
# NEW Mazda CX-5

## PRESS KIT
## JANUARY 2015



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Mazda's presence in the SUV segment began in 2001 with the launch of the highly successful Tribute. It quickly became a favourite with Australian buyers snapping up nearly 35,000 in seven years.

The next Mazda challenger in the segment was the CX-7. Launched in late 2006, the CX-7 was a sportier proposition than the Tribute but also continued to offer the flexibility SUV buyers were looking for. A facelift in 2009 heralded the introduction of two new engines and this further increased the demand for the CX-7 with it rising to become one of Australia's best-selling compact SUV's in the last years of its lifecycle.

In 2012, Mazda introduced the CX-5, an all new car that built upon the previous SUV offerings. It was the first Mazda to adopt the company's 'Kodo: Soul of Motion' design theme, and introduced the full suite of SKYACTIV Technologies for the first time.

Offering a mix of style, safety and value, the CX-5 presents buyers with a compelling choice and has become Australia's most popular SUV with almost 60,000 sales since launching in late February 2012.


## CX-5 FAST FACTS

- CX-5 was launched in February 2012
- The first Mazda to feature 'KODO – Soul of Motion' design language
- The first Mazda to feature the full suite of SKYACTIV Technology
- Australia's number one selling SUV
- Almost 60,000 Australian sales since launch
- Monthly sales averaging almost 1,700 sales per month
- MZD Connect and reverse camera are standard across the entire range
- Further i-ACTIVSENSE technologies are added to the face-lifted CX-5 including Adaptive LED Headlamps (ALH), Lane-keep Assist System (LAS) and Driver Attention Alert (DAA)
- Introduction of Electronic Park Brake
- Two new colours including Sonic Silver Metallic and Titanium Flash Mica
- Reduced NVH
- Introduction of Drive Selection for a more responsive drive

## CX-5 RANGE

- Bold styling based on Mazda's 'KODO – Soul of Motion' design theme, conveying SUV-like sturdiness and functionality along with Mazda's characteristic sense of vitality and agility
- CX-5 is available with a choice of two engines: the SKYACTIV-G 2.5 litre petrol and the SKYACTIV-D 2.2 litre diesel is mated to All Wheel Drive, while the SKYACTIV-G 2.0 litre petrol is mated to Front Wheel Drive
- The choice of the SKYACTIV-MT 6-speed manual transmission and SKYACTIV-Drive 6-speed automatic transmission contribute to a more sporty shift feel and improved fuel efficiency
- With four grades available, Maxx, Maxx Sport, Grand Touring and Akera, buyers have a wide choice and are sure to find a model that suits their needs and their budget
- The combination of the SKYACTIV-Chassis and SKYACTIV-Body makes for a more nimble driving experience but also provides a stronger body and improved safety
- Every model across the CX-5 range comes standard with the highest level of safety features including 6 SRS Airbags, DSC, ABS, EBD, plus reverse camera
- Interior space is optimised to create more leg room in the rear and increased head room throughout
- Interior design and quality reflects CX-5's refinement and sportiness


### EXTERIOR DESIGN

- The front grille was evolved to create a design that is bolder and tauter with horizontal fins painted metallic gray
- The headlamps create an enhanced sense of vitality by adopting a redesigned interior layout and new LED lighting signature
- The rear combination lamps feature an LED lighting signature
- The 19-inch alloy wheels adopt a new design with machining that highlights a look of three-dimensionality
- The lineup of eight colours includes the newly developed Sonic Silver Metallic and Titanium Flash Mica, which is available on the Mazda3

## INTERIOR DESIGN AND FUNCTIONS

- Adopting an electric parking brake gives the floor console a clean and uncluttered look of higher quality
- The design features a metallic-finish trim that produces solid-looking forms and a sense of power extending out to the sides on a horizontal plane
- Three types of decorative panels are available for the instrument panel: an aluminum-look panel featuring a vertical hairline finish and a thin satin chrome strip, a metallic-finish panel, and a piano black panel
- The updated CX-5 continues to offer a black leather interior, as well as two types of black fabric interiors. Leather interior choices include a new pure white leather offering. For the fabric interiors, the centre of the seats adopts newly developed materials
- The MZD Connect car connectivity system – with seven-inch full colour touch screen display – paired with a smartphone makes it easier to take advantage of functions including internet connectivity and access to social networking services
- Storage space with increased capacity includes an open space in front of the shift knob, floor console cup holders and storage for small items, a console box, and front door pockets

## COMFORT

- Optimised wheelbase of 2,700mm enables a spacious cabin in which four adults can relax and travel in comfort
- Driver enjoys one of the highest eye points and the widest field of vision in its class along with the optimal position for pedal operation
  - 8-way power adjustable driver's seat with power lumbar support available
  - Impressive rear legroom, knee clearance and foot space along with top-class hip and shoulder room
  - Clever, easy-to-use Karakuri features, including the industry's first independent, three-piece 40:20:40 fold-down seats (with remote release levers in rear cargo area) and an advanced tonneau cover that opens and closes together with the liftgate
  - Rear cargo space designed with minimal protrusions and with a volume of 403 litres (up to tonneau cover) and expandable to 1,560 litres of flat cargo space with rear seats folded
  - Low liftgate and large boot opening for easy loading
  - Generous stowage capacity, including a large open space in the centre console and pockets in the trim of each door able to hold a one-litre bottle

## DRIVING DYNAMICS

- A smooth, flat ride is experienced by adopting a new structure for the front and rear dampers and optimising the bushing shapes for the front lower arms
- Further evolved NVH performance realises a cabin environment in which occupants can better enjoy conversation while driving. Cabin noise when driving at highway speeds is reduced by approximately 10 per cent over the previous model
- The evolved front and rear seat structure provides a feeling of comfortable snugness and a good fit, excellent holding characteristics, as well as ride comfort. The length of the rear seat cushions was also extended, enabling the occupant to relax and sit naturally
- The CX-5 powered by a petrol engine and paired with SKYACTIV-DRIVE adopts Drive Selection, which allows drivers to switch drive modes for a more responsive driving experience
- The new-generation AWD system adopts a newly developed low-viscosity synthetic oil that contributes to better real-world fuel economy


## POWERTRAIN

Mazda's range of high-efficiency SKYACTIV powertrains includes three engines and two transmissions. All come standard with Mazda's advanced i-stop system.

**The 2.0 litre and 2.5 litre SKYACTIV-G direct injection petrol engine features:**

- 13:1 compression ratio
- specially designed 4-2-1 exhaust system
- compatibility with regular unleaded fuel

**Output:**

- 2.0 litre FWD: 114kW @ 6,000rpm & 200Nm at 4,000rpm
- 2.5 litre AWD: 138kW @ 5,700rpm & 250Nm at 4,000rpm

**Fuel consumption (combined) and $CO_2$ emissions:**

- 2.0 litre FWD: 6.4 litres per 100km & 149 g/km (MT) / 148 g/km (AT)
- 2.5 litre AWD: 7.4 litres per 100km & 172 g/km (AT)
- Emissions class: Euro 4

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

- A 14:1 compression ratio (world's lowest)
- A two stage turbocharger

**Output:**

- AWD: 129kW @ 4,500 rpm & 420Nm at 2,000 rpm

**Fuel consumption (combined) and $CO_2$ emissions:**

- AWD: 5.7 litres per 100km & 149 g/km
- Emissions class: Euro 4

**SKYACTIV-Drive 6-speed automatic transmission features:**

- An extra wide lock-up range clutch
- Quick and direct shifting
- Available on both SKYACTIV-D and SKYACTIV-G engines

**SKYACTIV-MT 6-speed manual transmission:**

- Features a light and compact architecture
- Delivers the light, crisp shifting similar to the MX-5
- Available on SKYACTIV-G 2.0 litre engine


## CHASSIS & BODY

The centrepiece of Mazda's lightweight design strategy: With its SKYACTIV chassis and body technology, the CX-5 features reduced body in white weights plus an even stronger body structure.

### SKYACTIV-CHASSIS

- Suspension system is lighter yet stiffer for precise handling at all speeds and top ride comfort as well as enhanced braking
- Includes geometry with front strut suspension and rear multi-link layout
- New front and rear dampers and optimised bushing shapes for the front lower arms provide a smooth, flat drive

### SKYACTIV-BODY

- Lighter yet stronger by optimising structure and layout, increasing high-tensile steel use and adopting new production processes
- Multi-load path concept disperses energy effectively through the body structure for exceptional crash safety
- Excellent engine and road noise levels thanks to advanced sound insulation, absorption and suppression


## SAFETY

Among the variety of i-ACTIVSENSE advanced safety technologies, Mazda made a particular effort to keep the driver more aware of conditions so they can enjoy driving at night or at highway speeds with greater reassurance.

- Mazda's first implementation of its new Adaptive LED Headlamps (ALH) further improves visibility at night
- The new Lane-keep Assist System (LAS) introduced by Mazda for the first time supports the driver in steering the car by providing steering torque assistance and steering wheel vibration alerts
- A new function on a Mazda car, Driver Attention Alert (DAA) monitors the driver's condition when driving at highway speeds and recommends timely rest breaks
- Smart City Brake Support [Forward/Reverse] (SCBS F/R) adds rearward detection to its previous forward detection capabilities, evolving the system to be useful in a wider variety of driving scenes
- Available as an additional feature, Smart Brake Support (SBS) helps avoid frontal collisions or minimises damage when travelling mid- to high-speed
- Mazda Radar Cruise Control (MRCC) is another additional feature that automatically controls the vehicle speed to maintain the safe following distance in accordance with the target speed set by the driver
- Standard active safety features include: DSC, ABS, EBD, TCS, HLA, LDW, BSW and TPMS

Cutting edge **passive safety** features include:

- Highly-rigid impact absorbing SKYACTIV-Body, designed to achieve top marks in crash tests
- First-ever use in a car of 1,800 MPa ultra-high tensile steel (found in the bumpers)
- Excellent field of vision for the driver
- Seats designed for occupant safety (e.g. anti-whiplash architecture)
- Seatbelts equipped with load limiters to mitigate chest injury
- Standard front, side and curtain SRS airbags
- Bumper, bonnet, body cowl and instrument panel optimised to prevent or reduce injury to pedestrians

## MARKETING

The CX-5 audience is fairly broad (young singles/couples, young families and empty nesters).

All of these groups are active and image conscious, they want to enjoy all of life's possibilities, no matter where or when. These could be young singles or young couples wanting a more 'sensible' vehicle, families with young kids, or older couples whose kids have finally left home.

They are all unified by a similar mindset: *life is for living*. They need a vehicle that can keep up with their lifestyle.

It's not about wanting an off-roader; but about seeking the perfect balance between functionality (but not too big), dynamic style and fun to drive characteristics.

From their knowledge of the rest of the market, they expect there will be a trade-off when they buy a compact SUV – space and function vs 'driveability', fuel economy and good looks.

The CX-5 provides an appealing proposition without any compromise.

## SALES

After its launch in early 2012, close to 1,700 units per month (on average) have been sold. With increased customer interest, Mazda Australia expects to match these per month numbers in 2015 with the following model split:

| | |
|---|---|
| Maxx | 25% |
| Maxx Sport | 50% |
| Grand Touring | 15% |
| Akera | 10% |
| Petrol | 80% |
| Diesel | 20% |
| FWD | 35% |
| AWD | 65% |

# CX-5 RANGE HIGHLIGHTS

*Page 43: Full specification and equipment list*

### CX-5 MAXX

**Manufacturer's List Price (MLP) from $27,190**

**Powertrain**

- 2.0 litre in-line 4 cylinder 16 valve DOHC S-VT petrol (SKYACTIV-G) engine with i-stop
- Maximum power: 114 kW @ 6,000 rpm
- Maximum torque: 200 Nm @ 4,000 rpm
- Fuel consumption (combined): 6.4 l/100km[1]

**Or**

- 2.5 litre in-line 4 cylinder 16 valve DOHC S-VT petrol (SKYACTIV-G) engine with i-stop
- Maximum power: 138 kW @ 5,700 rpm
- Maximum torque: 250 Nm @ 4,000 rpm
- Fuel consumption (combined): 7.4 l/100km[1]

**Maxx features include:**

- 17-inch steel wheels with 225/65 tyres
- Exhaust extensions (chrome)
- Headlamps (Halogen)
- Power mirrors (body coloured with folding function)
- Power windows
- Rear spoiler
- Wipers (front) 2-speed with variable intermittent function
- Wiper (rear) with intermittent function
- Front seats with: height adjustment (driver) and seat back pockets
- Rear seats with: 60/40 split fold backrest
- Seat trim: Black cloth
- Cargo area tonneau cover with 'Karakuri' up and down function
- Cruise control
- Electric parking brake
- Glove box
- Tilt and telescopic adjustable steering wheel
- Trip computer[6]
- Vanity mirrors (front)
- 7-inch full colour touch screen display (MZD Connect)
- Audio system with: AM/FM tuner, single disc CD player (MP3 compatible) and 4 speakers
- Auxiliary-audio input jack (3.5mm mini-stereo)
- Bluetooth® hands-free phone and audio capability[7]
- Internet radio integration (Pandora®, Stitcher™ and Aha™ )
- Multi-function commander control
- Radio Data System (RDS) program information
- Steering wheel-mounted audio controls
- USB-audio input ports (iPod compatible)
- Advanced keyless push-button engine start
- Airbags SRS: front (driver and passenger), side (front) and curtain (front and rear)
- Anti-lock Braking System (ABS)
- Dynamic Stability Control (DSC)
- Emergency Stop Signal (ESS)
- Hill Launch Assist (HLA)
- ISOFIX child restraint anchor points and top tethers
- Remote central locking (2 transmitters)
- Reverse camera
- Tyre Pressure Monitoring System (TPMS)

