied inversely wound (wound in the opposite direction) coil

springs to the front struts. Because the two front springs compress in opposite directions, the torsional force they produce cancels each other out, minimising their effect on steering feel.

Damper construction is a progressive valve design that significantly contributes to a smoother ride and precise handling. These gas-pressure dampers use a stacked disc-valve arrangement that yields easily and progressively to high-velocity damper piston movement, such as those created by bumps and road impacts; however, the same velocity-sensitive valves present more resistance to the small, low-velocity movement associated with body motion at high speed.

The CR-V has a 20mm front and 19mm rear stabiliser bar.

## Steering System

The variable speed-sensitive, hydraulic rack-and-pinion power steering is geared for improved steering feedback, requiring only light input. Previously a high-mounted steering box setup, the entire steering system is located lower in the vehicle with short length tie-rods to improve input geometry (i.e. more direct) into the front suspension. All models have a tilt and telescopic steering column. The steering ratio and the number of turns lock-to-lock have also been reduced. The turning circle is 11.8 metres.

	2007 CR-V	2006 CR-V
<b>Steering ratio, overall</b>	<b>15.7</b>	16.4
<b>Turns, lock-to-lock</b>	<b>2.96</b>	3.22

## Braking System with Advanced Logic 4-Channel ABS and Brake Assist

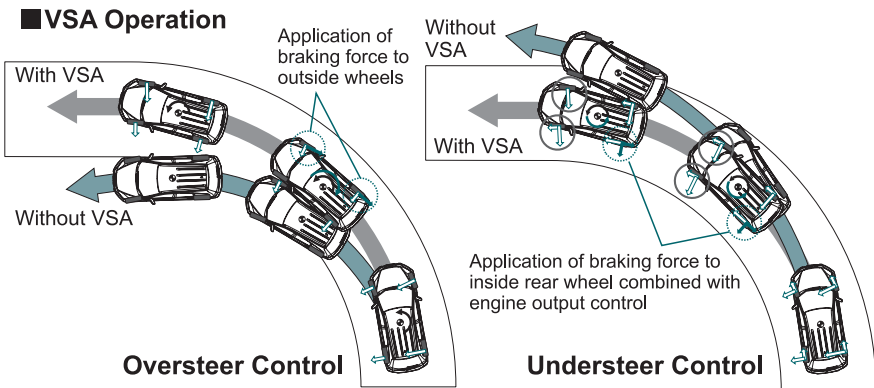
The CR-V is equipped with a 4-channel anti-lock braking system (ABS) with Electronic Brake Distribution (EBD) and Brake Assist. The ventilated front discs have a diameter of 296mm, while the rear solid discs are 304mm in diameter. The 4-channel ABS with EBD independently modulates braking power at each wheel, as opposed to the more common 3-channel system that modulates the front wheels independently and the rear wheels with relatively equal braking force. The new 4-channel capability allows the rear wheels to react independently while cornering, representing a significant enhancement to the ABS system's ability to influence vehicle stability and safety.

Electronic Brake Distribution proportions brake power to the rear wheels based on algorithms that determine the vehicle's weight distribution. Further additions to the braking system include a new ABS control module (that applies for the new 4-channel system). Higher pedal rigidity with a decreased pedal stroke provides a more immediate braking response.

## Vehicle Stability Assist (VSA)

New for all 2007 CR-V models is Vehicle Stability Assist.

For superior control during acceleration, cornering, and sudden collision-avoidance manoeuvres, the CR-V is equipped with a 4-channel Vehicle Stability Assist (VSA) system that works in conjunction with the drive-by-wire throttle and ABS systems. VSA enhances vehicle stability by applying brake force to each of the four disc brakes independently while also managing the throttle and ignition systems.



An additional benefit the system provides for the front wheels is applying braking force to a slipping wheel thereby redirecting driving force to the wheel with more traction, in a similar manner to a limited slip differential. Analysing data that is constantly received from seven sensors monitoring speed, steering input lateral G forces, and yaw rate, the VSA system compares the driver's control inputs with the vehicle's actual response. If the actual response is outside a predicted response range, VSA automatically intervenes with an appropriate corrective action.

In the case of oversteer, VSA applies braking to the outside front and rear wheels to counter the unintended yawing effect. If understeer is detected, VSA applies braking to the inside front and rear wheels and reduces engine power to help bring the car back onto the driver's intended course.

