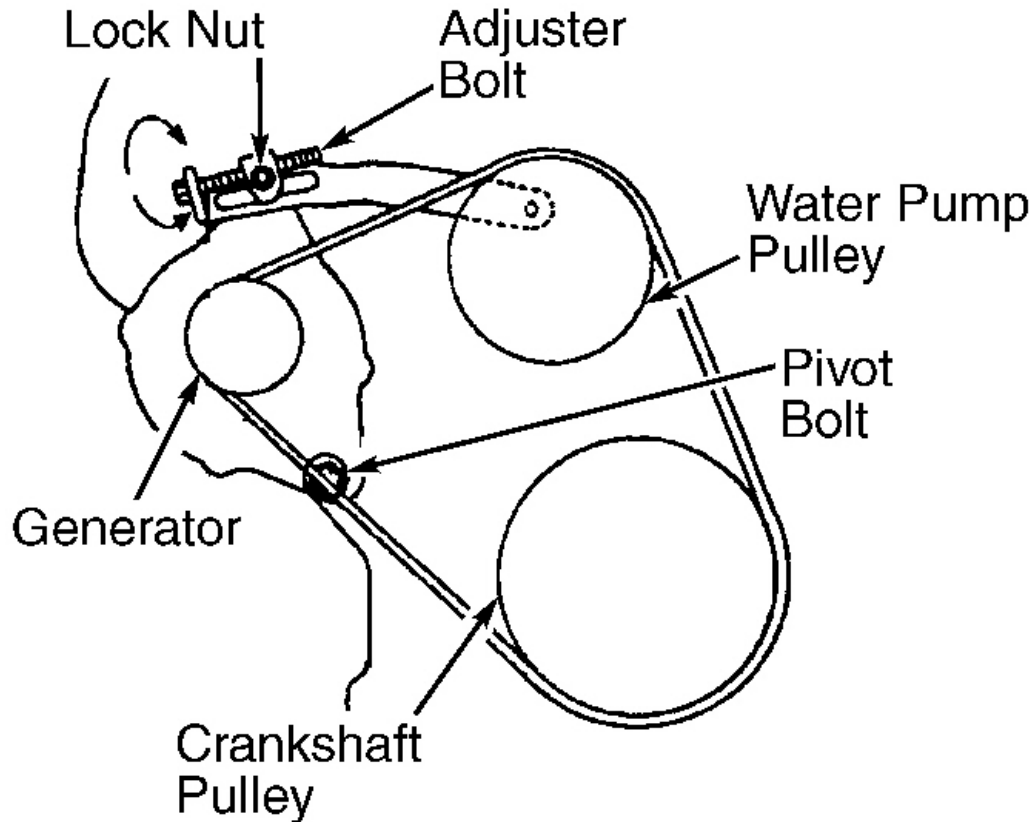


2002 ENGINE COOLING

Specifications & Drive Belt Routing

DRIVE BELT ROUTING



G00082411

Fig. 1: Generator Belt Routing & Adjustment (Optima 2.4L)
Courtesy of KIA MOTORS AMERICA, INC.

