2003 Nissan Sentra SE-R





Legendary Sentra SE-R Receives Minor Refinements for 2003 and New Exterior Color – Bright Yellow

Nissan has a rich history in the value-driven sports sedan segment, first created by the Datsun 510 in the late 1960s and rekindled with the legendary 1991 Sentra SE-R. In 2002, the Sentra SE-R returned to the Nissan lineup and ensures that Nissan's leadership in this segment will continue. For 2003, the Sentra SE-R receives a new close-ratio 6-speed manual transmission (SE-R Spec V) and is offered in a new bright yellow called Sunburst. The Sentra SE-R is available in two models – SE-R and ultimate-performance SE-R Spec V.

The original SE-R, produced from 1991 to 1994, was based on the third generation Sentra 2-door sedan. Even though it looked similar to a standard Sentra, a 140-horsepower 2.0-liter 4-cylinder engine gave it lots of punch. The SE-R was a *Car and Driver* "10 Best" winner four times and an *Automobile* "All-Star" twice, not to mention a favorite of autocrossers and grassroots racers. Even though the Sentra SE-R left after the 1994 model year, it has kept a large enthusiast base with numerous nationwide clubs, magazine project vehicles and motorsports activities.

"The Sentra SE-R is a legendary vehicle, and the 2003 model upholds that legacy," said Bill Kirrane, vice president and general manager, Nissan Division. "This car surpasses the original in every aspect and is worthy of the SE-R moniker."

SE-R Style

"The first Sentra SE-R was quite understated," said Kirrane. "This one announces its performance intentions at first glance."

The SE-R was designed to give a feeling of a mini-Nissan Skyline sports sedan. Building upon the style set forward on the fifth generation Sentra 4-door sedan, an aggressive front fascia with a mesh-pattern grille and large fog lights has been added. The side view is filled with body-color side sill extensions and large wheels and tires – 16-inch on SE-R and 17-inch on SE-R Spec V models. The final touch is provided by a rear spoiler and large chrome exhaust tips.

Contributing to the design of the SE-R was Nissan Design America, Inc. (NDA) in La Jolla, California and Nissan Technical Center-North America in Farmington Hills, Michigan (NTCNA-FH).

SE-R Power

Powering the Sentra SE-R is a 2.5-liter 4-cylinder, named QR25. This engine produces 175 horsepower @ 6,000 rpm and 180 lb-ft of torque @ 4,000 rpm in the SE-R Spec V model and 165 horsepower @ 6,000 rpm and 175 lb-ft of torque @ 4,000 rpm in the SE-R, up 35/25 horsepower and 48/43 lb-ft of torque from the previous generation SE-R. SE-R Spec V gains 10 horsepower and five lb-ft torque over the standard SE-R with the use of a specially tuned exhaust system.

Technology for this new engine comes from the award-winning VQ 6-cylinder engines found in the Maxima and Altima sedans and Pathfinder sport utility vehicle. This includes a modular engine design, micro-finished crank journals and cam lobes, molybdenum coated lightweight pistons, electronically controlled throttle and continuously variable valve timing.

To combat vibrations inherent in large 4-cylinder engines, the QR25 features a silent chain drive and compact balancer system that effectively negates vibrations without taking up too much space – a problem with previous balancer designs.

Backing the QR25 is a new close-ratio 6-speed manual transmission (SE-R Spec V), 5-speed manual transmission (SE-R), or a 4-speed electronically controlled automatic transmission with overdrive (optional on SE-R).

A helical limited-slip differential is standard on the 6-speed equipped SE-R Spec V. This mechanical differential is torque sensitive and provides instantaneous locking for increased traction and performance.

SE-R Handling and Braking

Sentra SE-R's suspension has been tuned to provide a maximum amount of performance and ride comfort. There are two suspensions available corresponding with model choices – the standard SE-R and the ultimate, track-tuned SE-R Spec V. All SE-Rs feature front independent MacPherson struts and Nissan's patented rear Multi-Link Beam[™], with 2mm larger front and rear stabilizer bars.

SE-R features performance-tuned front and rear shock absorbers and a front strut tower brace for additional stiffness and suspension feel. Completing the suspension upgrades are 16-inch alloy wheels with 195/55HR16 tires.

SE-R Spec V builds upon the SE-R's handling capabilities. Front spring rates have been increased 15 percent and rear spring rate has been increased 16 percent and there is improved shock absorber tuning. High-performance 215/45ZR17 tires on special 17-inch wheels complete the suspension package and give Sentra a tough, sport-compact look.

