

# 2004 SPECIFICATIONS

Vue

## AIR CONDITIONING

### MANUAL SYSTEM

#### HVAC System Service Specifications

#### HVAC SYSTEM SERVICE SPECIFICATIONS

Application	Specification
Compressor Replacement <sup>(1)</sup>	(2) 4 ozs.
Condenser Replacement	(2) 1 ozs.
Evaporator Replacement	(2) 1 ozs.
Receiver/Dehydrator	(2) 2 ozs.
Thermal Expansion Valve	(2) 0.75 ozs.
Total System PAG Oil Capacity	7 ozs.
R-134a Refrigerant Charge	
2.2L	1.5 lbs.
3.5L	1.75 lbs.
System Operating Pressures <sup>(3)</sup>	
2.2L	
Low Side	35-44 psi (2.46-3.1 kg/cm <sup>2</sup> )
High Side	127-175 psi (8.93-12.3 kg/cm <sup>2</sup> )
3.5L	
Low Side	33-35 psi (2.32-2.46 kg/cm <sup>2</sup> )
High Side	181-216 psi (12.73-15.2 kg/cm <sup>2</sup> )
(1) The Visteon service compressor is precharged with the specified amount of PAG oil.	
(2) Add PAG oil equal to amount of oil drained from component plus specified additional amount. PAG Oil GM (P/N 12378526) for U.S. & GM (P/N 88900060) for Canada.	
(3) With ambient temperature at 76-85°F (25-29°C) and relative humidity above 60 percent.	

#### HVAC Torque Specifications

#### HVAC TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Battery Box-To-Body Bolt	11 (15)
Compressor Clutch Nut	14 (19)
Compressor Hose Assembly-To-Compressor Bolt	20 (27)

Compressor Hose Assembly-To-Condenser Nut	12 (16)
Compressor Hose Assembly-To-TXV Nut (2.2L)	12 (16)
Compressor-To-Engine Block Bolt	16 (22)
Discharge Line Nut	12 (16)
Evaporator Outlet Hose-To-Compressor Hose Nut (3.5L)	12 (16)
Evaporator Outlet Hose-To-TXV Nut (3.5L)	12 (16)
Liquid Line-To-TXV Nut	12 (16)
Liquid Line-To-Receiver Dehydrator Nut	12 (16)
Receiver Dehydrator-To-Condenser Nut	12 (16)
<b>INCH Lbs. (N.m)</b>	
Actuator-To-HVAC Case Screw	9 (1)
Air Inlet Assembly Screw	9 (1)
Air Outlet Duct Screw	9 (1)
Blower Motor Resistor Screw	9 (1)
Blower Motor Screw	9 (1)
Compressor Hose Assembly-To-Battery Box Nut (2.2L)	71 (8)
Compressor Pressure Relief Valve	89 (10)
Compressor Thermal Protection Switch Retainer Bolt	53 (6)
CRFM Bracket Bolt	89 (10)
Defrost Actuator-To-Evaporator Case Screw	9 (1)
Defroster Duct -To-HVAC Module Nut	22 (2.5)
Evaporator Case Assembly-To-Blower Case Assembly Screw	9 (1)
Evaporator Cover Screw	9 (1)
Evaporator Outlet Hose-To-Air Cleaner Bracket Bolt (3.5L)	62 (7)
Evaporator Outlet Hose-To-Cowl Nut (3.5L)	71 (8)
Evaporator Pipe Cover Screw	9 (1)
Floor Actuator-To-Evaporator Case Screw	9 (1)
Front Of Dash-To-HVAC Module Seal Nut	70 (8)
Heater Core Cover Screw	9 (1)
Heater Core Pipe Cover Screw	9 (1)
Heater Core Screw	9 (1)
Heater Duct-To-Heater Core Cover Screw	18 (2)
Hold Down Bracket & Bolt	53 (6)
HVAC Controller-To-Radio Bezel Screw	22 (2.5)
HVAC Module-To-Cross Car Beam Nut/Bolt	70 (8)
Intermediate Duct Fastener	22 (2.5)
Liquid Line-To-Strut Tower Nut (2.2L)	44 (5)
Liquid Line-To-Strut Tower Nut (3.5L)	89 (10)
Metal Bracket-To-HVAC Module Screws	18 (2)
Panel Actuator-To-Evaporator Case Screw	9 (1)
Passenger Compartment Air Filter Housing Nut	80 (9)

