

**ACCORD**



**HONDA**



## PASSION

Honda's hard-won success on the Formula 1 racing circuit has inspired a passion and spirit throughout the company that results in truly original automobiles.

Automobiles like the new EXI Accord and the world's first luxury four wheel steering sedan; the remarkable four wheel steering Accord.

Honda's devotion to motor sport began with Soichiro Honda's own passion for building and racing cars as a young man, so soon after it was established, a young Honda Motor Company dedicated itself to racing with the same fervour as its founder. When

Honda began producing automobiles in the 1960s there was a dedicated commitment made to Grand Prix racing. But it has never been racing for the sake of racing.

The main reason for competing in Formula 1 racing is to create and prove new automotive technology. And the new Honda Accords are testimony to this. Because the fact is both Accords are the ultimate in automotive technology.

But don't think driving an Accord is purely a technological experience. It is also an emotional one. And an experience you'll want to enjoy again and again.



## POWER

Only Honda could design such an efficient, low emission engine without sacrificing power. For exceptional performance and dynamic response, the Accord is powered by a 2.2 litre 16 valve engine.

Equipped with Formula 1 inspired PGM-FI (Programmed Fuel Injection) and PGM-IG (Programmed Ignition Timing Control) the Accord's engine is self-tuning. It constantly adjusts the fuel-air ratio for each cylinder as well as the ignition timing. The result is maximum horsepower and torque with a peak level of fuel economy.

Of course, a luxury sedan engine should be both quiet and vibration-free. To achieve this, Honda started with a special lightweight alloy engine block which features a deep skirt for improved rigidity. And for enhanced durability, each cylinder is provided with a cast iron sleeve.

Honda's ingenious twin balancer-shaft system reduces engine vibration, especially in the mid to high rpm range. These shafts rotate in opposing directions and at twice the speed of the crankshaft to counteract the vibrational forces of the engine.

Another of the Accord's many design features is Honda's electronically controlled engine mount. Fitted to Accords with automatic transmission, it is designed to

absorb engine vibration during idling, start-up and at low rpm. And also reduce shock associated with shifting the transmission into gear at low speeds.

The Accord's variable air-intake duct system is designed to reduce unwanted induction noise. It utilizes a 2-stage air pre-induction system composed of two air ducts: a standard air inlet duct and a high velocity duct which operates above 3500 rpm.

For improved visibility, driving stability and manoeuvrability, the Accord's engine is tilted towards the rear of the car. This arrangement results in improved weight distribution and a lower centre of gravity. An added benefit is the space created for a straight air-intake manifold.

This allows for smoother, more efficient intake flow which increases engine output at high rpm.

Honda reliability is now legendary. But in the unlikely event of a malfunction, the engine has a fail-safe programme that allows the car to be driven to its desired destiny without further damage. It also has self-diagnostic programmes to identify faults the driver may not be aware of.

Formula 1 technology has led to an engine with remarkable economy, lower emissions and inspiring performance.





## TRANSMISSION

To accommodate the full power of the Accord's engine, Honda has used technology and imagination to create two highly efficient transmissions.

On the manual transmission models, the gear lever is mounted independently of the transmission and is connected via shifting cables. This isolates the shift lever from stray vibrations and provides smooth, positive gear selection.

An innovative main shaft brake eliminates unwanted gear selection noise commonly associated with reverse gear selection. And the hydraulically-controlled clutch is free of asbestos for enhanced durability and a healthier environment.

For outstanding efficiency, the electronically-controlled automatic transmission contains a lock-up torque converter which engages in second, third and fourth gear while maintaining constant speeds.

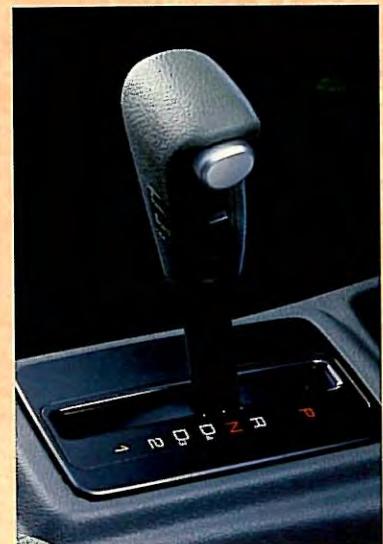
And third and fourth gear when decelerating to assist in engine braking. The converter's lock-up feature prevents slipping to enhance performance and aid fuel economy.