Braking is provided by large 4-wheel disc brakes – the fronts measure a full 11 inches, larger than many so-called sporting machines. A 4-wheel, 4-channel, 4-sensor Anti-lock Braking System (ABS) is also available.

SE-R Comfort and Rockford Fosgate®--Powered Sound

Sentra SE-R's interior is differentiated from the standard well-equipped Sentra with numerous performance and convenience enhancements designed by Nissan Design Europe (NDE), NDA and NTCNA-FH. An overhead storage console with map lights, special seat cloth, unique gauges and a leather-wrapped steering wheel and gearshift knob give SE-R's interior a sporty, functional look.

Once again, the SE-R Spec V model takes the Sentra to new extremes. A special instrument meter finish with red illumination and a special leather-wrapped steering wheel add to the performance look of the special Lava interior with black and new silver accents. Skyline-style sport bucket seats ensure that the SE-R Spec V driver's backside stays planted on twisty mountain roads.

Available on SE-R Spec V and SE-R is a 300-watt 9-speaker Rockford Fosgate-powered audio system with an optional in-dash 6-disc CD changer. This system, custom designed for the SE-R by the acclaimed aftermarket audio company, includes an 8-inch subwoofer that fires to the rear of the vehicle, rear coaxial speakers and two-ohm front door speakers. This is the first system of its kind designed by Rockford Fosgate for an OEM application.

SE-R Safety and Security

The 2002 Sentra SE-R's standard safety equipment includes second generation air bags, an energy-absorbing steering column, child safety rear door locks, 3-point seat belts in all seating positions, front seat belts with adjustable upper anchors, pretensioners and load limiters, front and rear crumple zones and pipe-style steel side-door guard beams.

SE-R also features an emergency inside trunk-release and the LATCH (Lower Anchors and Tethers for CHildren) system. Optional are front seat side-impact supplemental air bags and Vehicle Security System with Immobilizer.

SE-R Options

Sentra SE-R arrives remarkably well equipped. Available on SE-R is an automatic transmission, front seat side-impact supplemental air bags and ABS package, The Sunroof Package which comes with dual illuminated visor vanity mirrors (A/T only), Audio Fanatic Package with Rockford Fosgate-powered audio system, partial fold-down rear seat and Vehicle Security System with Immobilizer (A/T only) and in-dash 6-disc CD changer (A/T only).

Sentra SE-R Spec V models are equipped to an even higher level, with the 6-speed manual transmission and helical limited-slip differential standard. Optional are front seat side-impact supplemental air bags, ABS, Audio Fanatic Package, Sunroof Package and in-dash 6-disc CD changer. No automatic transmission is available on Spec V.

"The Sentra SE-R Spec V is the extreme model – almost track-ready right from the dealership floor," says Kirrane. "Both SE-Rs indicate the future direction of Nissan's sedans. It's a spirited one, to say the least."

At a Glance: 2003 Nissan Sentra SE-R

2002 marked the return of Nissan's legendary Sentra SE-R value-driven sports sedan. The original SE-R was produced from 1991 to 1994. The new model, based on the fifth-

generation Sentra sedan, raises SE-R performance levels to new heights – it even comes in bright yellow in 2003. The SE-R is available in two models, SE-R and SE-R Spec V, which is geared towards the true performance-minded driver with a 175-horsepower DOHC

4-cylinder engine. Highlights of the 2002 Sentra SE-R performance sedan include:

Body

- Nissan Skyline-style front fascia with mesh grille and large fog lights
- Body-color side sill extensions and rear spoiler
- New exterior color Sunburst (bright yellow)

Engine and Driveline

- 16-valve 2.5-liter DOHC 4-cylinder producing 175 horsepower and 180 lb-ft of torque (SE-R Spec V) 165 horsepower and 175 lb-ft of torque (SE-R)
- New close-ratio 6-speed manual transmission (SE-R Spec V), 5-speed manual transmission or 4-speed electronically controlled automatic transmission (SE-R)
- Helical limited-slip front differential (SE-R Spec V)

Suspension, Steering and Braking

- Sport-tuned MacPherson strut front suspension; large front and rear stabilizer bars; front strut tower brace
- Sport-tuned rear Multi-Link Beam[™] suspension
- 4-wheel disc brakes with available ABS
- SE-R Spec V features increased spring rates and 17-inch wheels and tires

Interior Features

- 9-speaker 300-watt Rockford Fosgate®-powered audio system with 8-inch subwoofer (optional on SE-R Spec V and SE-R)
- Leather-wrapped steering wheel and gearshift knob (SE-R), special designs for SE-R Spec V
- Skyline-style sports seats (SE-R Spec V)
- Red meter illumination and special meter finish
- New silver accent fabric (SE-R Spec V)

