

Technical Data BMW 1977-1979 320i (E21)—US Model

General	<p>Manufacturer's suggested retail price at introduction: \$7,775 (\$7,875 West Coast) Air Conditioning: \$550 Metallic Paint: \$255 Recaro Seats: \$300 Sport St. Wheel: \$40 Manual sunroof: \$310 Light Alloy Rims: \$225 Dealer Prep: \$150 Federal Excise Tax: Std. Wheels: \$10.50 Alloy Wheels: \$10.90</p>	<p>Base price 1977: \$7,990 1978: \$9,315 1979: \$9,735 Production: 1977 7/76 to 8/77 (California only) 9/76 to 9/77 1978 9/77 to 7/78 1979 9/78 to 7/79 Curb weight: 2650 lbs. Wheelbase: 100.9 in. Weight distribution: Front/Rear % 51/49 Fuel capacity: 15.9 gal. Fuel requirement: 87 octane (91 RON) Front Engine, rear wheel drive</p>
Engine	<p>Type 2.0 liter 4-cylinder in-line water cooled, longitudinally mounted, inclined, single chain-driven overhead camshaft, forged crankshaft with 5 main bearings and 8 counterweights. Bore/Stroke: 89/80 mm Displacement: 1990 cc Compression Ratio: 8.1:1 Fuel injected Bosch K-Jetronic fuel injection Exhaust emission control: Manairox system with air injection (Thermal Reactor on California version only)</p>	<p>Horsepower: 110hp (SAE net) @ 5,800 rpm 105hp (SAE net) @ 5,800 rpm (California version) Torque: 112 ft-lb (SAE) @ 3,750 rpm 108.5 ft-lb (SAE) @ 3,750 rpm (California version) Ignition distributor with vacuum retard and centrifugal advance, mechanical breaker points. 55 amp alternator, 12-volt 55 amp hrs. battery. Hydraulic shock damper at left engine mount</p>
Chassis and Drivetrain	<p>Transmission: 4-speed manual (Getrag) Gear ratios I/II/III/IV/R: 3.764/2.022/1.320/1.000/4.096 Optional 3-speed automatic (ZF) Gear ratios I/II/III/R: 2.478/1.478/1.000/2.090 Steering: rack and pinion (non-assisted), with hydraulic damper Steering ratio: 21.1:1 Front Suspension: MacPherson struts, off-center mounted coil springs & torsion bar stabilizer (22mm) acting as tension strut</p>	<p>Rear Suspension: independent semi-trailing arms, shock absorber mounted inside coil springs & torsion bar stabilizer Final drive ratio: 3.64:1 Braking: Front 255 mm discs, (vented 1977 only) Rear 250 mm rear twin-shoe drums incorporating handbrake; rear axle brake pressure regulator Wheels: styled steel rims 5 1/2" x 13 (Optional light alloy wheels) Offset: 18mm Tires: 185/70HR-13</p>
Interior	<p>Front reclining bucket seats (manually operated) with height-adjustable head rests, cloth or leatherette upholstery, full carpeting, carpet on rear shelf, storage pockets in front doors, lockable (and lighted) glove compartment with flashlight socket, anti-glare mirror, heated rear window, 3-point automatic seat belts front and rear with 2-point lap belt in center rear, 120 mph speedometer with 6-digit odometer and trip odometer, tachometer, analog clock, orange instrument and ventilation control lighting, flow-through ventilation, manually operated front windows with pop-out rear windows, tinted glass all around with dark green border on top of windshield, four spoke padded steering wheel with horn buttons in each spoke, tool kit in trunk lid.</p>	
Exterior	<p>Unit body with impact and roll over protection, integrated roll bar in center pillar for safety, energy absorbing 5 mph bumpers, full-frame doors, hood safety catch, polished stainless door, mounted rear view mirror driver side only, twin saddle-type fuel tanks mounted forward of the rear axle.</p>	