The automatic transmission features a 7-position shift pattern: Parking, Reverse, Neutral, D4, D3, 2 (Second), and 1 (First). And for easy reference, the shift lever position is displayed on the dashboard instrument panel.

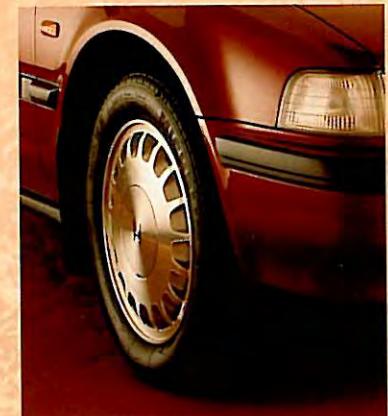
A "Normal/Sports" mode button is located on the shift lever. Which means a sportier performance is right at your fingertips.

With the shift lever in position D3, activating the "Sports" mode directs the transmission to shift at higher rpm levels when moving from first to second and second to third. With the shift lever in D4, the "Sports" mode function is extended to the third to fourth gear shift.

What is more, first gear in the automatic transmission, is accompanied by a low-hold system which restricts the transmission to that gear only. Its operation improves engine braking performance while driving at low speeds or when driving downhill. It's also very useful when carrying loads or towing.



Automatic transmission lever.





## RIDE

Using computer design techniques and its Formula 1 proven technology, Honda has managed to refine its famous four wheel double wishbone suspension.

The improvements include the addition of a longer suspension stroke and longer lateral arms. Each upper wishbone is raised and offset, and the vertical link is curved for extra interior space and a lower centre of gravity.

Honda also isolated the spring and damper units from any structural role freeing up the suspension to respond instantly to changes in the road surface. Even in the roughest conditions, the Accord's double wishbone system allows each wheel to remain

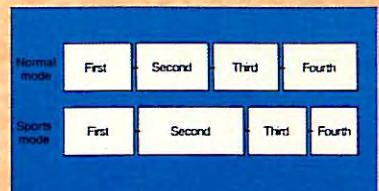
virtually perpendicular.

For maximum safety, each wheel is equipped with a disc brake. And naturally, the front discs are ventilated.

What's more, anti-dive and anti-lift geometry keeps the Accord level, even under severe braking.

To maintain driving feel, the Accord is equipped with a speed responsive torque reactive power steering system.

During low speed driving and parking operations, assistance is maximized, and as speed increases, assistance decreases. The transition is so gradual, you won't be aware of the change and the steering effort will always remain at a comfortable level.

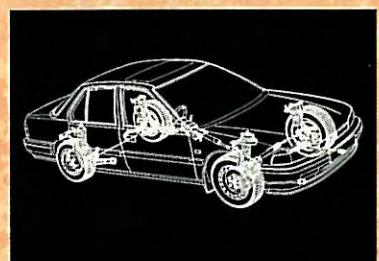


Shift pattern comparison at 5/8 throttle (AT).

Four wheel double wishbone suspension system, computer simulation.



Four wheel double wishbone suspension system.





## 4 WHEEL STEERING

The Accord's agility is already established with its sophisticated double wishbone suspension and tight 9.8 metre turning circle. And 4-wheel steering adds an entirely new dimension to driving.

The Accord's revolutionary 4-wheel steering gives you outstanding manoeuvrability in tight spaces, extraordinary agility through winding roads and an enormous reserve of safety when evasive action is required. When changing lanes at high speed all four wheels steer in the same direction giving a quicker, smoother and more stable transition from one lane to the other.

When steering is affected by external conditions such as wind and rough roads, only minimal steering compensation is required

with 4-wheel steering. And on surfaces such as ice, snow or unpaved roads, 4-wheel steering provides maximum stability and control. At low speeds, the rear wheels steer in the opposite direction to the front for tighter turning.