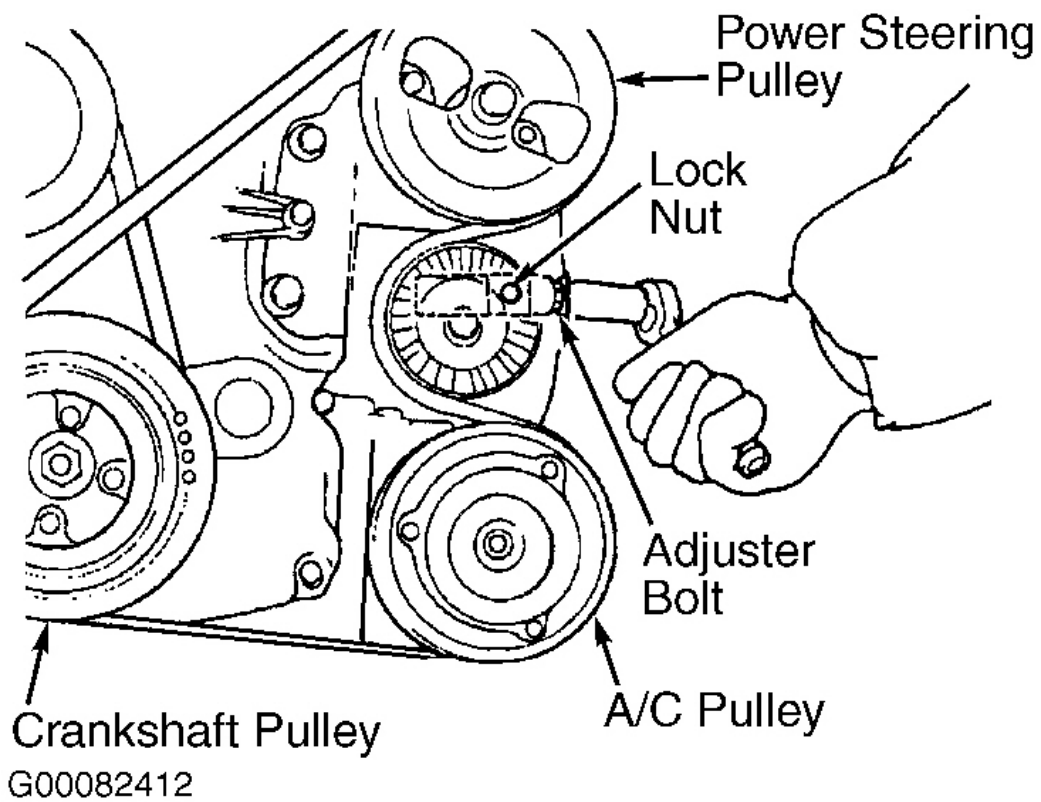
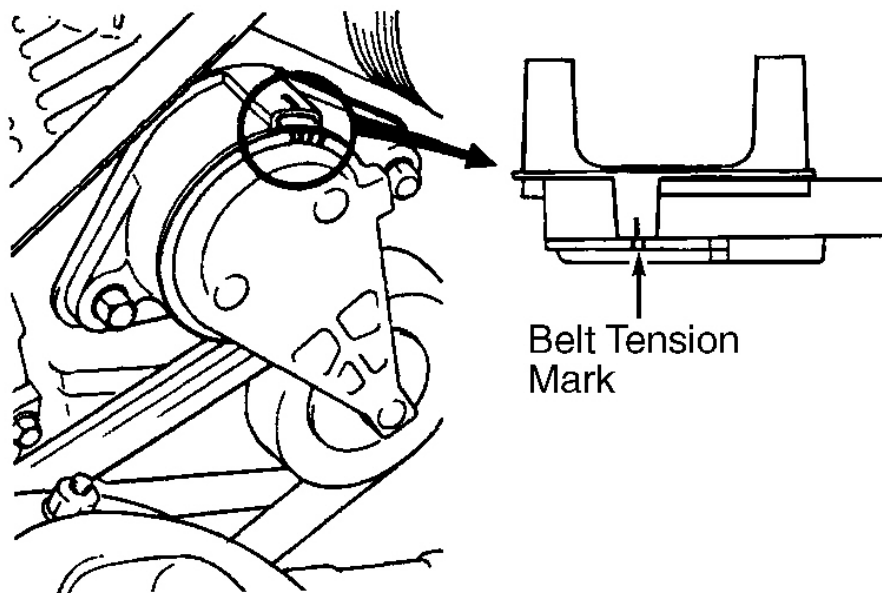