### SAFETY PACK[2] OPTION:

- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- Rear-view mirror with auto dimming function
- Smart City Brake Support [Forward] (SCBS F)

**$1,230**

## CX-5 MAXX SPORT

**Manufacturer's List Price (MLP)**
**from $32,790**

**Powertrain**

- 2.0 litre in-line 4 cylinder 16 valve DOHC S-VT petrol (SKYACTIV-G) engine with i-stop
- Maximum power: 114 kW @ 6,000 rpm
- Maximum torque: 200 Nm @ 4,000 rpm
- Fuel consumption (combined): 6.4 l/100km[1]

**Or**

- 2.5 litre in-line 4 cylinder 16 valve DOHC S-VT petrol (SKYACTIV-G) engine with i-stop
- Maximum power: 138 kW @ 5,700 rpm
- Maximum torque: 250 Nm @ 4,000 rpm
- Fuel consumption (combined): 7.4 l/100km[1]

**Or**

- 2.2 litre in-line 4 cylinder 16 valve DOHC intercooled turbo diesel (SKYACTIV-D) engine with i-stop
- Maximum power: 129 kW @ 4,500 rpm
- Maximum torque: 420 Nm @ 2,000 rpm
- Fuel consumption (combined): 5.7 l/100km1

**Maxx Sport features additional to Maxx include:**

- 17-inch alloy wheels
- Front fog-lamps (Halogen)
- Headlamps auto on/off function
- Wipers (front) 2-speed with rain-sensing function
- Rear seats with: 40/20/40 split fold backrest (flat fold) and centre fold down armrest
- Air-conditioning (dual-zone climate control)
- Leather wrapped: gear shift knob and steering wheel
- Vanity mirrors (front) with illumination
- Audio system with: 6 speakers
- Satellite navigation

### SAFETY PACK[2] OPTION:

- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- Rear-view mirror with auto dimming function
- Smart City Brake Support [Forward] (SCBS F)

**$1,230**

## CX-5 GRAND TOURING

**Manufacturer's List Price (MLP)**
**from $43,390**

**Powertrain**

- 2.5 litre in-line 4 cylinder 16 valve DOHC S-VT petrol (SKYACTIV-G) engine with i-stop
- Maximum power: 138 kW @ 5,700 rpm
- Maximum torque: 250 Nm @ 4,000 rpm
- Fuel consumption (combined): 7.4 l/100km[1]

**Or**

- 2.2 litre in-line 4 cylinder 16 valve DOHC intercooled turbo diesel (SKYACTIV-D) engine with i-stop
- Maximum power: 129 kW @ 4,500 rpm
- Maximum torque: 420 Nm @ 2,000 rpm
- Fuel consumption (combined): 5.7 l/100km[1]

**GT features additional to Maxx Sport include:**

- 19-inch alloy wheels with 225/55 tyres
- Front fog-lamps (LED)
- Daytime running lamps (LED)
- Headlamps (LED)
- Power sliding and tilt glass sunroof
- Tail-lamps (LED)
- Front seats with: 2-position memory function (driver), 6-way power adjustment (passenger), 8-way power adjustment (driver), heating function and lumbar support adjustment (driver)
- Seat trim: Black or Pure White leather
- Rear-view mirror with auto dimming function
- Premium Bose® 231 watt amplifier and 9 speakers
- Adaptive Front-lighting System (AFS)
- Advanced keyless entry
- Parking sensors (front and rear)

### SAFETY PACK[2] OPTION:

- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- Smart City Brake Support Forward/ Reverse (SCBS F/R)

**$1,060**

## CX-5 AKERA

**Manufacturer's List Price (MLP) from $47,410**

**Powertrain**

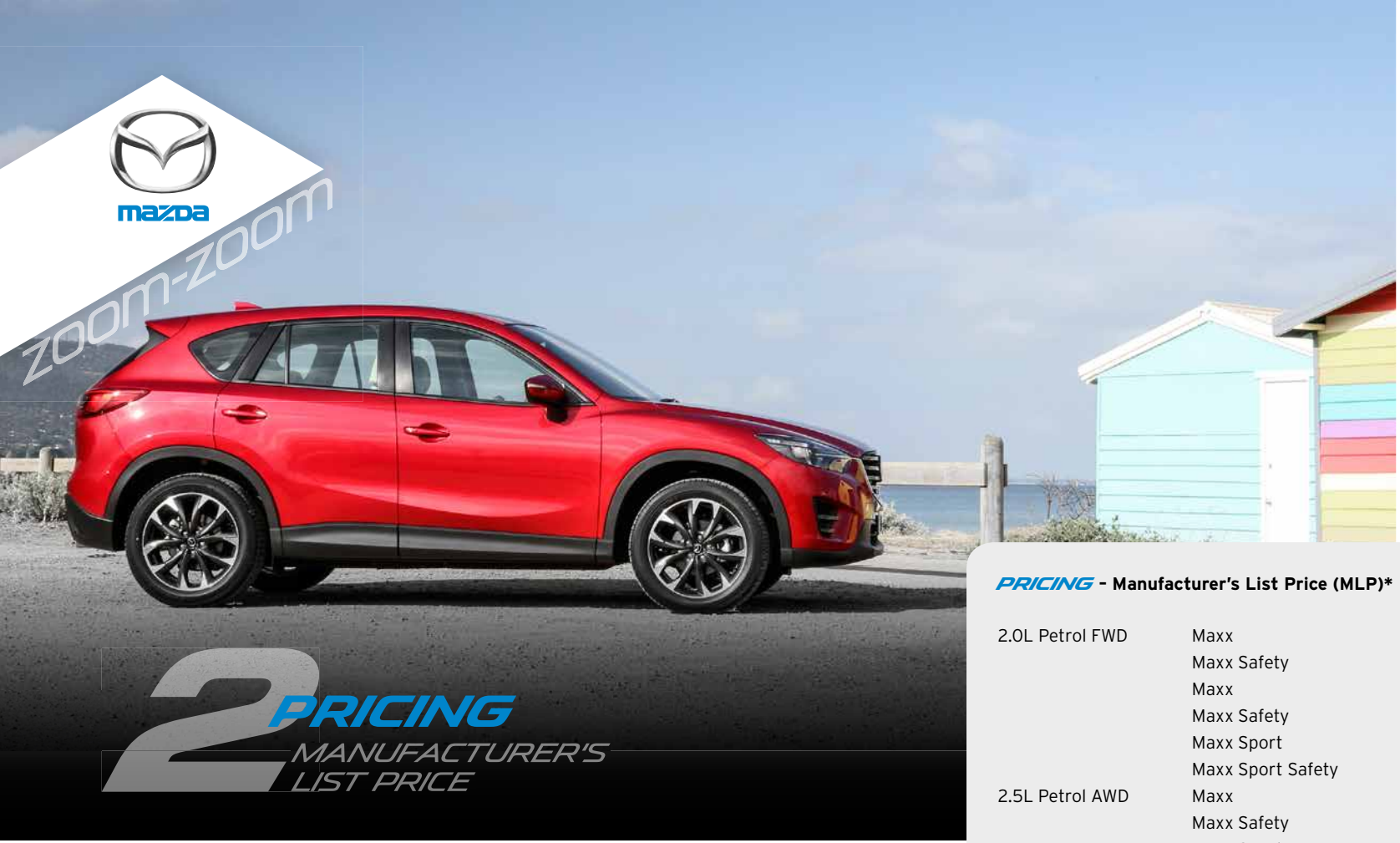
- 2.5 litre in-line 4 cylinder 16 valve DOHC S-VT petrol (SKYACTIV-G) engine with i-stop
- Maximum power: 138 kW @ 5,700 rpm
- Maximum torque: 250 Nm @ 4,000 rpm
- Fuel consumption (combined): 7.4 l/100km[1]

**Or**

- 2.2 litre in-line 4 cylinder 16 valve DOHC intercooled turbo diesel (SKYACTIV-D) engine with i-stop
- Maximum power: 129 kW @ 4,500 rpm
- Maximum torque: 420 Nm @ 2,000 rpm
- Fuel consumption (combined): 5.7 l/100km[1]

**Akera features additional to GT include:**

- Radar cruise control
- Adaptive LED Headlamps (ALH)
- Blind Spot Monitoring (BSM)
- Driver Attention Alert (DAA)
- Forward Obstruction Warning (FOW)
- Lane Departure Warning (LDW)
- Lane-keep Assist System (LAS)
- Rear Cross Traffic Alert (RCTA)
- Side monitor
- Smart Brake Support (SBS)
- Smart City Brake Support [Forward/Reverse] (SCBS F/R)




The CX-5 delivers an excellent all-round package with its impressive design and technology delivered at an extremely competitive price.

Competition in this segment is vast and with this in mind Mazda has ensured that every CX-5 model is well equipped and that Mazda's reputation of offering excellent value for money continues.

**PRICING – Manufacturer's List Price (MLP)***

| | | | |
|---|---|---|---|
| 2.0L Petrol FWD | Maxx | 6 MT | **$27,190** |
| | Maxx Safety | 6 MT | **$28,420** |
| | Maxx | 6 AT | **$29,190** |
| | Maxx Safety | 6 AT | **$30,420** |
| | Maxx Sport | 6 AT | **$32,790** |
| | Maxx Sport Safety | 6 AT | **$34,020** |
| 2.5L Petrol AWD | Maxx | 6 AT | **$32,190** |
| | Maxx Safety | 6 AT | **$33,420** |
| | Maxx Sport | 6 AT | **$35,790** |
| | Maxx Sport Safety | 6 AT | **$37,020** |
| | GT | 6 AT | **$43,390** |
| | GT Safety | 6 AT | **$44,450** |
| | Akera | 6 AT | **$47,410** |
| 2.2L Diesel AWD | Maxx Sport | 6 AT | **$38,990** |
| | Maxx Sport Safety | 6 AT | **$40,220** |
| | GT | 6 AT | **$46,590** |
| | GT Safety | 6 AT | **$47,650** |
| | Akera | 6 AT | **$50,610** |
| Soul Red Metallic | | | **$200** |

* Manufacturer's List Price (MLP) includes GST and Luxury Car Tax (LCT) where applicable but excludes dealer delivery, registration, third party insurance costs, stamp duty and other mandatory charges.

# MAZDA SERVICING

Regular servicing is the key to the long-term performance, efficiency and safety of your Mazda. Keeping the Zoom-Zoom factor at its peak is made easy, convenient and worry-free through the Mazda Maintenance Program.

While the duration of most other capped-price servicing plans expire with the new car warranty, Mazda servicing runs for the entire lifespan of your vehicle. This provides you with greater value as you'll know exactly how much your standard service costs will be across the life of your car.

We also understand everyone has different driving habits. That's why we've revised our service scheduling to better suit you. Now you simply service your Mazda every 10,000kms. This correctly maintains your vehicle's integrity and helps ensure trouble-free motoring.

## MAZDA SERVICE SELECT

With Mazda Service Select you can vary your visit schedule according to how you use your Mazda. For example, if you travel on average 13,000kms per year, you can service your Mazda once every nine months, if you travel less, say 8,000kms per year you only need to come in once a year. You'll also get peace of mind as you will not pay more for a scheduled service performed by your Mazda Dealer than the advertised price at the time your scheduled service is carried out.

### How Mazda Service Select Works

There are two parts to the program.

1. Scheduled Service Intervals include maintenance items such as: oil, oil filter, inspect fluids, safety check, tyre rotation, road test, wash and vacuum etc
2. Additional Scheduled Maintenance Items are additional to the Standard Scheduled Service and are required when they fall due, either by the age of the vehicle or distance travelled, whichever occurs first.

Simply add the cost of each Additional Scheduled Maintenance Item to the Scheduled Service Interval price to determine your total Scheduled Service price.*

| Scheduled Service Intervals | | Maxx | Maxx<br>Maxx Sport | Maxx<br>Maxx Sport<br>Grand Touring<br>Akera | Maxx sport<br>Grand Touring<br>Akera |
|---|---|---|---|---|---|
| | | Petrol Man | Petrol Auto | Petro Auto | Diesel Auto |
| | | 2.0L FWD | 2.0L FWD | 2.5L AWD | 2.2L-T AWD |
| 1st Service or 10,000km | | $294 | $294 | $299 | $319 |
| 2nd Service or 20,000km | | $321 | $321 | $326 | $387 |
| 3rd Service or 30,000km | | $294 | $294 | $299 | $319 |
| 4th Service or 40,000km | | $321 | $321 | $326 | $360 |
| 5th Service or 50,000km | | $294 | $294 | $299 | $319 |
| 6th Service or 60,000km | | $321 | $321 | $326 | $360 |
| 7th Service or 70,000km | | $294 | $294 | $299 | $319 |
| 8th Service or 80,000km | | $321 | $321 | $326 | $387 |
| 9th Service or 90,000km | | $294 | $294 | $299 | $319 |
| 10th Service or 100,000km | | $321 | $321 | $326 | $360 |
| 11th Service or 110,000km | | $294 | $294 | $299 | $319 |
| 12th Service or 120,000km | | $321 | $321 | $326 | $360 |
| 13th Service or 130,000km | | $294 | $294 | $299 | $319 |
| 14th Service or 140,000km | | $321 | $321 | $326 | $387 |
| 15th Service or 150,000km | | $294 | $294 | $299 | $319 |
| 16th Service or 160,000km | | $321 | $321 | $326 | $360 |
| **Additional Schedule Maintenance Items** | | | | | |
| Mazda Premium Engine Oil | Optional with every Service | $15 | $15 | $16 | N/A |
| Brake Fluid Replacement | Every 2 years or 40,000km | $62 | $62 | $62 | $62 |
| Cabin Air Filter Replacement | Every 40,000km | $64 | $64 | $64 | $64 |
| Engine Fuel Filter Replacement - Diesel | Every 40,000km | N/A | N/A | N/A | $91 |
| Engine Air Filter Replacement | Every 60,000km | $61 | $61 | $61 | $100 |
| Manual Transmission Oil Replacement† | Every 5 Years or 100,000km | $39 | N/A | N/A | N/A |
| Spark Plug Replacement | Every 120,000km | $260 | $260 | $260 | N/A |
| Engine Fuel Filter Replacement - Petrol | Every 150,000km | $332 | $332 | $333 | N/A |

All Prices are inclusive of GST
†Manual Transmission only

*Correct at time of print, pricing may be subject to change.