Receiver Dehydrator Bracket Bolt-To-Body	89 (10)
Recirc Assembly Screw	9 (1)
Refrigerant Low Temperature Sensor Bolt-To-TXV	45 (5)
Refrigerant Pressure Sensor-To-Compressor Hose Assembly	89 (10)
Temperature Cable Screw	9 (1)
TXV Backing Plate Bolt	80 (9)

## BATTERY

### Battery Service Specifications

#### BATTERY SERVICE SPECIFICATIONS

Application	Specification
2.2L	
Amp Hour Rating	54 AH
Cold Cranking Amperage	525 Amps
Replacement Battery Number	86-7YR
Reserve Capacity Rating	90 Minutes
3.5L	
Amp Hour Rating	54 AH
Cold Cranking Amperage	600 Amps
Replacement Battery Number	75-6YR
Reserve Capacity Rating	90 Minutes

### Battery Torque Specifications

#### BATTERY TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Battery Hold Down Retaining Bolt	11 (15)
Battery Negative Cable Terminal Bolt	13 (17)
Battery Positive Cable Nut	13 (17)
Battery Positive Cable Terminal Bolt	13 (17)
Battery Tray Bolts	11 (15)
Ground Cable-To-Side Rail Bolt	15 (20)
Remote Battery Terminal Nut	13 (17)
	<b>INCH Lbs. (N.m)</b>
Ground-To-Transmission Nut	89 (10)
UHJB Bracket Nuts	106 (12)

## BRAKES

### BLEEDING SEQUENCE

## BRAKE LINE BLEEDING SEQUENCE

Application	Sequence
Vue	RR, LF, LR, RF

## DISC BRAKES

### Disc Brakes Service Specifications

### DISC BRAKES SERVICE SPECIFICATIONS

Application	In. (mm)
Brake Pad Lining Minimum Thickness	0.080 (2.0)
Brake Pad Lining Thickness (NEW)	0.380 (9.6)
Brake Rotor Diameter	11.654 (296.0)
Brake Rotor Discard Thickness <sup>(1)</sup>	0.960 (24.5)
Brake Rotor Maximum Allowable Assembled Lateral Runout	0.002 (0.06)
Brake Rotor Maximum Allowable Scoring	0.059 (1.50)
Brake Rotor Maximum Allowable Thickness (Variation)	0.001 (0.025)
Brake Rotor Minimum Allowable Thickness (After Refinish)	0.960 (24.5)
Brake Rotor Thickness (NEW)	1.024 (26.0)

(1) All brake rotors have a discard dimension cast into them. Replace any rotor that does not meet this specification. After refinishing rotor, replace any rotor that does not meet minimum thickness specification.

### Disc Brakes Torque Specifications

### DISC BRAKES TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Brake Hose Bracket Retaining Bolt	18 (25)
Brake Hose-To-Caliper (Use New Washer)	32 (44)
Brake Pedal Bracket-To-Crossmember Nut	18 (25)
Brake Pipe Nut/Fitting	14 (19)
Caliper Guide Pin Bolt	32 (44)
Caliper Mounting Bracket Bolt	136 (185)
Master Cylinder Mounting Nut	18 (25)
Parking Brake Cable-To-Underbody Bolt	18 (25)
Parking Brake Lever Assembly Mounting Nut	18 (25)
Proportioning Valve Assembly Bracket Mounting Nut	18 (25)
Steering Column Bracket-To-Cowl Nut	18 (25)
Vacuum Booster Mounting Nut	18 (25)
Wheel Cylinder Mounting Bolt	11 (15)
Wheel Lug Nut	92 (125)

