


RX-8

ZOOM-ZOOM

A silver Mazda sports car is shown in motion on a wet road, driving under a bridge. The car is positioned on the right side of the frame, moving towards the right. The wet pavement reflects the car and the bridge above. The bridge has a series of concrete pillars and arches. The overall scene is captured in a cinematic style with soft lighting.

LIKE MOST REVOLUTIONS, THIS ONE IS FUELED BY INNOVATION.

REVOLUTIONARY RENESIS ROTARY ENGINE

DOUBLE-WISHBONE FRONT SUSPENSION

SEATING FOR 4 ADULTS

"PRE-LOADED" MULTILINK REAR SUSPENSION

4-WHEEL VENTILATED DISC BRAKES

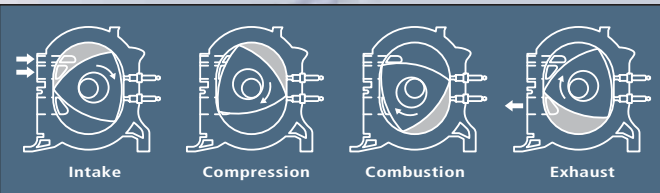
"FREESTYLE" DOOR SYSTEM

ITS ADVANCED ROTARY ENGINE PUTS A WHOLE NEW SPIN ON PERFORMANCE.

Coiled under the Mazda RX-8's weight-saving aluminum hood is an engine unlike any other—a painstakingly hand-assembled, remarkably responsive RENESIS rotary powerplant. It is an engine so advanced that it has no cylinders, pistons or valves. Just three major moving parts and an outrageously broad powerband. The rotary's compact size, light weight, reliability and power-to-weight ratio provide so many inherent advantages that the RX-8 was literally designed around it. From every angle—compared to an ordinary powerplant—a rotary is the ideal engine for a sports car. Better still, two distinct engine/transmission choices ensure the RX-8 is tailor-made to fit your driving style. For undiluted exhilaration, a high-revving 238-hp powerplant, with a stratospheric 9,000-rpm redline, is offered with a short-throw 6-speed manual gearbox. For both convenience and fun, a higher-torque 197-hp version, with a 7,500-rpm redline, is paired with a 4-speed Sport AT automatic.



UNLIKE A CONVENTIONAL PISTON ENGINE, the RX-8's rotary engine has no cylinders, pistons or valves. Instead, two triangular rotors spinning within their own oval housings—and around a common output shaft—are used to smoothly generate power. Each of the internal combustion engine's four basic cycles occurs in a different section of the oval housing.



Intake Stroke: As an apex of the rotor passes the intake ports, fuel-air mixture is drawn in.

Compression Stroke: The intake ports are blocked and the fuel-air mixture is compressed.

Combustion Stroke: The compressed fuel-air mixture is ignited by two spark plugs. The force created by this combustion spins both rotor and output shaft.

Exhaust Stroke: The rotor's continuing orbit forces exhaust gases out the exhaust port. The cycle is then repeated.

1000 RPM

2000 RPM

3000 RPM

4000 RPM

5000 RPM

6000 RPM

7000 RPM

8000 RPM

9000 RPM

—238HP @ 8500 RPM
RX-8 (6-Speed)

—225 HP

—200 HP

—197HP @ 7200 RPM
RX-8 (Automatic)