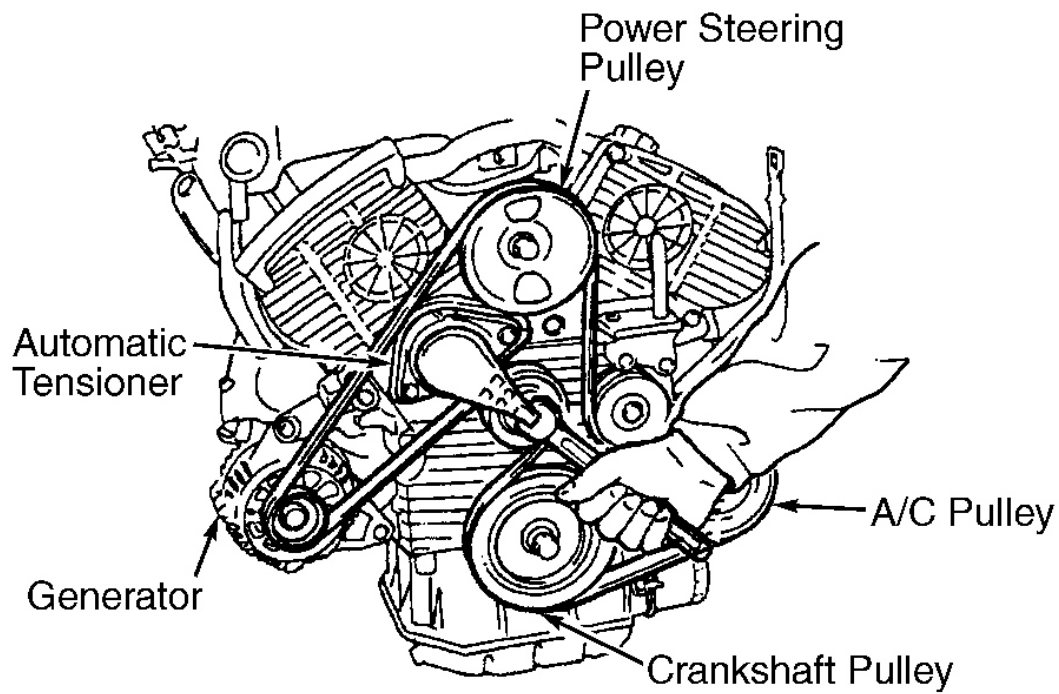
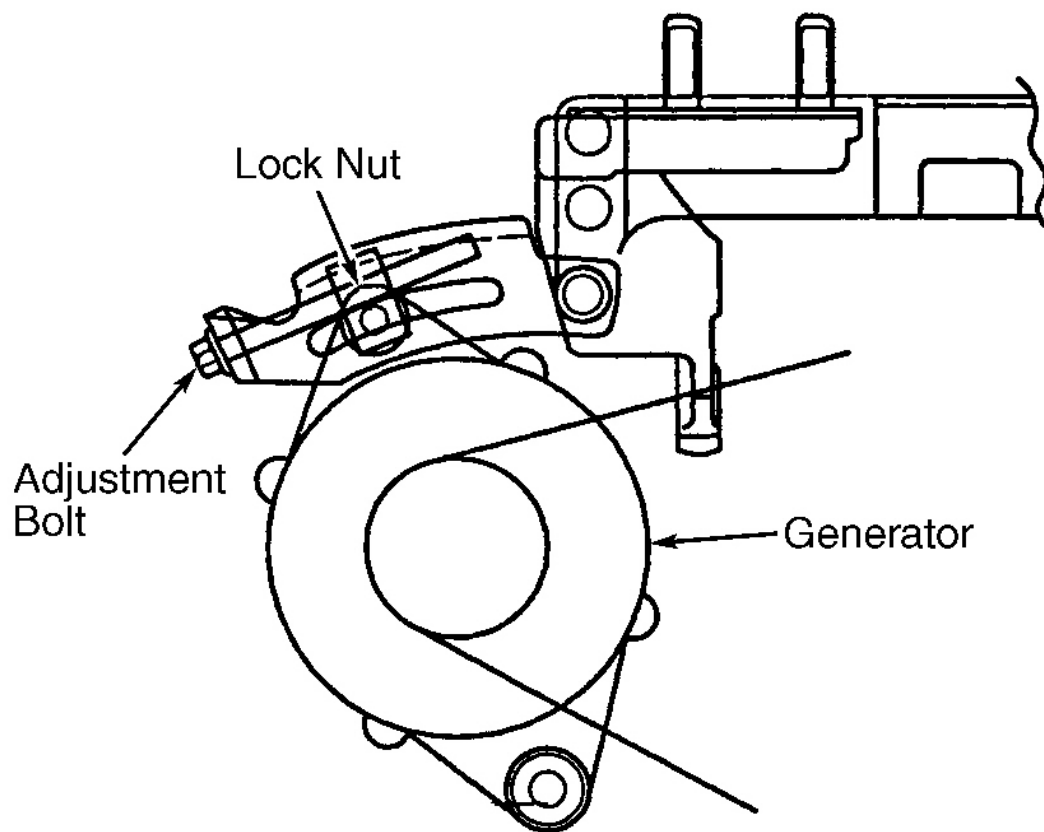


