



7.	MESSAGE FROM THE PROGRAMME MANAGER	4	-	5
2.	PRODUCT CONCEPT: THE ALL-NEW MAZDA MX-5	6	-	7
<i>3</i> .	DESIGN			8
4.	HISTORY OF THE MAZDA MX-5			9
<i>5</i> .	SPECIFICATIONS & FIGURES	10	-	11
6	CONTACTS	12	_	15



#### MESSAGE FROM THE PROGRAMME MANAGER

INNOVATE IN ORDER TO PRESERVE -A 25<sup>TH</sup> ANNIVERSARY RESOLUTION

It is with great pleasure that we are now ready to introduce the fourth-generation Mazda MX-5. As a member of the MX-5 development team and a passionate sports car enthusiast, I am deeply grateful to all the people who created, fostered and supported this car over the years. To see that so many people around the world continue to admire the MX-5 even now, 25 years after its launch, makes me happier than I can express. It is thanks to their passion and the different ways owners and fans enjoy this car that the Mazda MX-5 has matured and evolved over the last quarter century. I also wish to express my gratitude and heartfelt respect to the European carmakers that originally pioneered the fun-to-drive lightweight sports car, to our staff in the U.S. who hatched the MX-5 plan more than 25 years ago, and to the many Mazda employees in Hiroshima and around the world who helped refine it and supported its evolution over the years.



#### Features handed down from generation to generation

The Jinba Ittai driving experience exemplified by Mazda's brand icon. the Mazda MX-5, is no longer the domain of lightweight sports cars. Rather, it has become the essence of every vehicle that Mazda builds. As symbolised by the challenge of developing the world's first massproduction rotary engine, the spirit of constantly striving to meet new challenges is very much part of the Mazda DNA. The passion of the engineers and designers who were carrying on that spirit is what directed the development of the original MX-5, which in turn became the starting point for the Jinba *Ittai* driving experience. This evolved further and played no small role in the development of SKYACTIV Technology, the KODO - Soul of Motion design theme and other innovations.

Over its 25-year history, the Mazda MX-5 has brought drivers and cars closer together in its a never-ending quest to deliver a faithful response and an enjoyable driving experience, whether cruising at slow speeds or enjoying a high-speed run. At the same time, it helped establish the Mazda brand's unique reputation for providing driving pleasure.

### An open-top sports car that all drivers can truly enjoy

Right from the first generation, our philosophy for the Mazda MX-5's development has remained the same: Create a car that delivers true driving pleasure and is an irreplaceable partner for the people on board - and onlookers, too - brightening and

cheering their mood. In addition to lessons learnt from our predecessors, we carried out advanced research into human sensitivity, developed new technologies, met a wide range of challenges, broke through barriers and finally realised the pleasure of the lightweight sports car as best suited to the times. This includes Mazda's hallmark *Jinba Ittai*, the feeling of oneness between the driver and car as the driver enjoys a fresh breeze in an opentop sports car, and the "Lots of Fun" characteristics that go beyond ordinary driving pleasure. These two themes have been the unchanging watchwords guiding the MX-5's development as we continued to enhance the model's driving pleasure while meeting increasingly pressing customer demands for comfort, safety and environmental friendliness.

It is the reason why all generations of the MX-5 preserved the principal requirements of a lightweight sports car featuring a compact open-top two-seater body, a front-midship engine, rear-wheel drive configuration, a 50:50 front-rear weight distribution, a low yaw inertia moment and an affordable price. Equally as important has been to evolve its value proposition as an open-top sports car that all drivers can truly enjoy anywhere and at any time.

#### Engineering devoted to taking our original aims into the future

Development of the fourth-generation MX-5 became a struggle with the model's 25-year history. It also marked a challenge to connect that history to the coming 25 years. Over the past quarter century, the demands for greater environmental friendliness and safety have grown increasingly stringent. Each successive model of the past three generations has seen slight increases in body size and weight in response to these demands. In developing the fourth-generation MX-5, we returned to the original aims of the first generation that restored the culture of the lightweight sports car and then took on the challenge of embodying the fundamental

pleasure of driving an open-top light-weight sports car in a product suited to today's needs. In other words, Mazda firmly believes that the fun of being one with the car - the exhilaration felt by any driver on any kind of road - must be maintained. To do this, Mazda considers it essential to realise a different kind of innovation that goes far beyond mere product refinement. This is clearly summed up by the maxim "innovate in order to preserve," which expresses the challenge behind developing the fourth-generation MX-5.

