



**ALL-NEW  
Mazda6**  
PRESS KIT

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# 1

## ALL-NEW MAZDA6

AT A GLANCE



- Mazda's new-generation flagship features the "KODO – Soul of Motion" design theme along with the full range of SKYACTIV TECHNOLOGY, delivering Mazda's *Jinba Ittai* one-with-the-car feeling.
- Sustainable Zoom-Zoom in its most advanced form in one of the safest and most fuel-efficient Mazdas ever:
  - » Developed using Mazda's lightweight design strategy, All-New Mazda6 is considerably lighter than the current model
  - » The first Mazda with the company's unique fuel-saving i-ELOOP brake energy regeneration system
  - » Uncompromising Mazda driving pleasure thanks to SKYACTIV performance and handling
- Available with a choice of two fuel-efficient engines: SKYACTIV-G 2.5 litre petrol and SKYACTIV-D 2.2 litre diesel
- To be launched in Australia in December 2012



## EXTERIOR DESIGN

- Sedan or wagon, All-New Mazda6 is the purest adaptation yet of KODO, which was inspired by the movements of animals in the wild and symbolises Mazda's distinctive vitality and agility.
- Features the signature wing grille, the new family face of Mazda expressing the brand's strength and depth along with a dignified sense of purpose.
- The prominent fenders and low rear-leaning cabin allude to the power lurking under All-New Mazda6's haunches.
- A coupé-style cabin, with the A-pillars moved back 100 mm relative to the current model, emphasises the solid stance of a highly responsive vehicle (also giving the driver a wider field of view).
- Models equipped with Bi-Xenon headlamps incorporate LEDs and a new halo ring light, a Mazda first highlighting the car's mature, forward-looking fearlessness while linking the face to the side character lines and onwards to the signature tail lights.
- Four new body colours – Soul Red Metallic, Blue Reflex Mica, Meteor Grey Mica and Jet Black Mica – specially designed for greater contrast.
- Available with 17 and 19-inch aluminium wheels.



## INTERIOR DESIGN

- Methodical interior design reflects All-New Mazda6's sophisticated, harmonious essence.
- Driver-oriented cockpit with a clean, consistent look and layout for controls to make operation as simple as possible, and passenger accommodation designed to convey peace of mind.
- High-end polished aluminium look for parts like the door handles and gear-shift knob, with soft materials on items most often touched (e.g. steering wheel).

\* Availability depends on grade level

- The two main interior lines, which flow across the dash and instrument panel through the door trim, impart stability and reliability.

- Available in leather in a choice of two colours – sporty yet warm off-white or subtle black – as well as black woven fabric upholstery.\*

## COMFORT

- Sedan wheelbase among the longest in the segment (2,830 mm) for a spacious, comfortable cabin; the slightly shorter wagon's is still larger than the current Mazda6.
- Both sedan and wagon offer highly competitive rear legroom and knee clearance.
- Ergonomic HMI (human-machine interface) helps turn the car into an extension of the driver, who is in the best possible position to comfortably operate the vehicle. Features include:
  - » An 8-way power adjustable driver's seat\*
  - » Steering wheel with ample tilt and telescopic range
  - » A hinged organ-style accelerator pedal for added comfort and faster braking.
- Repositioned A-pillars and side mirrors improve driver's horizontal and vertical viewing angles.
- Attractive lightweight contoured seats deliver a sporty wrap-around feel, outstanding support and remarkable long-distance comfort.
- Clever, easy-to-use features include the wagon's lightweight tonneau cover and special levers in the boot to remotely fold down the 60:40 split rear seats.
- Highly usable boot space\*\* of 438 litres (sedan) and 451 litres (wagon) or 1,593 litres (wagon, seats folded) accessible from a larger boot opening (sedan) and optimised tailgate shape (wagon).
- Generous array of stowage possibilities with priority on easy driver access to items used most.

\*\* Including sub-trunk





### **EQUIPMENT**

- Cockpit designed to promote simple and accurate recognition of controls and indicators:
  - » 3.5-inch multi-information display in the main instrument cluster for driver management information (e.g. fuel consumption)
  - » 5.8-inch touchscreen for infotainment systems located in an ergonomically high position on the centre stack

- High-connectivity infotainment features include:
  - » Premium 11-speaker BOSE® surround sound designed exclusively for All-New Mazda6, including Bose® Centerpoint® 2 virtual surround playback technology
  - » Mazda navigation system with TomTom® technology
  - » HMI commander on middle console for navigation and infotainment system in addition to steering wheel controls
  - » iPod®, USB and Bluetooth® connections (incl. hands-free mobile connectivity as well as an AUX jack)
  - » Improved noise suppression and voice recognition functionality
  - » New mail function for Bluetooth-connected smartphones enables display and readout of SMS, MMS and email via the 5.8-inch touchscreen
- Climate control system optimised to reduce size and power use yet still deliver superb heating and cooling along with better air flow in the cabin.
- Parking assistance systems include a reverse camera which is standard across the range and front and rear parking sensors on selected models.





### ***POWERTRAINS***

The range of high-efficiency powertrains available on All-New Mazda6 includes the SKYACTIV-D 2.2 litre diesel and the new SKYACTIV-G 2.5 litre petrol. Both engines come standard with i-ELOOP, Mazda's new brake energy regeneration system as well as i-stop, its advanced idle-stop system





**The new 2.5-litre SKYACTIV-G direct injection petrol engine features:**

- An exceptionally high 13:1 compression ratio
- A specially designed 4-2-1 exhaust system and enhanced fuel spray properties, among other things, to counter the drawbacks to such high compression
- A balance shaft to offset the added vibration from the most powerful SKYACTIV engine to date

**Output:**

- 138kW at 5,700rpm & 250Nm at 3,250rpm

**Fuel consumption (combined) & CO<sub>2</sub> emissions:**

- with six-speed automatic: 6.6L/100km & 153g/km (sedan) / 155g/km (wagon)
- Emissions class: Euro 4

\* Available as of December 2012

\*\* All figures for sedan version



**The 2.2-litre SKYACTIV-D common-rail diesel features:**

- A 14:1 compression ratio (world's lowest\*)
- A variable twin turbocharger

**Output:**

- 129kW at 4,500rpm and 420Nm at 2,000rpm

**Fuel consumption (combined) & CO<sub>2</sub> emissions:\*\***

- with six-speed automatic: 5.4L/100 km and 141g/km (sedan & wagon)
- Emissions class: Euro 4

**SKYACTIV-Drive six-speed automatic transmission:**

- Features an extra-wide lock-up range clutch
- Delivers quick and direct shifting



- ➔ The SKYACTIV-Drive transmission is available in a standard version for petrol engines and a large version to handle high torque SKYACTIV-D powerplants.



### CHASSIS & BODY

Together with SKYACTIV power-trains, the SKYACTIV-Chassis and SKYACTIV-Body make All-New Mazda6 a thrill to drive, delivering refined, linear handling, segment-leading safety and a uniquely efficient lightweight design.



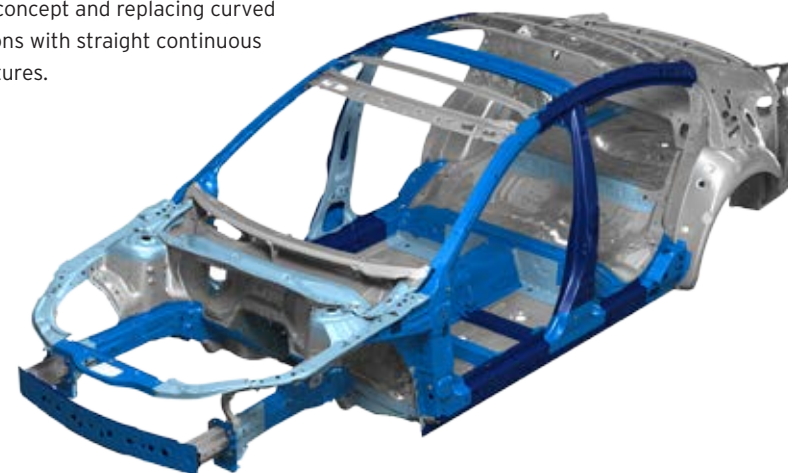
### SKYACTIV-CHASSIS

- Intensifies the linear connection between driver and vehicle, especially in terms of accelerating, turning and stopping, with:
  - » More rear suspension grip than the current model
  - » Shorter braking distances thanks to chassis stability (as well as a shorter brake pedal stroke and enhanced brake disk cooling)
- Lighter yet stiffer front strut and rear multi-link suspension optimised for low-speed agility and high-speed stability – and a comfortable ride at all speeds.
- Electric power assisted steering with class-leading gear ratio adjusts sensitivity to changing driving conditions.

### SKYACTIV-BODY

- Lighter yet stronger than the current model using more ultra-high tensile steel and other innovations to bolster the body's structures.
- Delivers excellent crash safety by more effectively absorbing and dispersing impact energy through the body structure using a multi-load path concept and replacing curved sections with straight continuous structures.

- Class-leading aerodynamics of 0.27 for sedan and 0.28 for wagon for better stability and fuel economy.
- Exceptionally quiet cabin, as undesirable engine and road noise are blocked and suppressed using innovative materials and structures.
- Among the lightest and most aerodynamic CD models available.





## SAFETY

All-New Mazda6 features a wide assortment of advanced **active safety** technology, including:

- **Radar Cruise Control\*** keeps a safe distance from preceding vehicles at speeds of up to 200 km/h, controlling the speed and brakes when needed.
- **Smart Brake Support (SBS)\*** incorporating Forward Obstruction Warning (FOW), also monitors preceding vehicles at speeds of 15-145 km/h, warning the driver when All-New Mazda6 is too close and braking automatically if it detects that an accident is imminent.