Fig. 2: Air Conditioning & Power Steering Belt Routing & Adjustment (Optima 2.4L)
Courtesy of KIA MOTORS AMERICA, INC.



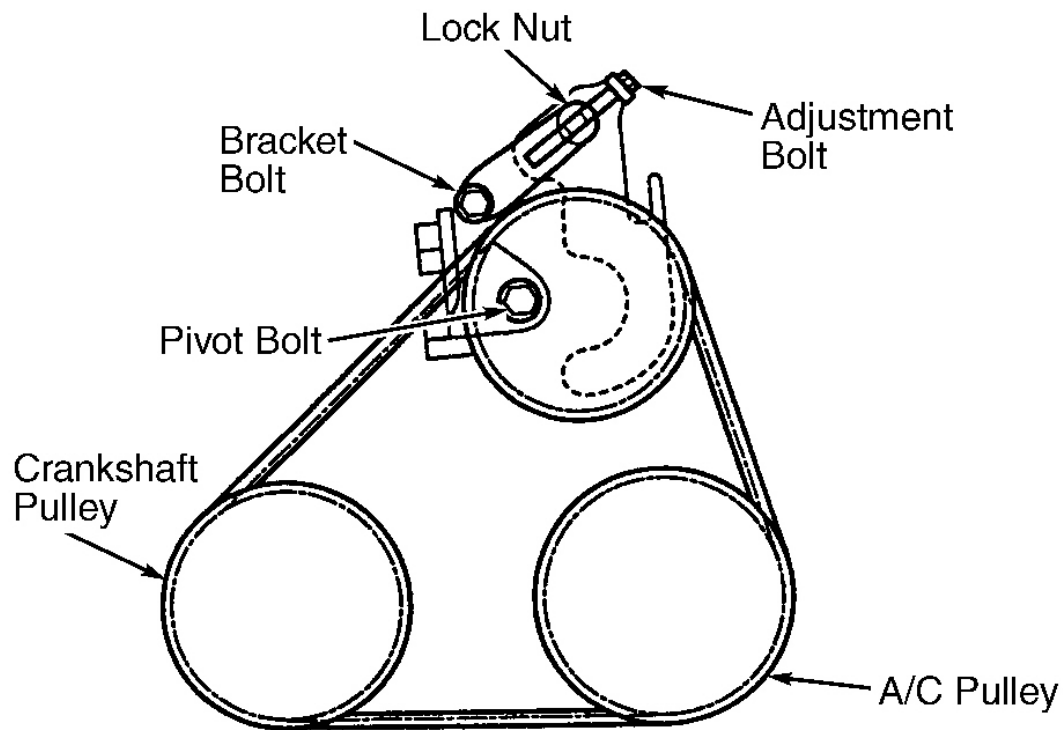
G00082413

Fig. 3: Serpentine Belt Routing & Automatic Adjustment Mark (Optima 2.7L)
Courtesy of KIA MOTORS AMERICA, INC.



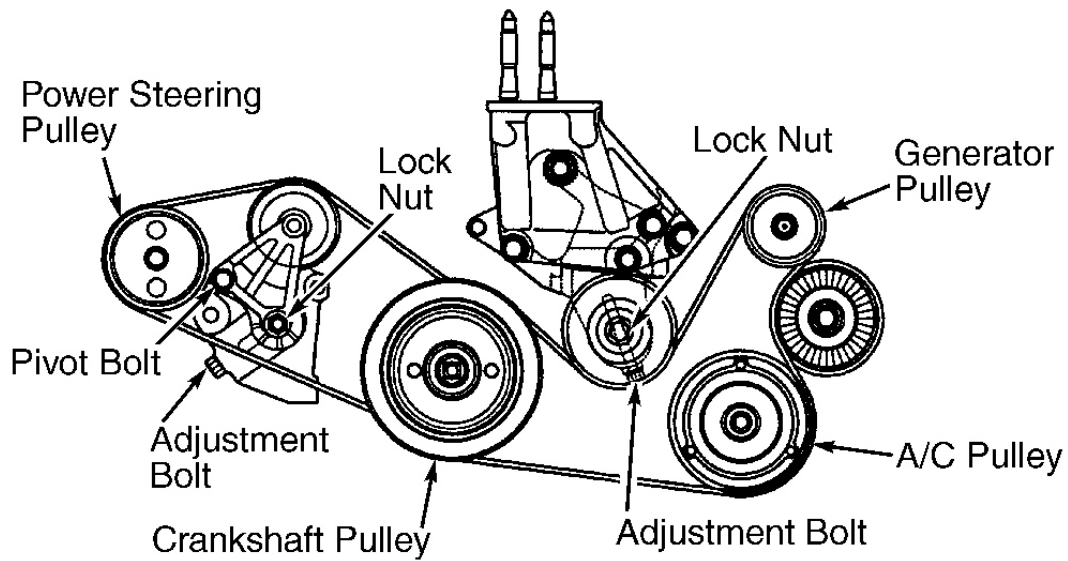
G00082414

Fig. 4: Generator Belt Routing & Adjustment (Rio)
Courtesy of KIA MOTORS AMERICA, INC.