There is no doubt that the key to real-

ising this lays with the effective implementation of SKYACTIV Technology, which strikes the right balance between reduced weight, environmental friendliness and safety. It also includes the KODO design, which brings the presence of a living creature and a strong sense of vitality to the car. At the same time, we also went back to the original intention of the first generation. We asked ourselves how best to awake the driver's innate sensibilities as we aimed to further enhance the MX-5's Jinba Ittai driving experience and raise the level of fun associated with every detail when it comes to owning, viewing and customising the car, or even just meeting up with friends.

Toward this purpose, we delved further into the concept of Kansei engineering\* employed since the first generation as we made a concerted effort to appeal to the senses and sensations through which people enjoy cars, and thereby realise an unprecedented level of driving pleasure. We fully adopted the latest implementation of Mazda's SKYACTIV Technology and its related theories as part of a thorough effort to achieve the ideal structure for a lightweight sports car. The result is the most compact body size of any MX-5 generation combined with a weight reduction of more than 100 kg over the third-generation model.

The Mazda MX-5 has steadily evolved in a way that is only possible thanks to an unchanging passion shared between

Mazda and countless MX-5 owners and fans around the world. As the current programme manager of this product, I am both profoundly appreciative and keenly aware of the great responsibility I bear. This explains why we can never take a break from "innovating in order to preserve" if we want the MX-5 to continue to be the recipient of such passionate adoration for the next 25 or 50 years. This is our duty as the developer, and at the same time it's an exciting dream, a source of happiness, and something we are proud of. It is also a conviction that will surely be inherited by the next generation of engineers who work on the MX-5. We are ready for the challenges of the next guarter century and beyond, always inspired by the passion of our fans around the world.

Nobuhiro Yamamoto Mazda MX-5 Programme Manager



\* Kansei engineering addresses customers' impressions of a product to design the desired owner impressions into it. Mazda was the first company to use Kansei engineering in the 1980s on the original MX-5.







### PRODUCT CONCEPT: THE ALL-NEW MAZDA MX-5

JOY OF THE MOMENT, JOY OF LIFE

### Appealing to the senses and sensations through which people enjoy cars

The significance given to maximising the *Jinba Ittai* and "Lots of Fun" experiences means that Mazda did much more than simply develop a compact sports car. Rather, the Mazda MX-5 was made to be looked at, to perform and respond faithfully to the driver's will, to deliver a tangibly pleasing experience, to emphasise the owner's character. Just having an MX-5 makes life more pleasant and more colourful. Mazda built the MX-5 with the hopes that it would become a presence that transcended its existence as a mere car. To carry on the MX-5's rich tradition while more purely than ever embodying the essence of what appeals to the senses and sensations through which people enjoy cars, the development team made every effort to further evolve the product. Particular effort was concentrated on advancing three elements.

The first was to create a design that would set any heart pounding with excitement. Just one look at the fourth-generation MX-5 should get the pulse racing. Sitting in it should bring a smile to the driver's face and instantaneously spark an urge to take the top down and go for a drive. And it should become a cherished part of the owner's life as time goes on.

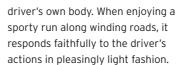
These attributes are what the development team aimed to express in an even purer state with the fourth-generation MX-5. In pursuit of them, they worked to add greater depth to the KODO design theme, to embody beautiful proportions that make the occupants stand out and to make the Mazda openair roadster experience all the more enjoyable.

They focused on the following:

- **Beautiful proportions** that make its occupants look good.
- A deeper expression of the KODO design theme that conveys agility
- Body surfaces that richly express the Japanese sense of contrast between stillness and motion.
- An interior design that melts away the boundaries between the inside and outside of the car.
- A snug feeling cockpit with symmetry and a singular axis that enables concentration on driving.

The second element is to deliver a driving experience that will captivate any driver. For every generation of the MX-5, importance was placed on appealing to the senses and sensations through which people enjoy cars rather than focusing merely on sheer performance. With "sensation" as the keyword for the fourth-generation Mazda MX-5, development efforts focused on making the car even more enjoyable to control and faithful in its response.

When driving in typical daily situations, the car responds directly to the driver's will, as though it were extension of the



Every effort went into further refining these attributes to realise the ultimate *Jinba Ittai* driving experience that will captivate any driver. Here are some of the highlights:

- The latest SKYACTIV Technology and Mazda's "gram strategy" combine to reduce weight by more than 100kg over the third-generation model.
- Front-midship engine, rear-wheel drive configuration to achieve an ideal 50:50 front-rear weight distribution.
- The engine is located closer to the vehicle's centre, the bonnet, boot lid, front fender and front and rear bumper reinforcements are made of aluminium, and the weight of the soft top is reduced. These combine to attain a lower yaw inertia moment and a lower centre of gravity.
- The pedals, controls, gauges and all equipment are optimally positioned to enable the driver to maintain a straight posture and drive comfortably.

