

MAZDA MOTOR CORPORATION

MAZDA MX-5

We believe in the power of human potential; creativity, imagination and the amazing things we're all capable of when we're inspired.

We believe in taking the unconventional road and going the extra mile to do work that inspires.

We believe in artisans, designers, engineers and ambassadors who pour human energy into their work.

We believe in the power of cars to move human emotions.

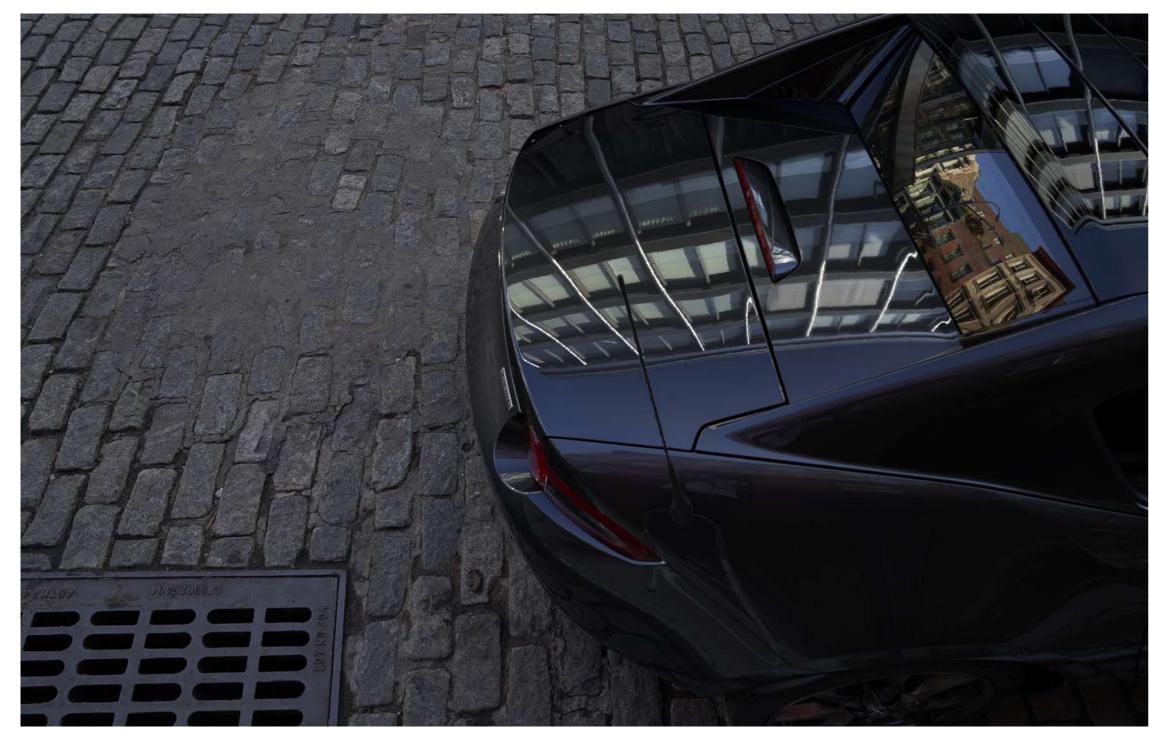
To awaken senses, heighten reflexes, make pulses race.

We believe the joy of being alive comes from what we discover on our journey, and the inspiration we find in every mile.

Mazda makes you feel alive.



















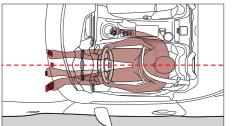
# THE REDEFINITION OF DRIVING PLEASURE

First and foremost, development focused on creating a driving experience only the MX-5 series could offer, through response and handling that precisely match the driver's intentions. The aim was simple: to make the vehicle feel like a natural extension of your body. Enhancing Mazda's trademark Jinba-ittai - the feeling of being one with car - and fun-to-drive characteristics were the watchwords, even as successive models met the challenge of satisfying ever-higher demands for comfort, safety and environmental friendliness. Of course, weight was kept as low as possible, while the latest advances in Skyactiv Technology keep the suspension, body and powertrain acting in perfect harmony. Taken together, it all adds up to a total redefinition of sports car driving pleasure.