- **Lane Departure Warning (LDW)\*** alerts driver of unintended lane changes.
- **Blind Spot Monitoring (BSM)\*** incorporating Rear Cross Traffic Alert (RCTA) detects and warns the driver of cars approaching from behind in adjacent lanes, e.g. in the blind spots.
- **Emergency Stop Signal (ESS)** rapidly blinks the hazard lights during heavy braking to warn ensuing motorists.
- **High Beam Control (HBC)\*** automatically changes between high and low beams to avoid impairing the vision of other motorists.

- **Adaptive Front-lighting System (AFS)\*** turns the headlamps to better illuminate curves.
- **Hill Launch Assist (HLA)** controls brake pressure to help prevent the vehicle from rolling during hill starts.
- **Standard ABS with EBD** (Electronic Brakeforce Distribution), brake assist, DSC (Dynamic Stability Control) and TCS (Traction Control System).



\* Availability depends on grade level



■ Rear seat components reinforced to prevent luggage from intruding into the cabin.

■ Standard front, side and curtain airbags.

■ A bonnet and body cowl enhanced to provide more give and better protect pedestrians, especially from head injuries.

■ Bumper designed to protect pedestrians' legs.

It also has a range of innovative **passive safety** features like:

■ The highly-rigid impact absorbing SKYACTIV-Body, with more lightweight ultra-high tensile steel than ever.

■ An improved front-end design with larger crumple zones to better prevent cabin deformation, also reducing repair costs following milder collisions.

■ A strengthened cabin cage structure for superior side impact protection along with reinforced rear frame and bumper structures.

■ Trim and other interior components redesigned to prevent or reduce injuries to occupants.

■ Improved anti-whiplash front seats





**2** **INTRO**  
LOVE AT FIRST DRIVE

It all comes down to relationships. This is the spirit of All-New Mazda6, a car built to be an extension of its driver and in harmony with the road. A car that begs to be driven from the very first time one lays eyes on it.

Mazda is reaching for greater heights in a flagship for a new generation and a new level of driving pleasure. With the distinct design, intuitive functionality and exceptional responsiveness that are essential elements of every Mazda. But also blending a dynamic, emotional appeal with the composure mandatory for Mazda's top model.

This, of course, posed challenges for designers and engineers as they sought to balance potentially conflicting attributes like form and function, performance and efficiency, comfort and practicality, uniqueness and mass appeal. And in the all-important reputation-making CD-segment, no less.



Always ready to fulfil the driver's every wish, the SKYACTIV powertrains provide unrivalled linearity and responsiveness. They're a perfect match for the new Mazda6's equally precise handling, founded on agile yet stable steering and suspension feedback that puts the driver in absolute control.



This model marks the latest evolution of Sustainable Zoom-Zoom, Mazda's long-term vision to develop technology for exceptionally safe and environmentally-friendly vehicles that also provide the greatest possible driving pleasure. To deliver top-class fuel economy, All-New Mazda6 combines the lightweight design common to all SKYACTIV components with uniquely innovative engines and transmissions and Mazda's unique i-ELOOP brake energy regeneration system.

It's remarkably safe thanks to the SKYACTIV-Body, whose highly rigid structure absorbs impact energy and channels it away from the cabin for segment-leading crash protection. Add in the enviable range of active safety technology, and you have an environment where the driver can concentrate on the driving experience while passengers relax and enjoy the ride.

And they'll be comfortable, too. Despite its compact look, the rear-leaning cabin – an integral part of the uniquely bold KODO design – exudes strength and vitality – offering a spacious interior

with a refreshingly ergonomic layout in which controls and features are cleverly positioned for the utmost in convenience and flexibility.

In short, All-New Mazda6 is a stunningly fashioned car that's both safe and efficient, uniting a smooth, refined drive with precise, linear handling to a degree that most family cars can only dream of. And it's here, today.





As Mazda's next flagship, All-New Mazda6 had to be even better than its predecessor – a model that's been well received by customers and media alike, both here in Australia and overseas. With striking looks and harmonious forms and textures alongside the uniqueness that precludes the Mazda badge.

At the same time, it needed to attract the broad customer appeal obligatory for CD-segment sedans and wagons. Mazda designers undertook this complex challenge, working closely with company engineers to make their visions both feasible and highly functional. The result is a new Mazda6 that will delight customers with its combination of superior build quality and functional, practical beauty that should continue to please the senses well into the future.

One look at All-New Mazda6 should eradicate any doubts about the skills of Mazda's designers, long known for their unique ability to express motion when shaping vehicles. Their latest evolution is called "KODO – Soul of Motion", a design theme inspired by the movements of animals in the wild – and the look for the new generation of Mazdas.

Mazda believes it has captured KODO's purest essence in All-New Mazda6, the production model born of the Mazda Takeri concept first showcased at the Tokyo Motor Show in late 2011.

Sedan or wagon, it combines a muscular anatomy and vitality with a functional allure that is certain to gain broad market appreciation – and a level of quality that sets it apart.



"All-New Mazda6 has a robust framework and a low, wide stance that expresses strength and stability, creating an impression of extraordinary vitality without detracting from the universal aesthetic appeal and beautiful form it displays as a CD car," says Akira Tamatani, the chief designer. "We have created a design in which the wild and dynamic expressions of motion artistically realize a powerful presence. Simply looking at the car heightens one's expectations about the driving experience even before actually riding in it."



### ***EXTERIOR: SHAPES THAT ENRICH THE SENSES***

When designing the Mazda6, the aim was to come up with a body that clearly sets the vehicle apart from conventional thinking, as unveiled on the Takeri and Shinari concepts, while still furnishing the vehicle with unmistakable dignity and purpose.

The prominent fenders and compact-looking cabin set towards the rear highlight the large-diameter 19-inch aluminium wheels, which only add to the car's composed exterior. The five sets of contoured spokes underline the sense of dynamism and light, effortless motion. And they don't just look good, either. Engineers worked with designers to improve stiffness and thus resistance to deformation. The result is superior handling coupled with reduced noise, vibration and harshness.

In what is undoubtedly some of their best work yet, Mazda's world-class design team came up with distinctive

body lines whose impressions vary – a sense of speed here, more relaxed there – depending on how the light falls. In doing so, they focused on the interplay between light and shadow, designing a car that one never tires of looking at.

The family face clearly says “Mazda”, with distinctive elements harmoniously blended into the package. Take the signature wings, for example, a KODO design trademark spanning from headlamp to headlamp through the bottom of the imposing upper grille. Together with the glinting eyes, the front-end expresses a dignified sense of purpose.

All-New Mazda6 is the company's first production model to incorporate LEDs and a new halo ring light into the headlamps. The ring, which surrounds each headlight, accentuates the forward-looking stance and mature fearlessness, while the LEDs visually extend the signature wings outwards, adding to the sense of speed.



### *TRULY FUNCTIONAL DESIGN*

The wings flow into distinctive character lines on the sides of the car, as if it were ready to leap off the ground and rocket forward. The coupé-like cabin on the sedan slides over the C-pillar into the short, powerful rear deck, stressing the car's firm footing. The wagon, meanwhile, adds practical utility to this lean, sporty stance. In either case, the driver can anticipate an instantaneous response to his or her input.

Indeed, one recurring characteristic of All-New Mazda6 is the harmony of its various design features. The signature rear tail lamps, for example, emulate the headlamps, using a line of light to "stretch" the rear chrome moulding outwards via the main tail light to the character lines on the side of the car. Like the headlamps, they highlight the elegant strength of All-New Mazda6.



### *INTERIOR: STUNNING SIMPLICITY*

Open the door of the Mazda6, and this exciting yet dignified consistency continues on the inside. Interior designers paid meticulous attention to detail, enhancing shapes and textures as well as appearances. What they came up with is a harmonious, uncluttered space with an immediately perceptible level of genuine quality and tasteful coordination fitting for a flagship: An interior as stunning as it is sensible.

For example, the various controls received the same finishing. This

produces a clean, consistent look throughout All-New Mazda6 while at the same time making knobs and switches easier to locate visually and therefore operate. Parts like the door handles were given a hand-polished aluminium look, with soft materials used for elements that occupants touch the most, such as the steering wheel and armrest. The use of hard plastics was kept to a minimum, with a high-quality finish that underscores the refinement of the Mazda6 interior while offering practical benefits to driver and passenger alike.



**INSPIRINGLY CLEAN LINES**

Like the exterior, the two main lines (and key design elements) of the interior express motion and speed. The top one curves across the crest of the instrument panel, flowing through the door trim toward the rear seats. A second, stronger line runs horizontally halfway down the instrument panel. Together, they impart a sense of stability and reliability, thus reflecting two of the Mazda6's traditional strengths. And as on the body, interior surfaces are contoured to create rich contrasts between light and shadows. This just adds to the cabin's sophisticated sportiness.

Unsurprisingly, the driver's side is forward focused and driver oriented, maximising *Jinba Ittai*, Mazda's unique feeling of oneness with the car.

Switches and controls are positioned for optimum usability, and the symmetrical gauges (with clean white lighting replacing the red used in the current model as well as LED backlighting) inspire enthusiasm

as soon as one gets behind the wheel. But despite from the proximity of the cockpit, the front passenger environment engenders peace of mind, imparting a sense of space and well-being.

**ELEGANT, SPORTY  
COMFORT**

The seats, especially at the front, have a simple, contoured shape with a wrap-around sports car feel. This provides vertical, longitudinal or lateral support, while subtly showing off the rich textures and detail in the fabric. Black woven fabric featuring a silky yet solid feel is also available.

Tastefully coordinated and expertly crafted, Mazda's interior designers achieved an instantly recognisable level of high-quality and harmonious elegance befitting the sporty yet distinguished exterior. Inside or out, it's a style destined to uphold its appeal for years to come.

