Engine & Mechanical

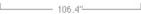














RX-8 at a Glance:



Engine Type

232-hp, RENESIS 2-rotor, rotary engine with 6-speed manual transmission (212-hp, 6-speed Sport automatic transmission) and 3-stage variable induction system (VIS)



Motorsports-Inspired R3

R3 trim includes standard 19-inch forged aluminum-alloy wheels, performance-tuned suspension with Bilstein® shock absorbers and Recaro® front sport leather- and cloth-trimmed seats



Available Features

Available Bose® audio system, Bluetooth® hands-free phone capabilityt, heated front seats and Mazda Advanced Keyless Entry & Start System



Safety Features

Standard safety features include advanced front air bags, front side-impact air bags, side-impact air curtains‡ and Tire-Pressure Monitoring System (TPMS)

2011 RX-8	Sport	Grand Touring	R3
Engine			
Engine type	1.3-liter 2-rotor rotary		
Engine code		RENESIS	
Horsepower			
- Manual transmission		232 hp @ 8500 rpm	
- Automatic transmission		212 hp @ 7500 rpm	
Torque		159 lb-ft @ 5500 rpm	
Redline			
- Manual transmission		9000 rpm	
- Automatic transmission		7500 rpm	
Displacement (cc)		1308	
Compression ratio		10:1	
Fuel system	Multi-port electronic fuel injection		
Required fuel	Premium unleaded (91 octane)		
Ignition system	Electronic 4-coil with iridium-tipped multi-electrode spark plugs		
Induction system	6 side intake ports with 3-	stage variable induction system (VIS)	and variable fresh air duct
Exhaust			
- Manual transmission	Stainless steel with low back pressure main muffler		
- Automatic transmission	Stainless steel		
Rotor housing	Aluminum with chrome-steel liner		
Side housing	Castiron		
Emission control type (Fed/Cal)	Tier2 Bin5 / ULEV II		
Fuel economy			

Manual transmission (city/hwy)**	16/22		
Automatic transmission (city/hwy)**		16/23	
Drivetrain			
Туре	Front-midship engine rear-wheel drive (RWD) with powerplant frame		
- Manual transmission	Close-ratio 6	-speed manual with short-throw direct	linkage shifter
- Automatic transmission	6-speed electronically c	ontrolled Sport AT with paddle shifters	and Adaptive Shift Logic
Driveshaft			
- Manual transmission		Carbon fiber	
- Automatic transmission	Steel		
Limited-slip type			
- Manual transmission	Toro	que-sensing conical limited-slip differ	ential
Gear Ratios (:1)	6MT		6AT
1st	3.82		3.54
2nd	2.26		2.06
3rd	1.54		1.40
4th	1.18		1.00
5th	1.00		0.71
6th	0.79		0.58
Reverse	3.60		3.17
Final drive	4.78		4.30
Chassis			
Body type	Monocoque unibody with backbone frame construction and front and rear suspension subframes		
Brakes	4-wheel disc		
- Front	12.7-inch vented disc		
- Rear	11.9-inch vented disc with aluminum calipers		
- ABS	4-wheel, 4-channel with Electronic Brakeforce Distribution (EBD)		
Steering type	Rack-and-pinion		
Power assist	Direct-drive electric		
Overall steering ratio	16.4:1		
Steering wheel turns, lock-to-lock	3.0		
Turning circle diameter, curb-to-curb (ft)	34.8		
Suspension	4-wheel independent		
- Front	Double wishbone with forged aluminum control arms		
- Rear	Multilink with tubular control arms and aluminum hubs		
- Stabilizer bar (front)	26.5 mm		
- Stabilizer bar (rear)	16.0 mm		
Shock absorbers	Sport-tuned twin-tube (performance-tuned Bilstein® monotube on R3)		
Wheel size (in)	18 x 8.0 (19 x 8.0 on R3)		
Tire size	225/45R18 (225/40R19 on R3)		
Tire manufacturer	Bridgestone		
Weights / Capacities / Aerodynamics			
Curb weight (lbs)			
- Manual transmission	3065		