### REFINING THE CLASSIC LIGHTWEIGHT SPORTS CAR



From the very first generation, Mazda MX-5 has always featured a compact, open-top two-seater body, a Front-midship engine/Rear-wheel drive (FR) configuration, and 50:50 front/rear weight distribution — the classic layout of a lightweight sports car. The fourth generation carries on the tradition, but with the engine moved rearward and an aluminium bonnet and boot lid to achieve a lowered yaw inertia moment. Combined with a lower centre of gravity realized by lowering the engine's mounting position and the seats, this results in the kind of response and handling drivers dream about. Another key element adding to the commanding feeling of control is the driving position: the driver is placed closer to the car's centre line, the steering column features telescopic adjustment, and the pedals, controls, meters and displays are optimally located to allow the driver to maintain good posture and drive comfortably. Additionally, the low nose, rearward position of the A-pillars and thinner front header afford a panoramic view for easier confirmation of the



surroundings and the car's behaviour. The seats themselves feature Mazda's innovative and ergonomic S-fit Structure, employing a net material and urethane pads in place of the conventional metal springs/urethane pad structure. This reduces both the weight and thickness of the seats at the same time as providing superior support and holding capability when driving hard through the curves.

### SAVING WEIGHT, ADDING PERFORMANCE



Skyactiv Technology, long years of experience and Mazda's proven 'Gram strategy' allowed a significant weight reduction for the current generation. Optimal distribution of functions, introduction of compact components, structural innovations, and wider use of aluminium and other lightweight materials resulted from Mazda's pursuit of the ideal structure for the body, chassis and engine. And by further advancing the Skyactiv-Body concept of a continuous framework, this reduced weight even resulted in greater rigidity. Measures taken included optimizing the framework, larger cross-sections and straighter lines for the high-mount backbone frame, and more extensive use of high-tensile sheet steel, as well as integrating the chassis and the body. In particular, MX-5 RF has a dedicated tunnel member specifically developed to handle the changes in front/rear rigidity stemming from the retractable hardtop.

# SKYACTIV TECHNOLOGY

# **SKYACTIV-G 2.0** Max. power: 135kW/7,000rpm Lightweight, 205Nm/4,000rpm

Higher-revving, higher-power performance with lively response right up to the red line and smooth acceleration in any gear is the promise. And the evolved Skyactiv-G 2.0 direct-injection petrol engine delivers in full measure, taking you to a world of satisfying driving that is both exciting and eco-friendly. The intake system features a common-type intake port to maximize air intake volume, while the 4-2-1 exhaust system with specially designed exhaust port greatly reduces pumping loss. Inertial mass and mechanical resistance are reduced thanks to lightweight pistons and connecting rods. Combustion characteristics and anti-knock capability are enhanced by piston heads that strengthen tumble swirl and reduce unburned fuel. And high-diffusion fuel injectors with a three-stage split fuel injection control scheme

minimize waste while promoting secure fuel vaporization. These innovations add up to dramatically improved performance: maximum engine speed is raised to 7,500rpm for a smoother impression of power and a feel of effortless and limitless acceleration, maximum output is raised, torque is increased from low to high engine speeds, and fuel efficiency and environmental performance are further improved. The extraordinary compression ratio of 13.0:1 is retained, even as the knock usually caused by such high compression is suppressed. A low-inertia dual-mass flywheel delivers sharp and agile engine response, as well as a clear engine tone. And the main silencer system contributes a linear engine note to accelerator inputs, promoting greater unity with the MX-5.

low-friction piston

# SKYACTIV-MT



new-generation six-speed manual transmission Skyactiv-MT was originally developed to bring the same light positive shifting enjoyed in previous generations of the MX-5 to a broader lineup of Mazda cars, achieving this through a complete redesign of the internal shift mechanism for more efficient action and minimum friction. That design has been painstakingly reviewed to fit the FR layout and realize crisp, 'just right' operation with a positive feeling as if the lever is guiding itself in to your desired gear. In addition, adoption of a direct-drive sixth gear contributed to a simpler structure that is both lighter and more compact.