## COLOURS

Soul Red Metallic, Blue Reflex Mica, Meteor Grey Mica and Jet Black Mica: These are the four new body colours available for All-New Mazda6. They were specially developed to provide stronger contrasts than ever, using tiny flakes of reflective pigment to produce greater differences in brightness between highlights and shaded areas. This “hardens” the sculpted shapes of All-New Mazda6, enhancing its strengths by adding to the sharpness and solidity of the vehicle’s athletic forms – and the beauty of KODO. Three additional colours – Stormy Blue Mica, Aluminium Metallic and Snowflake White Pearl – are also available.



### SOUL RED METALLIC

It’s perhaps the world’s most emotionally appealing red. Soul Red Metallic is about pure energy, combining highlights, shade and depth in ways that emphasise the dynamic body shapes of the Mazda6 and its sportiness.

How? Through the use of two different base colour coats with different functions. Depending on the angle of view, there is a significant change in the hue between illuminated and shaded areas. This unique colour also responds exquisitely to more subtle intermediate levels of light, heightening the impact of the Mazda6’s refined appearance. Normally, a body is painted in two different coats: a colour and a clear coat. With only one coloured

coat, however, there is always a trade-off between vividness and a colour’s contrast and depth. To make Soul Red Metallic, Mazda used two base colour coats under the clear coat, each with different functions. The lower base coat, with exceptionally bright aluminium flakes, serves as a reflective layer. These flakes are arranged as horizontally as possible to reflect strong light. The upper base coat, meanwhile, is a semi-translucent layer with high-chroma (meaning very intense) red pigment. Light shines through the upper base coat, arriving at the lower coat with a red tint, where the aluminium flakes reflect the light back through the high-chroma red layer.

As a result, strongly illuminated areas of the Mazda6 appear in a deep, intensive red that, like the sun, appear to radiate from within. Shaded areas, in contrast, appear blackish. This wide contrast range, with unprecedented levels of chroma or

vividness along with extraordinary depth, is what makes Soul Red Metallic such a breakthrough.

The fully robotic system used to apply the paint is specially programmed for Soul Red Metallic to ensure the utmost in precision and quality and a consistent coat over the entire car. The innovative combination of materials in the paint and its meticulous application are what enable Mazda to achieve such an emotionally appealing result. And the Soul Red Metallic technology is even compatible with Mazda’s environmentally-friendly Three Layer Wet Paint System. While being considerate to the environment, this exclusive paint program called “TAKUMINURI”<sup>\*</sup> enables vehicles to be painted in Soul Red Metallic with a level of craftsmanship, quality and precision, as if painted by a skilled craftsman. No tradeoffs. No compromises. Just like the Mazda6.

<sup>\*</sup> From “Takumi” (skilled craftsman) and “Nuri” (painting), Takuminuri refers to the unique painting technology used for Soul Red Metallic



than ever. A place where the one behind the wheel is in complete control, for a driving experience that lingers long after the drive is over.

All-New Mazda6 packaging concept posed several challenges for the car's designers. One was to realize a spacious, comfortable cabin that is in perfect harmony with the "KODO – Soul of Motion" design theme while at the same time crafting a highly functional interior that contrasts with the cabin's low, compact rear-leaning appearance. And as a Mazda, it needed to be intuitively functional, featuring an ergonomically-refined human machine interface (HMI) that allows the driver to focus on the road and lets passengers relax and enjoy the ride.

## 4 COMFORT, FUNCTIONALITY & EQUIPMENT

COMFORTABLY IN CONTROL

The highly competitive CD-segment is crucial for automakers across the globe. It's the segment where the cars are built that best personify the essence of a brand – and thus its reputation. At Mazda, that means Sustainable Zoom-Zoom driving fun and efficiency together with the *Jinba Ittai* feeling of oneness between car and driver. Engineers therefore set out to evolve these qualities to a new level on All-New Mazda6, making the cabin of Mazda's flagship more pleasant to be in

The car's exterior dimensions worked to their advantage: All-New Mazda6 sedan has one of the longest wheelbases in its segment (2,830 mm) and is also the longest overall (4,865 mm). The slightly shorter wagon, meanwhile, is still among the largest in its class, adding a distinctive level of practicality. In both cases, the ample dimensions – larger than the current model in virtually every way – provide a solid foundation for extraordinary interior comfort.

## SPACE TO STRETCH

Customers will be delighted with all the space in All-New Mazda6. Both sedan and wagon feature highly competitive legroom and are also at or near the top of the class in terms of front shoulder room as well as rear knee clearance.

Engineers did more than just make things bigger, however, cleverly focusing on the little details, too. Like improving foot room for front occupants by eliminating edges around the centre console, and widening the opening underneath the front seats for those in the back. Innovative shapes used for the A-pillars, which have been pushed back 100 mm from the front axle relative to the current model, ease getting in and out of the front seats while at the same time improving the car's structural integrity.

Obviously, the seats are a fundamental component of the driver-car relationship. Mazda has thus come up with new lightweight seats for its new generation of vehicles, featuring a new seat structure for better comfort, improved rigidity and more lateral support, regardless of a person's size. Their body-fitting properties include a hip-support plate and modified surface shape with leaner seatbacks, which also open up more room in the back. The rear seats, too, offer enhanced support and comfort, with a longer



cushion (+20 mm in sedan, +30 mm in wagon), higher seatback (+36 mm and +29 mm), and a 60 mm wider rear armrest.

## COMFORTABLE COCKPIT

Once seated behind the wheel, the HMI fuses the car into an extension of its driver. All-New Mazda6 is equipped with the furthest evolved HMI setup yet, putting the driver in the optimum position to make the vehicle do precisely what he or she wants.

The driver's seat is therefore equipped with elaborate adjustment functionality\*

– a movement range of 260 mm front-to-back, 50 mm lift and 30 mm tilt, and an 98 degree recline – for the easiest access possible to key driving-related components.

Because it keeps the driver's right heel on the floor, the new hinged organ-type accelerator pedal enables better and more comfortable control as well as a faster braking reaction, while the steering wheel-based paddle shifters ensure optimal – but not accidental – access. The entire cockpit layout in All-New Mazda6 was conceived to promote simple and accurate recognition of controls and indicators.

Driver management information, such as fuel consumption, temperature and trip distance, are clearly shown on a 3.5-inch multi-information display in the main instrument cluster, while other data (e.g. from the audio and navigation systems) appear on the 5.8-inch touchscreen in the centre stack. The position of the latter has even been raised to help drivers keep their eyes on the road. And the rotary HMI commander, located on the centre console to the rear of the gearshift, can also be used to control most of the 5.8-inch display functions.

\* 8-way power or manually-adjustable seat; tilt function on power seat only. Availability depends on grade level



### ALWAYS ON TOP OF THINGS

Stress-free control and a fun, safe drive obviously necessitate a good overview of the surroundings and cockpit alike. With this in mind, Mazda6 designers made sure the driver would have a continuous field of view – front, side and rear – with minimal blind spots. The rearward position of the cabin and A-pillars increases the driver's horizontal viewing angle by 5.4 degrees on the driver's side and 4.2 degrees on the front passenger side. This makes cornering easier and safer.

The location of the A-pillars also improves the driver's vertical viewing angle, making it easier to see children or objects as short as 70cm\* at intersections. The driver's visibility is further enhanced by mounting the side mirrors directly to the door with gaps between them and the A-pillars. Again, this is particularly beneficial when at or approaching intersections.

Because convenience is essential to driving pleasure, All-New Mazda6 comes with an array of functional storage opportunities. Engineers divided the cabin into storage zones, incorporating customer feedback about the current model. Logically, priority was given to places for items used most by the driver (such as the centre console tray,

floor console cupholders and front door pockets), which are situated to be visible and accessible with only slight movement. Even the glovebox was optimised with a side rather than central locking system, so it's easier for the driver to reach. And each door can now hold a 1-litre PET bottle.

### BACK IN THE BOOT

For bigger cargo, the boot opening on All-New Mazda6 sedan is larger than the current model's, while the shape of the wagon's liftgate was also optimised. As a result, the outstanding luggage capacities of both versions. 438 litres (sedan) and 451 litres (wagon) are that much easier to get at.

The 60:40 split rear seats fold into a flexible flat cargo area – a simple procedure using either the levers located on each side of the boot. Already a target of praise since its initial launch in 2002, the new wagon has a maximum cargo capacity of 1,593 litres.

Already without equal in this segment, Mazda's tonneau cover is now lighter than the current model's and easier to attach and remove than ever, storing neatly under the luggage compartment floor. The liftgate, meanwhile, opens quicker and with less effort than previously, particularly in freezing weather.





Bose® AudioPilot® 2, meanwhile, automatically compensates for the effects of unwanted sound from different road surfaces, varying driving speeds and even open windows. A microphone placed in the cabin continuously monitors ambient noise conditions, while a sophisticated Bose® algorithm analyses the music signal and adjusts it to reduce the effect of unwanted noise.

### 11-SPEAKER BOSE® SURROUND SOUND LAYOUT FOR THE MAZDA6

- 1 2 3 x 80 mm Twiddler®**  
(neodymium mid-high-range speakers) in the instrument panel
- 3 2 x 25 mm neodymium tweeters**  
in the instrument panel
- 4 2 x 230 mm Nd® woofers**  
in the front doors
- 5 2 x 135 mm wide-range speakers**  
in the rear doors
- 6 2 x 60 mm Twiddler®**  
(mid-high-range speakers) in the rear deck

### 7 ...featuring high-performance digital amplifier with Bose® Digital Signal Processing:

- 8 channels of customised equalisation
- AudioPilot® 2 Noise Compensation Technology
- Centerpoint® 2 Signal Processing
- Surround-Stage® Signal Processing
- AudioPilot® 2 system microphone in the instrument panel

### INFOTAINMENT TO GO

Alongside the optional premium 11-speaker Bose® surround sound (see box) or 6-speaker systems\*, the infotainment offerings in All-New Mazda6 include a USB iPod® connection, USB port and AUX jack. Bluetooth® has been upgraded and now features replay, shuffle and folder-switching functions. The mail function enables SMS, MMS and email received by a Bluetooth®-connected smart-phone to show up on the centre console display and be read out by an automated voice.