Safety and Security

- Second generation supplemental air bags, available front seat side-impact supplemental air bags
- LATCH (Lower Anchors and Tether for CHildren) child seat anchorage system
- 3-point ALR/ELR seat belts (driver seat ELR only) with pretensioners and load limiters
- Available Vehicle Security System with Immobilizer

Manufacturing

- Exterior designed at Nissan Design America (NDA), La Jolla, California and Nissan Technical Center North America, Farmington Hills, Michigan (NTCNA-FH); Interior designed at Nissan Design Europe (NDE), NDA and NTCNA-FH
- Assembled by Nissan Mexicana SA de CV (NMEX-DF), Aguascalientes, Mexico

2003 Nissan Sentra Specifications

Mechanical

Engine	XE / GXE	2.5 Ltd. Ed. / SE-R / SE-R Spec V				
Name	QG18DE	QR25DE				
Cam Design	DOHC					
Orientation	Transverse					
Cylinders / Configuration		I4				
Block / Head Composition	Cast iron / high-pressure cast aluminum	Cast aluminum / high-pressure cast aluminum				
Displacement (liters)	1.8L	2.5L				
Horsepower	126 @ 6,000 RPM	165 (175 Spec V) @ 6,000 RPM				
Torque (lbs/ft)	129 @ 2,400 RPM	170 (180 Spec V) @ 4,000 RPM				
Bore & Stroke (mm)	80.0 x 88.0	89.0 x 100.0				
Compression Ratio (:1)		9.5				
Maximum Engine Speed	6,400 RPM	6,200 RPM				
Induction System	Sequential multi-poi	nt electronic fuel injection				
Valvetrain	4-valves	s-per-cylinder				
Engine Mounts (4 mounts per vehicle)	1 lic	juid filled				
Recommended Fuel	Regular unleaded	Premium unleaded (SE-R only)				
Emissions System	Closed Loop A	lpha Control, ECCS				
Emission Certification Level	TWC, closed loop l	ambda control, w/o EGR				
Exhaust Tailpipe	Single	Dual				

Electrical								
Starter	1.2 kW	1.4 kW						
Alternator	80 Amp.	100 Amp.						
Battery	12V-GR21	12V-GR24						

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Transmission and Drive System	XE	GX	E	2.5	Ltd.	SE-I	R	SE-R S _I	bec V
				I	E d.				
Drive configuration	Front	-eng	ine	/ fr	ont-w	heel o	driv	ve	
Transmission Type									
6-speed manual	-	-		-		-	;	S	
5-speed manual	S	S		-		S		-	
4-speed auto w/ overdrive	0	0		S		0		-	
Gear Ratio	<u>M/T</u>	<u>A/</u>	Γ	<u>A/</u>	Γ	M/T		6 <u>M/T</u>	
1^{st}	3.333	2.8	61	2.7	85	3.15	4	3.153	
2 nd	1.955	1.5	62	1.5	45	1.84	2	1.944	
3 rd	1.286	1.0	00	1.0	00	1.25	8	1.392	
4 th	0.927	0.6	98	0.6	94	0.94	7	1.055	
5 th	0.756	- -		-		0.77	3	0.809	
6 th	-	-		-		-	1	0.673	
Reverse	3.214	2.2	30	2.272 3.002		2	3.002		
Final Drive Ratio (:1)	4.176	3.8	27	4.0	87	4.13	3	4.133	
Helical Limited-Slip Differential		S on	SE	-R	Spec.	V (6	M	/T only)	
Brakes		XE	GŽ	хE	2.5 L	.td.	SI	E-R	SE-R
					Ed				Spec V
Standard.									
Front									
Туре		Ven	ted	Dis	sc				
Rotor size diameter and thickness (in.)				x .8	7" (X 7" (2.			E) Ed./ SE-F	R / SE-I
Rear									
Туре									
Self-adjusting drum		S	S		-		-		-

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Power-assisted

0

9.13"

x .28"

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S

0

9.13"

x .28"

S

0

9.13"

x .28"

Disc

thickness (in.)