—175 HP

—150 HP

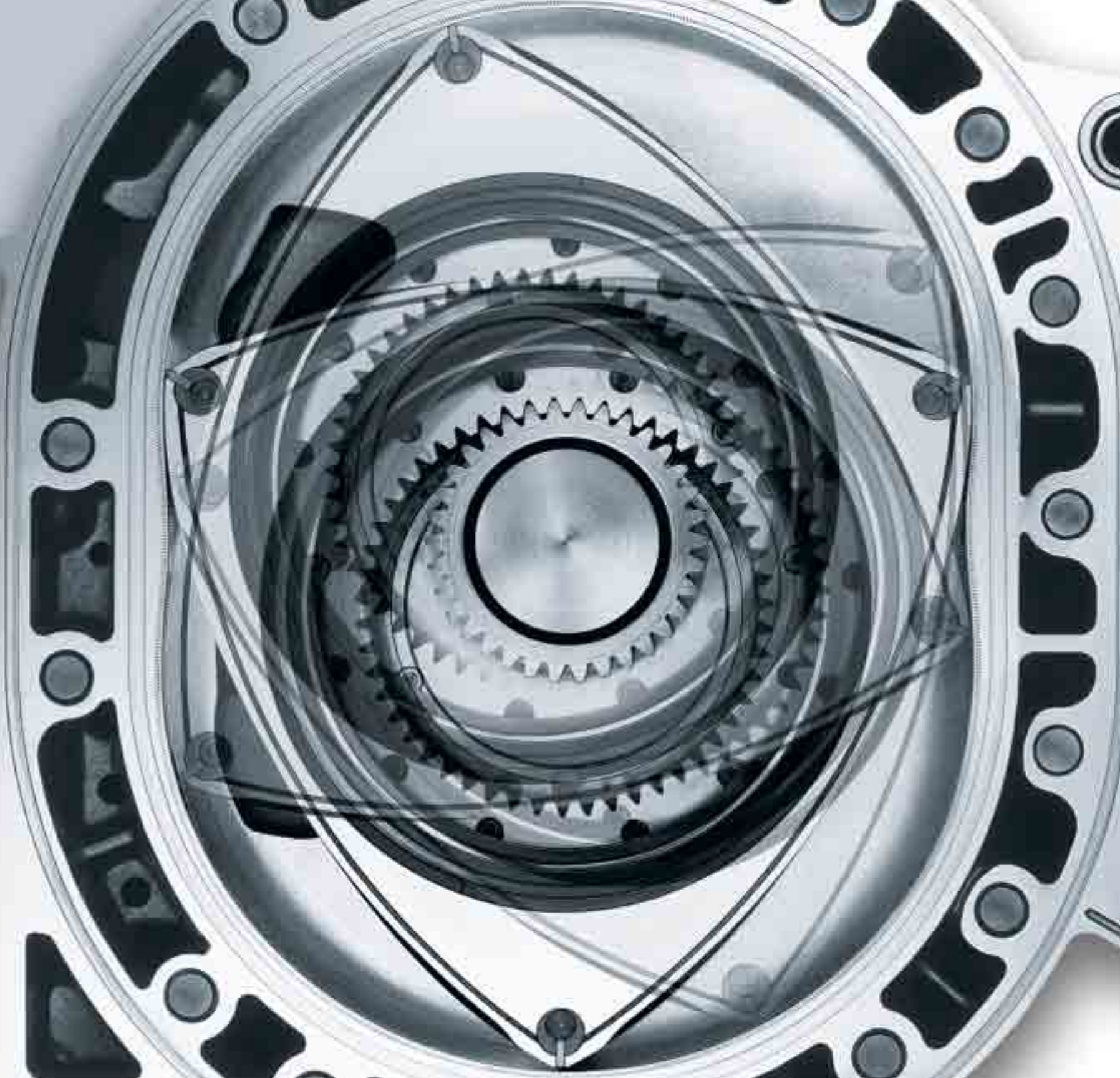
—125 HP

—100 HP

— 75 HP

— 50 HP

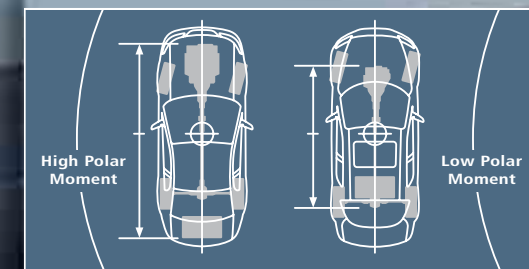
— 25 HP





THE GAP BETWEEN YOUR WANTS AND NEEDS WILL DISAPPEAR IN A BLUR.

Forged from today's cutting-edge technologies, the Mazda RX-8 delivers an exhilarating experience—at speed or at rest. But its sports-car credentials are best reviewed on the road. Its advanced, fully independent suspension system will inspire both your awe and your confidence—with sophisticated double wishbones up front. Plus a “pre-loaded” multilink design in back to minimize any lag in rear suspension response. Head into a curve “hot” and its available Dynamic Stability Control (DSC) deftly adjusts power and braking, as necessary, to expertly help you maintain your course. And when you need it most, you'll instantly appreciate the impressive stopping power of the RX-8's power-assisted 4-wheel disc brakes—not to mention its massive ventilated rotors, Anti-lock Brake System (ABS) and Electronic Brakeforce Distribution (EBD).