The VSA system in the CR-V has been calibrated with minimal intrusion to the driving experience. It's designed to be transparent, so drivers may not even notice when VSA is working. In addition, VSA's stability enhancement and traction control can be turned off, while still leaving the ABS fully functional.

## **Wheels and Tyres**

All 2007 CR-V's sit on 17 inch wheels. The base model has steel wheels while the Sport and Luxury models are equipped with alloy wheels. The tyre size is 225/65R17.

## **Towing Information**

The 2007 CR-V has a towing capacity of 1500kgs braked (dual axle) for both transmissions.

# Powertrain

## Overview

Although similar to the previous generation CR-V's, the 2007 Honda CR-V blends performance, efficiency and low emissions with an upgraded 2.4-litre, i-VTEC 4-cylinder engine and a choice of either a new six-speed manual or five-speed automatic transmission and an improved version of the Real Time™ 4-wheel drive system.

### Powertrain Summary

- 2.4-litre DOHC i-VTEC 4-cylinder engine
- 125kW @ 5800 rpm (+7kW)
- 218Nm @ 4200 rpm with a broader, flatter, torque curve
- 6-speed manual or 5-speed automatic transmission
- Improved Real Time 4-wheel drive
- Meets Euro 4 compliance
- Uses standard unleaded fuel (91RON)

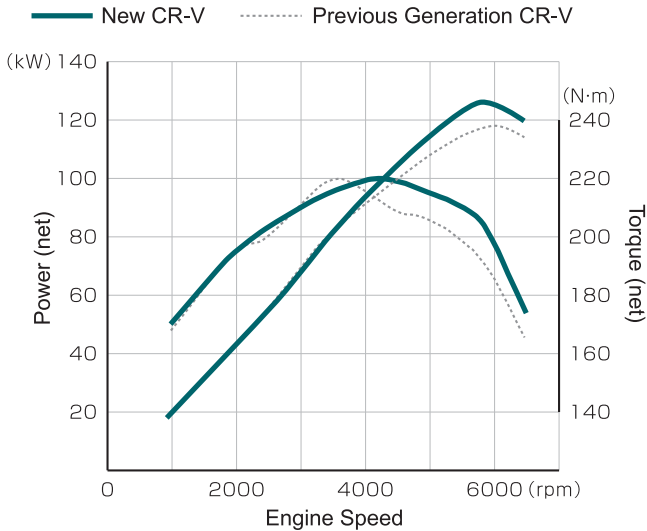
### Aluminium 2.4-litre DOHC i-VTEC 4-Cylinder Engine

The 2007 Honda CR-V engine is a double overhead cam (DOHC) all-aluminium, 2.4-litre inline four-cylinder design that uses 16 valves and a high-volume intake manifold. The engine produces 125kW @ 5800 rpm and torque is rated 218Nm @ 4200 rpm. Primary enhancements for 2007 include a slightly higher compression ratio (9.7:1 from 9.6:1) along with optimised valve timing and higher flow rate intake and exhaust systems. The broadened torque curve gives the 2007 CR-V smoother performance in all types of driving conditions whether it is city, freeway or hilly terrain.

A host of innovative features are designed to deliver a cutting-edge combination of performance, fuel efficiency, and low emissions. Most apparent is the i-VTEC "intelligent" valve-control system, a technology that combines VTC (Variable Timing Control) - which continuously adjusts camshaft phase - with Variable Valve Timing and Lift Electronic Control (VTEC) - which changes valve lift, timing, and duration. The combination of these two systems results in impressive horsepower and torque - with good fuel economy and low exhaust emissions.



## ■ 2.4 litre DOHC i-VTEC Engine Power Curves Comparison



### Engine Block, Crankshaft

The 2.4-litre engine uses a two-piece, die-cast aluminium block and bearing cap design that helps maximise strength and rigidity while minimising noise and vibration. The compact upper element features cast-in iron cylinder liners for outstanding durability and the lower element consists of a single-casting crankshaft carrier fitted with ferrous-carbon bearing-cap inserts that add to its overall structural rigidity. Each journal on the forged-steel crankshaft is micro-polished to help reduce internal friction and improve durability.