This creates a smaller turning radius and makes parking so much easier. You'll be amazed at how the Accord fits into what were impossibly small spaces.

Unlike other systems, the Accord's 4-wheel steering system is incredibly simple. And because it is mechanical, it is extremely reliable.

Four-wheel steering adds a new level of safety, control and stability to motoring. It is a driving experience you'll never forget.



Same direction. Opposite direction.



Rear steering gearbox mechanism.



Turning radius 4.9m 4.W.S

4.W.S

2.W.S



# DESIGN

The Accord's luxury starts with a technologically crafted body structure that resists flexing. Naturally, the less the body flexes, the more comfortable the ride is.

The very latest computer aided design and engineering (CAD/CAE) techniques have been used in designing and building the Accord. Special attention was also given to NVH (Noise, Vibration, Harshness) reduction, as well as the meticulous selection of corrosion-resistant materials to assure long life.

Honda's Dynamic Optimization System Analysis (DOSA) was applied to optimize body structure rigidity. This involves reducing weight in areas which have been over-designed, and providing reinforcement to those areas which need it.

Additionally, this system helps to construct the body in a way that minimizes structural vibration and noise, and ensures structural integrity.

The Honda Acoustic and Noise Simulation (HANS) system was also utilized to achieve an exceptionally quiet interior. By understanding structural resonances and locating areas where sound is trapped, HANS works to ensure that the area around the passengers remains remarkably quiet.

Through Honda's innovative engineering body seams and gaps have been

reduced to next to nothing.

Heavy gauge, high-grade steel plate is used throughout the Accord's exterior body panels. Corrosion-resistant treatments, including the hot dip galvanizing of both sides of the alloy steel frame. Electrolytic zinc galvanized plate is used for 90% of the body's weight and the injection of anti-rust wax along areas where moisture tends to collect, including doors, bonnet, bootlid, sidesills and wheel arches is used as an additional anti-corrosive measure.

For protection against flying stones and gravel, the bonnet, roof and front pillar are coated with an anti-chipping primer.

And a vinyl chloride sole coating is applied on surfaces below the floor.

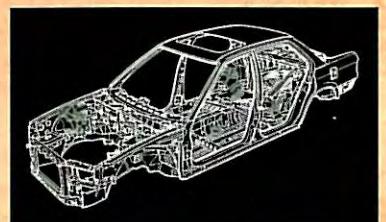
Where practicable, resin materials have been used to replace metal parts such as the fuel lid, battery tray and underbody coverings. The underbody resin protectors ensure extended body life by minimizing moisture contact and preventing rust initiated when surfaces are exposed.

The flush surface of the Accord reflects the craftsmanship of Honda engineering and the creativity of Honda design.

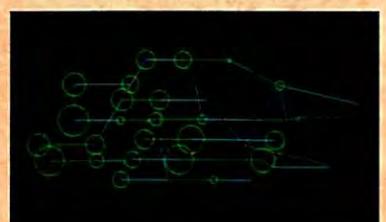
Smooth, clean lines define a dynamic shape and the powerful "Diamond Eye" headlights have a striking lens which resembles crystal.



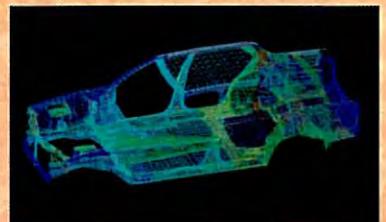
Accord prototype development.



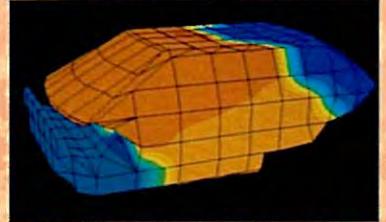
Highly rigid monocoque body.



Dynamic Optimisation System Analysis-(DOSA).



Computer analysis of monocoque body-(NASTRAN).



Honda Acoustic & Noise Simulation system-(HANS).



## COMFORT

Not surprisingly, the overall theme of the Accord's interior is comfort. For the driver, the driver's seat on the leather trim model has an eight way power control that can be positioned to your exact liking at the touch of a button. And to give taller drivers plenty of headroom, the power height adjuster can be positioned over a 30mm range.