**INCH Lbs. (N.m)**

Caliper Bleed Valve (Disc Brakes)	115 (13)
Parking Brake Cable Bracket-To-Trailing Arm Bolt/Nut	106 (12)
Parking Brake Warning Light Switch Mounting Screw	27 (3)
Proportioning Valve-To-Body Bolt	106 (12)
Wheel Cylinder Bleed Valve (Drum Brakes)	71 (8)

## DRUM BRAKES

### Drum Brakes Service Specifications

#### DRUM BRAKES SERVICE SPECIFICATIONS

Application	In. (mm)
Brake Drum Diameter (NEW)	9.84 (250.0)
Brake Drum Discard Diameter	9.90 (251.5)
Brake Drum Maximum Allowable Radial Runout	0.001 (0.03)
Brake Drum Maximum Allowable Scoring	0.059 (1.5)
Brake Drum Maximum Diameter (After Refinish)	9.90 (251.5)
Brake Shoe Lining Minimum Thickness	0.04 (1.0)
Brake Shoe Lining Thickness (NEW)	0.24 (6.0)
Brake Shoe Lining-To-Drum Clearance	0.020 (0.50)

### Drum Brakes Torque Specifications

#### DRUM BRAKES TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Brake Pipe Fitting At Wheel Cylinder	14 (19)
	<b>INCH Lbs. (N.m)</b>
Wheel Cylinder Bleeder Plug	71 (8)
Wheel Cylinder Mounting Bolt	15 (11)

## CHARGING SYSTEM

### GENERATOR

#### Generator Service Specifications

#### GENERATOR SERVICE SPECIFICATIONS

Application	Specification
2.2L	
Generator Model	Valeo SG10
Rated Output	105 Amps
3.5L	

Generator Model	Valeo SG12
Rated Output	125 Amps
Load Test Output	87 Amps

### Generator Torque Specifications

#### GENERATOR TORQUE SPECIFICATIONS

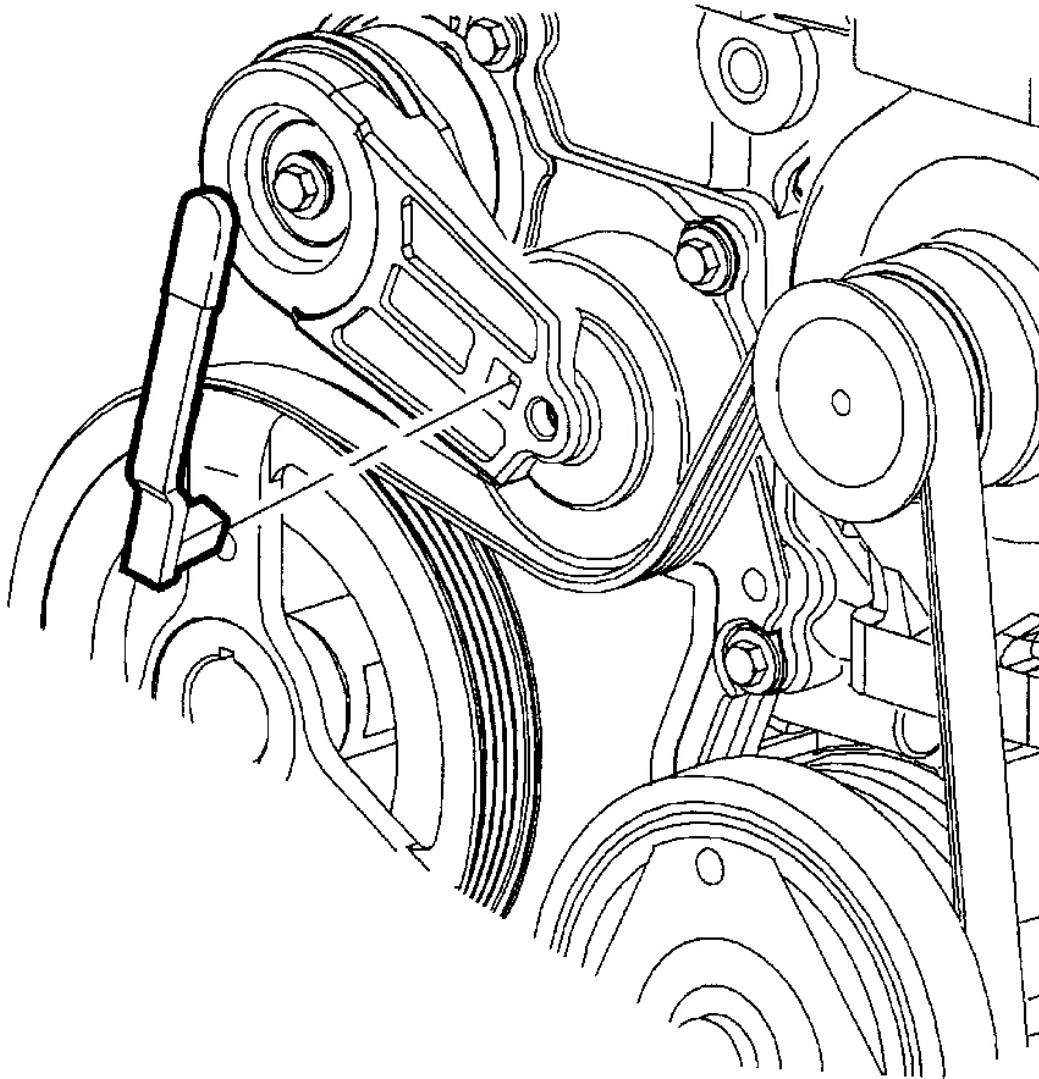
Application	Ft. Lbs. (N.m)
Engine Mount Bolts	37 (50)
Generator Bolts	
2.2L	16 (22)
3.5L	33 (44)
Generator Terminal Nut (2.2L)	15 (20)
	<b>INCH Lbs. (N.m)</b>
Generator Terminal Nut (3.5L)	106 (12)