### Aluminium Cylinder Head

The i-VTEC engine uses a compact, lightweight cylinder head made of pressure-cast aluminium alloy. Its 4-valve-per-cylinder design has double overhead camshafts activated by a silent chain drive to ensure extremely precise control of the cam phasing. The cam drive is maintenance-free throughout the life of the engine. The combustion chamber is designed with a relatively large “squish” area that promotes faster flame propagation on the ignition stroke. This results in more complete burning of the air-fuel mix and subsequently, low emissions.

## Drive-by-Wire Throttle Control

The electronic drive-by-wire throttle control enhances the driving character of the CR-V from both a throttle pedal feel and a transmission refinement perspective (less shift shock with short gear change intervals). With smart electronics connecting the throttle pedal to the throttle butterfly valve in the intake manifold, the engine response can be optimised to suit the driving conditions and to better match the driver's expectations. By eliminating the direct throttle cable connection to the engine, the ratio between pedal movement and throttle butterfly movement can be continuously optimised.

The CR-V uses a DC motor to control the throttle butterfly position in the intake tract. To establish the current driving conditions, the system monitors pedal position, throttle position, vehicle speed, engine speed and engine vacuum. This information is then used to define the throttle control sensitivity.

The throttle system works in harmony with the 6-speed manual and 5-speed auto transmissions to make shifts smoother. By coordinating the throttle opening with the transmission's shifting functions, engine power can be precisely tailored to the needs of the transmission at every point during the shifting process. That means less shift shock and delay, no matter what the driving situation.

## Torque Rod Engine Mount System

New for the CR-V, is a torque rod engine mount system that further improves the vehicle's quiet and vibration-free operation.

Previously CR-V engine mounts attached the engine and transmission to the subframe and body, then utilised them to resist the rotational effect when the engine is started, or under acceleration. The torque rod engine mount system replaces these two engine mounts with an upper torque rod connected to the body, and a rear lower torque rod connected to the subframe, resisting the engine's rotational torque inputs to the chassis in a longitudinal orientation, reducing inputs that cause idle vibration, and mid and high frequency engine noise during acceleration. The CR-V's engine mounts consist of a rubber side mount integrated with the upper torque rod, lower torque rod, and a transmission mount. The torque rods isolate engine vibrations with solid rubber dampers located at the attachment points to the engine, the body, and the subframe.

## **Internal Balancer Shafts**

To improve smoothness throughout the rev range and lower noise levels, the CR-V is fitted with an internal balancer unit. Consisting of a pair of chain-driven counter-rotating shafts located in the oil pan, the balancing system helps quell the inherent second-order harmonic vibrations that normally impact in-line 4-cylinder engines.

## **Exhaust System**

A high-efficiency exhaust system and a high-density catalytic converter help the CR-V engine meet emission regulations. Exhaust gases pass through a low heat-mass/dual-wall stainless steel manifold as they now exit the “downstream” side of the engine via a new double-walled pipe that also helps limit heat loss. The combination of higher relative temperatures and a more direct path to the catalytic converter yields quicker light-off, which contributes to lower levels of hydrocarbon and NOx emissions.

## **Six-Speed Manual Transmission**

Another first for the 2007 CR-V is the introduction of a six-speed manual transmission that better matches the engines characteristics for greater acceleration, overall performance and optimal fuel economy.

## **Five-Speed Automatic Transmission**

The optional five-speed automatic transmission uses a wide overall ratio that maximises acceleration in gears one through four and optimises fuel economy in its overdrive fifth gear. The computer controlled direct control transmission provides amazingly smooth shifts.

The 5-speed automatic transmission uses a variety of technologies to provide smoother shifting as well as reduced friction for enhanced efficiency. Those technologies include a low-friction clutch and a special super-thin torque converter. The thin torque converter results in a compact transmission unit. Other space-saving measures include a double-row idle gear and a tightly packaged second-gear clutch.

To improve powertrain smoothness and reduce gear “hunting” on steep grades, the 5-speed automatic transmission is also equipped with a standard Grade Logic Control system.

To minimise fuel usage while maintaining a high level of drivability, the 5-speed automatic transmission includes an active lockup torque converter. With the precise control afforded by a linear solenoid, the system expands the speed and throttle setting range in which lockup can be engaged (closely emulating the benefits of a manual transmission design).