# 3 PRODUCT CONCEPT
## A MESSAGE FROM THE PROGRAM MANAGER

### *CONSTANT EVOLUTION AIMS TO FURTHER ENRICH THE JOY OF OWNING THE CX-5*

Launched as our first car to fully adopt SKYACTIV Technology and 'KODO – Soul of Motion' design language, Mazda CX-5 stood as the vanguard of Mazda's new-generation product lineup.

It has since been well received by customers and outsold projected sales figures in major markets around the world. As such, it has continued to grow in its role as a core product in the lineup, alongside Mazda3.

The vehicle offers all the essential basic values, including SKYACTIV Technology's excellent environmental and safety performance and the utility expected of an SUV.
But in addition to this, I believe the popularity of the CX-5 shows that our unwavering commitment to delivering added values unique to Mazda, including our dedication to driving performance and design, has struck a chord with a large number of customers.

We have worked constantly to further refine the CX-5 each year in order to deliver yet greater value and sophistication to our customers.

The passionate support of CX-5 owners around the world helps advance our efforts to impart new levels of depth and maturity to this model.

Once again for this round's update, we gave careful consideration to the impassioned feedback and opinions offered by these customers as we aimed to bring greater refinement to a variety of elements, including design, the quality and functionality of the interior, ride comfort and quietness, as well as safety performance.

The updated CX-5 embodies our message to our customers by continuing to respond to their expectations.

While the exterior retains its SUV appearance, the front grille and other design features were further refined to refresh the model with the latest in the brand's design expression.

For the interior, particular effort went into improving texture of the ornamentation and materials used, and also to applying Mazda's own Human-Machine Interface (HMI) to deliver greater functionality and convenience in the cockpit zone.

Refinements to the front and rear seats as well as the suspension offer comfortable seating and a smooth, stable ride that makes outings pleasurable for both the driver and the whole family.

I was especially particular when it came to quietness and safety.

A quiet cabin leads to livelier conversations and occupants can better enjoy clear sound when listening to music. All this makes time spent in the vehicle more pleasurable.

To accomplish this, we enhanced sound insulation performance throughout the body to reduce wind and road noise.

We also made a concerted effort to evolve safety performance, particularly in the realm of helping the driver recognise potential dangers and to promote safe driving.

One such technology Mazda is implementing for the first time is Adaptive LED Headlamps (ALH). It was developed with the aim of making it as easy to see at night as in the day, so even those who experience stress when driving at night can take the wheel with confidence.

I have long wanted to build a car that would be loved and remembered.

With this in mind, we are confident that we have built a car that will leave customers feeling happy that they bought the CX-5, and happier the more they drive it and experience life with it.

Masashi Otsuka
**Mazda CX-5 Program Manager**


# 4 POWERTRAIN

## BIG DRIVING PLEASURE, SMALL FOOTPRINT

In 2012, the CX-5 was the first Mazda built around high-efficiency SKYACTIV powertrains. Fully utilising SKYACTIV's strengths, the wealth of torque is evident in all driving situations, even at low engine speeds.

Optimising the CX-5's acceleration behaviour to do what people expect, Mazda aimed to give the driver the ability to manipulate the car at will, achieving gratifying linear driving performance together with outstanding fuel efficiency.

A look under the CX-5's bonnet will reveal one of two high-efficiency four cylinder engines – diesel and petrol – paired with 6-speed manual or 6-speed automatic transmissions in either All Wheel Drive or Front Wheel Drive format. Whatever the combination, all CX-5 models feature i-stop, Mazda's unique fuel saving idle-stop system providing the world's fastest restarts.

## CLEAN DIESEL POWER

SKYACTIV engines are about making internal combustion as effective as possible.

Together with the 6-speed SKYACTIV-Drive automatic transmission, the 2.2 litre SKYACTIV-D engine accelerates the CX-5 from a standstill to 100km/h in only 9.4 seconds, reaching a top speed of 204 km/h.

But despite its extraordinarily wide-ranging torque, the SKYACTIV-D engine is exceptionally clean and economical. In fact, it meets Euro 4 emissions criteria without pricey exhaust after-treatment systems. The secret is its ultra low compression ratio, lightweight design and two-stage turbocharger, to name just a few of the clever concepts that went into this engine.

The upshot in the CX-5 is average fuel consumption of only 5.7 litres per 100km with AWD and the SKYACTIV-Drive automatic transmission. This translates into $CO_2$ emissions of only 149g/km.

| SKYACTIV-D 2.2 litre diesel | | |
|---|---|---|
| | **Maximum power** | **Maximum torque** |
| **6AT** | 129kW at 4,500rpm | 420Nm at 2,000rpm |

## 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 NOx emissions without requiring expensive after treatment 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 CX-5 models come standard with engine transmission combinations with i-stop idle-stop system

Petrol Engine

Diesel Engine

| SKYACTIV-G 2.0 LITRE PETROL | | |
|---|---|---|
| | **Maximum power** | **Maximum torque** |
| **6MT / 6AT with FWD** | 114kW at 6,000rpm | 200Nm at 4,000rpm |
| **SKYACTIV-G 2.5 LITRE PETROL** | | |
| | **Maximum power** | **Maximum torque** |
| **6AT with AWD** | 138kW at 5,700rpm | 250Nm at 4,000rpm |

## SKYACTIV-D: MAZDA'S COMMON-RAIL DIESEL WITH TWO STAGE TURBOCHARGING

**Highlights:**

Its 14:1 compression ratio is remarkably innovative.

- Enables a better air fuel mixture for more uniform combustion, producing fewer nitrous oxides (NOx) and less soot than conventional designs.
- The ideal combustion timing achieves a higher expansion ratio (meaning the amount of work done by cylinder) than in conventional high compression (16:1 to 18:1) diesels, for improved fuel efficiency
- Complies with stringent Euro 4 emissions standards without needing expensive NOx after treatment
- Two stage turbocharger delivers:
  - ›› improved low and mid range torque and responsiveness, eliminating turbo-lag
  - ›› better upper range power right up to the unusually high 5,200 rpm redline
  - ›› extraordinary efficiency
- Lower compression puts less pressure and with it less strain on engine components, allowing developers to use an aluminium block as well as lighter pistons and crankshafts, for example:
  - ›› Engine 10 per cent lighter overall
  - ›› 20 per cent less internal engine friction
  - ›› Delivers better responsiveness, better torque and better fuel economy

**Challenges:**

- The traditional drawbacks of low compression diesel power, such as a compression-ignition temperature that is too low for reliable cold starts and efficient cold temperature operation

**Mazda's unique solution**

- Ceramic glow plugs to heat up the combustion chamber for cold starts together with multi-hole Piezo injectors delivering an ideal highly combustible mixture
- Variable valve lifts for the exhaust valves, allowing hot exhaust gas to re-enter the chamber after the engine starts, raising the temperature to enable stable ignition without misfiring

## ULTRA-HIGH PETROL COMPRESSION

Developers of the SKYACTIV-G petrol engine were also aiming for a lightweight design that produced more from less.

And like the diesel, the compression ratio is a central feature of the CX-5's 2.0 litre and 2.5 litre petrol powered SKYACTIV-G.

The CX-5's extraordinarily high 13:1 utilises a 4-2-1 exhaust system and special pistons, among other things, to resolve the challenges associated with high compression (such as knocking). As a result, the SKYACTIV-G is 10 per cent lighter with considerably less internal friction than the 2.0 MZR unit, while delivering more torque, better fuel economy and fewer emissions

In the FWD CX-5 with SKYACTIV-MT, this is good for a 0-100 km/h sprint in 9.4 seconds and a top speed of 197 km/h. At 6.4 litres per 100km, its combined cycle fuel economy corresponds to $CO_2$ emissions of 149 g/km.

## 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 $CO_2$ emissions:
- ›› Lighter than current engines
- ›› Better fuel consumption
- ›› More low and mid-range torque

- All SKYACTIV-G equipped CX-5 models come standard with engine transmission combinations that are available with the i-stop idle-stop system

**Drivetrains**

As for bringing power to the wheels, Mazda offers two cutting edge 6-speed transmissions to enhance the CX-5's athletic character: the aforementioned SKYACTIV-MT manual and the SKYACTIV-Drive automatic.

The latter, featuring full range direct drive, imparts the feeling of a manual while combining the most desirable features of different kinds of automatic transmissions into a single transmission. Its smooth linear accelerating and shifting are available for AWD and FWD models.

The SKYACTIV-MT, meanwhile, brings a crisp, tight shifting and direct, sporty feeling.

In any case, both transmissions enhance the effectiveness and feel of the powertrain as a whole, improving both fuel economy and performance with efficient lightweight designs.


## SKYACTIV-G: Mazda's all-new naturally aspirated direct injection petrol engine

**Highlights:**

The 13:1 compression ratio is one of the highest ever for a petrol powered mass production passenger vehicle. It's a level only seen thus far in high performance racing engines.

- Bucks trend towards turbocharged 'downsized' designs (with compression ratios in the 10:1 range) while delivering superior efficiency:
  - ›› increases in low and mid-range torque for excellent low rpm engine response
  - ›› improved fuel efficiency with a corresponding reduction in $CO_2$ emissions (running on standard 91 RON unleaded petrol)
- A complete redesign presented the opportunity to use lightweight pistons and connecting rods, for example:
  - ›› engine weighs 10 per cent less overall
  - ›› internal engine friction reduced by 30 per cent

**Challenges:**

- Although high compression raises thermal efficiency, it tends to cause knocking and the associated loss of torque
- A richer mixture can prevent knocking, but at the expense of fuel economy and without fixing the torque issue

**Mazda's unique solution**

- A long 4-2-1 exhaust manifold, which reduces the quantity and pressure of hot residual gases flowing back into combustion chamber
- Multi-hole injectors, enhancing fuel spray properties
- Optimised ignition timing along with a special piston cavity for quicker, more efficient combustion, minimising the risk of knocking
- Sequential valve timing (S-VT) to reduce pumping losses and improve efficiency, especially at lower engine loads

## SKYACTIV-DRIVE

The best of all worlds united in a Mazda's 6-speed automatic transmission.

**Highlights:**
It combines the benefits of conventional torque converter automatics, continuously variable transmissions (CVTs) and dual-clutch transmissions.

- Full range direct drive torque converter with full range lock-up clutch for all six gears:
  - prevents torque converter slip, inhibiting the loss of power typical for conventional automatics during acceleration
  - delivers a connected feel (like a manual transmission) with a direct response to the accelerator pedal and changes in engine load.
  - contributes to fuel efficiency improvements by up to 7 per cent
- A mechatronic module enables the quick and accurate oil pressure modulation required for such high precision hydraulics and quick shifting, also enhancing reliability
- Advanced dampers absorb the increased NVH (noise, vibration and harshness) inherent to an exceptionally wide lock-up range
- Multi-disc lock-up clutch and piston improve clutch durability and control

It's both fun to drive and economical, with:

- A 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
- A more direct feel than CVTs or conventional torque converter transmissions
- i-stop, Mazda's intelligent start-stop system also compatible with automatic transmissions

The SKYACTIV-Drive is available in two varieties featuring the same architecture:

- A standard version (up to 270Nm torque) mated with the SKYACTIV-G 2.0 litre and 2.5 litre petrol engine
- A large version (up to 460Nm torque) mated with the SKYACTIV-D 2.2 litre diesel engine

### Drive Selection

Drive Selection for petrol engines with automatic transmissions allows drivers to press a switch and change to the Sport drive mode (further detail on page 28).

## SKYACTIV-MT

Mazda's 6-speed manual transmission brings the precision gear shifting akin to that in the MX-5 to the rest of the Mazda line-up, starting with the CX-5.

**Highlights:**
Developers revisited the functionality of every component to generate something truly innovative: precise and fun yet efficient and fuel saving.

- Sophisticated architecture inspired by legendary MX-5 roadster to deliver crisp, precise shifts:
  - short shift stroke (only 45 mm from neutral to gear) requires minimal effort
  - common 1st and reverse idling gear
  - common input gear for 2nd and 3rd
  - length of secondary shaft reduced by 20 per cent
- Compact, lightweight design with less internal friction:
  - better fuel economy
  - efficient packaging with economical use of resources
  - 7-16 per cent lighter (depending on the version)
  - high torque capacity


### i-STOP: AVAILABLE ON ALL CX-5 MODELS

i-stop is standard equipment on all CX-5s. i-stop, which debuted in Australia in the 2011 Mazda3 SP20 SKYACTIV, was developed entirely in-house. Unique in many ways, it has now been enhanced for the new generation of SKYACTIV technologies.