Noise suppression technology and voice recognition functions have also been improved considerably. Download up to 1,000 address book entries into the mobile phone system and call instantly by voice command, since there's no longer the need to voice register each individual entry. Even certain audio functions (like changing music tracks or radio stations) can be operated via verbal commands.

And to ensure a comfortable cabin atmosphere without compromising on efficiency, Mazda's engineers cut back the size and power requirements of the climate control system – saving fuel and improving vehicle performance – while at the same time delivering excellent heating and cooling as well as improving air flow.

### PREMIUM BOSE® SURROUND SOUND TECHNOLOGY

As powerful and uncompromising yet refined as All-New Mazda6, its high-performance 11-speaker Bose® surround sound system should satisfy even the most discerning music lovers. More advanced than in the current model, it weighs 20 % less. And with circuitry that enables continuous low-power operation, it requires less cooling power, too.

This is the first Mazda audio system to feature Bose® Centerpoint® 2 virtual surround playback technology, which analyses the frequency of the sound source to deliver a truly realistic virtual surround sound, even when playing back compressed signals or radio broadcasts.

\* Availability depends on grade level



### **NAVIGATION SYSTEM WITH TOMTOM® TECHNOLOGY**

Drivers of All-New Mazda6 will be even more in control with the connected navigation solution from TomTom®, a leading provider of cost-effective, up-to-the-minute navigation solutions.

#### **Key features of the navigation system in All-New Mazda6 include:**

- Covers more kilometres on primary and secondary roads than any other service and is refreshed more frequently, too, with updates every two minutes.
- Can be operated either via the 5.8-inch touchscreen monitor on the dash or the new HMI commander on the Mazda6's centre console.
- Updates available by simply downloading anything from maps and new software to voices via TomTom® HOME\* using an SD card.



\* Availability and tariffs may vary according to country



When it introduced full range of SKYACTIV TECHNOLOGY on the Mazda CX-5, Mazda overcame SUV shortcomings to achieve the most “car-like” performing sport utility available. Now the SKYACTIV line-up makes its debut in the heavily contested CD-segment. With less weight, a lower centre of gravity and low rolling resistance tyres, the All-New Mazda6 gets even more from its SKYACTIV engines and transmissions. For uncompromising linearity and responsiveness, and an unforgettable Zoom-Zoom driving experience, exceptional fuel efficiency included. Sporty yet civilised, as the Mazda6 should be, and Mazda’s most advanced flagship ever.

Always a brisk, sporty performer, All-New Mazda6 is a step ahead with the SKYACTIV powertrains lurking at its heart. Ready to fulfil the driver’s every wish, one of five powerful SKYACTIV

engines – two diesels and three petrol powerplants – efficiently distribute power to the front wheels via a six-speed automatic transmission.

#### **STANDARD EFFICIENCY FOR ALL**

Press the accelerator, and the car responds immediately and with precision to the amount of pressure put on the pedal, delivering strong yet refined linear acceleration. The engines even sound good: Mazda engineers tuned the intake and exhaust to eliminate undesirable high-frequency sounds while maintaining the vibrant low-frequency band. So All-New Mazda6 is as quiet as a refined CD sedan or wagon should be at constant cruising speeds, erupting into a truly exciting resonance when accelerating.

Mazda’s i-stop idle-stop system and the company’s brand-new i-ELOOP brake energy regeneration system are standard across the All-New Mazda6 range, where they work in perfect harmony. Together with SKYACTIV powertrains and the lightweight yet rigid SKYACTIV-Body and SKYACTIV-Chassis, they contribute to the Mazda6’s superb fuel economy and CO<sub>2</sub> emissions. At Mazda, this applies to all variants – and with no compromise on performance.



### **POWERFUL PETROL PERFORMANCE**

The All-New **SKYACTIV-G 2.5**, the largest and most powerful SKYACTIV engine to date, was designed for maximum performance. In fact, this level of output – 138kW at 5,700rpm and 250 Nm at 3,250rpm – would seem more at home in a high-end vehicle segment.

Top performance from the direct-injection petrol-powered SKYACTIV-G 2.5 is a given throughout the rpm range, propelling All-New Mazda6 from 0 to 100 km/h in only 8.2 seconds.

Mazda overcame the NVH issues associated with this brawnier engine by adopting a balance shaft to offset vibration. So it's even quieter than the smaller SKYACTIV-G 2.0 that features on both the CX-5 and Mazda3 SP20 SKYACTIV. The numerous similarities between the engines include an ultra-high compression ratio combined with a special exhaust manifold setup, enhanced fuel spray characteristics and much more (see box) to deliver exceptional low and mid-range petrol torque along with fuel efficiency that's just as impressive. In the combined cycle, the SKYACTIV-G 2.5 uses 6.6 L/100km, which corresponds to CO<sub>2</sub> emissions of 153g/km (sedan) / 155g/km (wagon).



## DYNAMIC DIESEL DEPTH

SKYACTIV stands for efficient internal combustion. And the diesels under the bonnet of All-New Mazda6 defy convention, featuring the world's lowest compression ratio. Since lower compression puts less strain on engine parts, it enables lighter components to be used.

The SKYACTIV-D 2.2 weighs less than its precursor\*. Low compression also makes it possible to improve combustion timing and efficiency, which explains the exceptional figures: 129 kW at 4,500 rpm and 420 Nm at 2,000 rpm.

On All-New Mazda6, this is good for 0-100 km/h times and top speeds of 8.4 seconds for sedan and 8.6 seconds for wagon.

And these figures are even more remarkable when considering the Mazda6's diesel consumption: only 5.4 litres / 100 km and 141 g/km.



\* The 2.2 MZR-CD



## SMOOTH, LINEAR SHIFTING

The highly-refined six-speed SKYACTIV-Drive automatic transmission available for all Mazda6 engine variants is extremely well-balanced, delivering remarkably smooth shifting along with the direct feel of a manual. New control technology enables an interactive response to driver input at the accelerator pedal. That means a quicker reaction than ever to changing torque demands and better control over downshifting, contributing to the outstanding fuel economy of All-New Mazda6.

### SKYACTIV-G: DIRECT-INJECTION PETROL TECHNOLOGY FOR TODAY



#### Highlights:

- A naturally aspirated four-cylinder 2.5-litre engine with 13:1 compression ratio.
- A 4-2-1 exhaust system utilising an extended manifold structure to reduce the amount of residual exhaust gas in the combustion chamber, thus helping:
  - » prevent knocking (abnormal combustion)
  - » reduce vibrations
- Multi-hole injectors with six nozzles enhance fuel spray for more efficient combustion and improved cooling, which also help prevent knocking.
- A special piston cavity reduces cooling losses.
- Dual S-VT (sequential valve timing) optimises air intake and exhaust valve timing according to engine operating conditions, minimising pumping losses.
- Lighter components and reduced internal friction, improving performance as well as fuel economy and CO<sub>2</sub> emissions:
  - » Lighter than current engines
  - » Better fuel consumption
  - » More low and mid-range torque
- All SKYACTIV-G equipped Mazda6 models come standard with engine-transmission combinations are available with the i-stop idle-stop system.

### SKYACTIV-D: CLEAN, FUEL-EFFICIENT DIESEL POWER

#### Highlights:

- A 2.2-litre four-cylinder diesel that defies conventional expectations of diesels.
- World's lowest compression ratio (14:1) significantly enhances engine efficiency and thus fuel economy thanks to the:
  - » Optimum combustion timing, improving the expansion ratio
  - » Special convex shape of piston roof, ensuring ideal fuel distribution in the combustion chamber
  - » Multi-hole piezo injectors, enabling efficient start-ups despite low compression
  - » Exhaust variable valve lift, which stabilises combustion by regulating intake air temperature to prevent misfiring when the engine is cold
- Far cleaner than today's conventional diesels:
  - » Drastically reduced NO<sub>x</sub> emissions without requiring expensive aftertreatment systems
  - » Generates far less soot (particulate matter)
  - » Complies with Euro 4
- Lower compression also puts less strain on engine parts, reducing mechanical friction and enabling

the use of lightweight materials and components, such as:

- » An aluminium block
- » A thinner cylinder head and cylinder walls
- » A smaller diameter crankshaft

Two-stage turbocharger uses two turbines and a large intercooler to produce exceptional torque – even at low rpms – along with outstanding high-range output, particularly for a diesel:

- » A smaller turbine operates in the low rpm range, and is joined by the larger one when required

...for more torque as well as better fuel economy.

- All SKYACTIV-D equipped Mazda6 models come standard with engine-transmission combinations with the i-ELOOP brake energy regeneration system and i-stop idle-stop system.