- Automatic transmission	3111
Weight distribution (front/rear)	52/48
Fuel capacity (gallons)	16.9
Oil capacity (quarts)	
- Manual transmission	7.4
- Automatic transmission	6.7
Coefficient of drag (Cd)	0.30

2011 RX-8





		standard optio	on Accessory not available
2011 RX-8	Sport	Grand Touring	R3
Body			
Halog en headlights	5	em	5
Xenon High-Intensity-Discharge (HID) low-beam headlights with auto on/off feature	650	5	650
Auto-off headlights	es	5	5
Halogen fog lights	-	5	5
Aluminum-alloy hood and rear doors	5	5	5
UV-reducing windshield	5	5	5
Variable-intermittent windshield wipers	5	5	5
Rain-sensing windshield wipers	C	5	
Power sliding-glass moonroof with one-touch-open feature and interior sunshade	-	5	-
Dual power side mirrors	5	5	5
Heated side mirrors	-	5	
Freestyle door system	5	5	5
Body-color door handles	5	5	5
Side sill extensions	==	COME IN COME	5
Rear lip spoiler	□ (MT)	<u></u> ■ (MT)	
Rear wing spoiler	C=0	ones ones	5
In-glass antenna	5	5	5
LED taillights	5	5	5
Dual exhaust with chrome tips	5	5	5
Wheels & Tires			
18-inch aluminum-alloy wheels	5	5	-
19-inch BBS forged aluminum-alloy wheels	-	CD	5
Wheel locks	5	5	5
225/45R18 summer performance radial tires	5	5	
225/40R19 W-speed-rated summer performance radial tires	650	636	5
Exterior Dimensions			
Wheelbase (in)		106.4	
Track, front (in)	59.1		
Track, rear (in)	59.3		
Length (in)	175.6		
Width (in)	69.7		
Height (in)		52.8	
Minimum ground clearance - laden (in)		4.7	

Interior



		standard optio	on Accessory not available
2011 RX-8	Sport	Grand Touring	R3
Manual air conditioning with pollen filter	5	620	5
Automatic climate control with pollen filter		5	CC0
Power windows with driver's one-touch down/up feature	5	5	5
Power door locks with 2-stage unlocking	5	5	5
Cruise control with steering-wheel-mounted controls	5	5	5
Bluetooth® hands-free phone capability†	-	5	5
Remote keyless entry system	5	=	em
Mazda Advanced Keyless Entry & Start System	-	5	5
Auto-dimming rearview mirror with HomeLink®	e=	5	5
Illuminated visor vanity mirrors	5	5	5
Tilt steering wheel	5	5	5
12-volt power outlet	5	5	5
Remote trunk and fuel-door release	5	5	5
Dual front map lights	5	5	5
Rear window defogger with timer	5	5	5
Storage			
Lockable glove compartment	5	5	5
Front center console storage with dual cup holders	5	5	5
Overhead sunglasses holder	5	5	5
Rear console with covered storage	5	5	5
Seating & Trim			
4-passenger seating	5	5	5
Manual driver's seat	5	E	5
8-way power driver's seat with adjustable lumbar support		5	em
Recaro® front sport seats	==	E	5
Manual front passenger seat	5	5	5
Rear bucket seats with trunk pass through	5	5	5
Driver's seat memory	-	5	em
Heated front seats	-	5	em
Cloth-trimmed sport seats	5	650	630
Leather-trimmed sport seats	655	5	600
Leather- and cloth-trimmed seats		600	5
Leather-wrapped steering wheel	5	5	5
Leather-wrapped shift knob with aluminum-alloy accent (MT)	5	5	5