- The height of the bonnet is lowered and the A-pillars and windshield header are moved rearward and made thinner to create a panoramic view with greater visibility of the road and peripheral movement.
- SKYACTIV-G direct-injection petrol engines are positioned longitudinally and specially tuned for the MX-5.
- New six-speed manual and automatic transmissions are also specially tuned for the MX-5.
- New lightweight yet highly rigid suspension fully leverages the know-how of SKYACTIV Technology, with a double-wishbone suspension in the front and multi-link set-up in the rear.
- The brake system is designed to maximise controllability and deliver reassuring effectiveness, plenty of braking power and an optimised posture when braking.

The third element is a pleasantly refreshing roadster experience that anyone can enjoy. It embodies a feeling of openness only possible in a convertible sports car, a feeling that can quickly lift anybody's spirits anywhere and any time while enjoying an open-top drive. Key elements here included:

- The MX-5 is **equally beautiful** whether the top is up or down.
- The interior is designed to maximise the pleasure of open-top driving.
- The **soft top is easy to operate**while seated
- Wind control makes a pleasure of driving with the top down.
- Headrest speakers further enhance this enjoyment.

In addition to the three aforementioned elements, the fourth-generation further evolves the pleasure of an MX-5 adapted into an original car that reflects its owner's character. Furthermore, satisfying the demands of the day are Mazda's latest-generation human-machine interface (HMI) and MZD Connect\*, Mazda's next-generation in-car connectivity system that efficiently links the driver to the car and the outside world. A humancentric perspective was adopted in the pursuit of advanced safety based on the Mazda Proactive Safety philosophy to appeal to the senses and sensations through which people experience cars and enable the driver to fully enjoy the driving experience.

\* Known as Mazda Connect in Japan, Canada, the U.S. and Mexico.

HISTOR)

Ø

DESIGN

ŀη

EOZ





#### A LOOK THAT SETS HEART RACING

For the fourth-generation Mazda MX-5, the development team was not going to be satisfied with a mere facelift. Nor were they prepared to aim for a design that simply accommodates current trends. Mazda's only desire was to satisfy its vision of how an open-top lightweight sports car should look. It had to light a fire of excitement in the hearts of all those who relate to the stance Mazda assumed in developing the model over the past quarter century, and who crave a purer embodiment of Mazda's icon.

Mazda's first thought in aiming for the ultimate MX-5 design was to create beautiful proportions that make occupants stand out and look good. True to its Japanese name - Mazda Roadster the basic form of the MX-5 makes those riding in the car the stars when seen with the top down and windows lowered. As such, the packaging engineers assigned to the development team worked closely together to examine a wide variety of elements related to a beautiful design when the top is down, and also to emphasise the driver's seating position and embody proportions that best convey the satisfaction and exhilaration of driving the MX-5. This resulted in refinements such as moving the cabin a little toward the rear to create the appearance that the occupants

are sitting at the body's midpoint, and lowering the hip-point of the seats in conjunction with the new design's low centre of gravity.

Based on these proportions, the development team took on the challenge of adding greater depth to the KODO design theme and fully expressing all they wished for in the new design. This included embodying KODO's characteristic stance with an expression of stability that makes the vehicle appear as though it is firmly gripping the road surface, and creating an image of agility that makes the MX-5 appear ready to instantly change direction. The fine craftsmanship of Mazda's renowned clay modellers created contours that cause reflections off the

body's surfaces to change in stunning fashion as the car moves. It makes the car look alive while at the same time creating a sense of emotional attachment that evokes a desire to stroke the surface with the palm of one's hand. In addition, the lines travelling from the headlamps, peaking at the front fenders and converging in front of the rear tires before sweeping upwards over the rear fenders, create a sense of motion at varying speeds. Reminiscent of Japanese calligraphy, this represents the Japanese sensibilities bred into the Mazda MX-5.