## DRIVE BELTS

### Adjustment Specifications

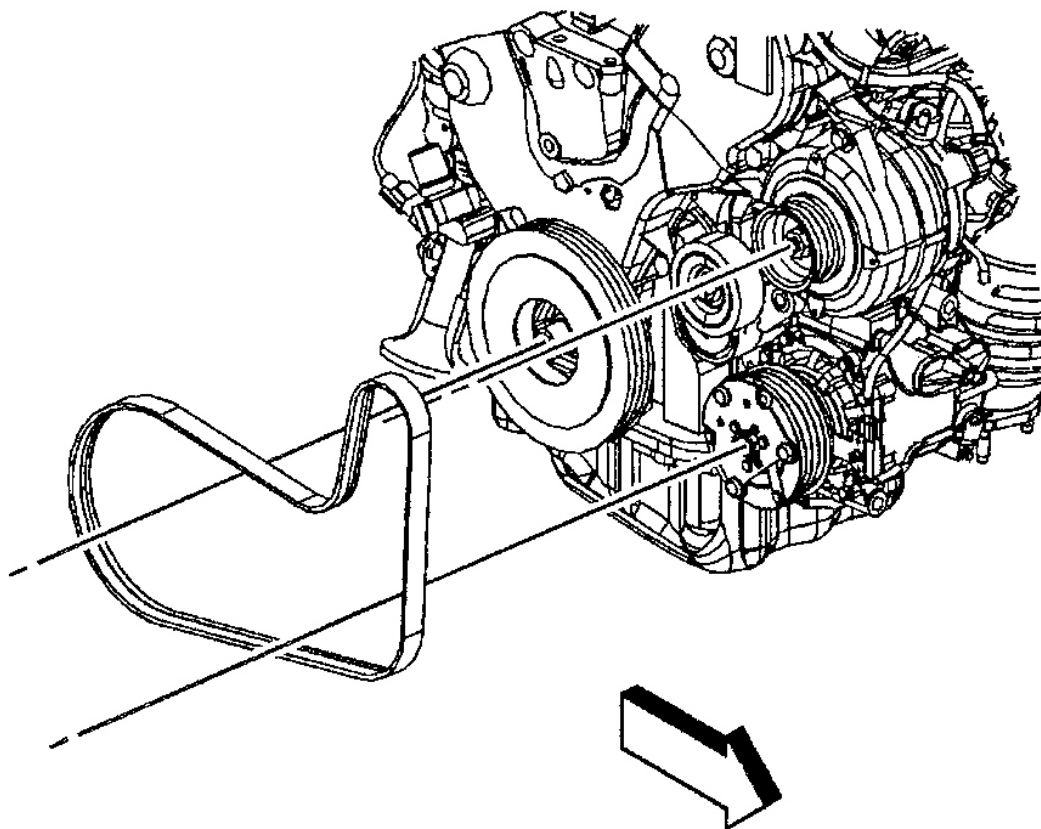
The serpentine belt has an automatic tensioner and does not require any adjustments.