EXCELLENT HANDLING is achieved, in part, by strategically positioning much of the RX-8's mass, including its entire powertrain and fuel tank, near the car's center point—its yaw axis. This endows the RX-8 with what engineers call a low polar moment of yaw inertia. Since “yaw” is simply a vehicle's movement, left or right, and “inertia” the tendency to continue in the same direction, having a “low polar moment” means the RX-8 is very responsive to a desired change in direction. Cars with heavy engines and widely distributed masses have a higher polar moment and can be less responsive and more difficult to control.

COMPLEMENTING ITS HIGH-PERFORMANCE HEART IS A BACKBONE OF STEEL.

Sophisticated rotary technology is just the tip of the iceberg when it comes to the Mazda RX-8's advanced engineering. For example, regardless of which engine/transmission pairing you select, you'll also benefit from the RX-8's integral Power Plant Frame (PPF). Functionally speaking, the Power Plant Frame marries engine, transmission and differential into a single, super-rigid unit. The remarkable result of this mechanical magic is a drivetrain that virtually eliminates the typical powertrain twisting that wastes precious energy. So even the slightest request your right foot makes for more power is instantly—and more efficiently—transformed into meaningful performance.



WEIGHT DISTRIBUTION, front to rear, significantly impacts handling. So the Mazda RX-8 is designed to maintain an approximate 50:50 weight distribution—regardless of passenger load. Much of the credit for this remarkable feat goes to its rotary engine. Smaller and lighter than a piston engine of comparable power, it also provides the RX-8 with a superb power-to-weight ratio for spirited acceleration. And more cabin space to comfortably enjoy its inspiring performance.



Front Mid-Engine



Rear Engine



THE FUTURE OF SPORTS CARS IS WELL WITHIN YOUR GRASP.

The Mazda RX-8's cockpit telegraphs its driver-centric intentions everywhere you look. The electroluminescent gauge cluster changes colors at the flip of a switch. The three-spoke wheel conveniently tilts to meet your grip and puts its multi-function controls front-and-center. Racing-inspired aluminum foot pedals seemingly anticipate your input on the RX-8 equipped with the 6-speed manual gearbox. Sight unseen, second-generation dual-stage driver and front passenger air bags*, side air curtains and front side air bags deliver extra peace of mind. As the available 9-speaker Bose® sound system pumps out a favorite soundtrack, you consult the optional DVD navigation system and plot your course. The tach skyrockets to its stratospheric 9,000-rpm† redline and, suddenly, there's not a stretch of road that's remotely your equal.

* Always wear your safety belt and secure children in the rear seat. † A 197-hp rotary (7,500-rpm redline) paired with a 4-speed Sport AT automatic is also available.



**0 PISTONS. 4 DOORS. 6 SPEEDS AND 238 HORSEPOWER* PLUS 1,028 HAIRS
STANDING UP ON THE BACK OF YOUR NECK.**

No matter how you crunch the numbers, the Mazda RX-8 adds up to sheer excitement. A truly advanced, no-holds-barred sports car overflowing with revolutionary ideas designed to reward you at every turn. From its tense, athletic stance and clear-lens headlights to its concave, aerodynamically shaped roof and metallic taillight accents, there's nothing else remotely like it. Its ingenious rotary engine enables a fusion of free-flowing power, inspired performance, stellar good looks and unexpected versatility. The Mazda RX-8 is, in fact, a true original. And the perfect formula for undiluted exhilaration.

*A 197-hp rotary (7,500-rpm redline) paired with a 4-speed Sport AT automatic is also available.



ENGINE WEIGHT AND PLACEMENT also contribute to the RX-8's agile, responsive handling. The RX-8's innovative rotary powerplant is nearly 90 lbs. lighter than a popular all-aluminum V6 engine. Better still, the rotary engine's low, compact profile allows it to be mounted well behind the front axle in a position that helps the RX-8 achieve its exceptional balance and low center of gravity.

ROTARY-DRIVEN DESIGN:



The Mazda RX-8 wears its rotary heritage with genuine pride. In fact, both inside and outside the car, its designers have tastefully integrated the Mazda rotary engine icon into everything from the RX-8's aluminum hood and fascia panels to its seatbacks and manual shift knob. The icon is a badge of honor representing over four decades of continuous evolution and refinement. The eye-catching icon's three corners also symbolize the three key areas where the RX-8 excels: Design, Performance, and Innovation. For those who've driven an RX-8, it's also a reminder that the way you think about a sports car will never be the same.