### CR-V Transmission Gear Ratios

<b>Gear</b>	<b>Automatic</b>	<b>Manual</b>
<b>1</b>	<b>2.785</b>	<b>3.642</b>
<b>2</b>	<b>1.613</b>	<b>1.88</b>
<b>3</b>	<b>1.081</b>	<b>1.212</b>
<b>4</b>	<b>0.772</b>	<b>0.972</b>
<b>5</b>	<b>0.566</b>	<b>0.78</b>
<b>Reverse</b>	<b>2.000</b>	<b>3.583</b>
<b>Final Drive Ratio</b>	<b>4.50</b>	<b>5.33</b>

### Real Time™ 4WD

The CR-V's 4-wheel drive system is designed to best match the majority of driving situations that SUV's realistically encounter. The fully automatic Real Time 4WD system enhances the CR-V's all-weather and light duty off-road capabilities such as when driving in rain, snow, or on dirt and gravel roads – without the significant weight, fuel economy and handling performance drawbacks of a conventional four-wheel-drive system.

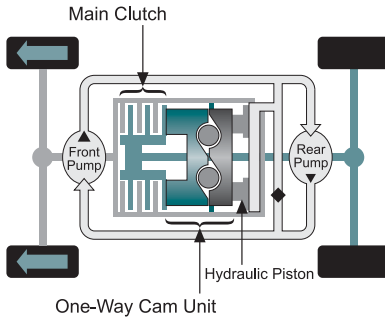
For 2007, enhancements have been made to the system for improved performance by optimising materials and construction, resulting in 20 percent more torque transfer to the rear wheels.

The CR-V's Real Time 4WD system sends power only to the rear wheels when there is insufficient traction for the front-wheel-drive system. The system consists of the conventional front-wheel-drive system, a compact transfer case that distributes torque to a propeller shaft running the length of the vehicle, a dual-pump system with a multi-plate clutch, a cam unit mechanism, the rear differential and left and right rear-wheel driveshafts.

The core of the system is the dual-pump unit. It consists of two hydraulic pumps, one driven by the front wheels via the propeller shaft and one driven by the rear wheels via the rear differential. A hydraulically actuated, multi-plate clutch, similar to the clutches used in Honda automatic transmissions, connects the propeller shaft to the rear differential.

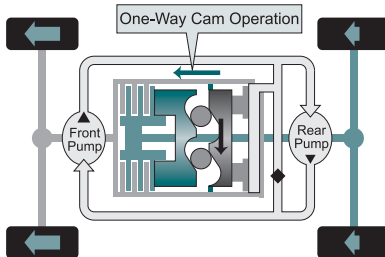
## 4WD System Operation

← Traction Force



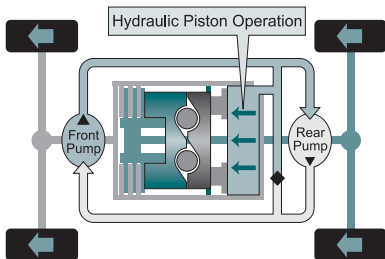
### Normal Driving Conditions (Front Wheel Drive)

In normal driving conditions drive is through the front wheels. As there is no difference between front and rear wheel rotational speed, the one-way cam unit remains disengaged.



### Snow and other slippery surfaces (cam operation: 4WD)

Minimal difference between front and rear wheel rotational speed. The two cams are pushed apart by the balls, engaging the main clutch instantaneously. Power is transmitted to the rear wheels for immediate switch to 4WD mode.



### Climbing slopes on snow and other slippery surfaces (hydraulic piston actuation: 4WD)

Significant difference between front and rear wheel rotational speed requiring further increased transmission of power to the rear wheels. Hydraulic pressure is sufficient to activate main clutch.

When the CR-V is operating with the front and rear wheels turning at the same speed the front and rear hydraulic pumps operate at the same rate. Hydraulic fluid circulates between the two pumps; however, no pressure is generated. In effect, the fluid pressure created by the front pump is equalised by the rear pump.

If the front wheels begin to turn faster than the rear wheels, as would be the case if they were spinning on snow or ice, the two hydraulic pumps would turn at a different rate and hydraulic pressure proportional to the difference in their speeds of rotation would be generated. The resulting hydraulic pressure opens a valve body

and feeds pressure to the multi-plate clutch, which engages the front propeller shaft to the rear differential. The rear differential then feeds the drive torque to the right and left rear wheels.