The aim for the interior was to create a cockpit design that brings a smile to the face and gets the heart pounding simply by looking at it or sitting in the driver's seat. One example is how the body panels wrap around to extend right into the door trim and thereby dissolve the visual boundaries between the vehicle's interior and exterior. When sitting in the cockpit, the driver sees a ridge line that extends in powerful fashion from the upper part of the door trim to the top of the front fenders. In addition to providing a feeling of open space as only possible with an open-top body, the lines emphasise a feeling of oneness between driver and car. The design also attempts to heighten the pleasure of driving an open-top sports car by enabling the driver to experience the change in the surrounding environment in real time. When sunlight filters through the trees, for example, or light reflects as the sun sets. Careful attention paid to the shape of the door trim and making the quarter windows more compact aims to actively control the flow of air that reaches the cockpit. The result is a pleasant environment with just the right amount of wind blowing in when driving with the top down. In addition, positioning the tachometer and small-diameter steering

wheel on the same axis creates perfect symmetry between the round climate-control louvers to the right and left of the instrument cluster. This serves to establish a single axis throughout the cockpit, while at the same time creating a pleasantly tight feeling that enables the driver to concentrate on driving.

With special attention to every detail, Mazda focused on building the MX-5 to transcend its existence as a mere automobile and become a sports car that owners will truly love.

While paying due respect to the British as the pioneers of the genre and to the

first-generation Mazda MX-5 as the car that resurrected it in the modern age, the design aim for the all-new MX-5 was to create the ideal image of a Mazda lightweight sports car. Every inch of the fourth-generation MX-5 reflects this desire and the pleasure it intends to give to all who drive it.

### HISTORY OF THE MAZDA MX-5

### A PERPETUAL QUEST FOR DRIVING PLEASURE THAT IS ACCESSIBLE

Mazda unveiled the first-generation MX-5 at the Chicago Auto Show on 9 February 1989. At that time, virtually no open-type lightweight sports cars were available. The segment, which had blossomed in England in the latter half of the 1940s, gained popularity thanks to the agile handling, characteristic style and affordability of such vehicles. But after the 1960s, with the market focused more on safety and comfort, these cars had all but disappeared. The aim of the engineers and designers at Mazda who produced the first-generation model was simple: To bring back a fun-to-drive lightweight sports car for people around the world like themselves, people who love cars and love to drive.



To build a car that satisfies this passion for driving, they developed the Mazda MX-5 based on the principle that it would combine a lightweight, compact open top two-seater body with a frontmidship engine, rear-wheel drive configuration, a 50:50 front-rear weight distribution, a low yaw inertia moment and an affordable price. The simple, familiar nature of its compact sports car styling, the light feeling and faithful, linear response Mazda defined as *Jinba* Ittai, and the open feeling it offered resonated with car lovers around the world. It soon won a number of awards. gained widespread popularity, and fan clubs big and small began to spring up worldwide. The second-generation model was revealed at the Tokyo Motor Show in October 1997, and the thirdgeneration followed at the Geneva Motor Show in February 2005. Production reached 900,000 units in February 2011, as the MX-5 broke its own Guinness World Record as the world's best selling two-seater sports car, a title it had first earned in May 2000.

Merely looking at the all-new MX-5 will make any car lover happy. From beginners to those with racing experience, drivers will enjoy the best drive of their lives. Putting the top down and feeling the refreshing breeze will bring a smile to any face. Drivers thus experience a world of driving pleasure as only the Mazda MX-5 can offer.



# SPECIFICATIONS & FIGURES

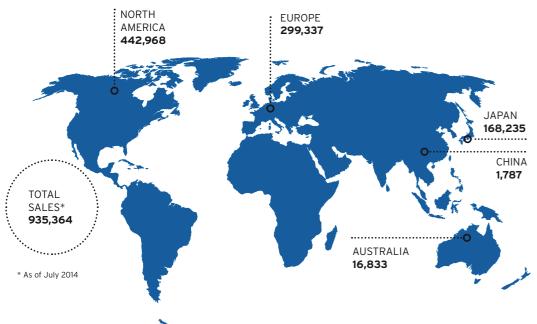
#### MAJOR SPECIFICATIONS - DISPLAY VEHICLE\*

Body type	Open-top sports car
Seating capacity	2
Overall length x width x height	3,915 mm X 1,730 mm X 1,235 mm
Wheelbase	2,315 mm
Engine	SKYACTIV-G direct-injection petrol engine
Transmissions	SKYACTIV-MT six-speed manual transmission
Front suspension	Double wishbone
Rear suspension	Multi-link
Steering	Electric power-assisted rack & pinion steering (EPAS)
Brakes (front/rear)	Ventilated discs / solid discs
Tires	195/50 R16