ROTARY-DRIVEN PERFORMANCE:

Mazda engineers have more practical experience with rotary engines than anyone else in the world. Fact is, the RX-8's advanced RENESIS rotary engine is the culmination of more than 40 years of extensive research, development, racing and refinement. Since 1961, Mazda



has designed and built more than 80 different rotary engines in 2-, 3-, and even 4-rotor configurations. For the record, Mazda has sold nearly 1.8 million rotary-powered vehicles worldwide, including three generations of the RX-8's immediate sports car predecessor, the legendary RX-7.

ROTARY-DRIVEN INNOVATION:

Mazda's ingenious RENESIS rotary engine has also inspired a host of other innovations in other areas of the RX-8's design. For example, in addition to the side reinforcement beams found in the front doors, the RX-8's "Freestyle" rear doors utilize vertical reinforcement beams with special top-and-bottom latch mechanisms to eliminate the need for conventional center pillars and provide excellent side-impact protection. Additional innovations include an advanced multilink rear suspension that's "pre-loaded" to minimize any lag in rear suspension response, plus an available Dynamic Stability Control (DSC) system with traction control to enhance performance, handling and safety under many driving conditions.



SPECIFICATIONS	RX-8 (automatic)	RX-8 (6-speed)
Engine size and type	1.3-liter RENESIS 2-rotor rotary	1.3-liter RENESIS 2-rotor rotary
Compression ratio	10.0:1	10.0:1
Engine intake configuration	4-port	6-port
Horsepower, SAE Net	197 @ 7200 rpm	238 @ 8500 rpm
Torque, SAE Net lb-ft	164 @ 5000	159 @ 5500
Transmission	4-speed Sport AT automatic	6-speed manual
Drivetrain/layout	Front mid-engine/rear-wheel drive with Power Plant Frame	Front mid-engine/rear-wheel drive with Power Plant Frame
Steering ratio	16.4:1 (3.0 turns, lock-to-lock)	16.4:1 (3.0 turns, lock-to-lock)
Turning circle	34.8 feet, curb-to-curb	34.8 feet, curb-to-curb
Front brakes	11.9-inch ventilated discs (std.) 12.7-inch ventilated discs (avail.)	12.7-inch ventilated discs
Rear brakes	11.9-inch ventilated discs	11.9-inch ventilated discs
Fuel capacity/recommended fuel	15.9 U.S. gallons/premium unleaded gasoline	15.9 U.S. gallons/premium unleaded gasoline
EPA estimated fuel economy, mpg	18 city/24 highway	18 city/24 highway
Curb weight with popular options (lb)	3053	3029

Mechanical Features	RX-8 (automatic)	RX-8 (6-speed)
Engine-oil cooler	S	S (dual)
Lightweight carbon-fiber driveshaft	—	S
Tochigi-Fuji torque-sensing limited-slip differential	P	S
Rack-and-pinion steering with electric variable assist	S	S
Power-assisted 4-wheel disc brakes	S	S
Anti-lock Brake System (ABS) with Electronic Brakeforce Distribution (EBD)	S	S
Upgraded brake system with larger front brake discs	P	S
Double-wishbone front suspension with light-alloy upper and lower arms, suspension-tower brace, coil springs and stabilizer bar	S	S
Multilink rear suspension with low-mounted coil springs and stabilizer bar	S	S
Sport-tuned suspension	P	S
Tire-pressure monitoring system	S	S

Exterior Features	RX-8 (automatic)	RX-8 (6-speed)
Twin bright-tipped exhaust outlets	S	S
16-inch alloy wheels with 225/55R16 high-performance tires	S	—
18-inch alloy wheels with 225/45R18 high-performance tires	P	S
"Freestyle" door system	S	S
Aluminum hood and rear doors	S	S
Flip-out rear quarter windows	S	S
In-glass radio antenna; rear window defogger	S	S
Dual body-color power remote mirrors	S	S
2-speed variable intermittent windshield wipers	S	S
Clear-lens halogen headlights with projector-type low beams	S	S