Indeed, it's the only idle-stop system that uses combustion energy for the restart, requiring an electric-powered starter motor only to provide some momentum during the initial restart phase. In addition to saving fuel, this enables remarkably quick and smooth restarts. The CX-5 with petrol SKYACTIV-G engine does so within 0.35 seconds, while the SKYACTIV-D model restarts within 0.40 seconds – both industry bests.

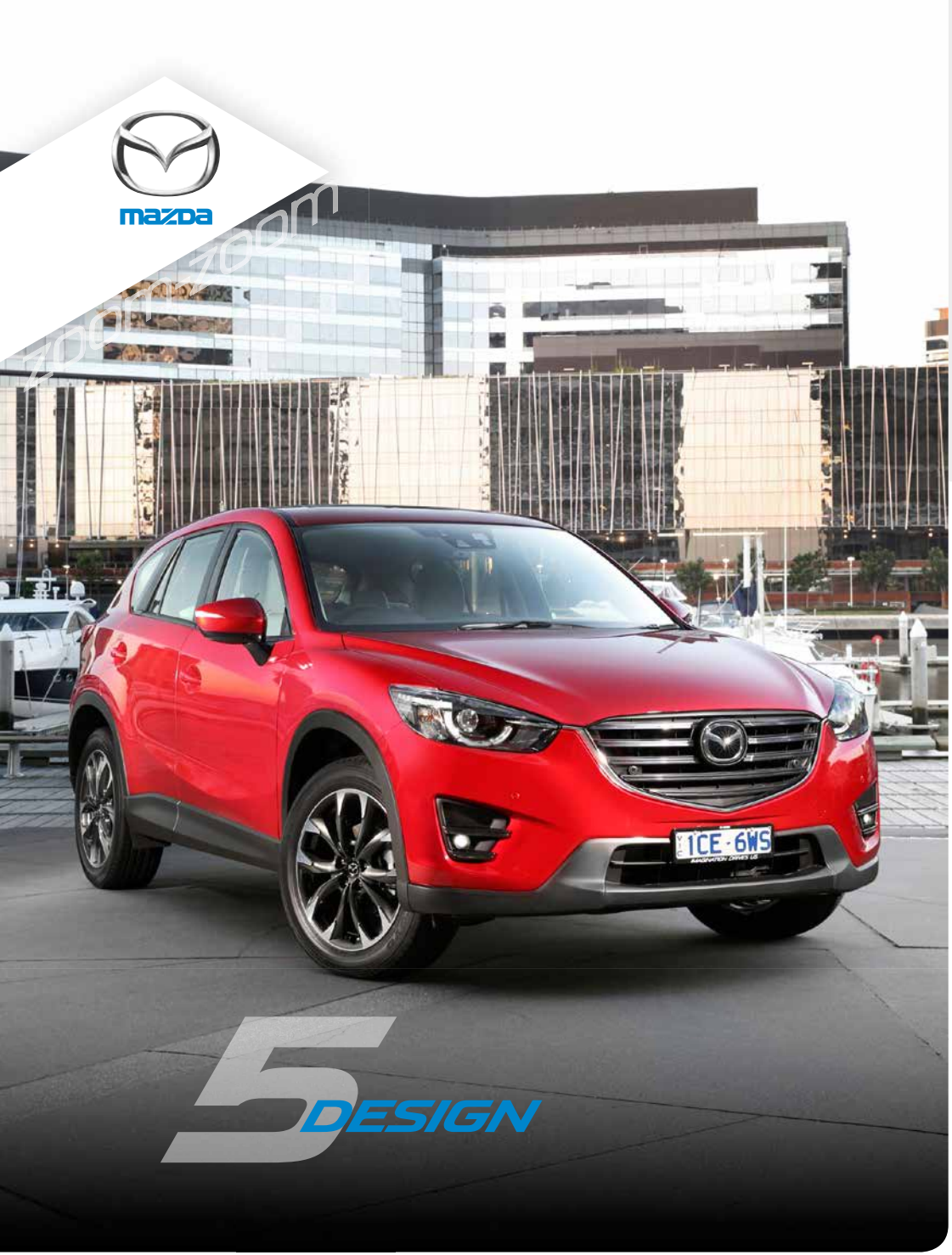
i-stop uses a sophisticated control module to switch off the engine in the ignition/expansion stroke (petrol) or compression stroke (diesel), the optimal cycles for restarting. In fact, i-stop actually waits for this precise moment, monitoring the position of the pistons and calculating prior to the cut-off exactly which cylinders will subsequently deliver the most efficient restart. And it all takes a split second, so the driver doesn't even notice.

Conventional systems, in contrast, only identify which cylinder is in the correct stroke position after an electric starter turns the crankshaft to begin the restart. This delays the process, requiring extra energy, too. For example, whereas the competing diesel models equipped with an idlestop system don't restart until the second compression stroke (or engine cycle), Mazda's SKYACTIV-D starts almost immediately during the first compression stroke.

Efficiency advancements mean one battery is required rather than two, which saves space and reduces weight. By closely monitoring the condition of the battery, i-stop improves the frequency and duration of shut offs compared to earlier versions, boosting mileage further.

CX-5 drivers and passengers, meanwhile, need not go without electric powered systems. Even the climate control continues to work as long as full heating or cooling power isn't required. And when it is, i-stop recognises this and restarts.

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




## EXTERIOR DESIGN

### A SOPHISTICATED EXTERIOR DESIGN THAT SPEAKS OF POWER AND BOLDNESS

The CX-5, launched in 2012, was the first production model to adopt Mazda's KODO design language.

Features unique to KODO design, including a front nose with presence, a forward-leaning stance, as well as the rearward placement of the A-pillars and compact cabin, give an exterior design with a sharper sense of vitality and dynamism.

SUV styling completely different from anything that came before has earned the CX-5 high acclaim.

For this round's update, Mazda added further polish to those unique characteristics in the pursuit of yet higher quality.

The front grille was evolved to create a design that is bolder and tauter, while the eye-like design of the headlamps further heighten the car's look of vitality.

The updated CX-5 also adopts a new alloy wheel design and newly developed body colours.

Taking to new heights its presence and powerful looks as a crossover SUV, as well as its level of quality, the updated CX-5 has a sophisticated exterior design that conveys the evolution of the brand.

Evolving the design of the front, including the grille, headlamps and fog lamps, while strengthening the expression of power flowing horizontally across the surface, heightens the look of stability worthy of an SUV.

The size and shape of the front grille itself as well as the shape of the signature wing remain the same, but the grille's mesh-type covering was changed in favor of five horizontal fins.

Each fin is painted metallic gray for a look of finer quality. The fins are not simply straight bars, but instead adopt mechanical engraving that adds a certain rhythm to the surface of the fins.

This new form emphasises the sense of horizontal expansion and speed.

The fog lamps use LEDs and feature a compact design, while their bezels adopt the same fin design as the fins on the front grille.

Connecting the design to the horizontal flow highlights the wide, flared surface of the front face on the whole, while expressing a powerful sense of solidness and forward momentum.

A redesigned interior layout for the headlamps further strengthens their bold looks and signature expression.

The headlamps adopt LEDs for their lighting signature, creating an expression of eyes

with a sense of vitality and a forward-looking gaze. Thin plated rings around the projector bulbs intensify the expression of the "eyes."

In addition, colour matching the headlamps, lighting signature and fog lamp LEDs heightens the sense of unity when they are lit.

In the rear, the lighting signature for the rear combination lamps uses LEDs.

Creating a sharp line that heads from the tail lamps directly toward the centre of the vehicle gives the rear view a taut look. The door mirrors adopt a compact design, while the light from the LED turn signals can be seen even from the front.

This improves both the quality of the design and the ability for those around the CX-5 to spot it easily.

## Wheel design

The CX-5 continues to offer 19-inch alloy wheels and 17-inch wheels in alloy or steel, while the 19-inch wheels adopt a new design.

The powerful form of five paired spokes creates a look of three-dimensionality, while machining where the spokes meet the rim give a look of power directed outward.

The result is a stronger expression of wideness and spoke length that suits a 19-inch wheel.

The contrast between the gunmetal grey paint and sharp metallic look of the machining add a bold flair to the fresh new styling of the updated CX-5.



## Body colours

The lineup of eight colours available for the updated CX-5 includes the newly developed Sonic Silver Metallic offering and Titanium Flash Mica, which is available on the Mazda3.

Sonic Silver Metallic has a solid look and features a strong contrast between highlights and shadows.

It further highlights the dynamic shape of KODO design and adds further richness to the strong expression of the CX-5's exterior design.

The other colours in the lineup are Soul Red Metallic, Blue Reflex Mica, Jet Black Mica, Meteor Grey Mica, Chrystal White Pearl Mica, and Deep Crystal Blue Mica.

# INTERIOR DESIGN AND FUNCTIONS

## A HIGHER QUALITY INTERIOR THAT SPEAKS OF SUV FUNCTIONALITY AND POWER

The interior design for the CX-5 features an expression of SUV power and a driver-oriented space that heightens anticipation of the drive to come.


While retaining a design that supports confident operation by positioning each function where the driver can recognise it at a glance, particular effort has gone into enhancing the quality of every related detail.

The design of the centre stack and floor console were greatly evolved, while the coordination of the ornamentation and mating of parts aim to achieve a unified look.

In addition to SUV functionality and a look of power, the interior design conveys a sense of taste and high quality.

The updated CX-5 adopts a variety of advanced functions, including MZD Connect, Mazda's next-generation car connectivity system, and an electric parking brake, while greatly evolving the convenience and ease of use of storage space by increasing the capacity of the door pockets and floor console box.

## Interior design

Significant changes were made to the designs of the centre stack and floor console.

The floor console was made taller to more clearly define the cabin's centre axis.

This evolved design expresses SUV power and seems to wrap snugly around the waists of the front seat occupants, imparting a feeling of reassurance.

Adopting an electric parking brake eliminates the need for a brake lever and gives the top of the console a clean, uncluttered look.

The commander control and other switches are functionally laid out around the shift lever. These combine with the ornamentation panel and satin chrome plated rings to express fine quality. Kneepads are introduced where the floor console meets the centre stack.

For the high-grade specification, the kneepads use soft material with stitching to further heighten the look of fine quality.

The previously used vertically oriented silver ornamentation that ran up each side of the centre stack was changed in favor of a new design that, resembling a foundation upon which the instrument panel rests, adds a greater sense of depth.

Using the brightness of the metal to accent the shape of the design brings the instrument panel and floor console together to appear as one solid unit.

Satin chrome trim surrounds the air-conditioning louvers in the centre and, in conjunction with the shape of the decoration panel, creates a look of powerfully expanding horizontal flow.

On the high-grade specification CX-5, additional satin chrome trim continues the horizontally oriented theme on the left and right air-conditioning louvers, switch cluster bezel, steering wheel switch bezels, top of the audio panel, and tips of the window switches on the door trim.

As a result, the satin chrome trim further strengthens the theme of horizontal flow, which gives the interior an expression of breadth and high quality.

## Decorative panel

On the high-grade specification CX-5, the instrument panel is decorated with an aluminum-look panel that features a vertical hairline finish.

Using real aluminum film on the panel's bottom layer presents a solid metallic brightness that cannot be achieved with paint of other finishes.

Matching it with a thin satin chrome strip creates a sharp and sophisticated expression.

The core-grade specification uses a metallic finish that creates a striking contrast with the black parts for a sporty, urbane look.

The entry-grade specification uses a piano black panel. While black is used for the overall coordination, the piano black adds a luster that further highlights individual character and emphasises sportiness with a taut look.

## Interior colour

Leather interior choices include a new pure white leather offering in addition to the black cloth of the previous models.

The black interiors are available in two different materials.

The pure white leather interior creates a strong contrast between the clean, crisp white of the seats and the black base colour, which emphasise the cabin's cool looks.

The black leather interior creates a well-toned sense of unity that heightens the sporty, high quality appeal of SUV functionality.

For the fabric interiors, the centre of the seats adopts newly developed materials.

Painstaking efforts to create a three-dimensional look for the core grade and a highly detailed look for the entry grade produce a new interior for the CX-5 that speak of greater quality.




### DYNAMIC PERFORMANCE EVOLVED TO DELIVER GREATER DRIVING QUALITY AND PLEASURE

The CX-5 was the first in the Mazda product lineup to adopt SKYACTIV Technology for its engine, transmission, body and chassis. It added further polish to all the basic performance attributes of driving, turning and stopping to offer dynamic performance that delivered driving pleasure with a tangible sense of oneness between the car and driver.

On the new CX-5, this includes the suspension system, NVH performance and seat performance achieving a more sophisticated and higher quality driving experience.

The SKYACTIV-DRIVE automatic transmission newly adopts Drive Selection, which brings greater pleasure to driving (petrol models only).

The powertrain lineup for the updated CX-5 includes the 2.0-litre and 2.5-litre SKYACTIV-G direct-injection petrol engines, the 2.2-litre SKYACTIV-D clean diesel engine, and the six-speed automatic SKYACTIV-DRIVE and six-speed manual SKYACTIV-MT transmissions. It also continues to offer Mazda's new-generation AWD system. All variations deliver the right balance of linear, powerful acceleration, as well as excellent fuel economy and environmental performance.