# SKYACTIV-BODY



The goal was lower weight with better safety performance and greater rigidity, achieved by clever engineering to optimize structures and make effective use of materials. And through applying all the knowledge acquired in developing Skyactiv Technology to date, Mazda engineers created a new Skyactiv-Body specifically tailored to an open-top lightweight sports car. The basic concept was to use straight beams and a continuous framework wherever possible to create a structure whose individual sections functioned in perfect harmony. In addition, widespread use of aluminium and high-tensile steel realizes both safety and extreme rigidity, resulting in a lightweight open-top body ideally prepared to respond to the driver's every

# SKYACTIV-CHASSIS



Engineered to deliver even more of Mazda's famous oneness between car and driver, the Skyactiv-Chassis was born from a comprehensive revision of the basics of suspension and steering systems, achieving both weight reduction and excellent rigidity. And while the MX-5 series continues to use the same double-wishbone front suspension and multilink rear suspension configuration as the previous model, they are entirely redesigned to match the Skyactiv-Chassis to optimize the geometry and create a suspension system offering enhanced stability and greater control when cornering. What's more, MX-5 RF's chassis is specially tuned for a refined and relaxing ride. In addition, the Electric Power Assist Steering (Dual Pinion) system has extremely rigid steering characteristics and delivers direct feedback from the road surface.

# SIX-SPEED AUTOMATIC TRANSMISSION



OTHER ADVANCED TECHNOLOGIES

This six-speed automatic transmission is engineered to provide a direct shift feel and superior fuel economy thanks to a torque converter with wider slip control and lock-up range. A throttle blip function automatically revs the engine when downshifting to give quicker shifts and enhanced deceleration response. And Drive Selection allows switching between Normal and Sport/Manual drive modes for a sportier, more satisfying driving experience.

# i-STOP



Mazda's i-stop idling stop system automatically shuts the engine down when you come to a complete halt after braking, saving the fuel wasted when stopped in traffic or at a signal to improve fuel economy by as much as 5%. Release the brake pedal and fuel is injected directly into the cylinder ready for an almost instantaneous restart. What's more, because i-stop uses combustion energy rather than the starter motor, restarts are both quicker and smoother.

# i-ELOOP



Regenerative braking is a process in which the car's kinetic energy during deceleration is used to generate electricity. To make this process most efficient, Mazda developed the i-Eloop regenerative braking system that contributes to reducing electricity generation by the alternator, therefore minimizing fuel consumption. i-Eloop captures the energy lost during deceleration, and saves it as electrical power in a revolutionary high-capacity Electric Double Layer Capacitor (EDLC). The moment you step off the accelerator, the vehicle's forward momentum drives the alternator and starts charging the EDLC which quickly reaches full charge. Then when you step on the accelerator again, the stored electricity is used to power the car's electrical equipment. It's virtually free energy! The EDLC can stand an almost unlimited number of charge-discharge cycles, and combined with i-stop improves fuel

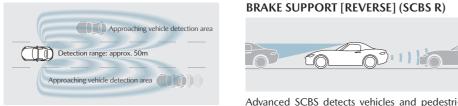
# PERFORMANCE CAR, PERFORMANCE SAFETY

Mazda's safety philosophy, which guides the research and development of all our safety technologies, is based on understanding, respecting and trusting the driver. To drive more safely it's essential to recognize potential hazards, exercise good judgement and operate the car in an appropriate fashion. Mazda aims to support these essential functions so that drivers can drive securely and with peace of mind, despite changing driving conditions. Active safety measures include Mazda's i-Activsense suite of advanced safety technologies to help identify and assess potential hazards early on and reduce the risk of damage or injury. Passive safety features include a version of Mazda's high-strength Skyactiv-Body specifically designed for an FR open-top car.

