



2009 R8 Coupe V8

Technical Specifications

ENGINE:	
Type	4.2 liter V8 spark-ignition engine with FSI Direct Injection, 4-valve technology, two light-alloy cylinder heads both with double overhead camshafts (DOHC), two inlet valves, two sodium-cooled exhaust valves, intake manifold with integrated charge movement
Max rpm	8250 rpm
Arrangement	Mid mounted, longitudinal
Bore	3.33 in. 84.5 mm
Stroke	3.65 in. 92.8 mm
Displacement	254 cu. in. 4,163 ccm
Compression ratio	12.5 :1
Fuel requirement	Premium unleaded
Horsepower (SAE)	420 hp @ 7,800 rpm 309 kW
Max. Torque	317 lbs.ft. @ 4,500 - 6,000 rpm 430 Nm
ENGINE DESIGN:	
Cylinder block	Aluminum
Crank case	Aluminum with closed-deck construction
Crankshaft	Forged steel, 5 main bearings
Cylinder head	Aluminum alloy
Valve train / intake	Intake camshaft adjustment, DOHC chain driven, hydraulic lifters
Firing order	1-5-4-8-6-3-7-2
Cooling system	Water-cooled, thermostatically controlled radiator fan
Lubrication system	Dry sump oil system
Fuel injection / Ignition system	FSI Direct Injection
Emission system	Two tubular manifolds, two primary catalytic converters, two underfloor main catalytic converters, cylinder-bank selective lambda control with permanent lambda control
ELECTRICAL SYSTEM:	
Battery	12 volts 95 amp/hr
Alternator	14 volts 190 amp
DRIVETRAIN:	
Transmission	6-speed manual transmission, Available R tronic (shift times usually less than 0.1 secs) with launch control
Type	4.2 FSI quattro Manual 4.2 FSI quattro R tronic
Gear ratios: 1st	4.373 4.373
2nd	2.709 2.709
3rd	1.878 1.878
4th	1.411 1.411
5th	1.126 1.126
6th	0.928 0.928
Reverse	3.713 3.713
Final Drive	3.462 3.462
Front Differential	Hypoid gear, electronically locking (EDL)
Center Differential	Viscous clutch
Rear Differential	Hypoid gear, electronically locking (EDL)
STEERING:	
Type	Hydraulically assisted rack-and-pinion steering
Ratio	17.3
Turning circle (curb-to-curb)	38.7 ft. 11.8 m
SUSPENSION:	
Front	Double wishbone front suspension
Rear	Double wishbone rear suspension



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Technical Specifications (cont.)			
BRAKES:			
Service brake	Disc brakes, perforated, internally vented, 8-piston brake calipers at front and 4-piston at rear		
Front size	14.4 in.	365 mm	
Rear size	14.0 in.	356 mm	
Parking brake	Mechanically actuated at the rear wheels		
WHEELS (standard only):			
Size	Front: 8.5Jx19 and Rear: 11Jx19 alloy wheels		
TIRES (standard only):			
Size	Front: 235/35 91Y and Rear: 295/30 100Y		
BODY:			
Material	Audi space frame (ASF)		
Corrosion protection	Multi-step anti-corrosion protection		
CAPACITIES:			
Engine oil	15.0 qt.	14.2 liter	
Fuel tank	23.8 gal.	90 liter	
Cooling system	24.2 qt.	23.0 liter	
EXTERIOR DIMENSIONS:			
Wheelbase	104.3 in.	2,650 mm	
Track front / rear	64.3/ 62.8 in.	1,632/ 1,595 mm	
Overall length	174.5 in.	4,431 mm	
Overall width w/o mirrors	75.0 in.	1,904 mm	
Height	49.3 in.	1,252 mm	
	4.2 FSI quattro Manual		4.2 FSI quattro R tronic
Curb weight	3,605 lbs.	1,635 kg	3,615 lbs. 1,640 kg
Distribution front / rear [%]	44/56		
Drag coefficient	0.34		
Ground Clearance (given)	11 cm (4.33")		
Angle of approach/departure (given)	7.7°		
INTERIOR DIMENSIONS:			
Seating Capacity	2		
EPA class	n/a		
Head room	n/a		
Shoulder room	n/a		
Leg room	n/a		
Int. vol. (EPA)	n/a		
Luggage capacity trunk/ behind seats	3.53 cu ft (100 liters) / 3.18 cu ft (90 liters)		
PERFORMANCE:			
	4.2 FSI quattro Manual		4.2 FSI quattro R tronic
0-60 mph	4.4 sec.		4.4 sec.
1/4 mile	12.7 sec.		12.7 sec.
Top speed	187 mph		187 mph
Skid pad			
FUEL ECONOMY:			
	4.2 FSI quattro Manual		4.2 FSI quattro R tronic
	EPA estimate		EPA estimate
City	12.0 mpg		13.0 mpg
Highway	19.0 mpg		18.0 mpg
Combined	15.0 mpg		15.0 mpg