The deep, gently curved moulded dashboard integrates with the moulded door panels to give the interior a sculptured feel. Because of its one-piece injection moulded construction, there are no unnecessary joints or seams on the dashboard. And being a single unit, it is remarkably free of noise.

Positioned within the instrument panel are three large analogue meters.

The speedometer is in the middle with the tachometer on the left and a combination meter containing the water temperature gauge, fuel gauge, automatic shift lever position on automatic models and safety indicator panel on the right.

Located within the self-contained instrument module is an array of status and warning indicators such as PGM-FI/PGM-IG, brake warning, high beam, doors, oil and fuel.

Stalks attached to the steering column contain headlights, wiper and turn signal controls for easy access. And an illumination control below the instrument panel permits adjustment as required.

The Accord has excellent visibility for the driver and passengers. Both windscreen and rear windows are exceptionally large. Side windows consist of a large glass area for maximum visibility.

The high capacity heating and cooling system has individual ducts to the rear to ensure the rear seat passengers are more than comfortable. A bi-level system is incorporated for better climate control.

Independent vent systems are used for both warm and cool air. This means the driver and passengers can receive warm air at foot level and cool air at face level.



Leather interior trim available in 4.W.S model only.



Moquette interior trim.





## 1991 ACCORD EXi

SPECIFICATIONS		DATA
Engine type	2.2 litre S.O.H.C. 16 valve	
Cylinder arrangement	In line 4 transverse	
Displacement (cc)	2156	
Bore and stroke (mm)	85 x 95	
Maximum horsepower (kW @ r.p.m.)	103 @ 5600	
Maximum torque (kg/m @ r.p.m.)	19.6 @ 4500	
Compression ratio	8.8:1	
Fuel tank capacity (litres)	65	
Fuel required (R.O.N.)	91 or higher	
EXTERIOR DIMENSIONS		DATA
Overall length (mm)	4695	
Overall width (mm)	1725	
Overall height (mm)	1390	
Wheel base (mm)	2720	
Track front/rear (mm)	1475/1480	
Ground clearance (mm) (Laden)	110	
Turning circle (metre)	10.8	
Kerb weight (Man) (Auto) (kg)	1310/1340	
MECHANICAL FEATURES		
Front wheel drive	*	
Dual counter balance shaft system	*	
Manual transmission	5-speed	
Main shaft braking system	Manual transmission model	
Tri axial automatic transmission	4-speed E.A.T. electronic automatic transmission with sports range and four stage programmed lock-up clutch (includes deceleration lock-up control)	
Low hold clutch	Automatic transmission model	
Electronic shift shock reducing system	Automatic transmission model	
Electronically controlled hydraulic engine mount	Automatic transmission model	
Front suspension	Double wishbone	
Rear suspension	Double wishbone	
Gas pressurized front and rear shock absorbers	*	
Front and rear stabilizer bars	*	
Steering type (speed responsive)	Power assisted rack and pinion	
Servo assisted 4-wheel disc brakes	Front vented	
P.G.M.-F.I. programmed fuel injection system	Sequential multi-point	
P.G.M.-I.G. programmed ignition system	Digital	
Electronically controlled dual stage intake manifold	*	
Maintenance free battery	*	
EXTERIOR FEATURES		
3-coat 3-bake paint process	*	
Clear front indicator lenses	With amber illumination	
Side protection mouldings	*	
Semi concealed front drip mouldings	*	
Impact absorbing bumpers	Body coloured with integrated front air dam	