To provide a quick torque transfer response time for transparent 4-wheel drive operation to the driver, the multi-plate clutch is supplemented by a one-way ball cam unit mechanism. The cam unit mechanism consists of two plates separated by six ball cams (large bearings) that move within ramped grooves. When a slight difference in rotation speed exists between the rear wheels and front wheels when driving forward, the ball cams move within the ramped grooves and create pressure that instantly begins the engagement of the main clutch (prior to the build-up of sufficient hydraulic pressure). By engaging the main clutch at a sufficient force even before the hydraulic pressure is generated by the two hydraulic pumps, the driving torque is transferred without a hint of time lag.

The system is totally automatic; no electronics or driver action is needed. The greater the degree of front-wheel slippage, the greater the amount of torque fed to the rear wheels. Real Time™ 4WD is also low maintenance.

# 2007 CR-V Specifications

		Base	Sport	Luxury
<b>Dimensions - Exterior</b>				
<b>Overall Length</b> (mm)		4520	4520	4520
<b>Overall Width</b> (mm)		1820	1820	1820
<b>Overall Height</b> (mm)		1680	1680	1680
<b>Wheelbase</b> (mm)		2620	2620	2620
<b>Tread</b> (mm)	Front	1565	1565	1565
	Rear	1565	1565	1565
<b>Ground Clearance</b> (mm)	Non-Load	185	185	185
	Full-Load	150	150	150
<b>Dimensions - Interior</b>				
<b>Seating Capacity</b>		5	5	5
<b>Interior Length</b> (mm)		1898	1898	1898
<b>Interior Width</b> (mm)		1480	1480	1480
<b>Interior Height</b> (mm)		1253	1222	1222
<b>Head Room</b>	Front (mm)	1039	987	987
	Rear (mm)	980	979	979
<b>Leg Room</b>	Front (mm)	1050	1050	1050
	Rear (mm)	977	977	977
<b>Shoulder Room</b>	Front (mm)	1446	1446	1446
	Rear (mm)	1423	1423	1423
<b>Hip Room</b>	Front (mm)	1421	1421	1421
	Rear (mm)	1388	1388	1388
<b>Weight</b>				
<b>Curb Weight</b>	Manual (kg)	1570	1580	1590
	Automatic (kg)	1600	1610	1620
<b>Maximum Permissible Weight</b> (kg)		2050(MT)	2050(MT)	2050(MT)
		2080(AT)	2080(AT)	2080(AT)
<b>Weight Distribution</b>				
<b>Manual</b>	Front (kg)	890	895	895
	Rear (kg)	680	685	695
<b>Automatic</b>	Front (kg)	920	925	925
	Rear (kg)	680	685	695
<b>Maximum Towing Capacity</b>				
<b>Trailer with brakes</b> (kg)	Manual	1500	1500	1500
	Automatic	1500	1500	1500
<b>Trailer without brakes</b> (kg)	Manual	600	600	600
	Automatic	600	600	600
<b>Down force/tongue load</b> (kg)		150	150	150

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## Performance

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<b>Maximum Power</b>	kW /rpm	125/5800	125/5800	125/5800
<b>Maximum Torque</b>	Nm /rpm	218/4200	218/4200	218/4200
<b>Fuel Consumption</b>				
<b>Manual</b>	Combined litres/100km	10.0	10.0	10.0
<b>Automatic</b>	Combined litres/100km	10.0	10.0	10.0
<b>Turning Circle</b>	At Body (m)	11.8	11.8	11.8
	At Wheel Centre (m)	11.0	11.0	11.0

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## Capacity

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<b>Fuel Tank</b>	Litre	58	58	58
<b>Boot Capacity (m<sup>3</sup>)</b>	rear seat up	1.01	1.01	1.01
	rear seat down	2.06	2.06	2.06