Interior Features	RX-8 (automatic)	RX-8 (6-speed)
Dual 2nd-generation 2-stage front air bags*	S	S
Front seat-mounted side-impact air bags*	S	S
Side air curtains with coverage for front and rear seats	S	S
3-point safety belts for all seating positions	S	S
Rear-seat LATCH child-seat anchors, including upper tether anchors	S	S
Reclining front bucket seats	S	S
4-passenger seating with rear bucket seats and trunk pass-through	S	S
Cloth-trimmed upholstery; carpet floor mats	S	S
Center console with covered storage, dual cup holders and 12-volt power point	S	S
Rear console with covered storage and dual cup holders	S	S
Overhead console with sunglasses holder and front map lights	S	S
Power windows with driver's one-touch-down feature	S	S
Power door locks with 2-stage unlocking (driver's door; all doors)	S	S
Remote keyless entry system with two transmitters	S	S
Cruise control	S	S
Tri-mode gauge lighting: blue (entry); white-on-black (daytime); red-on-black (nighttime)	S	S
Digital speedometer with dual trip odometers	S	S
Center instrument-panel display for clock, audio system, climate control and outside ambient temperature	S	S
Leather-wrapped 3-spoke tilt steering wheel with audio and cruise control switches	S	S
Steering-wheel-mounted paddle shifters for Sport AT automatic transmission	S	—
Leather-wrapped gearshift knob	S	S
Heater/defroster with CFC-free air conditioning and dust/pollen filter	S	S
100-watt AM/FM/CD stereo with 6 speakers, including 2 tweeters	S	S
Antitheft alarm system with engine immobilizer	S	S

S: Standard O: Optional P: Package A: Dealer-installed accessory —: Not available
 * Always wear your safety belt and secure children in the rear seat.
 † Seating surfaces upholstered in leather except for leather-look vinyl on seat side panels and other minor areas.

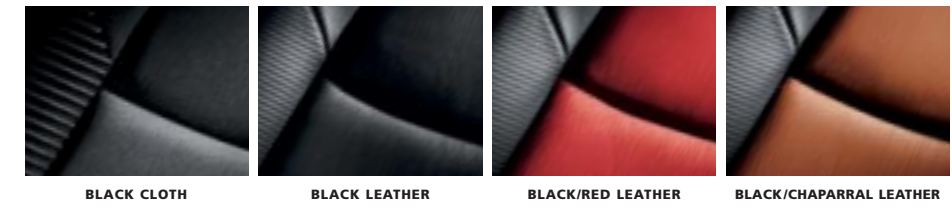
EXTERIOR COLORS

 TITANIUM GRAY METALLIC Black Cloth, Black Leather, Black/Red Leather, Black/Chaparral Leather	 NORDIC GREEN MICA Black Cloth, Black Leather, Black/Chaparral Leather	 LIGHTNING YELLOW Black Cloth, Black Leather	 VELOCITY RED MICA Black Cloth, Black Leather, Black/Red Leather, Black/Chaparral Leather
 SUNLIGHT SILVER METALLIC Black Cloth, Black Leather, Black/Red Leather	 WINNING BLUE METALLIC Black Cloth, Black Leather	 BRILLIANT BLACK CLEARCOAT Black Cloth, Black Leather, Black/Red Leather, Black/Chaparral Leather	

Option Packages	RX-8
Sport Package: Self-leveling Xenon high-intensity discharge (HID) low-beam headlights; fog lights; Dynamic Stability Control with traction control; limited-slip differential (standard on 6-speed); 18-inch wheels and tires (standard on 6-speed); larger front brakes (standard on 6-speed); sport-tuned suspension (standard on 6-speed)	0
Touring Package: Sport Package items plus 300-watt Bose® 9-speaker audio system with AUDIOPILOT automatic noise compensation technology; power sliding-glass moonroof; auto-dimming mirror with HomeLink® system	0
Grand Touring Package: Touring Package items plus leather-trimmed upholstery; 1 8-way power driver's seat; heated front seats with power lumbar support; heated mirrors	0
Appearance Package: Front air dam, side and rear aero flares (not available with front and rear splash guards)	O/A
Rotary Accent Package: Polished front and rear rotary accents	O/A