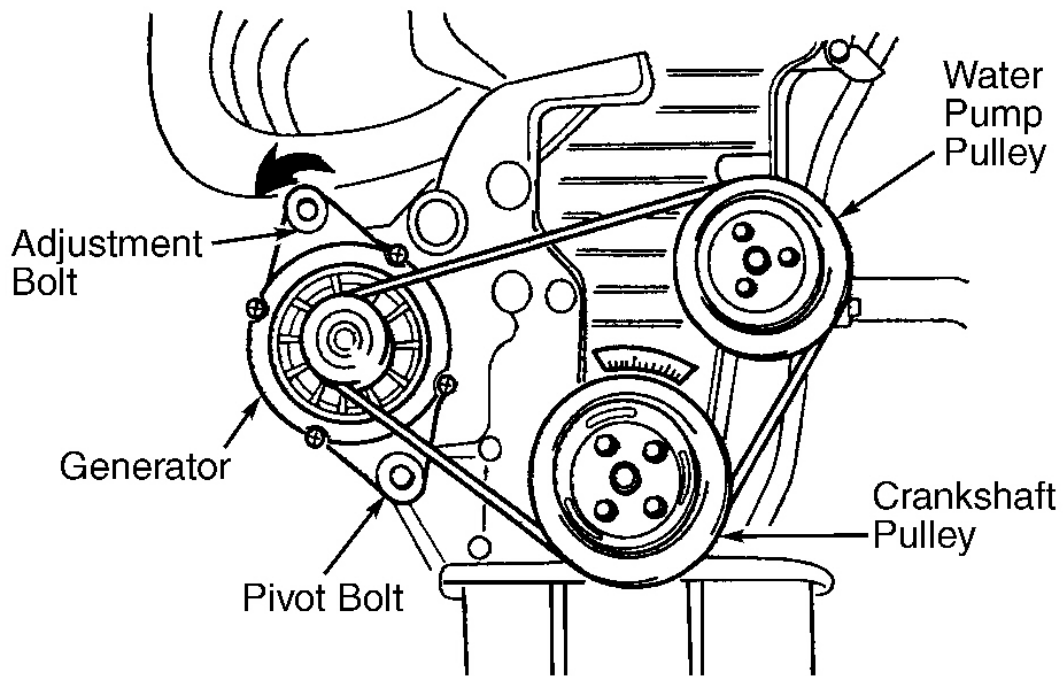
G00082415

Fig. 5: Air Conditioning & Power Steering Belt Routing & Adjustment (Rio)
Courtesy of KIA MOTORS AMERICA, INC.



G00082416

Fig. 6: Generator, Air Conditioning & Power steering Belts Routing & Adjustment (Sedona)
Courtesy of KIA MOTORS AMERICA, INC.



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Fig. 7: Generator Belt Routing & Adjustment (Spectra)
Courtesy of KIA MOTORS AMERICA, INC.