Appendix 3: The 3 Series Spotter's Guide

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Optional Equipment	Automatic transmission, limited slip differential (25%), sport steering wheel (15"), Recaro front seats in black cloth or leatherette,	air-conditioning, dual operation mechanical sunroof, light alloy wheels, metallic paint, radios
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Performance	Acceleration, 0-60 mph: 10.5 sec Top Speed, mph: 106 standard 104 automatic transmission Lateral Acceleration (g's) .757 (.761 for 1978 model) 1977 Fuel economy EPA (Hwy/city), mpg Standard transmission 29/20 Automatic transmission 25/19	1978 Fuel economy EPA (Hwy/city/combined), mpg Standard transmission 28/19/22 Automatic transmission 26/18/21 Stopping distance from 60 mph 156 ft. Noise level at 70 mph: 74 dbA
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Changes for 1978	Front springs stiffer by 10% Front stabilizer bar diameter reduced by 1mm to 21mm Rear stabilizer bar deleted Increased dampening from revalved shock absorbers Solid front rotors Size changed on front axle spindle/bearings Lower temperature operating range rear brake linings Top gear ignition advance switch added	Reduced height in front seats Improved cloth upholstery Aluminum heater core Deletion of plastic engine compartment headlight covers (improved air flow) Additional exhaust hanger between front and rear muffler Improved heat shield/protection for fuel tanks connection tube Gas filler cap holder added inside fuel filler door
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Changes for 1979	Improvements to front seat spring core upholstery, backrest spring set deeper in seat, seat cushion upholstery thickened. Restyled steering column levers and symbols to match 733i Enlarged rear-view mirror and modified sunvisor opening Seat belt receptacle moved from floor to seat Seat front/back adjustment lever moved to beneath seat Narrower slot at seat belt tongue to prevent twist Lip removed from door storage bins Head rests flared at sides Aluminum radiator core with plastic tank	Brake pad wear indicator warning lamp added (sensor in left front pad) Low fuel level warning lamp incorporated into fuel gauge Position of turn signal indicator and handrake/fluid level warning lights reversed in instrument cluster Radio antenna, wiring and front speakers become standard License plate lamps move from side to top of mounting plate Exhaust pipe shorter and straight now near left corner Modified front sway-bar thrust bushing
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General

Manufacturer's suggested retail prices for 1982:
 Base Price: \$13,290
 Automatic Transmission: \$620
 Metallic Paint: \$420
 Dual Position Sunroof: \$555
 Limited Slip Differential: \$370
 Light Alloy Rims: \$500
 Luxus Touring Group: \$1,685
 "S" Package: \$2,620
 Dealer Preparation Charge: \$150
 Destination and Handling: \$245
 Federal Excise Tax on Tires: \$10.20
 Wheelbase: 100.9 in.
 Weight distribution, front/rear (%): 51/49

Base price

1980: \$11,810
 1981: \$12,895
 1982: \$13,290
 1983: \$13,290

Production:

1980: 9/79 to 7/80
 1981: 9/80 to 7/81
 1982: 9/81 to 7/82
 1983: 9/82 to 12/82

Curb weight: 2500 lbs.

Fuel capacity: 15.9 gal.

Fuel requirement: Unleaded 87 octane (91 RON)

Front engine, rear wheel drive

Engine

Type: 1.8 liter (M10) 4-cylinder in-line water cooled, longitudinally mounted, inclined, single chain-driven overhead camshaft, cast crankshaft with 5 main-bearings and 4 counterweights.
 Bore/Stroke: 89/70 mm
 Displacement: 1766 cc
 Compression Ratio: 8.8:1
 Fuel injected Bosch K-Jetronic fuel injection modified with pulse valve for Lambda-control

Exhaust emission control: 3-way catalyst with Lambda-sensor (50 state version)
 Horsepower: 101hp (SAE net) @ 5,800 rpm
 Torque: 100 ft-lb (SAE) @ 4,500 rpm
 Breakerless electronic Ignition system (reverse rotation from previous years)
 65 amp alternator, 12-volt 55 amp hrs. battery
 Hydraulic shock damper at left engine mount

Chassis and Drivetrain

Transmission:
 5-speed manual (Getrag) 245
 Gear ratios I/II/III/IV/V/R:
 3.682/2.002/1.330/1.000/0.806/4.096
 Optional 3-speed automatic (ZF)
 Gear ratios I/II/III/R:
 2.730/1.560/1.000/2.090
 Steering: rack and pinion (non-assisted), with hydraulic damper
 Steering ratio: 21.1:1
 Front Suspension: MacPherson struts, off-center mounted coil springs & torsion bar stabilizer acting as tension strut

Rear Suspension: independent semi-trailing arms, shock absorber mounted inside coil springs (anti-roll bar stabilizer S-package only)

Final drive ratio: 3.91:1 Manual transmission; 3.64:1 Automatic transmission

Braking:

Front 255 mm discs

Rear 250 mm rear twin-shoe drums incorporating handbrake; rear axle brake pressure regulator

Wheels: styled steel rims 5 1/2" x 13 (Optional light alloy wheels)