## **SKYACTIV-DRIVE: THE DIRECT, LINEAR RESPONSE AUTOMATIC**

### **Highlights:**

- Extremely well balanced fuel-saving six-speed automatic offers smooth, refined shifting and the direct feel of a manual transmission, also combining the benefits of the various types of automatics available:
  - » Better shift response, faster downshifting and easier starts than a dual-clutch transmission
  - » Smoother, more comfortable shifting than dual-clutch or conventional torque converter transmissions
  - » Better fuel economy than a CVT at high speeds and a torque converter unit at low speeds with a more direct feel than either at all speeds
- Evolved control technology enables an interactive, linear response to driver input:
  - » Reacts faster than ever to changing torque demands
  - » The car does exactly what the driver tells it via the accelerator pedal
- New kickdown switch prevents undesirable downshifting using a kickdown detent to increase resistance at a certain position in the accelerator pedal stroke:
  - » Thereby telling the driver when a kickdown is imminent

- » Driver can avoid unwelcome downshifts by easing off pressure on the pedal (so the SKYACTIV-Drive does not shift before all available torque is used)
- » Or, conversely, use added pressure to initiate a downshift (so the SKYACTIV-Drive shifts sooner to immediately deliver the desired torque)  
...thus putting the driver in absolute control.

- SKYACTIV-Drive in All-New Mazda6 features paddle shifters and a more user-friendly gear shift knob and gate that's especially satisfying when going from "D" to "M" (manual shift mode).

- Two versions available based on maximum torque: standard (up to 270Nm) and large (up to 460 Nm).





### ***i-ELOOP: Mazda's UNIQUE BRAKE ENERGY REGENERATION SYSTEM***

All-New Mazda6 is the first production model to adopt Mazda's fuel-saving i-ELOOP brake energy regeneration system. Short for "Intelligent Energy Loop", i-ELOOP is the first such passenger car system in the world to utilise a capacitor to store recovered electricity to power the vehicle's electrical systems.

One issue that has thus far hindered the effectiveness of regenerative braking is the limited charging and power storage potential of the lead-acid starter batteries typically used in automobiles. Mazda engineers therefore painstakingly analysed everyday driving conditions, focusing on the recurring cycle of deceleration and acceleration.

Determining that a typical deceleration phase lasts only about 10 seconds, they adopted an electric double-layer capacitor (EDLC) rather than a dedicated battery to quickly capture and temporarily store electricity. The system uses a 12 V-25 V variable voltage alternator to efficiently

generate power from the moment the accelerator is released, fully charging the EDLC in as little as 7-10 seconds – well within a single deceleration cycle.

Another benefit of EDLCs is that they can be recharged again and again with minimal deterioration – unlike the lithium-ion batteries used in electric vehicles. After recharging, the DC/DC converter steps down the voltage of the electricity in the EDLC to 12 V to power components like the climate control and audio systems. Any surplus electricity goes to the starter battery.

A full capacitor charge is enough to run the vehicle's electrical systems for a minute. i-ELOOP is therefore the perfect companion for i-stop, since there is no need to revert to battery power even when Mazda's idle-stop system has shut the car off (at a traffic light, for example). During stop-and-go city driving, charging often resumes before the capacitor is fully discharged. i-ELOOP can therefore produce most if not all of a vehicle's electricity needs, whereas normally some of the engine's output is required just to drive the alternator. By freeing up this engine capacity, i-ELOOP increases fuel economy under everyday urban driving conditions.





### ***i-STOP: FOR ALL-NEW-GENERATION MAZDA6S***

i-stop is Mazda's innovative, intelligent idle-stop system. Standard equipment on all versions of All-New Mazda6, it's the only idle-stop system available that uses combustion energy for the restart. In addition to saving fuel, this enables the fastest restarts in the industry: 0.35 seconds for SKYACTIV-G petrol engines and only 0.40 seconds on SKYACTIV-D diesels\*.

\* Models with automatic transmission

Conventional systems only identify which cylinder is in the correct stroke position after an electric starter turns the crankshaft to begin the restart. So, whereas competing diesel models won't restart until the second compression stroke or engine cycle, Mazda's SKYACTIV-D starts almost immediately during the first stroke. And in the meantime, Mazda drivers and passengers can still use the vehicle's electric-powered systems.

It's another component of Sustainable Zoom-Zoom, Mazda's commitment to minimising the environmental impact of its vehicles – with no compromises.

i-stop uses a sophisticated control module to switch off the engine in the ignition/expansion stroke (petrol) or compression stroke (diesel), the optimal cycles for restarting. In fact, i-stop actually waits for the moment the cylinders are in the ideal restart position. And this all takes merely a split second.





# 6 CHASSIS & BODY

PREDICTABLY RESPONSIVE,  
SOLIDLY LIGHTWEIGHT,  
REASSURINGLY MAZDA

Genuine Zoom-Zoom fun can perhaps be best described by a typical driving situation: decelerating into a winding curve, manoeuvring through it and accelerating out again. The engineers who developed the SKYACTIV-Chassis and SKYACTIV-Body for the All-New Mazda6 were aiming to make this experience as exhilarating as possible.

Their efforts paid off with evolved sporty handling – agile yet stable – that puts the driver in absolute control of the car. The lightweight yet highly rigid body only serves to support the strengths of its advanced powertrains while providing occupants with segment-leading crash protection. It's a new dimension of driving pleasure perceptible after only

100 metres, and a feeling that will endure for tens of thousands of kilometres to come.

Mazda has striven in recent years to balance the fundamentally contradictory characteristics of refined, supple motion and light, agile motion. To enhance the linear connection between the driver and basic vehicle functions like accelerating, turning and stopping. To turn the car into an extension of its driver. So Mazda took the SKYACTIV-Chassis first introduced on the Mazda CX-5 – an SUV with unprecedented passenger-car handling – and optimised it for the longer wheelbase, lighter weight, lower centre of gravity and low rolling resistance tyres of its CD-segment flagship.



## RELIABLE RESPONSIVENESS

All-New Mazda6 offers a fertile foundation indeed for the SKYACTIV-Chassis: From the exceptional low to medium speed agility and high-speed straight-line stability, the SKYACTIV-Chassis always delivers a faithful response to steering input from the driver. Road feedback is immediate, with gently increasing roll so that no steering adjustment is required in a curve. Yet, befitting for Mazda's top model, occupants can enjoy a relaxing, comfortable drive regardless of distance.

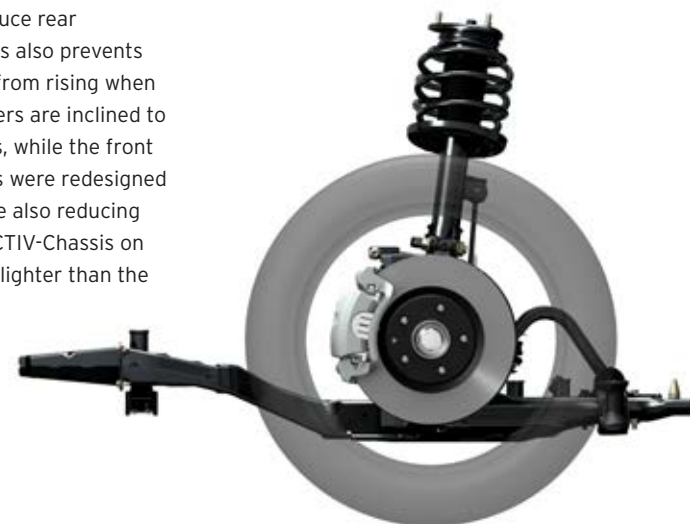
The column-type electric power assist steering system features a class-leading 14.2 gear ratio for agile steering without having to change hand positions on the steering wheel. This makes winding roads more fun and urban driving less tiresome. A range of sensors, meanwhile, feed data to the system, which it uses to adjust steering sensitivity for nimbleness at lower speeds while suppressing disturbances for better stability on rough roads and at high speeds. The larger caster angle on the front wheels also supports high-speed stability.



## FINELY-TUNED SUSPENSION

A key "link" in the agility-stability balance, the Mazda6's rear multi-link suspension also ensures the superior ride comfort obligatory in this segment. Mazda found the best possible combination between rear suspension link positions and bushing characteristics to deliver more grip, raising the shock absorber mounts to reduce rear suspension impacts. This also prevents the back of the vehicle from rising when braking. The rear dampers are inclined to better absorb vibrations, while the front and rear cross members were redesigned to enhance rigidity while also reducing their weight. The SKYACTIV-Chassis on All-New Mazda6 is thus lighter than the current model's.

As for stopping, the added chassis stability reduces braking distances. Here the shorter brake pedal stroke helps, giving the driver better control, as does the optimised cooling of the brake disks. As a result, All-New Mazda6 brakes more consistently than ever in all situations, with segment-leading stopping distances.



## SKYACTIV STRENGTH

SKYACTIV TECHNOLOGY is clearly about achieving the best possible balances, and the SKYACTIV-Body is no exception. Just like the SKYACTIV-Chassis, the focus here was to boost strength and stiffness while shedding kilograms. High and ultra-high tensile steels accomplish both, so Mazda uses them on 20 % more of the body by weight than the current model. Other measures include the highly rigid injection-moulded foam filling used to strengthen body joints without adding structural members, cutting door weight for example by 15 %. Even the glass on the windscreen and tailgate weighs less.

All-New Mazda6 is therefore lighter yet has 30% and 45% more torsional rigidity, respectively, than the current sedan and wagon. It's quieter and more aerodynamic, too, with a target drag coefficient of 0.27 (sedan) and 0.28 (wagon).

While lighter, sleeker bodies support better handling and fuel economy – cornerstones of Mazda's Sustainable Zoom-Zoom strategy (see box) – stiffer bodies are, of course, safer. Especially in combination with impact-absorbing structural modifications to disperse crash energy outside the cabin along load paths and replace curved structures with straight, continuous sections wherever possible (see chapter 7 for more details).



## NVH - UNIQUELY PEACEFUL

Mazda was clearly aiming to make the cabin on its new flagship as tranquil as possible, minimising noise, vibration and harshness. To do so, engineers adopted the pathway blockage and absorption concepts successfully implemented on the Mazda CX-5 to shelter the cabin from road and engine noise. The results are perhaps even more impressive on the All-New Mazda6.