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## Engine

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<b>Engine Type</b>		2.4 litre DOHC i-VTEC	2.4 litre DOHC i-VTEC	2.4 litre DOHC i-VTEC
<b>Combustion Chamber Type</b>		Pent Roof	Pent Roof	Pent Roof
<b>Valvetrain</b>		4-Valves	4-Valves	4-Valves
<b>Displacement</b>	cc (cm <sup>3</sup> )	2354	2354	2354
<b>Bore x Stroke</b>	mm	87x99	87x99	87x99
<b>Compression Ratio</b>		9.3	9.3	9.3
<b>Fuel Supply System</b>		PGM-FI	PGM-FI	PGM-FI
<b>Oil Pump System</b>		Trochoid	Trochoid	Trochoid
<b>Fuel Required</b>	RON	91	91	91
<b>Emission System</b>		EURO-4	EURO-4	EURO-4
<b>Redline/Cutout</b>	rpm	6500/6700	6500/6700	6500/6700

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## Transmission

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<b>Manual Transmission</b>	Synchronised 6-Speed Forward - 1 Reverse			
<b>Gear Ratios</b>	1st	3.642	3.642	3.642
	2nd	1.88	1.88	1.88
	3rd	1.212	1.212	1.212
	4th	0.972	0.972	0.972
	5th	0.78	0.78	0.78
	6th	0.659	0.659	0.659
	Reverse	3.583	3.583	3.583
	Final Reduction Ratio	5.333	5.333	5.333
<b>Manual Transmission</b>	Clutch Type - Single Plate Dry, Diaphragm Spring			

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<b>Automatic Transmission</b>	Electronically Controlled - 5-Speed Automatic - 1 Reverse			
<b>Gear Ratios</b>	1st	2.785	2.785	2.785
	2nd	1.613	1.613	1.613
	3rd	1.081	1.081	1.081
	4th	0.772	0.772	0.772
	5th	0.566	0.566	0.566
	Reverse	2.000	2.000	2.000
	Final Reduction Ratio	4.500	4.500	4.500

<b>Automatic Transmission</b>	Clutch Type - Torque Converter			
<b>Realtime Four Wheel Drive System</b>	New Dual Pump System	✓	✓	✓
<b>Drive By Wire</b>		✓	✓	✓

### Suspension System

<b>Suspension Type</b>	Front	MacPherson Strut	MacPherson Strut	MacPherson Strut
	Rear	Multi Link Double-Wishbone	Multi Link Double-Wishbone	Multi Link Double-Wishbone
<b>Shock Absorber</b>	Front	Gas Pressurised	Gas Pressurised	Gas Pressurised
	Rear	Gas Pressurised	Gas Pressurised	Gas Pressurised
<b>Stabiliser Bar Type/Size</b>	Front (mm)	20	20	20
	Rear (mm)	19	19	19

### Brake System

<b>Brake Type</b>	Front	Ventilated disc	Ventilated disc	Ventilated disc
	Rear	Disc	Disc	Disc
<b>Parking Brake Type</b>	Foot Operated	AT	AT	AT
	Hand Brake	MT	MT	MT
<b>Disc Diameter</b>	Front (mm)	296	296	296
	Rear (mm)	305	305	305

### Tyres / Wheels

<b>Tyre Size</b>	Front	225/65R17 102T	225/65R17 102T	225/65R17 102T
	Rear	225/65R17 102T	225/65R17 102T	225/65R17 102T
	Spare Tyre	225/65R17 102T	225/65R17 102T	225/65R17 102T
<b>Wheel Size / Type</b>	Front/Rear	17 X 6.5J	17 X 6.5J	17 X 6.5J
	Spare Tyre	17 X 6.5J	17 X 6.5J	17 X 6.5J
	Type	Steel	5-Spoke Alloy	7-Spoke Alloy

### Steering System

<b>Type</b>	Rack & Pinion			
<b>Overall Ratio</b>	15.74		15.74	
<b>Turns, Lock to Lock</b>	2.96		2.96	

## Safety Features

<b>Active Safety</b>	ABS (with EBD)	✓	✓	✓
	VSA	✓	✓	✓
<b>Airbag</b>	Driver/Front Passenger Airbag	✓	✓	✓
	Side Airbag with Occupant Position Detection System	✓	✓	✓
	Curtain Airbag	-	✓	✓
	Active Seat Headrests	Driver/Front Passenger	✓	✓
<b>Reverse Parking Sensor</b>		-	-	✓
<b>Child Seats</b>	x3	✓	✓	✓