Offset: 18mm

Tires: 185/70SR-13

Interior

Front reclining bucket seats (manually operated) with height-adjustable head rests, cloth or leatherette upholstery, full carpeting, carpet on rear shelf, storage pockets in front doors, lockable (and lighted) glove compartment with flashlight socket, anti-glare mirror, heated rear window, 3-point automatic seat belts front and rear with 2-point lap belt in center rear, 85 mph speedometer with 6-digit odometer and trip

odometer, tachometer, digital clock, orange instrument and ventilation control lighting, radio antenna and four speakers and fader control, flow-through ventilation, manually operated front windows with pop-out rear vents, tinted glass all around with dark green border on top of windshield, four-spoke padded steering wheel with horn buttons in each spoke, tool kit in trunk lid.

Exterior

Unit body with impact and roll-over protection, integrated roll bar in center pillar for safety, energy absorbing 5 mph bumpers, full-frame doors, hood safety catch, electrically

controlled window frame mounted plastic housing rear view mirror driver side only, twin saddle-type fuel tanks mounted forward of the rear axle.

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Optional Equipment	Automatic transmission, limited slip differential (25%), air-conditioning, dual operation mechanical sunroof, light alloy wheels, metallic paint, radios Lexus Touring Group (320i) includes: Air Conditioning, Electronic AM/FM Stereo Cassette Radio, Fog Lights Sport Package (320iS) includes: Recaro front seats in black cloth or leatherette, leather wrapped smaller diameter sport steering wheel, leather shift knob, electric passenger	side rear view mirror, halogen high beams, front air dam, larger diameter front anti-roll bar, rear anti-roll bar, limited slip differential, special cross-spoke (BBS-style) wheels, AM-FM stereo cassette radio, fog lights, deluxe tool kit, Recaro front seats in black cloth or leatherette, model designation deleted. Not available with automatic transmission or air conditioning. Availability limited to three exterior colors: Schwarz (black), Alpine white, Polaris silver.
Performance	Acceleration, 0-60 mph: 11.1 sec Top Speed, mph: 105 manual, 102 automatic transmission Lateral Acceleration (g's) .743	Fuel economy EPA (Hwy/city), mpg Manual transmission 25/36 Automatic transmission 27/31 Stopping distance from 60 mph 169 ft. Noise level at 70 mph: 75 dbA
Changes for 1980	1.8 liter engine, three-way catalytic converter with Lambda-sensor, cast crankshaft with single counterbalance weight per cylinder, redesigned combustion chamber, breakerless electronic ignition, standard 5-speed manual transmission with changed final drive ratio, lower ratios in first and second gears for automatic transmission, reduced diameter filler neck for unleaded gasoline, Digital quartz clock, 85mph speedometer, Oxygen sensor service light, electrically controlled driver side rear view mirror standard, new hood and trunk emblems with smooth plastic finish, standard four radio speakers and fader control, increased oil filter capacity, extended oil change interval (7500 miles), new long-life spark plugs (WR9DS) allow 30,000	replacement interval. New dashboard appearance accommodates: LED quartz clock (integrated into tachometer face), oxygen sensor warning light, rotary heating and ventilation controls, and addition of four adjustable fresh air and air conditioning vents. Models compatible with port or dealer installed air conditioning pre-wired from factory (except 320iA with sunroof and all "S" packages). Weight reduction by use of aluminum in fuel lines, disc brake shields, master brake cylinder housing, brake pistons and clutch operating cylinder. Reduction in thickness and weight of window glass, body panels and insulation. Solid pedal arms replaced with lighter three-sided design.
Changes for 1982	Increased loudspeaker handling capacity, gearshift pattern inscribed on shift knob, electrically operated rear-view mirrors on	both driver and passenger side now standard, trunk light and switch now standard. New colors: Lapis Blue, Baltic Blue and Opal Green
Changes for 1983	Introduction of lightweight 5-speed transmission with single main section housing. Deletion of sound deadening surface finish inside trunk	
Available Colors	Standard Paint: Phoenix Orange, Chamonix White, Pastel Blue, Golf, Henna Red, Black, Biscay Blue, Sepia, Alpine White, Sierra Beige, Safari Beige, Corona Yellow, Lapis Blue	Metallic Paint: Polaris, Fjord, Anthracite, Graphite, Cashmere, Sapphire Blue, Stratos, Ascot Grey, Cypress Green, Chestnut Red, Opal Green, Baltic Blue