## Suspension system provides a smooth, flat ride

While the suspension system continues to use MacPherson struts in the front and multi-link suspension in the rear, a new structure for the front and rear dampers and optimised bushing shapes for the front lower arms provide a smooth, flat ride that is very comfortable.

The diameter of the rear damper pistons was increased from 25mm to 30mm to achieve damping force in response to minute levels of input.

Furthermore, the sliding parts around the rod guides for both the front and rear dampers adopt a new structure, and their friction characteristics are optimised to give smoother damper movement in response to minute stroke action.

This delivers the same light, pleasant driving experience as offered by the previous CX-5, a comfortably flat ride that suppresses bumps, and improved initial response of the steering system.

In addition, the front lower arm bushings were engineered to maintain an appropriate shape when the tyres make contact with the road.

The result is smoother action when the car starts moving, as well as more stable spring behaviour.

## Evolved NVH performance that further heightens the pleasure of the driving experience

NVH performance is further evolved based on the concept of "path-blocking and concentrated sound absorption," which aims to shut out the various paths by which sound penetrates the cabin and absorb the sound effectively.

In particular, this reduces cabin noise by more than 10 per cent when driving at highway speeds, creating a cabin environment in which occupants can better enjoy conversation while driving.

Measures to enhance sound absorption and insulation performance include increasing the glass thickness of the rear door windows, revising the structure of the floor mats inside the cabin, and adding a new insulating layer to the upper half of the dash insulator.

To reduce road noise, Mazda increased the area of coverage and thickness of the vibration damping material on the floor to reduce vibration input.

Measures implemented to reduce wind noise include revising the performance of the seals around the doors and adding a highly functional sealing material around the latches on the front and rear doors.

The spaces within the door trim were also completely filled and sound insulation applied to prevent noise from being generated.

Sound absorbing material was also added on the inside of the ceiling.

In addition, the door mirrors adopt a shape that does not disrupt the flow of wind around them, which achieves both a reduction in wind noise and tasteful design.

## Seats that are cosier and provide greater ride comfort

The structures of both the front and rear seats were further evolved.

For the front seats, the seatback structure was changed from an "S" spring design to one that uses a suspension mat. This allows the seat to flex and conform to the shape of the occupant's body, while dispersing the weight of the body across a wider area. The result is a feeling of comfortable snugness and a good fit.

By also providing firm support for the occupant's torso, the seat delivers excellent holding characteristics that help reduce fatigue when driving for long periods, and helps maintain a proper driving position.

In addition, the seat cushions adopt the use of a vibration absorbing urethane foam. This material transmits the vibration necessary to offer solid feedback when driving, but at the same time blocks unpleasant vibration from rough road surfaces to provide quality ride comfort.

The frame structure for the rear seat cushions was changed to lower the position of the cushion frame and increase the thickness of the urethane cushion padding.

The length of the rear seat cushions were also extended 30mm, which enables the occupant to relax and sit naturally, while increasing the area that supports the thighs to give greater comfort.

## Introduction of Drive Selection (for petrol engine with automatic transmissions)

The SKYACTIV-DRIVE for petrol engines adopts Drive Selection, which allows drivers to press a switch located beside the shift lever to switch to the Sport drive mode.


When in Sport mode, the transmission is automatically set to start out in a low gear.

It also increases the amount of torque output when the accelerator pedal is pressed down further to deliver powerful acceleration and a sense of linear response with a minimum of pedal action.

Ensuring appropriate drive power and improving responsiveness by enabling the driver to convey their intentions to the car in response to traffic conditions, Drive Selection supports a reassuring driving experience when, for example, merging onto a crowded highway.

## New-generation AWD system achieves reactive performance and excellent fuel economy

The new-generation AWD system that was on the previous model adopts a newly developed low-viscosity synthetic oil that contributes to better real-world fuel economy.

Mazda's new-generation AWD system employs the world's first*1 front wheel slip warning detection system, which employs 27 sensor signals – approximately twice the number of the previous system*2 – to accurately monitor the driver's intentions and constantly changing driving conditions.

In situations such as making a standing start on a snow-covered incline, this system can detect slippery conditions beforehand and distribute drive power to the rear wheels the instant the driver presses the accelerator pedal.

Because the sensors are always aware of the road conditions, the system can instantly transmit drive power to the appropriate wheels, even when road conditions change suddenly, such as when the car drives through a puddle of water on the highway in the rain.

At the same time, by achieving advance slip detection and optimum front-rear torque distribution, the system thoroughly reduces energy loss due to the tyres slipping or an excess of drive power being sent to the rear wheels.

*1 As of March 2012, according to in-house data.
*2 Compared to the AWD system of the Mazda CX-7.

Real-time control over drive power and minimised energy loss achieve excellent drivability, vehicle stability and fuel economy at a high level.

In addition, the newly developed synthetic oil maintains its low viscosity even in extremely cold weather, which reduces energy loss in cold temperatures, contributing to better real-world fuel economy.

## Brakes

The brake system adopts ventilated discs at the front and solid discs at the rear. To provide braking performance for driving with complete command and confidence, the system was developed according to three objectives: namely, controllability, confidence and effectiveness.

To achieve ease of control, the brake system adopts a small-diameter master cylinder and large-diameter wheel brake cylinders. The brake characteristics have been revised and the brake pedal feel optimized for use in an SUV. Control was made easier in the initial braking region at the start of brake pedal travel, and firm, effective braking performance is delivered up to the region of high G-force.

## Aerodynamic SUV

Out on the open road, the underfloor design directs air upwards, smoothing air flow underneath the vehicle and preventing eddy formation behind it. Together with its upper body shape, this makes the CX-5 one of the most aerodynamic compact SUVs around. The top-class target drag coefficient (cd) of 0.33 contributes to the CX-5's superb fuel efficiency and is thus another essential element of Sustainable Zoom-Zoom.

## SKYACTIV-CHASSIS & SKYACTIV-BODY

A lightweight design strategy is at the core of Sustainable Zoom-Zoom.

After all, less weight means better performance – from acceleration and braking to handling and fuel economy – and more fun all around. Mazda was aiming to cut at least 100kg off its next-generation models, for lighter yet stronger and safer cars. This strategy applies to all SKYACTIV technologies, but is perhaps nowhere more fundamental than with the SKYACTIV-Body and SKYACTIV-Chassis.

## SKYACTIV-CHASSIS

Mazda's chassis developers initially re-engineered the suspension and steering components to construct a lighter yet stiffer system delivering precise handling and top ride comfort.

**Challenge #1:**
Reconcile top low and mid speed agility (handling) with high speed stability

**Mazda's solutions:**

- Adding a new electronic power assist steering system to provide extra support for an immediate response from very low speeds and firm, confidence inspiring feedback at higher speeds
- Increasing the steering gear ratio to ensure more direct low speed steering
- Optimising the rear suspension to reduce yaw gain (or steering ease), thus preventing oversensitivity at high speeds
- Increasing the caster angle of the front wheels, delivering a firmer high speed steering feel

**Result:**
An agile and stable suspension for better driving quality at all speeds.

**Challenge #2:**
Reconcile low and mid speed agility with superior ride comfort

**Mazda's solutions:**

- Moving the suspension mounts to improve lever ratio and then enhancing damper efficiency

- Raising the position of the trailing arm bush to reduce rear suspension impacts, especially for longitudinal shocks, without stiffening the springs or shock absorbers:
  - also prevents the back of the vehicle from rising

**Result:**

Excellent ride comfort with a sense of stability

**Challenge #3:**
Reduce weight and increase rigidity

**Mazda's solutions:**

- Extending the centre section of the front cross members while reducing the longitudinal offset of the lower arm attachment position

- Extending the longitudinal span of the rear chassis cross members while reducing the longitudinal offset of the lateral link attachment position

- Removing the weld flanges at the front and rear to enhance the coupling stiffness of the weld sections

**Result:**

Superior chassis rigidity despite being lighter

## *SKYACTIV-BODY*

Looking to minimise weight while maximising functionality, Mazda developers integrated lightweight engineering, stronger materials and more efficient structures.

**Challenges:**

- Improve rigidity
- Reduce weight
- Ensure top-class safety

**Mazda's solutions:**

**1. Optimise structure and design**

- "Straightening things out" front to back, removing curves while adding as many straight, continuous sections as possible

- Eliminating the concentration of energy at any given point by enabling its disbursement throughout the structure, regardless of the point of impact (front, side or rear)

**Specific examples include:**

- bonding rear suspension mounting positions to the underbody framework using a dual brace
- bonding upper body vertical ring structures to a reinforced section of the underbody
- redeveloping suspension cross members to enhance rigidity
- dispersing crash energy over three multi-load paths: to the A-pillar (upper path); underbody (lower path); and sides of body
- (middle path) for top-class passive safety

**2. Adopt new production processes**

- Using weld bonding for the roof-rail section and wheel wells to create

- Using more spot weld points to further enhance rigidity

**3. Substitute materials**

- Adding more high-tensile steels:
  - for a lighter yet stronger car body
  - make up 61 per cent of the total

**Result:**

The SKYACTIV-Body sets the standard for lightweight construction and exceptional safety


## COMFORT AND CONVENIENCE, NO COMPROMISE

The Mazda CX-5 offers a highly effective interior that is both comfortable and user friendly. Space is utilised efficiently, and functional features laid out intelligently. The engineers developed a new seat shape and layout, for example, to put driver and passenger alike in the ideal position. The CX-5 also received the utmost in cargo flexibility with 40:20:40 split rear seats with remote fold-down function. It all boiled down to finding the optimal ergonomic design and enhancing what makes people feel good for a purer sense of driving enjoyment.

### Decisive dimensions

In spite of its compact exterior, the CX-5 is remarkably spacious on the inside. The CX-5's width is 1,840mm and wheelbase is 2,700mm and typical for an SUV, the driver sits in a commanding position in the CX-5. But Mazda went the extra mile, finding precisely the spot where the driver has the best view of the road yet can still operate pedals and controls in absolute comfort. These efforts paid off: the CX-5 boasts one of the highest eye points (the vertical distance from the ground to eye level) in its class. And the slant of the A-pillars, along with the gap between these and the side mirrors, further enhances the driver's visibility, whether checking for pedestrians at intersections, looking for oncoming traffic in a curve on a two lane highway, or speeding down a multi lane motorway. For the driver, that means a safer, less stressful and more comfortable journey.

## The ultimate in convenience

Picture this: four adults relaxing in comfort on a long trip, with room to adjust their posture and all important functions and features within arm's reach. Mazda's approach to advanced ergonomics was to identify the optimum position for occupants, focusing on their joints, and arrange systems and storage accordingly. Passengers are cut off from outside agitation and free to relax and travel in comfort, while the driver can concentrate on the task at hand. Mazda's ergonomic innovators even analysed how people get in and out of a vehicle. Using a 'digital mannequin', they designed the door and B-pillar areas to allow smooth entry and exit with minimal body stress.

The centre armrests are wide enough for sharing, while the lateral distance from centre hip point (or middle of the seat) to the door trim provide plenty of hip and elbow room. Shoulder room, too, is top class front and back. Leg room, meanwhile, is ample and, at 997mm for rear seat passengers, particularly generous for this segment. So is the rear knee clearance (66mm) as well as foot space, owing to the wide cavity under the front seats.

## Sitting in style

Driver and passenger will both be comfortable and secure in Mazda's newly developed high-performance front seats. These were designed with a lightweight structure, enhancing stiffness as well as cushion comfort and isolating vibrations for a more refined ride quality.

Delivering good lumbar and upper body support, they relieve fatigue while arresting lower body movement during cornering. The driver's seat on Grand Touring models comes with easy-to-reach 8-way power adjustable controls (standard with top equipment package including power lumbar support.

In the back, the CX-5 features Mazda's unique Karakuri functionality with the three-piece independent 40:20:40 remote controlled fold down seats. Operated using either the one action remote levers conveniently located in the top side trim on each side of the luggage compartment, or from inside the car via buttons on the seat uppers, the dive down rear seats fold into a virtually flat storage space for the utmost in flexibility. The centre section can either serve as a fifth seat, centre armrest with built in cup holders, or fold flat to transport long items. And there is still enough room for two child seats or two adults to ride in comfort.

## A boot for real life

That is just one example of how the CX-5 can flexibly accommodate all sorts of cargo without detracting from passenger comfort. Again, it's all about intelligently meeting needs with a highly efficient boot space focused on the essentials. A cubic form was chosen with no unwanted protrusions or dead space along with a liftgate designed for easy loading. In fact, the top-class boot capacity of 403 litres can hold four golf bags with long drivers or four suitcases. Fold down the 40:20:40 split rear seats, and you have 1,560 litres of volume, or enough room for two mountain bikes with the front wheels removed.

Everyday convenience and top functionality are vital for an SUV. Therefore, the CX-5 also gets an advanced version of Mazda's innovative Karakuri tonneau cover that opens and closes together with the liftgate – a first for this segment. Weighing only 2kg (or half that of the version from the previous generation Mazda6 wagon), the cover is removed with a one touch procedure and stores neatly in the sub trunk.

"What they want, where they want, whenever they want." When designing storage receptacles for the CX-5, Mazda developers set out to achieve three things: stowability, removability and visibility. As a result, there is a large open space in front of the shift lever, ideal for personal items, and pockets in the trim of each door able to hold a one-litre bottle.