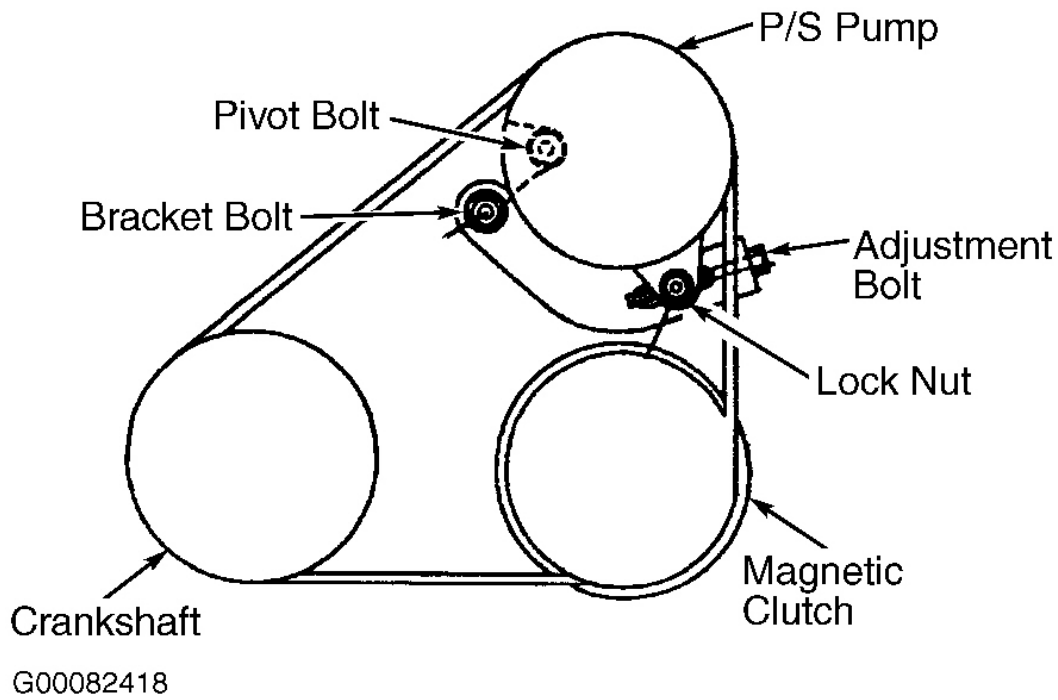
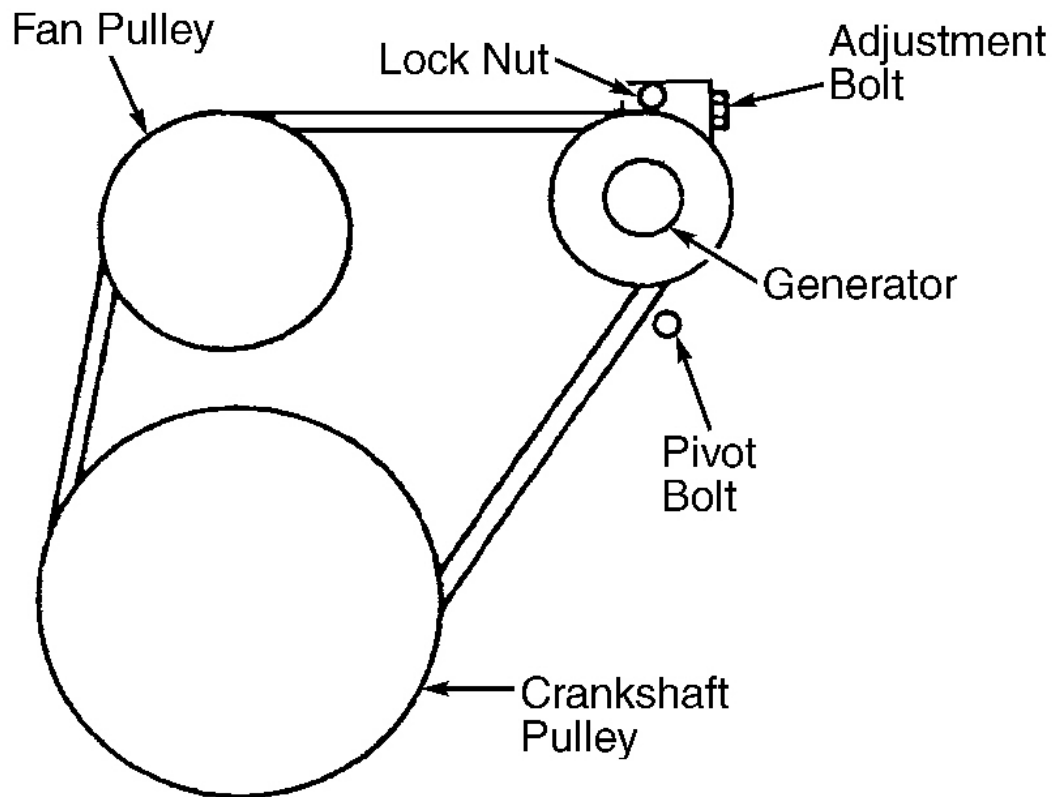