# Driving with Mazda Proactive Safety High Accident happens. Risk of accident rises. Risk of accident rises. Provide hazard alerts to help the driver avoid dangers and recover safe operation of the vehicle. Risk of accident is low. (Safe operation of vehicle) Risk of accident slow. (Safe operation of vehicle) What Mazda's safety technologies aim to provide Help protect occupants and pedestrians in the event of an accident. Injury reduction Accident help avoid or reduce the severity of an accident when the driver alone cannot safely operate the vehicle. Accident reduction in which the driver can drive securely and comfortably.

## i-ACTIVSENSE

# BLIND SPOT MONITORING (BSM) AND REAR CROSS TRAFFIC ALERT (RCTA)



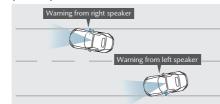
BSM uses 24GHz quasi-milliwave radar sensors to detect vehicles in the blind spots behind and to the side, and using a turn signal while BSM detects a vehicle triggers visual and audio warnings. RCTA uses the same sensors to alert the driver when it detects vehicles approaching from either side during reversing ans\* in front of the vehicle and automatically applies the brakes to help avoid collisions and mitigate collision damage while driving forward. When reversing, SCBS R detects vehicles and obstacles behind and automatically applies the brakes to help mitigate collision damage.

\*Detection of pedestrians and consequent automatic

\*Detection of pedestrians and consequent automatic braking are not available in certain countries and regions.

# LANE DEPARTURE WARNING SYSTEM (LDWS)

(ADVANCED SCBS) AND SMART CITY



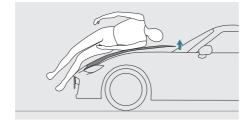
LDWS senses lane markings on the road surface. When the system predicts departure from the lane it issues a beep or an audible warning similar to the noise a car makes when it runs onto a rumble strip to prompt timely steering corrections. The system assesses driver inputs such as use of the turn signals to weed out false alarms.

# ADVANCED SMART CITY BRAKE SUPPORT SRS AIRBAGS



All grades feature front airbags as standard equipment for both seats. Side airbags with a head-protecting cell help safeguard occupants' heads from injury inflicted by walls or poles in a collision, even when the top is down.

### PEDESTRIAN PROTECTION



The Active Bonnet design releases the bonnet instantly whenever impact with a pedestrian is anticipated, to quickly secure a safety space between the bonnet and rigid parts in the engine compartment. At the same time, the bonnet's inner structure effectively absorbs impact energy.

# KEEPING YOU FOCUSED AND IN THE PICTURE

All driving demands concentration. Sports driving even more so. And it's hard to maintain concentration in modern cars because they constantly supply you with information: route guidance from the navigation system, hazard warnings, audio entertainment from a wide range of sources...the list just goes on. The key is how information is presented. That's why Mazda developed its unique Human-Machine Interface (HMI) design, and engineered the cockpit from the ground up to give you information in a way that lets you stay focused on the road and on safe driving.

# THE LEADING EDGE OF HMI DESIGN

The amount of information presented to you when driving continues its increase. For example, i-Activsense detects traffic conditions around the vehicle and provides warnings, while MZD Connect, Mazda's in-vehicle connectivity system, offers the latest Internet-connected services via your smartphone. So to present this rising tide of information without compromising safety, Mazda engineered the cockpit's HMI design to prevent confusion in decision-making, minimize driver eye movements, and reduce physical stress.

The cockpit itself is divided into two zones, one

# MZD IN-V Intern part o

focused on driving and the other focused on infotainment, and each zone has information displays and controls according to its purpose. Physically separating these interfaces promotes easier recognition and smoother operation. Frequently used operations are controlled by steering-wheel mounted switches without taking the hands off the steering wheel.

Information for MZD Connect's audio, communication and navigation functions is displayed on a seven-inch centre display featuring graphics designed for instant legibility. Multi-stage operations of MZD Connect are quickly and accurately controlled by a commander control located on the floor console where the driver's hand naturally falls.