## Exterior Features

<b>Sunroof</b>		-	✓	✓
<b>Coloured Bumpers</b>		✓	✓	✓
<b>Front Grille</b>	Upper: Chrome with Lower: Black	✓	-	-
	Upper: Chrome with Lower: Chrome	-	✓	✓
<b>Headlights</b>	Halogen	✓	✓	✓
<b>Exterior Lights</b>	High Mounted Stop Light	✓	✓	✓
	Front Fog Light	-	✓	✓
<b>Front Mud Guard</b>	Grey	✓	✓	✓
<b>Rear Mud Guard</b>	Grey	✓	✓	✓

## Interior Features

<b>Cruise Control</b>		✓	✓	✓
<b>Air Conditioner</b>	Dual-zone Climate Control	-	✓	✓
	Manual	✓	-	-
	Rear Heater Duct	✓	✓	✓
<b>Security</b>	Security Alarm	✓	✓	✓
	Immobiliser	✓	✓	✓
<b>Tilt &amp; Telescopic Steering Wheel</b>		✓	✓	✓
<b>Driver's Footrest</b>		✓	✓	✓
<b>Door Mirror</b>	Door Mirror with Side Turn Indicator	✓	✓	✓
	Body Coloured	✓	✓	✓
	Power Operated	✓	✓	✓
<b>Front Windscreen</b>	2-speed Intermittent	✓	-	-
<b>Wiper System</b>	Variable Intermittent	-	✓	✓
<b>Wash Tank Capacity</b>	Litres	4.8	4.8	4.8

<b>Rear Wiper Control</b>	Intermittent & Reverse Combination	✓	✓	✓
<b>Power Windows</b>	Driver's Side Auto Up/Down	✓	✓	✓
<b>Door Lock</b>	Drivers Side Central Locking Switch	✓	✓	✓
<b>Steering Wheel</b>	Black Urethane Leather	✓ -	✓ -	- ✓
<b>Interior Trim</b>	Fabric Leather	✓ -	✓ -	- ✓
<b>Headrests</b>	All Seat Positions	✓	✓	✓
<b>Front Seat Features</b>	Heated Seats Seat Back Pocket Centre Console	- ✓ ✓	- ✓ ✓	✓ ✓ ✓
<b>Driver's Seat Adjustment</b>		Manual	Manual	8-way Power Operated & Lumbar Support
<b>Rear Seat Features</b>	Armrest Through 40:20:40/fold down+slide	✓ ✓	✓ ✓	✓ ✓
<b>Seatbelt</b>	Five x 3 Point Belts	✓	✓	✓
<b>Seatbelt Reminder</b>	Driver	✓	✓	✓
<b>Sunglasses Holder</b>	Roof Console	-	✓	✓
<b>Vanity Mirror</b>	Driver & Passenger	✓	✓	✓
<b>Dash Display Information</b>	Illuminated Meter Outside Temperature Trip Computer	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
<b>Interior Lights/ Illumination</b>	Map Light Steering Lock Illumination Power Switch Illumination Cargo Light Ambient Light Audio Steering Wheel Switches Illumination	✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓
<b>Key System</b>	Keyless Entry (Type) No. of Keyless Transmitters	✓ 2	✓ 2	✓ 2
<b>Rear Window Demister</b>		✓	✓	✓
<b>Front Accessory Socket</b>		✓	✓	✓
<b>3x Accessory Socket</b>	Console or Table	✓	✓	✓
<b>Tonneau Cover</b>		-	✓	✓
<b>Double Deck Cargo</b>		-	✓	✓
<b>Cargo Restraint Hooks</b>		✓	✓	✓
<b>Conversation Mirror</b>		✓	✓	✓

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## Audio System

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<b>Audio</b> <b>(with Auto Volume)</b>	AM/FM Radio & Single CD Player	✓	-	-
	AM/FM Radio & Six CD Player	-	✓	✓
<b>Speakers</b>	Front Speaker (17cm)	✓	✓	✓
	Rear Speaker (17cm)	✓	✓	✓
	Tweeter	-	✓	✓
<b>Auxiliary Audio Input Jack</b>		✓	✓	✓
<b>MP3/WMA Playback</b>		✓	✓	✓
<b>Speed Sensitive Volume Control</b>		✓	✓	✓
<b>Steering Wheel-mounted Audio Controls</b>		✓	✓	✓

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