There are also cup holders front and back as well as numerous other spaces for smaller items.

## Hot and cold efficiency: A/C and heating

Mazda designed the climate control system to deliver impressive cooling and heating while at the same time contributing to fuel economy by reducing its weight and power requirements.

The heater has also been optimised for the cooler running SKYACTIV engines debuting in the CX-5. The new electric water pump continues to circulate hot engine water even after the i-stop system shuts off the car (at a traffic light, for example). This ensures a supply of heat for much longer than with systems that use a conventional mechanical pump.

### NVH MEASURES

As for NVH, proactive measures were taken to ensure that the driver receives the necessary vibration and feedback to aid driving, while at the same time specifically eliminating unpleasant and intrusive noise.

By obstructing noise pathways from the CX-5's engine compartment to the cabin using new sound absorbing materials and controlling suspension resonance and energy flows through the floor panel, the facelift CX-5 is an improvement on the original model. (See chapter 6 for more details.)


## A RICH VARIETY OF NEW EQUIPMENT DELIVERS GREATER COMFORT

### MZD Connect – advanced car connectivity system

MZD Connect is a car connectivity system that makes it easier to take advantage of functions including internet connectivity and access to social networking services that today's customers consider essential, even when in transit.

It responds to a wider variety of needs by greatly improving the convenience of functions that require Bluetooth® connectivity, such as hands-free phone operation, reception of short text messages, and internet radio including Aha™ by HARMAN (hereafter Aha).

By supporting the ongoing evolution of communications equipment on both the hardware and software levels, this innovative platform ensures that customers always have access to the latest services without swapping out any hardware.

### Audio features

The New CX-5 is available with a standard-equipment four- or six-speaker configuration, or a nine-speaker Bose® premium sound system.

The audio system is capable of receiving terrestrial AM/FM and supports audio playback from CDs, the customer's iPod, or other mobile audio players.

When connected to a smartphone, the system also allows access for web content such as Aha™.

Aha™ is a cloud-based platform operated by HARMAN, USA that allows customers to access more than 100,000 broadcasts from around the world, including BBC and CNN, specialised programming of various genres and broadcasts from distant locations. In addition, the service offers downloads of free audiobooks.

When using Aha™, the system can read aloud the latest tweets in the customer's Twitter timeline. It can also read aloud the latest Facebook news feed entries, and allows the customer to "like" entries or post audio messages using the Shout function.

The web content offerings also include StitcherTM. This on-demand service provides more than 15,000 talk shows, music programs and podcasts from around the world.

Users can enjoy listening to their favorite content whenever they please.

Pandora® radio service is also available. Subscribed users can create up to 100 personalised stations and listen to continuous music, or search for similar songs for automatic playback.

As a result, they can enjoy listening only to music that matches their preferences while driving.

### Communication features

In addition to providing hands-free telephone operation and access to one's contact list, the New CX-5 can also receive short text messages and display a list of sender IDs.

When the car is in motion, the text-to-voice function can read the contents of email aloud. In addition, it is possible to reply to the sender by choosing from a selection of preset messages.

### Navigation features

The navigation system uses data from SD cards and can display the current location on a map, or display routes to take to a target destination.

When a smartphone is connected, the customer can search the internet for places they want to go, or use content on Aha™ such as Yelp's guides to check out popular spots, and set those locations as destinations.

The navigation software can also display the distance to nearby petrol stations and provides live traffic alerts, weather and a live search function. This feature is offered to new CX-5 owners for a free trial period of 60 days.


## Applications

The connectivity system enables the use of a number of Mazda's own apps.

The Fuel Economy Monitor lets drivers confirm to what degree they are driving in an eco-friendly fashion on each outing.

Maintenance allows drivers to check when their next oil change is due. Warning Guidance uses the seven-inch centre display to offer details about warnings that appear on the meters.

## Mazda's first use of an electric parking brake

Mazda's first implementation of an electric parking brake makes it easy to turn the parking brake on or off by operating a switch mounted on the floor console.

Pulling the switch activates the parking brake, while pushing it or pressing the accelerator pedal to pull away from a standing start automatically releases the brake.

The control system for the feature is carefully designed to prevent operating errors.

In the case of automatic release when starting from a standstill, the system is designed to operate only when the driver is wearing their seatbelt, the door is closed, and the system detects that the driver is pressing the accelerator pedal.

Also, to help promote safety when releasing the brake by pushing the switch, the system only operates when the engine is running and the driver is pressing the brake pedal.

# *STORAGE SPACE WITH INCREASED CAPACITY FOR GREATER CONVENIENCE*

## Convenient open space in front of the shift knob

Evolving the shape of the floor console's new design made it possible to increase the size of the open space in front of the shift knob.

The height is increased by approximately 40mm, the width at the base is increased by approximately 40mm, and the capacity is increased by one litre, bringing the total capacity to 2.3 litres.

This makes it easier to stow items normally carried in one's pocket, such as mobile phones and wallets.

## Floor console cup holders and storage for small items

With or without the commander control, the floor console on all grades includes a pair of front seat cup holders and a compartment for stowing small items.

Vehicles not equipped with the commander control include an additional compartment in its place.

## Console box

Adopting an electric parking brake opens up wider space on the floor console.

Leveraging this extra space, the console box introduces an L-shaped design that increases its capacity.

This new shape marks an evolution to highly convenient storage space capable of accommodating 10 CDs as well as an iPad or other tablet device.

## Front door pockets

The structure inside the front door was optimised to deliver the same level of collision safety while greatly increasing the capacity of the door pockets.

The pockets retain their function as bottle holders, but the opening is lengthened from the 280mm of the previous model to 450mm.

In addition to accommodating a one-litre bottle, each pocket can stow maps, towels, a folding umbrella, or other items as suits the needs of customers in the respective markets.


## i-ACTIVSENSE OFFERS EVEN MORE SUPPORT FOR DRIVER AWARENESS

Mazda pursues safety performance based on its Mazda Proactive Safety*1 philosophy.

The fundamental performance of the Mazda CX-5, based on SKYACTIV Technology, has been further polished.

This combines with Mazda's i-ACTIVSENSE*2 advanced safety technologies to achieve world-class safety performance, allowing customers to enjoy the drive with peace of mind, whatever the driving scene.

In constant pursuit of providing higher levels of safety, Mazda made a concerted effort with this round's update to keep the driver more aware of conditions so they can enjoy driving at night or at highway speeds with greater reassurance.

Newly developed safety features being introduced include Adaptive LED Headlamps (ALH), which control the illumination range of the high beams to increase visibility at night, the Lane-keep Assist System (LAS), which helps prevent straying from the intended lane of travel, and Driver Attention Alert (DAA), which recommends a rest break if it detects signs of driver fatigue.

In addition, existing technologies such as Smart City Brake Support (SCBS) were further evolved to add the ability to detect vehicles and obstacles at the rear of the car.

The CX-5 also newly adopts features such as radar cruise control and Smart Brake Support (SBS).

Supporting the driver with this variety of technologies reduces risks and provides the right condition for driving with reassurance, which results in a reassuring driving experience for all cabin occupants.

With an existing range of active safety features, the updates implemented employ a wide range of advanced safety technologies.

Note: Equipment features vary according to the destination market.

*1 Mazda Proactive Safety is Mazda's safety philosophy that aims to minimise the risks that can lead to an accident and maximise the range of conditions in which the driver can safely operate the vehicle. The various technologies it provides enable the driver to act appropriately through all driving processes, including cognition, judgment, and operation. It thereby helps prevent or minimise damage in the event an accident cannot be avoided. Mazda Proactive Safety will continue to evolve in the future.

*2 i-ACTIVSENSE is an umbrella term covering a series of advanced safety technologies that employ detection devices such as milliwave radar units and cameras to support the driver in recognising hazards, avoiding collisions, and minimising damage in the event an accident does occur.

# ACTIVE SAFETY: i-ACTIVSENSE

## Adaptive LED Headlamps (ALH)

ALH is a new-generation headlight system that offers the driver greater support for recognising potential hazards when driving at night.

The system improves visibility at night and helps the driver avoid dangerous situations by combining Mazda's Glare-free High Beam, which controls the illumination coverage of the high beams, and Wide-range Low Beam, which expands the area of illumination beyond that of previous systems.

The ALH system's Glare-free High Beam is the first among Japanese carmakers* to employ an array of LED divided into four blocks, each of which can be independently lit or extinguished.

The high beams are normally lit while driving, but when the forward sensing camera detects the headlamps of oncoming vehicles or tail lamps of those traveling ahead, the appropriate block or blocks are extinguished to control the range of illumination.

This makes it possible to prevent blinding the drivers of those other vehicles, while still maintaining the excellent visibility that high beams can provide.

The Wide-range Low Beam also uses part of the lighting signature as headlights.

By lighting the area seen between the A-pillars and door mirrors that are not covered by conventional headlamps, the system improves visibility at intersections and such when driving at night.

The system also employs Highway mode, which helps the driver check conditions on and around the road ahead when driving at highway speeds.

The motor of the auto-leveling function automatically shifts the vertical aim of the headlamps up and down, which provides visibility at greater distances and helps the driver recognize street signs and obstacles sooner.

*As of March 2012, according to in-house data.

## Blind Spot Monitoring (BSM)

The system uses 24GHz quasi-milliwave radar sensors to detect vehicles approaching from the blind spot areas at the sides and rear, and assist the driver in confirming safety when making lane changes.

If the driver switches on a turn signal while BSM detects a vehicle, it issues a flashing visual indicator in the respective door mirror and also sounds a buzzer.

BSM also incorporates Mazda's Rear Cross Traffic Alert (RCTA) function, which uses the same sensors to alert the driver when it detects vehicles approaching from either side as the driver backs up. This adds an extra layer of reassurance when backing out of a garage or parking space.

## Lane-keep Assist System (LAS)

LAS is a new system introduced by Mazda for the first time.

It uses a forward sensing camera to monitor lane markings on the road surface and supports the driver in steering the car by providing steering torque assistance and a vibrating steering wheel to alert the driver and help reduce the risk of accidents.

It further evolves the previous Lane Departure Warning (LDW) system in adding functions that calculate the necessary steering angle to maintain the car's lane and estimating the driver's intention in regards to the amount they want to turn the steering wheel.

Using this information to optimally control the electric power steering motor, the system maintains a natural feel to steering wheel operation.

LAS offers two settings for assistance timing. The driver can choose between the "Early" or "Late" settings on the centre display's Customise Settings screen.

When the "Early" setting is selected, the system provides continuous steering assistance to help keep the car in the centre of its lane and reduce fatigue when driving for long periods of time. When the road bends, it helps guide the driver to use the optimum steering angle to match the amount of curvature.

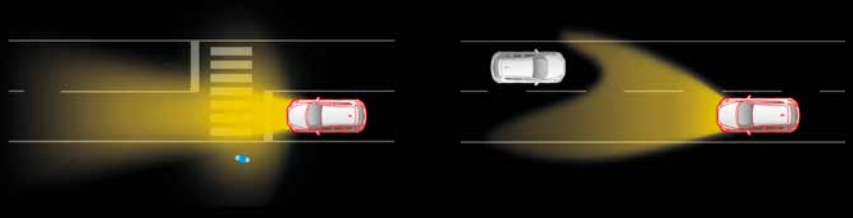
When "Late" is selected, the steering assist function does not operate when driving normally. Instead, it only provides steering assistance to help return the car to its original position when the system determines that the car is going to depart from its lane.

The purpose is to prevent the car from departing from its lane due to driver fatigue or inattention.

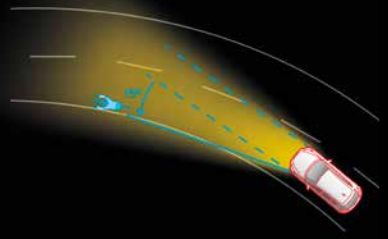
Regardless of which setting is selected, the system becomes operational at speeds of approximately 60km/h or faster.

The system is designed to not operate when it determines that the driver's actions are intentional, for example, when changing lanes or accelerating after switching on a turn signal.

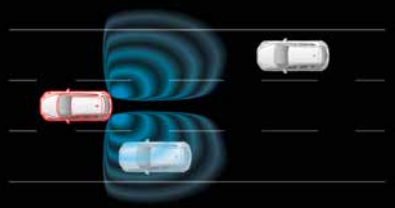
Adaptive LED Headlamps (ALH)



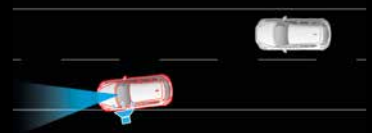
Adaptive Front-lighting System (AFS)



Blind Spot Monitoring (BSM)



Lane-keep Assist System (LAS)



## Driver Attention Alert (DAA)

A new function on a Mazda car, DAA takes information such as the speed and angle of steering wheel operation, and vehicle speed, along with information from the forward sensing camera to check on the driver's condition when driving at highway speeds and suggest that they rest properly.

It is designed to prevent accidents caused by fatigue or decreased alertness.

The system becomes operational after the engine is started and the vehicle exceeds a speed of approximately 65km/h. It then learns how the driver performs for the first 20 minutes or so, when they are not yet fatigued.

Afterwards, if the system detects a significant change in the driver's behavior, a mark recommending a rest break along with the message "Time for a break" appears on the meter display, and a soft audible alert is also sounded.

The display and alert are also presented to the driver if they drive for more than two hours at one time.