# MZD CONNECT, THE BENCHMARK IN-VEHICLE CONNECTIVITY SYSTEM

Internet connectivity has become an essential part of daily life, even while travelling in a car. So

Mazda developed MZD Connect to provide versatile connectivity while further enhancing safety. MZD Connect offers a huge range of infotainment options from the Internet through Aha™ by HARMAN when connected to a smartphone via Bluetooth®.

The system's Audio feature allows selection of various music sources including AM/FM radio, CDs and mobile audio players, and Aha Internet Radio. The Communication feature reads SMS messages aloud, as well as other Internet social networking services (Twitter and Facebook for example) available via Aha. And the Navigation feature shows your current position on a map along with a route to the specified destination. System software is easily updated, providing ongoing access to the latest services without swapping out any hardware.





Note: Available functions of MZD Connect may vary according to the type of connected smartphone and its operating environment.

Please consult your local Mazda dealer for exact information.

Notes: i-Activsense safety features are not a substitute for safe and attentive driving. There are limitations to the range and detection of the systems.

Availability of safety equipment/features varies according to country and model grade. Please consult your local Mazda dealer for exact information.

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# COMFORT AND UTILITY



Four-lamp LED headlights, standard on all grades, highlight the Mazda brand presence on the road, day or night. Their eye-like design gives all MX-5 models a look of vitality and power waiting to be unleashed.



The iconic design of the U-shaped rear combination lamps and round tail lights is a tribute to the rear view of previous generations of the MX-5.



16-inch and 17-inch aluminium wheels are manufactured with a cold casting technique to strengthen the material and achieve both weight reduction and functional beauty. Black metallic paint for both wheel sizes emphasizes the bold impression

MX-5's styling delivers.



The large analogue tachometer and speedometer feature needles with a vertical zero position to emphasize the contrast between action and inaction, suggesting the image of a Japanese sword master poised to strike.



The exclusive Bose® premium sound system features nine speakers including a pair of speakers in both the driver's and passenger's headrests, to deliver superior sound quality even when driving with the top down.



Comprehensive airflow control measures minimize unpleasant draughts while guiding just a refreshing breeze to the occupant's arms and chest to assure the full pleasure of driving with the top down. A large, transparent aero board supports MX-5 RF's body rigidity while maintaining rearward visibility.



Despite the short rear overhang and the space dedicated to stowing the roof, the boot on both models is long and wide giving truly practical use. This versatile luggage compartment can easily accommodate a pair of hard-type carry-on bags, and MX-5 RF's boot even features a multipurpose box for tools and other items.



Compared to previous generations, the soft top is both lighter and more efficient at reducing noise and vibration. In addition, opening and closing the top while seated requires less effort, allowing carefree enjoyment of open-air driving.



The power retractable hardtop consists of front-, middle- and rear-roof sections and the rear window glass panel. When open, the rear roof remains on the body while the other parts are stowed in the space behind the seats. Opening/closing the roof is done by simply pressing the switch on the front console, even when MX-5 RF is in motion (at speeds up to 10km/h). The movements of each roof section are synchronized and overlapped to achieve smooth, fast operation. Operation is confirmed by a five-step animation shown in the multi-information display in the meter cluster.

# EXTERIOR AND INTERIOR COLOURS

# **BODY COLOURS**



Machine Grey Metallic (46G)

### **TAKUMI-NURI**

Mazda's unique painting technology Takumi-Nuri (takumi: master craftsman, nuri: painting), with its unprecedented combination of colour, highlights, shade and depth, further emphasizes the sheer beauty and quality of the dynamic body shape. The lineup includes two Takumi-Nuri body colours: Soul Red Crystal Metallic and Machine Grey Metallic.



Polymetal Grey Metallic (47C)





Snowflake White Pearl Mica (25D)

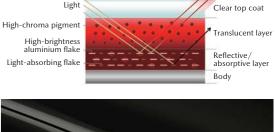


# SEAT MATERIALS



Nappa leather, Red\*







Paint-coat composition



Leather, Tan\*\*



Leather, Black

\*Not available with Soul Red Crystal Metallic \*\*Only for MX-5 RF