Brake Control

ABS

Rotor size diameter and

Number of Wheels	4
Number of Channels	4
Number of Sensors	4
Parking Brake	Hand operated in center console

Steering	XE / GXE /	SE-R / SE-R Spec V			
	2.5 Ltd. Ed.				
Туре	Power rack-and-pinion				
Power Assisted	Standard				
Engine Speed Sensitive	Standard				
Tilt Steering Wheel		Manual			
Overall Ratio (:1)	17.48	15.8			
Turns (lock to lock)	3.01 2.4				
Turning Diameter (curb to curb, in feet)	34.7 38.4				

Suspension	
Front	Independent strut w/ coil springs
Stabilizer Bar	N/A on XE; Standard on all other models
Rear	Multi-Link beam suspension
Stabilizer Bar	Standard

Body / Chassis	
Туре	Unibody
Materials (primary)	Corrosion resistant and high strength steel

Exterior

Wheels & Tires	XE	GXE	2.5 Ltd. Ed.	SE-R	SE-R Spec V		
Wheels							
15" steel with cover, 6.0JJ x 15	S	S	-	-	-		
15" aluminum alloy, 6.0JJ x 15	-	0	S	-	-		
16" aluminum alloy, 6.0JJ x 16	-	-	-	S	-		
17" aluminum alloy, 7.0JJ x 17	-	-	-	-	S		
Tires							
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P195/60HR15 H-rated all-season tires	S	S	S	-	-
P195/55HR16 H-rated all-season tires	-	-	-	S	-
P215/45ZR17 Z-rated summer tires	-	-	-	-	S
Temporary spare tire in trunk	S				

Lights	XE	GXE	2.5 Ltd. Ed.	SE-R	SE-R Spec V				
Headlights Type	Multi-parabola halogen								
Fog Lights	-	0	-	S	S				
Center high mount stop light									
Rear parcel shelf	S	S	S	-	-				
Spoiler	-	0	-	S	S				

Additional Exterior Features	XE	GXE	2.5 Ltd. Ed.	SE-R	SE-R Spec V		
Outside Mirrors							
Black dual, manual remote	S	-	-	-	-		
Body-color dual, power	-	S	S	S	S		
Body-color bumpers and side moldings	s S						
Chrome side window moldings	S						
Black windshield moldings	S						
2-speed windshield wipers							
Fixed	S	-	-	-	-		
Variable intermittent	-	S	S	S	S		
Sunroof	-	-	0	0	0		

Interior

Seating	XE	GXE	2.5 Ltd. Ed.	SE-R	SE-R Spec V				
Capacity		5 passenger							
Material			Clot	h					
Front seats									
Bucket-type	S	S	S	S	-				
Sport-type	-	-	-	-	S				
Driver seat 8-way manual	-	S	S	S	S				
Passenger seat 4-way manual	S		-		-				
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Head restraint		Height adjustable				
Rear seats						
Fixed back	S	-	-	-	S	
60/40 split fold-down	-	S	S	S	-	
Partial fold-down		-	-	0	0	
Head restraint		High-back seat type				

Audio	XE	GXE	2.5 Ltd. Ed.	SE-R	SE-R Spec V	
Head unit and speakers						
AM/FM/CD w/ 4 speakers	0	S	-	-	-	
AM/FM/CD w/ 7 speakers	-	0	S	S	S	
AM/FM/CD RF w/9 speakers	-	-	-	0	0	
Antenna Type	Fixe	Fixed				

Instrumentation				
Meters/Gauges	Standard			
Speedometer				
Coolant temperature				
Fuel level				
Trip Odometer - dual				

Comfort & Convenience Features	XE	GXE	2.5 Ltd. Ed.	SE- R	SE-R Spec V
Automatic Speed Control Device (ASCD)	-	0	S	S	S
Power windows		S	S	S	S
Driver-side one-touch auto down					
Power door locks	-	S	S	S	S
Remote keyless entry system w/fob trunk opener		S	S	S	S
Remote releases – trunk and fuel filler door	S		,		
Top-of-dash storage area with lid	-	S	S	S	S
Center console with lid	S				
Cup holders	*				

Front – dual	S	S	S	S	S
Rear	-	S	S	S	S
12-volt outlets	,				
Front		S	S	S	S
Center console		S	S	S	S
Assist grips					
Front	1	1	1	1	1
Rear	-	2	2	2	2
Non-lockable bucket glove box without damper	S				
Battery saver	-	S	S	S	S
Front door pockets	S				
Sunvisor					
Driver					
w/ vanity mirror	-	S	S	S	S
w/ illuminated vanity mirror	-	0	0	0	0
Passenger					
w/ vanity mirror	S	S	S	S	S
w/ illuminated vanity mirror	-	0	0	0	0
Trunk/ cargo area carpeting	S				
Air conditioning/ heater with manual temp control	0	S	S	S	S
Front window defogger	S	•		•	
Rear window defogger with indicator light & timer	S				
Inside Rear View Mirror Type	Day	/night	with manual	adjust	t
Map lights	-	0	S	S	S
Trunk room lamp	-	S	S	S	S
Overhead sunglass storage	-	S	S	S	S
Illuminated switches	Driver's auto-down power window switch				