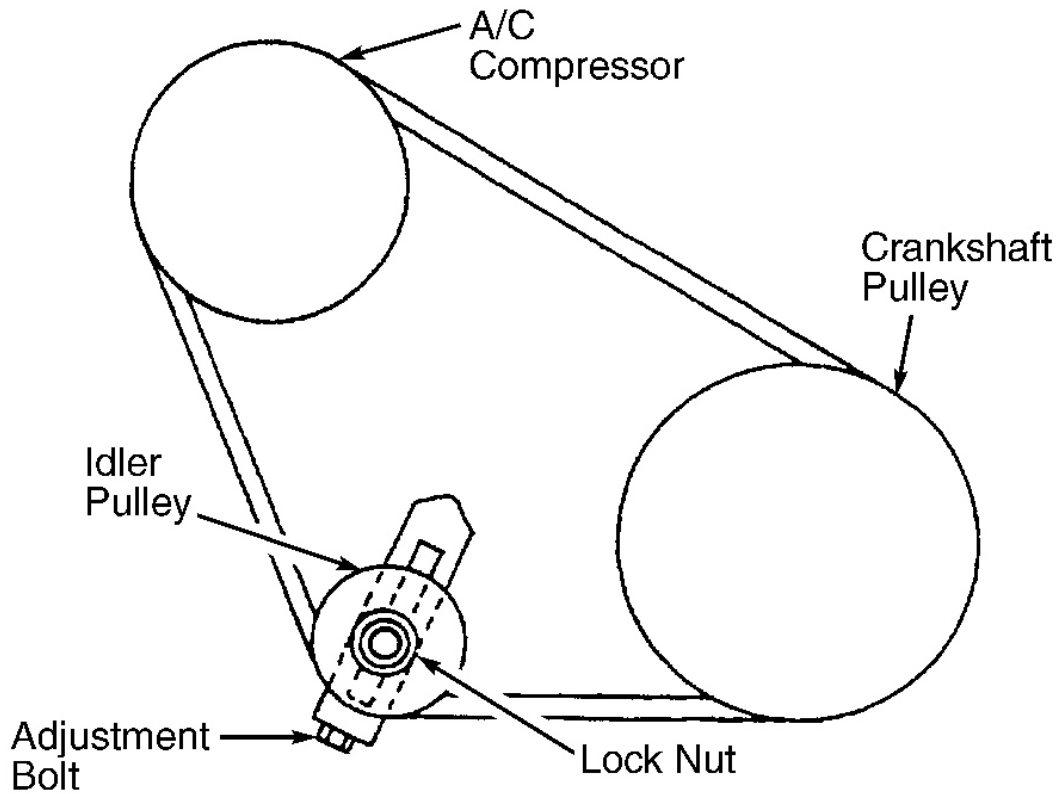