Laminated front windshield	With band tint
Central locking	*
Timed illumination system	Ignition switch
Diamond eye halogen headlights	*
Wheels	5.5JJ x 15 alloy
Steel belted radial tyres	195/60 R15 87H 195/60 R15 87V
Front and rear mud flaps	*
Body coloured door handles	*
Dual chromed tail pipes	4.2.1.2. system
INTERIOR FEATURES	
Moquette seat trim	*
Power seat height adjuster	Driver's side
Adjustable front head restraints	With tilt function
Lumbar support adjuster	Driver's side
Front seat back pockets	*
Folding rear seat back	*
Fold down rear centre arm rest	*
Tilt adjustable steering column	*
Cruise control	Control switches mounted on steering wheel
Front wiper/washer system	With intermittent and mist modes
Driver's foot rest	*
One piece dashboard	*
Tachometer, speedometer, tripmeter and odometer	*
Comprehensive dashboard warning lights	*
Low fuel warning light	*
Headlights on reminder	*
Rear window demister	*
Day/night rear view mirror	*
Passenger vanity mirror	*
Glove compartment	Lockable illuminated (with soft damper)
Digital clock	*
Full flow heater with full front window and side window demisting	5-speed fan
Rear passenger heater ducts	*
Bi-level heating system	*
Face level vent shut valves	*
Push button ventilation and dial temperature controls	*
AM/FM stereo cassette player	4 speaker system with automatic antenna
Cigarette lighter and ash tray	Illuminated
Centre console storage compartment	*
Change lever (automatic)	With integrated sports switch
Power operated sun roof	2-way with smoked glass and sunshade
Power operated mirrors	Body coloured
Power operated windows	One touch function/driver's side plus isolator switch
Coin pocket	Lined
Front door pockets	*

Door courtesy lights	Front and rear doors
Remote boot and fuel lid openers	Lockable boot opener
Passenger grab handles	Front x 1 (rear x 2 pull out type)
Coat hanger	x 1 Right hand rear
Rear cargo area	Illuminated

## SAFETY FEATURES

Highly rigid monocoque body	*
Door intrusion bars	*
Seat belts front (3-point E.L.R. x 2)	With adjustable shoulder anchorages
Seat belts rear (3-point E.L.R. x 2)	*
Lap belt rear (centre x 1)	
Child safety seat anchorages	*
Child proof rear door locks	*
Dual circuit diagonal braking system	*
Brake fluid warning indicator	*
Padded instrument panel	*
Energy absorbing steering column	*
Impact absorbing bumpers	*
Centre high mount stop light	*
Hazard warning lights	*
Comprehensive dashboard warning lights	*
Safety indicator panel	*

## EXTERIOR/INTERIOR COLOURS

EXTERIOR	CODE	INTERIOR
Frost White	NH-538	Grey
Cappuccino Brown	YR-501M	Brown
Cobalt Blue	B-54P	Grey
Bordeaux Red	R-78P	Grey
Seattle Silver	YR-94M	Grey

\*Indicates included on model.

Note: The Specifications and Major Features listed herein are accurate as at the date of printing (Feb. 1991), however, Honda Motor Co. Ltd., and Honda Australia Pty. Ltd. reserve the right to change or modify Specifications and Major Features at any time without prior notice. Specifications may also vary in some States; please check current specifications with your Authorised Honda Automobile Dealer before purchase. Due to ordering, shipping and freight factors, some colour and model availabilities may vary from time to time. Check with your Honda dealer for current information on availability.



HONDA SUPPORTS SAFE DRIVING. TAKE CARE ON THE ROAD.

## 1991 ACCORD EXi 4WS

### SPECIFICATIONS

	DATA
Engine type	2.2 litre S.O.H.C. 16 valve
Cylinder arrangement	In line 4 transverse
Displacement (cc)	2156
Bore and stroke (mm)	85 x 95
Maximum horsepower (kW @ r.p.m.)	103 @ 5600
Maximum torque (kg/m @ r.p.m.)	19.6 @ 4500
Compression ratio	8.8:1
Fuel tank capacity (litres)	60
Fuel required (R.O.N.)	91 or higher
<b>EXTERIOR DIMENSIONS</b>	
Overall length (mm)	4695
Overall width (mm)	1725
Overall height (mm)	1390
Wheel base (mm)	2720
Track front/rear (mm)	1475/1480
Ground clearance (mm) (Laden)	110
Turning circle (metre)	9.8
Kerb weight (Man) (Auto) (kg)	1340/1370
<b>MECHANICAL FEATURES</b>	
Front wheel drive	*
Dual counter balance shaft system	*
Manual transmission	5-speed
Main shaft braking system	Manual transmission model
Tri axial automatic transmission	4-speed E.A.T. electronic automatic transmission with sports range and four stage programmed lock-up clutch (includes deceleration lock-up control)
Low hold clutch	Automatic transmission model
Electronic shift shock reducing system	Automatic transmission model
Electronically controlled hydraulic engine mount	Automatic transmission model
Front suspension	Double wishbone
Rear suspension	Double wishbone
Gas pressurized front and rear shock absorbers	*
Front and rear stabilizer bars	*
Steering type (speed responsive)	Power assisted rack and pinion
4.W.S steer angle dependent four wheel steering system	*
Servo assisted 4-wheel disc brakes	Front vented
P.G.M.-F.I. programmed fuel injection system	Sequential multi-point
P.G.M.-I.G. programmed ignition system	Digital
Electronically controlled dual stage intake manifold	*
Maintenance free battery	*
<b>EXTERIOR FEATURES</b>	
3-coat 3-bake paint process	*
Clear front indicator lenses	With amber illumination
Side protection mouldings	*
Semi concealed front drip mouldings	*
Impact absorbing bumpers	Body coloured with integrated front air dam