### Engine noise

- Vibration-curbing balance shaft adopted for the SKYACTIV-G 2.5.
- Engine mounts re-engineered to limit vibration during ignition.
- New lightweight materials utilised behind the dash and on the floor to absorb undesirable engine noise, suppressing for example even more high-frequency acceleration-related noise than in the CX-5 while retaining an exciting low-frequency engine sound during acceleration.

### Road noise

- The controlled resonance between chassis and body components stifles vibrations from the road for a pleasant cabin sound without any noise "peaks".
- Tyres were chosen for their comfort and noise attributes (in addition to grip, stability and braking properties).
- The coverage of sound-damping materials was optimised for effectiveness as well as a 9% weight reduction.

### Other noise

- A sound-insulating middle layer was added to the windscreen to reduce wind noise and weather strips inserted on the door shells to improve the glass seal.
- The anti-noise mechanism in the brakes was enhanced using computer analysis.
- Noise travelling into the cabin from the sedan boot was limited by reducing the gaps in the rear deck.

### Conclusion:

The cabin in All-New Mazda6 is on par with the best in the segment on all kinds of road surfaces.





### **AERODYNAMICS - A CUTTING-EDGE**

The primary aerodynamic concept guiding designers of All-New Mazda6 was to minimise drag by enhancing the shape of the floor to strike the best possible balance between underfloor and upper body airflow.



Mazda used covers for the engine base and centre floor, among other things, along with extended front tyre deflectors to smoothen airflow underneath the car. The main exhaust silencer also helps improve aerodynamics by guiding the flow of air upwards. The roof angle (and D-pillar angle on the wagon) along with the spoilers, meanwhile, were also optimised.

And All-New Mazda6 is, in fact, as aerodynamic as it looks. The remarkably low drag coefficient, with  $c_d$  values of 0.27 for the sedan and 0.28 for the wagon, is one of the lowest in its class. This only helps to further improve high-speed stability and, of course, fuel economy.

### **SUSTAINABLE ZOOM-ZOOM: MORE THAN JUST TALK**

In this day and age, even fun cars need to be environmentally friendly. That's why Mazda put the "Sustainable" into Sustainable Zoom-Zoom.

Sustainable Zoom-Zoom is a building block strategy focused on significantly improving vehicle efficiency, firstly by developing base technology – see SKYACTIV – and then successively adding auxiliary systems like i-stop and i-ELOOP (see chapter 5) to achieve ambitious fuel economy objectives. Mazda meticulously examines every structure and material on a vehicle to eliminate every possible gram.

Recyclability is also an important issue. Today, 80 % (by weight) of the materials used to manufacture cars are already recycled. These are mostly metals like iron and aluminium, so Mazda is looking at the remaining 20 % – primarily plastics and glass – and developing initiatives to make these components easier to identify and dismantle.

For example, the company uses recycling-friendly polypropylene, a thermoplastic resin, on All-New Mazda6's front and rear bumpers as well as the instrument panel and trim. And it's phasing out harmful materials, eliminating lead, cadmium and chromium hexavalent on All-New Mazdas.

Mazda's lifecycle assessment process confirms that it has successfully reduced the Mazda6's emissions of CO<sub>2</sub>, a greenhouse gas, as well as nitrogen and sulphur oxides (NO<sub>x</sub> and SO<sub>x</sub>), which cause acid rain. Mazda is also working to cut the amount of volatile organic compounds (VOCs) in its vehicle interiors and was the first automaker to adopt low-VOC sealants, paints and adhesives for the cabin.

It all proves how seriously Mazda is committed to minimising its environmental impact – with no compromises.

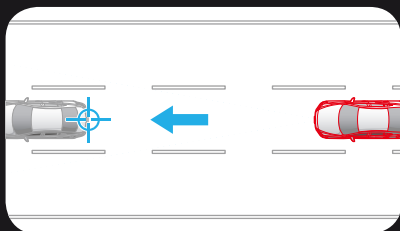


**7 SAFETY**  
HIGH-TECH GUARDIANS

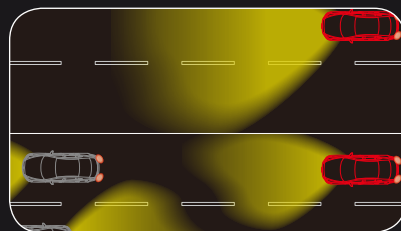
At Mazda, safety is an integral element of driving pleasure and Sustainable Zoom-Zoom. In fact, the company's Proactive Safety philosophy sets it apart with a range of safety features that help drivers under a wide range of conditions. In All-New Mazda6, as with the New Generation Mazdas, safety is driver focused.

Rather than simply letting systems intervene and take over control of the vehicle, Mazda's concept is to give drivers more "eyes", enabling them to be more aware of their surroundings and more alert to hazards at all times. With the latest in active safety technology, drivers of All-New Mazda6 are much better able to proactively avert accidents.

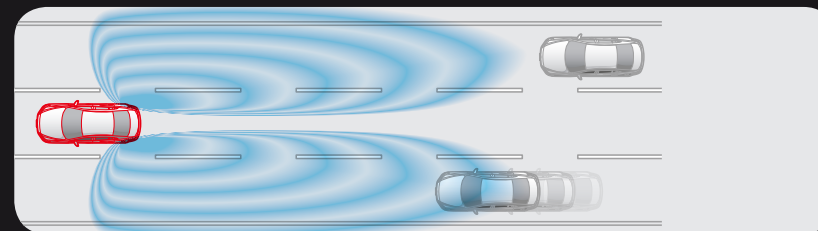
And when one is unavoidable, the car provides maximum protection to occupants and pedestrians alike, in many cases even limiting vehicle damage. The car becomes an extension of its driver, also when it comes to safety, for an appropriately satisfying driving experience.



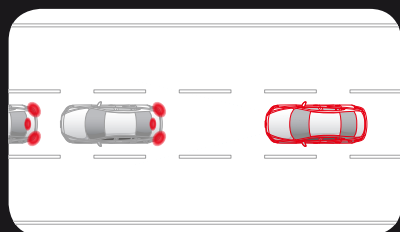
Radar Cruise Control



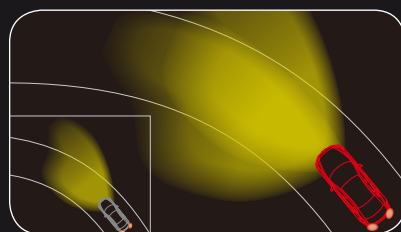
High Beam Control (HBC)



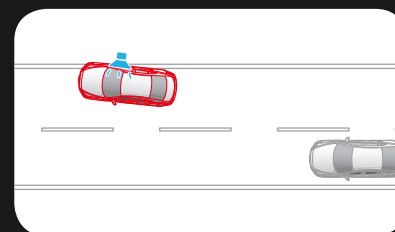
Blind Spot Monitoring (BSM)



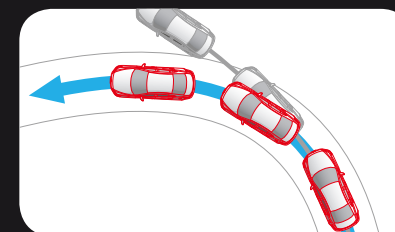
Smart Brake Support (SBS)



Adaptive Front-lighting System (AFS)



Lane Departure Warning (LDW)



Dynamic Stability Control (DSC)

## ***I-ACTIVSENSE TECHNOLOGY***

**I-ACTIVSENSE** is what Mazda calls its driver-supporting range of sensor-based safety devices, many of which can be found on All-New Mazda6.

Two active safety systems on the All-New Mazda6 are **Radar Cruise Control**, which maintains a safe distance from the preceding vehicle, and **Smart Brake Support (SBS)**, which includes Distance Recognition Support and Forward Obstruction Warning (see respective boxes).

**High Beam Control System**, also first seen on the CX-5, automatically switches between low and high beams to avoid

impairing the vision of other motorists. And the **Adaptive Front-lighting System** helps drivers see around curves at night – when the majority of fatal accidents occur – predicting the course of the road ahead based on driver steering input and directing the headlamps accordingly.

**The Lane Departure Warning and Blind Spot Monitoring** are two more perspective-enhancing highlights of All-New Mazda6. LDW monitors the lane markings on the road, providing audible and visual alerts when it detects an unintentional lane change at 65 km/h or higher. BSM, meanwhile, keeps an eye on the blind spots, informing the driver via LEDs in the appropriate side mirror

of vehicles approaching from behind in adjacent lanes. Should the driver signal to change lanes, a buzzer sounds and the LEDs start to blink. BSM works at speeds as low as 30 km/h.

## ***PROACTIVELY ALERT***

And for vehicles travelling directly behind the Mazda flagship, there's the **Emergency Stop Signal**, which rapidly flashes the four-way hazard lights during heavy braking from speeds of at least 50 km/h. It switches on the hazards at normal frequency, too, at 10 km/h or less to notify other drivers when the vehicle is about to stop.

All-New Mazda6 is also equipped with **Hill Launch Assist**, which controls

brake pressure for smooth hill starts, and of course all the latest generation of automated vehicle safety systems, including **ABS with Electronic Brakeforce Distribution**, brake assist, **Dynamic Stability Control** and traction control. And with a cockpit and human machine interface (HMI) designed to enhance visibility, the driver is in the perfect position to take full advantage of these systems.

Clearly there's no such thing as 100% security, and all this active safety technology won't necessarily help drivers prevent every accident. But should one occur, All-New Mazda6 was designed to provide the utmost in occupant protection.