## Smart City Brake Support [Forward/Reverse] (SCBS F/R)

Rearward detection was added to SCBS, evolving the system to be useful in a wider variety of driving scenes.

The system detects vehicles or obstacles in front or behind the car and helps reduce the amount of damage in the event an accident cannot be avoided when driving slowly around town or in congested traffic, or when in reverse.

Operating at speeds between approximately 4km/h and 30km/h when driving forward, the near-infrared sensor mounted on the windshield is capable of precision detection at short distances of up to approximately six metres, and is effective in rainy or backlit conditions.

When in reverse, the system operates at speeds between approximately 2km/h and 8km/h, using ultrasound sensors mounted on the rear bumper to detect obstacles approximately two meters behind the CX-5.

When the system detects a vehicle or other obstacle and determines that a high risk of collision exists, it automatically applies the brakes to help prevent impact when in forward gear or reduce impact in both forward and reverse gear.

Note: The system's ability to prevent a collision when in forward gear is limited by road conditions and other environmental factors.

## Smart Brake Support (SBS)

When the CX-5 is travelling at speeds between 15km/h and 145km/h, SBS uses milliwave radar and a forward sensing camera to detect vehicles or obstacles on the road ahead and helps avoid collisions or minimise damage by sounding an audible alert and operating the brakes in a two-stage pattern.

When SBS recognises the danger of a collision, it first sounds an alert while it begins to pressurise the brakes.

If the CX-5 draws any closer to the obstacle, SBS applies the brakes lightly at the preliminary braking stage.

If the situation becomes one in which the vehicle can no longer avoid a collision, SBS applies greater brake pressure at the secondary braking stage aiming to mitigate damage.

In addition, if the driver applies the brakes in the meantime, SBS delivers greater braking power than that of the driver's pedal operation alone to decelerate as quickly as possible.

This contributes to avoiding a collision, or to mitigating damage if a collision does occur.

Note: The system's ability to prevent a collision is limited by road conditions and other environmental factors.

## Radar cruise control

Operating at speeds between 30km/h to 145km/h, the radar cruise control system uses milliwave radar to judge the relative speed and distance to the vehicle ahead.

In accordance with the target speed set by the driver, the system automatically controls the engine and brakes to maintain the appropriate vehicle speed and safe following distance.

Because the driver does not need to operate the accelerator or brakes while using the cruise control system, it relieves some of the burden on long drives.

The milliwave radar sensor is capable of precise detection from a long distance, so its use allows the system to operate effectively in the rain, in backlit situations, and at night.

*For the full range of active safety features by grade go to the spec sheet on page 46.*

## Passive safety: absorbing the impact

And passive safety? Well, that's entirely up to the car. Because this is what matters when an accident occurs. Again, Mazda engineers made no compromises, designing the CX-5 to channel impact energy away from the cabin.

As the first Mazda built with the entire range of SYKACTIV technology, the CX-5 comes with the highly rigid yet lightweight SKYACTIV Body. Utilising a straighter, more continuous frame and an extremely efficient multi-load path structure, the SKYACTIV Body is designed to achieve top ratings in crash tests around the world.

High-tensile steel sees much greater usage than ever before in a Mazda. In fact, 61 per cent of the steel used in the CX-5 is of the high-tensile variety.

The B-pillar and roof reinforcement cross sections, for example, have been expanded with high-tensile steel to enhance side impact protection of the cabin. The floor section, door impact beams and side sills also received high tensile reinforcement. And the CX-5 is the first vehicle ever with extremely strong and lightweight 1,800 MPa ultra-high tensile steel, which is used in the bumpers.

Such measures help channel the load outside the cabin during a collision and prevent it from deforming. The SKYACTIV Body's multi-load path structure, meanwhile, ensures the optimal distribution of frontal impact energy along the various load paths. And on the back of the vehicle, Mazda straightened the rear frame and optimised its shape while also joining the rear frame and B-frame sections. The upshot is that energy from a crash, whether frontal, side or rear-end impact, is simply absorbed better.

Absorbing impacts was indeed a central focus on the CX-5. It was behind the adoption of a new front suspension structure in which the engine breaks away from the suspension cross members during a frontal crash. This maximises energy absorption by creating a larger crumple zone. The AWD model also uses the driveshaft structure to absorb the backward movement of the engine. The driveshaft detaches from the underbody during a frontal crash and contracts, also breaking away from the rear differential. It thus absorbs energy, which is channelled underneath the cabin without obstructing the crumple zone.

Mazda even came up with an innovative system to efficiently absorb impact energy during relatively minor frontal crashes (up to around 15 km/h), making the CX-5 simple and economical to repair. In such cases, the brunt of the impact is borne in three areas – the shroud upper member, bumper and crash can, and suspension cross member crash can – with easy to replace bolt-fastened parts. At the same time, damage to the front frame and engine compartment is minimised.

### *INSIDE THE CABIN*

The CX-5 interior also features all the latest in passive safety equipment.

Front, side and curtain SRS airbags are standard on all CX-5 versions. And the front seatbelts have pretensioners as well as load limiters, which mitigate the impact on the chest. The steering column, with its tilt and telescopic functionality for maximum comfort, helps prevent injury, too, shifting forward during a frontal impact to absorb the driver's momentum.

The front seats were completely redesigned with a new lightweight structure. With safety in mind, the seat's side frame was altered to help eliminate contact with the occupant's ribcage. Developers also put a strong focus on mitigating neck injuries, using an anti-whiplash design that, during a rear impact, reduces the movement and rotation of the head and torso while at the same time decreasing the load these are subject to on the headrest and seatback. They did so by raising the top of the headrest, using stiffer guide holders, making the centre section of the seatback less rigid, and improving the strength of the seat lifter to restrict backwards tilting.

But in spite of all this, the seats are still 700g lighter than previous generation seats.

In the back, Mazda gave the seats an internal anti-submarine mechanism, which restrains the lower body during a rear impact. The seat pan on the 40:20:40 split rear seats limits the amount of forward movement of the occupant's pelvis, while the 60:40* rear seats use a tough foam material structure for this purpose. The rear seatback frames, mounts and hinges, meanwhile, were also reinforced to better protect rear passengers from luggage and other boot cargo. And for the smallest passengers, the CX-5 has top-tether anchors delivering maximum child seat safety and installation ease.

### PEDESTRIANS IN FOCUS

In yet another first, Mazda even integrated an energy absorbing design into the CX-5's front end to minimise pedestrian injury potential. The CX-5's bonnet, for example, has a sufficient crumple zone between it and the various engine components. The body cowl and instrument panel are also less rigid to soften the blow should a pedestrian's head hit the windscreen. Finally, the front bumper is equipped with shock absorbing material to reduce leg injury and a rigid area at the bottom to help prevent the legs from going underneath the vehicle.

All in all, the CX-5 is remarkably safe to be in or around. In fact, it has already exhibited outstanding results during Mazda's own rigorous crash testing under a range of real world situations, from full and offset frontal and rear collisions to pole collisions and side impacts.


Soul Red Metallic

Blue Reflex Mica

Jet Black Mica

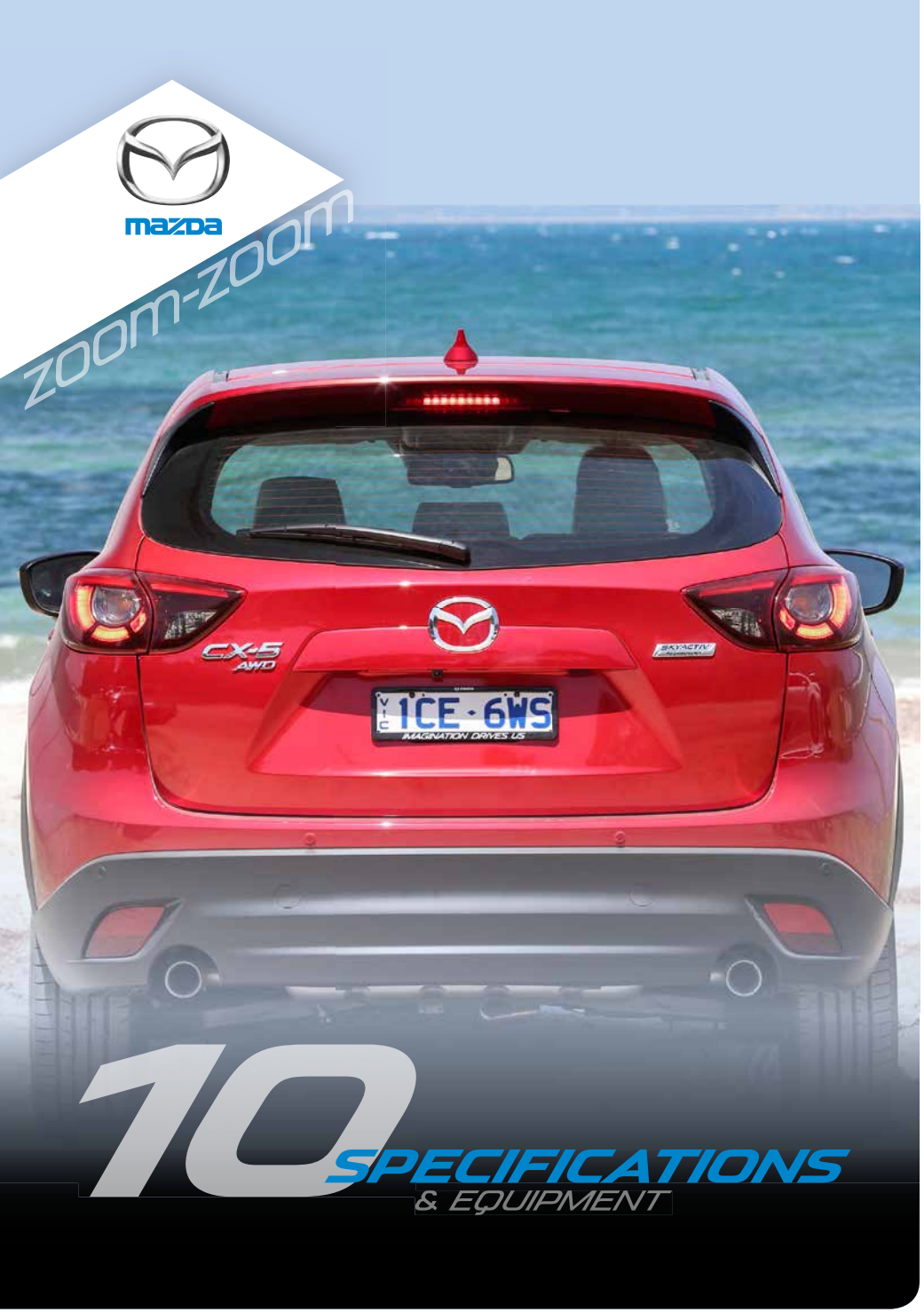
Meteor Grey Mica

Crystal White Pearl Mica

Deep Crystal Blue Mica

Sonic Silver Metallic

Titanium Flash Mica






| POWERTRAIN | | 2.0L Petrol FWD | 2.5L Petrol AWD | 2.2L Diesel AWD |
|---|---|---|---|---|
| Bore and stroke | (mm) | 83.5 x 91.2 | 89.0 x 100.0 | 86.0 x 94.3 |
| Compression ratio | | 13.0 : 1 | 13.0 : 1 | 14.0 : 1 |
| Emissions standard | | Euro stage IV | Euro stage IV | Euro stage IV |
| Engine capacity | (cc) | 1,998 | 2,488 | 2,191 |
| Engine type | | 2.0 litre in-line 4 cylinder 16 valve DOHC S-VT petrol (SKYACTIV-G) engine with i-stop | 2.5 litre in-line 4 cylinder 16 valve DOHC S-VT petrol (SKYACTIV-G) engine with i-stop | 2.2 litre in-line 4 cylinder 16 valve DOHC intercooled turbo diesel (SKYACTIV-D) engine with i-stop |
| Fuel consumption (l/100km)[1]: | Manual (combined) | 6.4 | - | - |
| | Auto (combined) | 6.4 | 7.4 | 5.7 |
| Fuel system | | Electronic direct injection | Electronic direct injection | Common rail, electronic direct injection |
| Fuel tank capacity | (litres) | 56 | 58 | 58 |
| Gear ratio | 1st | 3.700 / 3.552 | - / 3.552 | - / 3.487 |
| | 2nd | 1.947 / 2.022 | - / 2.022 | - / 1.992 |
| | 3rd | 1.300 / 1.452 | - / 1.452 | - / 1.449 |
| | 4th | 1.029 / 1.000 | - / 1.000 | - / 1.000 |
| | 5th | 0.837 / 0.708 | - / 0.708 | - / 0.707 |
| | 6th | 0.680 / 0.599 | - / 0.599 | - / 0.600 |
| | Reverse | 3.724 / 3.893 | - / 3.893 | - / 3.990 |
| | Final drive | 4.705 / 4.624 | - / 4.325 | - / 4.090 |
| Maximum power (kW @ rpm) | | 114 @ 6,000 | 138 @ 5,700 | 129 @ 4,500 |
| Maximum torque (Nm @ rpm) | | 200 @ 4,000 | 250 @ 4,000 | 420 @ 2,000 |
| Recommended fuel | | Unleaded (91RON or higher) or E10 | Unleaded (91RON or higher) or E10 | Diesel |
| Throttle control | | Electronic (drive-by-wire) | Electronic (drive-by-wire) | Electronic (drive-by-wire) |
| Transmission | | 6-speed (SKYACTIV-MT) | - | - |
| | | 6-speed (SKYACTIV-Drive) | 6-speed (SKYACTIV-Drive) | 6-speed (SKYACTIV-Drive) |

1 Fuel consumption figures are based on ADR 81/02 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 and road conditions and how the vehicle is driven.