Safety and Security

Passenger Restraint Systems	XE	GXE	2.5 Ltd. Ed.	SE- R	SE-R Spec V
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Airbags						
Driver	S	S	S	S	S	
Passenger	S	S	S	S	S	
Front seat side	-	0	S	0	0	
Outboard seat belts						
Front		3-point ELR (plus ALR for passenger)				
Rear		3-point ALR/ELR				
Inboard seat belts Rear		3-point ALR/ELR				
Seatbelt pretensioners		Front				
Load limiters			From	nt		
Front seat shoulder belt anchors		Ν	Manual height	t-adjust	table	
Power window lockout button	-	S	S	S	S	
LATCH system		S				
Child seat upper tether anchor		3 positions (rear parcel shelf)				
Child seat lower rigid bar anchor		2 outboard rear seat positions				
Child safety rear door locks			S			

Passive Safety	
Energy-absorbing steering column	S
Front crumple zones	
Hood buckling creases and safety stops	
Rear crumple zones	
Body side reinforcements	
Shift interlock system	

Security	XE	GXE	2.5 Ltd. Ed.	SE-R	SE-R Spec V
Emergency inside trunk release		S			
Steering wheel locks when key is removed		S			
Vehicle Security System	-	-	S	0	0
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Dimensions

Exterior (inches)				
Wheelbase	99.8			
Overall length	177.5			
Overall width	67.3			
Overall height	55.5			
Tread width				
Front				
15/16 inch	58.1			
17 inch	57.7			
Rear				
15/16 inch	57.3			
17 inch	56.9			
Minimum ground clearance				
15 inch	4.3			
16 inch	4.5			
17 inch	TBD			
Coefficient of drag (Cd)	0.335			
Trunk liftover height	-			

Interior (inches)	Front	Back
Head room (w/o sunroof)	39.9	37.0
Leg room	41.6	33.7
Hip room	52.1	52.3
Shoulder room	52.5	52.6

Weights	XE	GXE	2.5 Ltd. Ed.	SE-R	SE-R Spec V		
Curb (pounds)							
Fro	ont						
M/T	1,559.5	1,575.0	-	1,681.0	1,685.2		
A/T	1,601.9	1,617.3	1,730.0	1,722.9	-		
		-	-	-			

Rea	ar						
M/T	977.5	999.1	-	1,031.5	1,022.7		
A/T	979.1	1,000.7	1,021.6	1,036.2	-		
Tot	Total						
M/T	2,537.0	2,574.1	-	2,712.5	2,707.9		
A/T	2,581.0	2,618.0	2,751.6	2,759.1	-		
Weight d	Weight distribution (%)						
Front/Rear							
M/T	61/39	61/39	-	62/38	62/38		
A/T	62/38	62/38	63/37	62/38	-		
GVWR (GVWR (pounds)						
M/T	3,362	3,435	-	3,556	3,603		
A/T	3,406	3,479	3,598	3,640			

Volume (cubic feet)				
Passenger compartment	88.5			
Cargo	11.6			
Total	100.1			

Fuel Economy (estimates)	XE	GXE	2.5 Ltd. Ed.	SE-R	SE-R Spec V		
City (M/T / A/T)							
1.8L	28 / 28	28 / 28	-	-	-		
2.5L	_	-	23	24 / 23	23		
Highway (M/T / A/T)							
1.8L	36 / 35	36 / 35	-	-	-		
2.5L	-	-	28	29 / 28	29		
Classification	Compact						

Options	
XE Option Package: AM/FM/CD with 4 speakers and air conditioning	0
GXE Package A (Road Trip Package): cruise control, AM/FM/CD with 7 speakers	0
GXE Package B (Road Hugging Package): fog lights and 15" alloy wheels	0
GXE Package C (Synergy Package): GXE Package A and GXE Package B features plus rear spoiler, dual illuminated visor vanity mirrors, leather wrapped steering wheel	0

and leather wrapped shift knob (M/T only)	
SE-R Package R (Audio Fanatic Package): Rockford Fosgate amplifier (300 watts peak) with 9 speakers, partial fold-down rear seat, Vehicle Security System and Immobilizer	0
SE-R/2.5 L.E. Package S: sunroof and dual illuminated visor vanity mirrors	0
Side Airbags and Anti-lock Braking System: (available as an option on GXE, SE-R and SE-R Spec V models)	0