<sup>\*</sup> Values show development objectives

PRODUCTION SPLIT

#### MAZDA MX-5 PRODUCTION AND SALES FIGURES



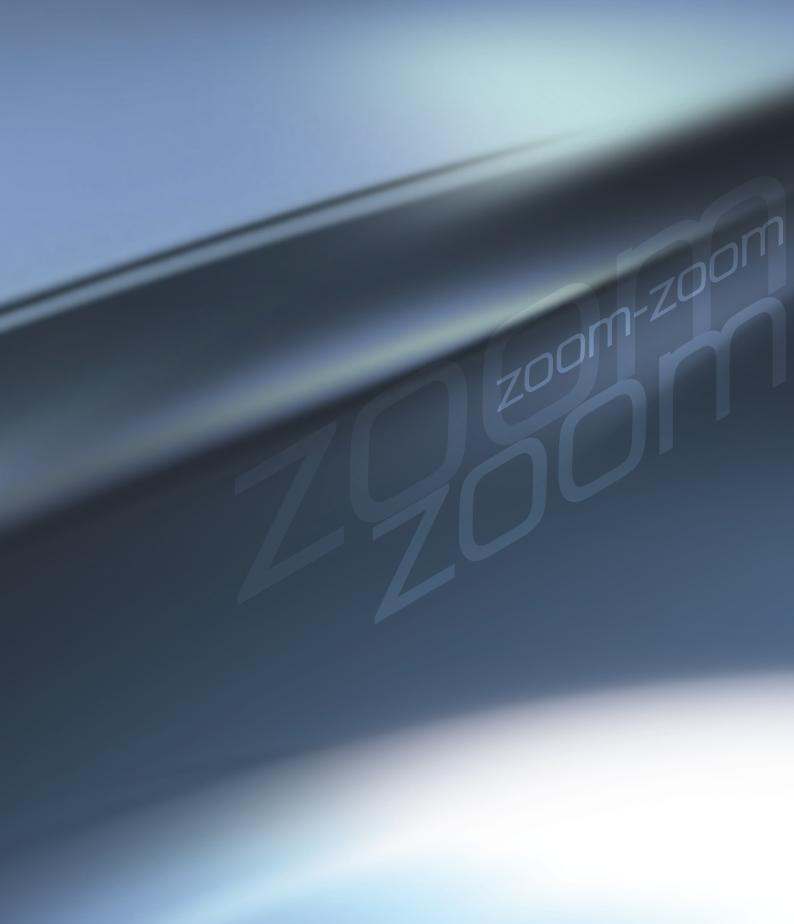
1st Generation	431,506	
2nd Generation	290,123	
3rd Generation	225,494	



#### **Production**

## Sales

Year	Total	North America	Europe	Japan	Australia	China	Other	Total
1988	12							
1989	45,266	25,879	0	9,307	657	-	-	35,843
1990	95,640	39,850	9,267	25,226	1,455	-	-	75,798
1991	63,434	34,196	14,050	22,594	698	-	-	71,538
1992	52,712	27,241	6,632	18,648	499	-	-	53,020
1993	44,743	23,089	4,824	16,779	453	-	-	45,145
1994	39,623	22,573	5,019	10,828	404	-	-	38,824
1995	31,886	21,108	7,174	7,171	196	-	-	35,649
1996	33,610	18,966	9,585	4,409	241	-	-	33,201
1997	27,037	17,812	10,480	3,537	206	-	-	32,035
1998	58,682	20,890	16,831	10,174	1,310	-	-	49,205
1999	44,851	18,936	21,130	4,952	1,354	-	30	46,402
2000	47,496	19,627	19,268	4,644	1,038	-	33	44,610
2001	38,870	17,757	16,368	4,211	924	-	6	39,266
2002	40,754	15,622	19,670	2,934	698	-	34	38,958
2003	30,106	11,999	18,934	1,520	540	-	11	33,004
2004	24,232	10,501	13,885	1,646	483	-	248	26,763
2005	29,950	10,658	9,852	3,657	743	-	353	25,263
2006	48,389	18,479	19,402	4,067	1,468	-	827	44,243
2007	37,022	16,888	18,899	3,845	1,170	-	772	41,574
2008	22,886	12,384	13,252	1,858	639	-	610	28,743
2009	19,341	8,767	9,709	1,947	521	720	475	22,139
2010	20,554	7,106	10,317	1,120	440	652	431	20,066
2011	14,995	6,286	8,147	1,104	315	284	446	16,582
2012	15,400	7,016	7,207	941	159	75	438	15,836
2013	11,639	6,334	6,113	768	178	46	331	13,770
2014 Jan-July	7,993	3,468	3,754	386	53	12	214	7,887
Total	947,123	443,432	299,769	168,273	16,842	1,789	5,259	935,364



#### THE REBELS WITH A CAUSE

Explore a space for challengers with fascinating stories. <u>www.mazdarebels.com</u>