Options	RX-8	RX-8
Navigation System: DVD-based with retractable 7-inch LCD screen	0	O/A
Rear wing spoiler	O/A	O/A
Front and rear splash guards (not available with Appearance Package)	O/A	O/A
In-dash 6-disc CD changer	O/A	O/A
Cassette player	O/A	O/A
Spare tire kit (trunk-mounted; includes wheel, tire and mounting hardware)	0	O/A
All-weather floor mats		O/A
Alarm shock sensor upgrade		O/A
Cargo tray		O/A
Collapsible cargo carrier		O/A
Cargo net		O/A
Door edge guards		O/A
Moonroof wind deflector (requires Touring or Grand Touring Package)		O/A


INTERIOR FABRICS



BLACK CLOTH BLACK LEATHER BLACK/RED LEATHER BLACK/CHAPARRAL LEATHER



- Rear wing spoiler
- 18" polished aluminum wheel
- Grille trim ring 1
- Car cover cable lock
- Front sunshield
- Full front mask
- Polished aluminum fender strakes
- Polished front rotary accent
- Polished rear rotary accent
- Rear door trim protectors
- Side aero flares
- Fog lights 2
- Front air dam 3
- Front splash guards
- Rear aero flares 4
- Rotor-shaped valve stem caps
- Rear splash guards 5
- Wheel centers 6
- Aldehyde filter
- Carpeted floor mats
- MiniDisc player
- MP3 player
- Night lights 7
- Leather parking brake lever
- Leather gearshift knob with rotary emblem 8
- Aluminum accelerator pedal 8
- Aluminum brake pedal 8
- Aluminum foot rest 8
- Aluminum door sill trim plates
- Aluminum air vent bezels
- Exhaust finishers
- Premium carpeted floor mats
- Aluminum-tone power window switch
- Touch-up paint
- Wheel locks
- Car cover 9
- Spare tire mounting kit 10



 **mazda**

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1: cannot be used with front air dam and automatic transmission 2: blue-tint, clear, or multi-tint 3: cannot be used with grille trim ring and automatic transmission 4: cannot be used with rear splash guards 5: cannot be used with rear aero flares 6: polished with Mazda emblem or black with rotary emblem 7: driver/passenger 8: with automatic transmission 9: available in 4 color combinations 10: includes mounting hardware and wheel; tire sold separately

PRODUCT CHANGES AND OPTIONS AVAILABILITY: Following publication of this brochure, certain changes in standard equipment, options, prices and the like, or product delays may have occurred which would not be included in these pages. Your Mazda dealer is your best source for up-to-date information. Mazda reserves the right to change product specifications at any time without incurring obligations. Options shown or described in this brochure are available at extra cost and may be offered only in combination with other options or subject to additional ordering requirements or limitations.

All Genuine Mazda Accessories, if installed by a Mazda dealer prior to or at initial vehicle retail delivery, carry the same new-vehicle limited warranty as the Mazda RX-8. Ask your dealer for details.

 100% TOTAL RECOVERED FIBER
 BETTER DRIVERS BUCKLE UP

MAZDA'S ROTARY TECHNOLOGY HAS BEEN WINNING FANS FOR DECADES.

CREDIT MUCH OF THE MAZDA RX-8'S SUPERB PERFORMANCE AND HANDLING TO ITS SPORTS-CAR DNA

AND RACING HERITAGE. MANY OF THE RX-8'S ROTARY-POWERED PREDECESSORS ARE STILL BEING RACED

ON A REGULAR BASIS—ESPECIALLY IN SCCA-

ROTARY-POWERED MAZDAS HAVE

IMSA VICTORIES IN GTU, GTO

MORE IMPRESSIVE IS THE FACT

MAZDA 787B PROTOTYPE WON THE

LE MANS IN 1991. AFTER 24 GRUELING HOURS AND

MAZDA POWERED BY A REVOLUTIONARY ENGINE HAD OUTRUN FAVORED ENTRIES FROM BOTH

MERCEDES-BENZ AND JAGUAR. TO THIS DAY, MAZDA REMAINS THE FIRST AND ONLY JAPANESE

CAR MAKER TO ACHIEVE AN OVERALL VICTORY AT LE MANS. THE RX-8'S RENESIS ENGINE IS A DIRECT

DESCENDANT OF THAT WINNING TECHNOLOGY. FIND OUT HOW THE ROTARY-POWERED MAZDA

RX-8 PUTS A WHOLE NEW SPIN ON SPORTS-CAR PERFORMANCE AT: www.MazdaUSA.com/rx8