Laminated front windshield	With band tint
Central locking	*
Timed illumination system	Ignition switch
Diamond eye halogen headlights	*
Wheels	5.5JJ x 15 alloy
Steel belted radial tyres	195/60 R15 87H 195/60 R15 87V
Front and rear mud flaps	*
Body coloured door handles	*
Dual chromed tail pipes	4.2.1.2. system

### INTERIOR FEATURES

Leather seat trim	Meiji leather
Eight way power driver's seat	Driver's side
Adjustable front head restraints	With tilt function
Lumbar support adjuster	Driver's side
Front seat back pockets	*
Fold down rear centre arm rest	Through pocket
Leather bound steering wheel	*
Tilt adjustable steering column	*
Cruise control	Control switches mounted on steering wheel
Front wiper/washer system	With intermittent and mist modes
Driver's foot rest	*
One piece dashboard	*
Tachometer, speedometer, tripmeter and odometer	*
Comprehensive dashboard warning lights	*
Low fuel warning light	*
Headlights on reminder	*
Rear window demister	*
Day/night rear view mirror	*
Passenger vanity mirror	*
Glove compartment	Lockable illuminated (with soft damper)
Digital clock	*
Full flow heater with full front window and side window demisting	5-speed fan
Rear passenger heater ducts	*
Bi-level heating system	*
Face level vent shut valves	*
Push button ventilation and dial temperature controls	*
AM/FM stereo cassette player	4 speaker system with automatic antenna
Cigarette lighter and ash tray	Illuminated
Centre console storage compartment	*
Change lever (automatic)	With integrated sports switch
Power operated sun roof	2-way with smoked glass and sunshade
Power operated mirrors	Body coloured
Power operated windows	One touch function/drive's side plus isolator switch
Coin pocket	Lined
Front door pockets	*
Door courtesy lights	Front and rear doors

Remote boot and fuel lid openers	Lockable boot opener
Passenger grab handles	Front x 1 (rear x 2 pull out type)
Coat hanger	x 1 Right hand rear
Rear cargo area	Illuminated

### SAFETY FEATURES

Highly rigid monocoque body	*
Door intrusion bars	*
Seat belts front (3-point E.L.R. x 2)	With adjustable shoulder anchorages
Seat belts rear (3-point E.L.R. x 2)	*
Lap belt rear (centre x 1)	*
Child safety seat anchorages	*
Child proof rear door locks	*
Dual circuit diagonal braking system	*
Brake fluid warning indicator	*
Padded instrument panel	*
Energy absorbing steering column	*
Impact absorbing bumpers	*
Centre high mount stop light	*
Hazard warning lights	*
Comprehensive dashboard warning lights	*
Safety indicator panel	*

### EXTERIOR/INTERIOR COLOURS

EXTERIOR	CODE	INTERIOR
Frost White	NH-538	Grey
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Honda Australia Pty. Ltd.  
Incorporated in Victoria

Melbourne (03) 330 1222, Perth (09) 458 9811, Brisbane (07) 368 3744, Sydney (02) 684 2399.

Vehicle shown fitted with optional rear tail spoiler.

LINTAS/HOAH994-15M-2/91