Fig. 8: Air Conditioning & Power Steering Belt Routing & Adjustment (Spectra)
Courtesy of KIA MOTORS AMERICA, INC.



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Fig. 9: Generator Belt Routing & Adjustment (Sportage)
Courtesy of KIA MOTORS AMERICA, INC.



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Fig. 10: Air Conditioning Belt Routing & Adjustment (Sportage)
Courtesy of KIA MOTORS AMERICA, INC.

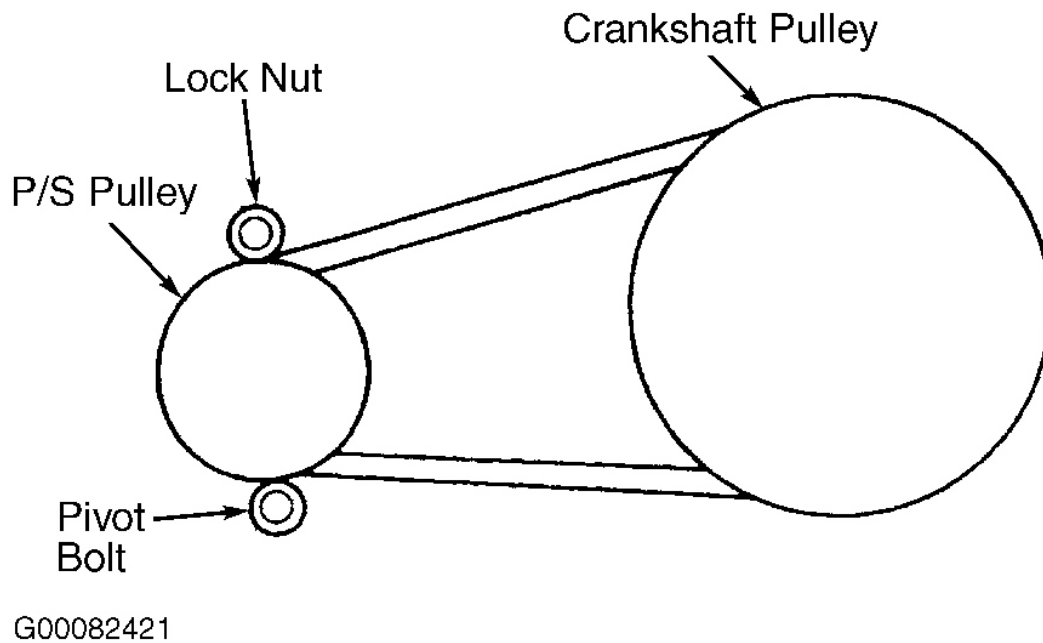


Fig. 11: Power Steering Belt Routing & Adjustment (Sportage)
 Courtesy of KIA MOTORS AMERICA, INC.

SPECIFICATIONS

BELT ADJUSTMENT

BELT ADJUSTMENT

Application	(1) Deflection - In. (mm)
Optima 2.4L	
A/C Compressor	
New Belt	11/32-7/16 (9-11)
Used Belt	33/64-35/64 (13-14)
Generator	
New Belt	15/64-17/64 (6-7)
Used Belt	5/16-7/16 (8-11)
Optima 2.7L	(2)
Rio & Spectra	
All Belts	
New Belt	5/16-11/32 (8-9)
Used Belt	11/32-25/64 (9-10)

Sedona	
A/C Compressor & Generator	
New Belt	(3)
Old Belt	(3)
Power Steering	
New Belt	11/32-7/16 (9-11)
Old Belt	33/64-35/64 (13-14)
Sportage	
A/C Compressor	
New Belt	17/64-11/32 (7-9)
Used Belt	5/16-25/64 (8-10)
Generator	
New Belt	15/64-15/16 (6-8)
Used Belt	17/64-11/32 (7-9)
Power Steering	
New Belt	5/16-25/64 (8-10)
Used Belt	11/32-7/16 (9-11)
(1) Deflection is with 22 lbs. (10 kg) pressure applied midway on longest belt run.	
(2) Equipped with automatic belt tensioner.	
(3) Information is not available from manufacturer.	

COOLING SYSTEM SPECIFICATION

COOLING SYSTEM SPECIFICATIONS

Application	Specification
Coolant Replacement Intervals	
Optima, Rio, Spectra & Sportage	(1)
Sedona	(2)
Coolant Capacity	
Optima 2.4L	7.7 Qts. (7.3 L)
Optima 2.7L	9.1 Qts. (8.6 L)
Rio & Spectra	6.3 Qts. (6.0 L)
Sedona	8.2 Qts. (7.7 L)
Sportage	8.0 Qts. (7.5 L)
Radiator Pressure Cap	15 psi (1.06 kg/cm ²)
Thermostat Opens	
Optima, Sedona & Spectra	
Starts	177-183 °F (80-84 °C)
Fully Open	203 °F (95 °C)

Rio & Sportage	
Start	188-193 °F (86-90 °C)
Fully Open	212 °F (100 °C)
(1) Every 30.000 miles, inspect and, if necessary, adjust level or replace coolant.	
(2) Every 15.000 miles, inspect and, if necessary, adjust level or replace coolant.	

TORQUE SPECIFICATIONS

TORQUE SPECIFICATION

Application	Ft Lbs. (N.m)
Optima (2.4L)	
Thermostat Housing Bolts	7-11 (10-15)
Water Pump Bolts	14-20 (19-27)
Optima (2.7L)	
Thermostat Housing Bolts	13-15 (17-20)
Water Pump Bolts	11-16 (15-22)
Rio	
Thermostat Housing Bolts	14-19 (19-25)
Water Pump Bolts	(1)
Spectra	
Thermostat Housing Bolts	14-19 (19-25)
Water Pump Bolts	14-20 (19-27)
Sportage	
Thermostat Housing Bolts	16 (22)
Water Pump Bolts	16 (22)
INCH Lbs. (N.m)	
All Models	
Cooling Fan Mounting bolts	69-95 (8-11)
(1) Information is not available from manufacturer	