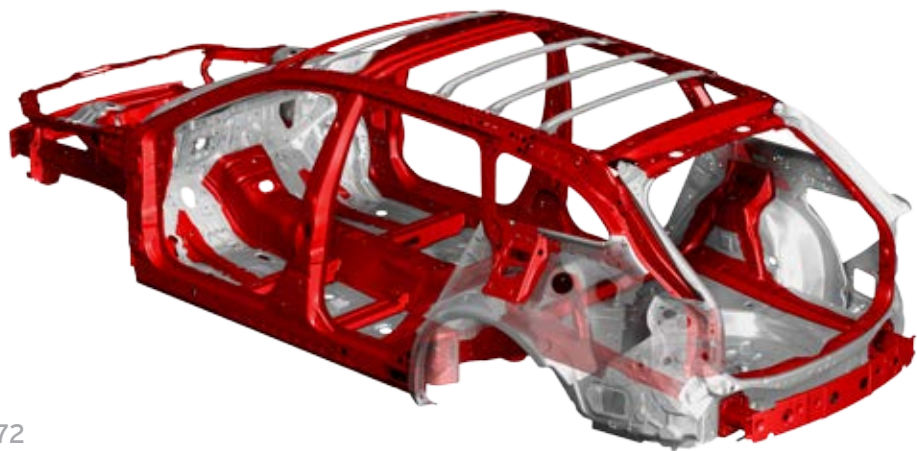
## IN A SAFER PLACE

Passive safety – what counts during an accident – starts with the SKYACTIV-Body. Lightweight but rigid thanks among other things to all the high-tensile steels (see chapter 6), it efficiently absorbs impacts from all directions and/or disperses crash energy to keep cabin deformation to a minimum.

Frontal impact forces, for example, are absorbed by crush cans in the engine compartment and channelled through the SKYACTIV-Body's multi-load paths. To create a larger crumple zone, the front suspension cross-members are designed to detach from their mountings. And milder frontal collisions (up to 15 km/h) are absorbed by easy-to-replace bolted-on parts, preventing damage to the front frame and engine components. This makes subsequent repairs far more economical.

Side impact safety is taken care of by Mazda's "triple-H" cage structure around the cabin, which has been strengthened by linking roof members, B-pillars and underbody members in uninterrupted ring structures. While added spot welds hold these structures together at the joints for greater shock resistance, the size, shapes and strength of pillars and bars were enhanced to prevent the cabin from deforming. The B-pillars and door impact bars, for example, are made from ultra-high tensile steel.

And to help protect occupants by absorbing and dispersing crash energy during a rear-end collision, Mazda improved the cross-sectional shape of the rear frame, joining it to the B-frame and straightening underbody members. Designers were able to limit the protrusion of the rear bumper by giving it an innovative reinforcing cross shape, which can absorb more force over a shorter crumple space. All-New Mazda6 thus delivers world-class safety with no need to compromise on the KODO design's beauty.



## INGENIOUSLY SECURE INSIDE

The interior, too, is built for better-than-ever occupant protection. That's why interior components and trim were redesigned. Other improvements include front and rear door armrests that split during a side impact to soften contact with occupants.

High-tensile steel, meanwhile, was added to the rear seatback and its connections and mounts strengthened to reinforce cabin integrity and prevent luggage intrusion.

\* According to in-house testing at Mazda

Mazda advanced the anti-whiplash design of the front seats with reinforced headrests, seatbacks and seat lifters to restrict movement and rotation of the head, chest and hips during an accident. Shear and tensile loads on the neck are as a result among the best in the segment\* for front occupants of the All-New Mazda6. And the optimised seats are still comfortable, also weighing less than those in the current model.

In addition to standard front, side and curtain airbags, the front seatbelts combine pretensioners to tighten the belts during a frontal accident and load limiters to avoid excessive pressure on the chest. The smallest passengers also get the best possible protection, thanks to ISOFIX connections with top tether anchors for quick and secure child seat installation.



While steadily improving automobile safety has led to a sharp decline in occupant deaths over the past decades, the proportion of pedestrian fatalities has grown. Reflecting this, EuroNCAP ratings now incorporate stricter criteria for pedestrian impacts.

Always striving to stay ahead of the game, Mazda adopted several measures to better protect pedestrians. These include bonnet hinges that yield downwards (vertically) to help prevent head injuries, but without diminishing their longitudinal (or horizontal) strength, which inhibits the bonnet from moving back towards the cabin.

The low bonnet on All-New Mazda6 makes it difficult to build in deep enough crumple zones above the front suspension towers, so Mazda used a special material here along with a new structure for the fender brackets. As a result, they crush during an accident to absorb the impact from a pedestrian, yet still resist deformation if someone leans on them.

The body cowl was also optimised to soften any blows to the head, improving NVH at the same time within the limited space available. Finally, the energy-absorbing foam used on the front bumper reinforcing member better protects pedestrian legs, with a "stiffener" added to stop the legs from becoming trapped underneath the car. And since all these features are hidden, they don't detract from the Mazda6's good looks.

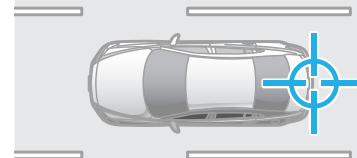
It all adds up to world-class crash safety, proven by the exhaustive testing undertaken on All-New Mazda6. Mazda went the extra mile, subjecting its flagship to a wider range of collision situations than regulations require, including side and offset front and rear impacts. The new model should therefore comply with even the most stringent crash test safety rating criteria around the world.

## RADAR CRUISE CONTROL

Changing traffic conditions can be stressful and tiring for drivers, particularly over longer distances and periods of time. But not with Radar Cruise Control which debuts on All-New Mazda6.\* The system uses a radar sensor in the front grille to monitor preceding vehicles and maintain a safe trailing distance, automatically controlling the speed and brakes as necessary.

The driver can choose from four distance settings, enabling the system to flexibly accommodate changing traffic flows, when for example a flowing motorway turns congested, significantly shortening trailing distances. Radar Cruise Control functions from speeds of 30 km/h all the way up to 200 km/h and only shuts off if the car is travelling less than 20 km/h. So it can be engaged on a high-speed motorway, automatically adjusting speed as needed, then decelerate on a steeply-curved exit ramp, and remain in operation following a vehicle accelerating down the next road.

Radar Cruise Control detects vehicles at distances as far as 140m and, being radar based, can "see" through rain, darkness and blinding sunlight.



\* Availability depends on equipment level

### SMART BRAKE SUPPORT

According to EuroNCAP, 90% of road accidents are caused by distracted or inattentive drivers. Vehicles with autonomous emergency braking systems, however, have up to 27 % fewer accidents, considerably reducing injuries. That is why EuroNCAP will include assessments of these systems in their vehicle safety ratings starting in 2014. With Smart Brake Support (SBS), All-New Mazda6 is already geared up for the future.

Like Radar Cruise Control, SBS utilises the radar sensor in the front grille to monitor preceding vehicles at a range of up to 140m. It works together with the Distance Recognition Support System (DRSS), a feature that calculates the "catch-up" time to other cars based on speed and distance, and the related Forward Obstruction Warning (FOW), which alerts the drivers to a potential collision using a warning sound and unmistakable "BRAKE" light in the 3.5-inch display next to the speedometer.

SBS, which functions from 15-145 km/h, helps to prevent or at least reduce the severity of a rear impact with a preceding vehicle, even at elevated speeds.





# 8 TECHNICAL SPECIFICATIONS & FEATURES

ALL-NEW MAZDA6

## MODELS

		Sport	Touring	GT	Atenza
2.5L petrol (SKYACTIV-G)		sedan or wagon	sedan or wagon	sedan or wagon	sedan or wagon
2.2L diesel (SKYACTIV-D)		-	sedan or wagon	sedan or wagon	sedan or wagon

## CHASSIS

Brake diameter	front	297 mm	297 mm	297 mm	297 mm
	rear	278 mm	278 mm	278 mm	278 mm
Brake type	front	Ventilated disc	Ventilated disc	Ventilated disc	Ventilated disc
	rear	Solid disc	Solid disc	Solid disc	Solid disc
Steering type		Electric power assist steering	Electric power assist steering	Electric power assist steering	Electric power assist steering
Suspension	front	MacPherson strut	MacPherson strut	MacPherson strut	MacPherson strut
	rear	Multi-link	Multi-link	Multi-link	Multi-link
Turning circle (kerb-to-kerb) - sedan / wagon		11.2 m / 11.0 m	11.2 m / 11.0 m	11.2 m / 11.0 m	11.2 m / 11.0 m
Tyre size		225/55 R17	225/55 R17	225/45 R19	225/45 R19
Tyre index		97V	97V	92W	92W
Wheel size		17 x 7.5 J	17 x 7.5 J	19 x 7.5 J	19 x 7.5 J
Wheel type		Alloy	Alloy	Alloy	Alloy
Tyre size (spare)		185/55 R16	185/55 R16	185/55 R16	185/55 R16
Wheel type (spare)		Temporary (Steel)	Temporary (Steel)	Temporary (Steel)	Temporary (Steel)

## POWERTRAIN

		2.5L petrol (SKYACTIV-G)	2.2L diesel (SKYACTIV-D)
Engine type		2.5 litre in-line 4 cylinder 16 valve DOHC S-VT petrol engine with i-stop and i-ELOOP	2.2 litre in-line 4 cylinder 16 valve DOHC intercooled turbo diesel engine with i-stop and i-ELOOP
Engine capacity		2,488 cc	2,191 cc
Bore and stroke		89.0 mm x 100.0 mm	86.0 mm x 94.0 mm
Compression ratio		13.0 : 1	14.0 : 1
Maximum power		138 kW @ 5,700 rpm	129 kW @ 4,500 rpm
Maximum torque		250 Nm @ 3,250 rpm	420 Nm @ 2,000 rpm
Throttle control		Electronic (drive-by-wire)	Electronic (drive-by-wire)
Fuel system		Electronic direct injection	Common-rail, electronic direct injection
Fuel tank capacity		62 litres	62 litres
Recommended fuel		Unleaded (91RON or higher) or E10	Diesel
Fuel consumption*1	auto (combined)	6.6 litres per 100km	5.4 litres per 100km
Emissions standard		Euro stage IV	Euro stage IV
Automatic (SKYACTIV-Drive) transmission		6-speed	6-speed
Gear ratio	1st	3.552	3.487
	2nd	2.022	1.992
	3rd	1.452	1.449
	4th	1.000	1.000
	5th	0.708	0.707
	6th	0.599	0.600
	reverse	3.893	3.990
	final drive	4.056	3.804