## MODELS
*5-SEAT SUV*

| | | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|---|
| | 2.0L I4 Petrol FWD / 6-speed manual | ● | - | - | - |
| | 2.0L I4 Petrol FWD / 6-speed automatic | ● | ● | - | - |
| | 2.5L I4 Petrol AWD / 6-speed automatic | ● | ● | ● | ● |
| | 2.2L I4 Diesel AWD / 6-speed automatic | - | ● | ● | ● |

## OPTIONS

| | | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|---|
| Safety Pack[2]: | Blind Spot Monitoring (BSM) | ⚬ | ⚬ | ⚬ | ● |
| | Rear Cross Traffic Alert (RCTA) | ⚬ | ⚬ | ⚬ | ● |
| | Rear-view mirror with auto dimming function | ⚬ | ⚬ | ● | ● |
| | Smart City Brake Support [Forward] (SCBS F) | ⚬ | ⚬ | - | - |
| | Smart City Brake Support [Forward/Reverse] (SCBS F/R) | - | - | ⚬ | ● |

## CHASSIS

| | | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|---|
| Brake diameter (mm): | Front | 297 | 297 | 297 | 297 |
| | Rear | 303 | 303 | 303 | 303 |
| 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 (m): | | 11.2 | 11.2 | 11.2 | 11.2 |
| Tyre size | | 225/65 R17 | 225/65 R17 | 225/55 R19 | 225/55 R19 |
| Tyre index | | 102V | 102V | 99V | 99V |
| Wheel size | | 17 x 7.0 J | 17 x 7.0 J | 19 x 7.0 J | 19 x 7.0 J |
| Wheel type | | Steel | Alloy | Alloy | Alloy |
| Tyre size (spare) | | 185/80 R17 | 185/80 R17 | 185/80 R17 | 185/80 R17 |
| Wheel size (spare) | | 17 x 5.5 T | 17 x 5.5 T | 17 x 5.5 T | 17 x 5.5 T |
| Wheel type (spare) | | Temporary (Steel) | Temporary (Steel) | Temporary (Steel) | Temporary (Steel) |

## WEIGHTS AND CAPACITIES
*5-SEAT SUV*

| | | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|---|
| Cargo room volume VDA[3] (litres) | | 403 | 403 | 403 | 403 |
| Cargo room volume VDA[4] (litres) | | 1,560 | 1,560 | 1,560 | 1,560 |
| Kerb weight (kg) | 2.0L I4 Petrol / 6-speed manual | 1,454 - 1,455 | - | - | - |
| | 2.0L I4 Petrol / 6-speed automatic | 1,486 - 1,487 | 1,490 - 1,491 | - | - |
| | 2.5L I4 Petrol / 6-speed automatic | 1,567 - 1,568 | 1,571 - 1,572 | 1,626 - 1,627 | 1,628 |
| | 2.2L I4 Diesel / 6-speed automatic | - | 1,644 - 1,645 | 1,699 - 1,700 | 1,701 |
| Towing capacity[5] (kg): | Braked | 1,800 | 1,800 | 1,800 | 1,800 |
| | Unbraked | 750 | 750 | 750 | 750 |
| Tow ball download maximum (kg) | | 150 | 150 | 150 | 150 |

● = Standard, ⚬ = Option, - = Not available

## DIMENSIONS
5-SEAT SUV

| | | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|---|
| Ground clearance laden (mm) | | 150 | 150 | 150 | 150 |
| Overall length (mm) | | 4,540 | 4,540 | 4,540 | 4,540 |
| Overall width (mm) | | 1,840 | 1,840 | 1,840 | 1,840 |
| Overall height (mm) | | 1,710 | 1,710 | 1,710 | 1,710 |
| Track (mm): | Front | 1,585 | 1,585 | 1,585 | 1,585 |
| | Rear | 1,590 | 1,590 | 1,590 | 1,590 |
| Wheelbase (mm) | | 2,700 | 2,700 | 2,700 | 2,700 |

## EXTERIOR

| | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|
| Daytime running lamps (LED) | – | – | ● | ● |
| Door handles (body coloured) | ● | ● | ● | ● |
| Exhaust extensions (chrome) | ● | ● | ● | ● |
| Front and rear bumpers (body coloured) | ● | ● | ● | ● |
| Front fog-lamps (Halogen) | – | ● | – | – |
| Front fog-lamps (LED) | – | – | ● | ● |
| Green-tinted windscreen, side and rear windows | ● | ● | ● | ● |
| Headlamps (Halogen) | ● | ● | – | – |
| Headlamps (LED) | – | – | ● | ● |
| Headlamps auto on/off function | – | ● | ● | ● |
| Power mirrors (body coloured with folding function) | ● | ● | ● | ● |
| Power sliding and tilt glass sunroof | – | – | ● | ● |
| Power windows | ● | ● | ● | ● |
| Rear spoiler | ● | ● | ● | ● |
| Roof rack mounting points | ● | ● | ● | ● |
| Tail-lamps (LED) | – | – | ● | ● |
| Window demister (rear) | ● | ● | ● | ● |
| Wipers (front) 2-speed with rain-sensing function | – | ● | ● | ● |
| Wipers (front) 2-speed with variable intermittent function | ● | – | – | – |
| Wiper (rear) with intermittent function | ● | ● | ● | ● |

## SEATS

| | | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|---|
| Front seats with: | 2-position memory function (driver) | – | – | ● | ● |
| | 6-way power adjustment (passenger) | – | – | ● | ● |
| | 8-way power adjustment (driver) | – | – | ● | ● |
| | Adjustable head restraints | ● | ● | ● | ● |
| | Heating function | – | – | ● | ● |
| | Height adjustment (driver) | ● | ● | ● | ● |
| | Lumbar support adjustment (driver) | – | – | ● | ● |
| | Rake and slide adjustment | ● | ● | ● | ● |
| | Seat back pockets | ● | ● | ● | ● |
| Rear seats with: | 40/20/40 split fold backrest (flat fold) | – | ● | ● | ● |
| | 60/40 split fold backrest | ● | – | – | – |
| | Adjustable head restraints | ● | ● | ● | ● |
| | Centre fold down armrest | – | ● | ● | ● |
| Seat trim: | Black cloth | ● | ● | – | – |
| | Black leather | – | – | ● | ● |
| | Pure white leather | – | – | ○ | ○ |

● = Standard, ○ = Option, – = Not available

## INTERIOR

| | | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|---|
| Air-conditioning | | ● | – | – | – |
| Air-conditioning (dual-zone climate control) | | – | ● | ● | ● |
| Ambient temperature display | | ● | ● | ● | ● |
| Cargo area 12 volt power outlet | | ● | ● | ● | ● |
| Cargo area tonneau cover with 'Karakuri' up and down function | | ● | ● | ● | ● |
| Centre armrest console | | ● | ● | ● | ● |
| Critical function warning lights/chimes | | ● | ● | ● | ● |
| Cruise control | | ● | ● | ● | – |
| Cupholders | | ● | ● | ● | ● |
| Door bottle holders (front and rear) | | ● | ● | ● | ● |
| Electric parking brake | | ● | ● | ● | ● |
| Glove box | | ● | ● | ● | ● |
| Instrument panel light dimmer | | ● | ● | ● | ● |
| Interior illumination: | Cargo room lamp | ● | ● | ● | ● |
| | Entry system with delayed fade | ● | ● | ● | ● |
| | Map reading spot lamps | ● | ● | ● | ● |
| | Power window switche (driver) | ● | ● | ● | ● |
| Interior release for fuel filler door | | ● | ● | ● | ● |
| Leather-wrapped: | Gear shift knob | – | ● | ● | ● |
| | Steering wheel | – | ● | ● | ● |
| One touch (up and down) power window (driver) | | ● | ● | ● | ● |
| Overhead sunglass storage box | | ● | ● | ● | ● |
| Radar cruise control | | – | – | – | ● |
| Rear-view mirror with auto dimming function | | ○ | ○ | ● | ● |
| Tachometer and electronic odometer / tripmeter | | ● | ● | ● | ● |
| Tilt and telescopic adjustable steering wheel | | ● | ● | ● | ● |
| Trip computer[6] | | ● | ● | ● | ● |
| Vanity mirrors (front) | | ● | – | – | – |
| Vanity mirrors (front) with illumination | | – | ● | ● | ● |

## INFOTAINMENT

| | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|
| 7-inch full colour touch screen display (MZD Connect) | ● | ● | ● | ● |
| AM/FM tuner | ● | ● | ● | ● |
| Auxiliary-audio input jack (3.5mm mini-stereo) | ● | ● | ● | ● |
| Bluetooth® hands-free phone and audio capability[7] | ● | ● | ● | ● |
| CD player, single disc (MP3 compatible) | ● | ● | ● | ● |
| Internet radio integration (Pandora®, Stitcher™ and Aha™ ) | ● | ● | ● | ● |
| Multi-function commander control | ● | ● | ● | ● |
| Premium Bose® 231 watt amplifier and speakers | – | – | ● | ● |
| Radio Data System (RDS) program information | ● | ● | ● | ● |
| Satellite navigation | – | ● | ● | ● |
| Speakers (4) | ● | - | - | - |
| Speakers (6) | – | ● | - | - |
| Speakers (9) | – | - | ● | ● |
| Steering wheel-mounted audio controls | ● | ● | ● | ● |
| USB-audio input ports (iPod compatible) | ● | ● | ● | ● |

● = Standard, ○ = Option, – = Not available

## SAFETY & SECURITY

| | | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|---|
| Adaptive Front-lighting System (AFS) | | – | – | ● | – |
| Adaptive LED Headlamps (ALH) | | – | – | – | ● |
| Advanced keyless entry | | – | – | ● | ● |
| Advanced keyless push-button engine start | | ● | ● | ● | ● |
| Airbags SRS: | Front (driver and passenger) | ● | ● | ● | ● |
| | Side (front) | ● | ● | ● | ● |
| | Curtain (front and rear) | ● | ● | ● | ● |
| Anti-lock Braking System (ABS) | | ● | ● | ● | ● |
| Blind Spot Monitoring (BSM) | | ○ | ○ | ○ | ● |
| Childproof rear door locks | | ● | ● | ● | ● |
| Driver Attention Alert (DAA) | | – | – | – | ● |
| Dynamic Stability Control (DSC) | | ● | ● | ● | ● |
| Electronic Brake-force Distribution (EBD) | | ● | ● | ● | ● |
| Emergency Brake Assist (EBA) | | ● | ● | ● | ● |
| Emergency Stop Signal (ESS) | | ● | ● | ● | ● |
| Engine immobiliser | | ● | ● | ● | ● |
| Forward Obstruction Warning (FOW) | | – | – | – | ● |
| High mount stop lamp | | ● | ● | ● | ● |
| Hill Launch Assist (HLA) | | ● | ● | ● | ● |
| Intrusion-minimising brake pedal | | ● | ● | ● | ● |
| ISOFIX child restraint anchor points and top tethers | | ● | ● | ● | ● |
| Lane Departure Warning (LDW) | | – | – | – | ● |
| Lane-keep Assist System (LAS) | | – | – | – | ● |
| Left-hand-side convex (wide angle) exterior mirror | | ● | ● | ● | ● |
| Parking sensors (front and rear) | | – | – | ● | ● |

## SAFETY & SECURITY *CONTINUED*

| | Maxx | Maxx Sport | GT | Akera |
|---|---|---|---|---|
| Rear Cross Traffic Alert (RCTA) | ○ | ○ | ○ | ● |
| Remote central locking (2 transmitters) | ● | ● | ● | ● |
| Reverse camera | ● | ● | ● | ● |
| Seat-belt warning (front and rear) | ● | ● | ● | ● |
| Seat-belts 3-point lap-sash (all seats) | ● | ● | ● | ● |
| Seat-belts (front) with pretensioners, load-limiters and height adjustable shoulder anchorages | ● | ● | ● | ● |
| Side impact door beams | ● | ● | ● | ● |
| Side monitor | – | – | – | ● |
| Smart Brake Support (SBS) | – | – | – | ● |
| Smart City Brake Support [Forward] (SCBS F) | ○ | ○ | - | - |
| Smart City Brake Support [Forward/Reverse] (SCBS F/R) | – | – | ○ | ● |
| Traction Control System (TCS) | ● | ● | ● | ● |
| Triple H' safety construction with front and rear crumple zones | ● | ● | ● | ● |
| Tyre Pressure Monitoring System (TPMS) | ● | ● | ● | ● |
| Whiplash-minimising front seats | ● | ● | ● | ● |

● = Standard, ○ = Option, – = Not available

**Specific disclaimers**

1 Fuel consumption figures are based on ADR 81/02 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 and road conditions and how the vehicle is driven.

2 i-ACTIVESENSE safety technologies are driver assist technologies only and should not be used in place of skilled and safe driving practices. It is the driver's sole responsibility to constantly monitor vehicle surroundings and conditions at all times.

3 Measured with rear seats up and up to tonneau cover

4 Measured with rear seats folded down and up to roof

5 Subject to State or Territory regulations.

6 Trip computer displays current and average fuel consumption, distance to empty and average vehicle speed.

7 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 www.mazda.com.au/Bluetooth or consult your Mazda Dealer for further information.**

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