Leather-wrapped shift knob with silver accent (AT)	5	5	65
Leather-wrapped parking brake handle	em	5	5
Aluminum-alloy pedals and driver's footrest (MT only)	5	5	5
Door sill plates with aluminum-alloy inserts	5	5	5
Carpet floor mats	5	5	5
Audio & Navigation			
AM/FM/CD stereo with 6 speakers	5	=	em
Bose® Centerpoint® Surround Sound System with AudioPilot® 2, AM/FM stereo, in-dash 6-disc CD changer and 9 speakers	600	5	5
SIRIUS Satellite Radio-compatible audio system††	5	5	5
SIRIUS Satellite Radio with free 4-month subscription	•	5	•
Auxiliary-audio input jack	5	5	5
Steering-wheel-mounted audio controls	5	5	5
Navigation system with 7-inch color display	œ==	•	œ
Instrumentation			
Digital speedometer	5	5	5
Analog tachometer, coolant temperature and fuel gauge	5	5	5
Dual trip odometers	5	5	5
Center instrument panel display (air conditioning, audio & clock)	5	5	5
Interior Dimensions & Capacities			
Headroom, front/rear without moonroof (in)	38.2/36.8	com com	38.2/36.8
Headroom, front/rear with moonroof (in)	em	36.7/36.5	œm
Shoulder room, front/rear (in)	54.8/54.9		
Hip room, front/rear (in)	53.3/48.1		
Legroom, front/rear (in)	42.7/32.2		
EPA passenger volume (cu ft)	89.0		
EPA cargo volume (cu ft)	7.6		

2011 RX-8





		standard optio	n Accessory not available
2011 RX-8	Sport	Grand Touring	R3
Safety			
Advanced front air bags with seat belt-use, passenger-weight and driver's seat-position sensors‡	<u>s</u>	5	<u>5</u>
Front side-impact air bags and side-impact air curtains‡	5	5	5
3-point seat belts for all seating positions	5	5	5
Front seat-belt pretensioners with force limiters	5	5	5
Anti-lock Brake System (ABS) with Electronic Brakeforce Distribution (EBD)	5	5	5
Dynamic Stability Control (DSC)‡ and Traction Control System (TCS)		5	5
Side-impact door beams – front and rear	5	5	5
Collapsible steering column	5	5	5
Security			
Engine-immobilizer antitheft system	5	5	5
Antitheft alarm system	5	5	5
Keyless remote panic button (on key fob)	5	5	5
Tire-Pressure Monitoring System (TPMS)	5	5	5
Wheel locks	5	5	5
LATCH child-safety-seat anchors & upper tether anchors	5	5	5

2011 RX-8





		standard optio	on Accessory not available
2011 RX-8	Sport	Grand Touring	R3
Options			
Navigation system - DVD-based with 7-inch LCD touch screen	650	•	625
Exterior			
Moonroof wind deflector	==	0 / F	650
Door edge guards	0 / F	0 / F	□ / □
Rear wing spoiler (automatic transmission only)	0 / A	0 / A	65
Splash guards	0 / F	□ / □	CC00
Interior			
All-weather floor mats	□ / □	□ / □	□ / 🖪
Cargo net	□ / =	□ / □	□ / □
Cargo organizer	□ / =	□ / □	□ / 🖪
Cargo tray	0 / F	□ / □	□ / 用
Collapsible cargo carrier	0 / F	□ / □	□ / □
Spare tire mounting kit	0	0	•
Audio			
In-dash 6-disc CD/MP3 changer	0 / F	c=	em
SIRIUS Satellite Radio with free 4-month subscription	0 / A		O/B

[†] The Bluetooth® system functions only with select manufactured phones. Please consult www.MazdaUSA.com/bluetooth for device compatibility.

Dynamic Stability Control (DSC) is an electronic system to help the driver maintain control under adverse conditions. It is not a substitute for safe driving practices. Factors including speed, road conditions and driver steering input can all affect whether DSC will be effective in preventing loss of control. Please see the Owner's Manual for further details.

[‡] Always wear your seat belt and secure children in the rear seats in appropriate child restraints.

^{**} EPA-estimated mileage. Actual results may vary.

^{††} SIRIUS Satellite Radio-compatible audio system requires additional dealer-installed hardware and subscription.