## EXTERIOR

	Sport	Touring	GT	Atenza
Daytime running lamps (LED)	-	-	X	X
Door handles (body coloured)	X	X	X	X
Exhaust extensions (chrome)	X	X	X	X
Fog-lamps (front)	X	X	X	X
Front and rear bumpers (body coloured)	X	X	X	X
Green-tinted windscreen, side and rear windows	X	X	X	X
Headlamps (Bi-Xenon) with Adaptive Front-lighting System (AFS)	-	-	X	X
Headlamps (Halogen)	X	X	-	-
Power mirrors (body coloured and heated)	X	X	X	X
Power-sliding and tilt glass sunroof	-	-	X	X
Power windows	X	X	X	X
Rear spoiler	wagon only	wagon only	wagon only	wagon only
Roof rails	wagon only	wagon only	wagon only	wagon only
Tail-lamps (LED)	X	X	X	X

## INTERIOR

Advanced keyless entry	-	-	X	X
Advanced keyless push-button engine start	X	X	X	X
Air-conditioning (dual-zone climate control) with rear vents	X	X	X	X
Ambient temperature display	X	X	X	X
Bluetooth® (hands-free compatible)*2	X	X	X	X
Cargo area 12 volt power outlet	wagon only	wagon only	wagon only	wagon only
Cargo area tonneau cover with 'Karakuri' up and down function	wagon only	wagon only	wagon only	wagon only
Cargo net	wagon only	wagon only	wagon only	wagon only
Radar Cruise Control	-	-	-	X

## EXTERIOR CONTINUED

		Sport	Tour	GT	Aten
Centre armrest console (sliding)		X	X	X	X
Critical function warning lights/chimes		X	X	X	X
Cruise control		X	X	X	-
Cupholders		X	X	X	X
Door bottle holders (front and back)		X	X	X	X
Glove box (illuminated)		X	X	X	X
Headlamps auto on/off function		X	X	X	X
Instrument panel light dimmer		X	X	X	X
Interior illumination:	entry system with delayed fade	X	X	X	X
	map reading spot lamps	X	X	X	X
	power window switches	X	X	X	X
Interior release for:	fuel filler door	X	X	X	X
Leather-wrapped:	gear shift knob	X	X	X	X
	handbrake handle	X	X	X	X
	steering wheel	X	X	X	X
Overhead sunglass storage box		X	X	X	X
Paddle shift gear control		X	X	X	X
Rear-view mirror with auto dimming function		-	-	X	X
Satellite navigation (TomTom)		X	X	X	X
Seat trim:	cloth	X	-	-	-
	leather*3	-	X	X	X
Seats (front) with:	2-position memory function (driver)	-	X	X	X
	4-way power adjustment (passenger)	-	X	X	X
	8-way power adjustment (driver)	-	X	X	X
	adjustable head restraints	X	X	X	X
	heating function	-	-	X	X
	height adjustment (driver)	X	X	X	X
	lumbar support (driver)	X	X	X	X
	rake and slide adjustment	X	X	X	X
	seat back pockets	X	X	X	X

		Sport	Tour	GT	Aten
Seats (rear) with:	60/40 split-fold backrest	sedan only	sedan only	sedan only	sedan only
	60/40 split flat-fold backrest	wagon only	wagon only	wagon only	wagon only
	adjustable head restraints	X	X	X	X
	centre fold down armrest	X	X	X	X
Tachometer and electronic odometer/tripmeter		X	X	X	X
Tilt and telescopic adjustable steering wheel		X	X	X	X
Trip computer*4		X	X	X	X
Vanity mirrors (front) with illumination		X	X	X	X
Window demister (rear)		X	X	X	X
Wipers (front) 2-speed with rain-sensing function		X	X	X	X
Wiper (rear) with intermittent function		wagon only	wagon only	wagon only	wagon only

## AUDIO

AM/FM tuner		X	X	X	X
Auxiliary input (3.5mm MP3 player compatible)		X	X	X	X
Bluetooth® audio (MP3 player compatible)*2		X	X	X	X
CD player, single disc (MP3/WMA compatible)		X	X	X	X
Premium Bose® 231 watt amplifier and speakers		-	X	X	X
Speakers (6)		X	-	-	-
Speakers (11)		-	X	X	X
Steering wheel-mounted audio controls		X	X	X	X
USB input (iPod® compatible)		X	X	X	X

## SAFETY

Airbags SRS:	front (driver and passenger)	X	X	X	X
	curtain (front and rear)	X	X	X	X
	side (front)	X	X	X	X
Anti-lock Braking System (ABS)		X	X	X	X
Blind Spot Monitoring (BSM)		-	-	-	X

## SAFETY CONTINUED

	Sport	Tour	GT	Aten
Child restraint anchor points	X	X	X	X
Childproof rear door locks	X	X	X	X
'Double lock' door deadlock function	X	X	X	X
Dynamic Stability Control (DSC)	X	X	X	X
Electronic Brake-force Distribution (EBD)	X	X	X	X
Emergency Brake Assist (EBA)	X	X	X	X
Emergency Stop Signal (ESS)	X	X	X	X
Engine immobiliser	X	X	X	X
Forward Obstruction Warning (FOW)	-	-	-	X
High Beam Control (HBC)	-	-	-	X
High mount stop lamp	X	X	X	X
Hill Launch Assist (HLA)	X	X	X	X
Intrusion-minimising brake pedal	X	X	X	X
Lane Departure Warning (LDW)	-	-	-	X
Left-hand-side convex (wide angle) exterior mirror	X	X	X	X
One touch (up and down) power windows (front and rear)	X	X	X	X
Parking sensors (front and rear)	-	X	X	X
Rear Cross Traffic Alert (RCTA)	-	-	-	X
Remote central locking (2 transmitters)	X	X	X	X
Reverse camera	X	X	X	X
Seat-belt warning (front and rear)	X	X	X	X
Seat-belts 3-point lap-sash (all seats)	X	X	X	X
"Seat-belts (front) with pretensioners, load-limiters and height adjustable shoulder anchorages"	X	X	X	X
Side impact door beams	X	X	X	X
Smart Brake Support (SBS)	-	-	-	X
Traction Control System (TCS)	X	X	X	X
'Triple H' safety construction with front and rear crumple zones	X	X	X	X
Whiplash-minimising front seats	X	X	X	X

## DIMENSIONS

		Sport	Touring	GT	Atenza
Ground clearance	laden	122 mm	122 mm	122 mm	122 mm
Overall length – sedan / wagon		4,865 mm / 4,800 mm	4,865mm / 4,800 mm	4,865 mm /4,800 mm	4,865 mm / 4,800 mm
Overall width		1,840 mm	1,840 mm	1,840 mm	1,840 mm
Overall height – sedan / wagon		1,450 mm / 1,480 mm	1,450 mm /1,480 mm	1,450 mm / 1,480 mm	1,450 mm / 1,480 mm
Track	front	1,585 mm	1,585 mm	1,595 mm	1,595 mm
	rear	1,575 mm	1,575 mm	1,585 mm	1,585 mm
Wheelbase – sedan / wagon		2,830 mm / 2,750 mm	2,830 mm / 2,750 mm	2,830 mm / 2,750 mm	2,830 mm / 2,750 mm

## WEIGHTS AND CAPACITIES

Cargo room volume (VDA) – sedan / wagon		438 litres / 451 litres	438 litres / 451 litres	438 litres / 451 litres	438 litres / 451 litres
Cargo room volume (VDA) – wagon*5		1,593 litres	1,593 litres	1,593 litres	1,593 litres
Kerb weight – sedan / wagon	2.5L petrol	1,462 kg / 1,484 kg	1,471 kg / 1,494 kg	1,501 kg / 1,524 kg	1,503 kg / 1,526 kg
	2.2L diesel	-	1,541 kg / 1,561 kg	1,571 kg / 1,591 kg	1,573 kg / 1,593 kg
Towing capacity*6 – braked / unbraked	2.5L petrol	1,500 kg / 550 kg	1,500 kg / 550 kg	1,500 kg / 550 kg	1,500 kg / 550 kg
	2.2L diesel	-	1,600 kg / 750 kg	1,600 kg / 750 kg	1,600 kg / 750 kg
Tow-ball download maximum		120 kg	120 kg	120 kg	120 kg

\*1 Fuel consumption figures are based on ADR81/02 test results. They are useful in comparing the fuel consumption of different vehicles. They may not be the fuel consumption achieved in practice. This will depend on traffic, road conditions and how the vehicle is driven.

\*2 Please check the compatibility of your Bluetooth® device (particularly your mobile phone) with the specific Mazda vehicle you intend to purchase as not all devices operate correctly. Visit [mazdahandsfree.com.au](http://mazdahandsfree.com.au) or consult your Mazda Dealer for further information.

\*3 Leather interior includes some Maztex material on selected high impact surfaces.

\*4 Trip computer displays current and average fuel consumption, distance to empty and average vehicle speed.

\*5 Measured with rear seats folded down and up to roof.

\*6 Subject to State or Territory regulations.

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