### Routing Illustrations



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**Fig. 1: Identifying Belt Routing (2.2L)**  
**Courtesy of GENERAL MOTORS CORP.**



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**Fig. 2: Identifying Belt Routing (3.5L)**  
 Courtesy of GENERAL MOTORS CORP.

## ENGINE COOLING

### SERVICE

#### Engine Cooling Torque Specifications

#### ENGINE COOLING TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Battery Terminal Bolt	13 (17)
Crossover Pipe Bolts (3.5L)	16 (22)
Electronic Coolant Temperature Sensor	13 (18)
Exhaust Manifold Heat Shield Bolt (2.2L)	18 (25)
Wheel Nuts	92 (125)
	<b>INCH Lbs. (N.m)</b>



Thermostat Housing Bolts (3.5L)	106 (12)
Thermostat Housing Cover-To-Thermostat Housing Bolts (2.2L)	89 (10)
Thermostat Housing-To-Block Bolts (2.2L)	89 (10)
Thermostat Pipe Bracket-To-Cylinder Head Bolt (2.2L)	71 (8)
Water Pump Access Bolts-To-Front Cover (2.2L)	89 (10)
Water Pump Bolts	106 (12)
Water Pump Sprocket-To-Water Pump Bolts (2.2L)	89 (10)
Wiring Harness Ground Terminal Nut	106 (12)

## FUEL SYSTEM

### FUEL PRESSURE

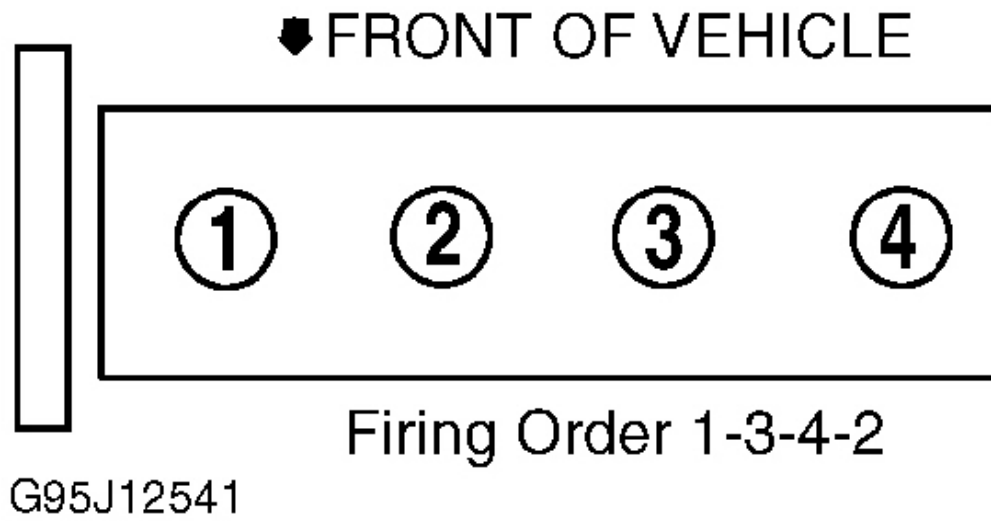
#### Fuel System Specifications

#### FUEL SYSTEM SPECIFICATIONS

Application	Psi (kPa)
2.2L	50-60 (345-414)
3.5L	48-56 (330-382)

## IGNITION SYSTEM

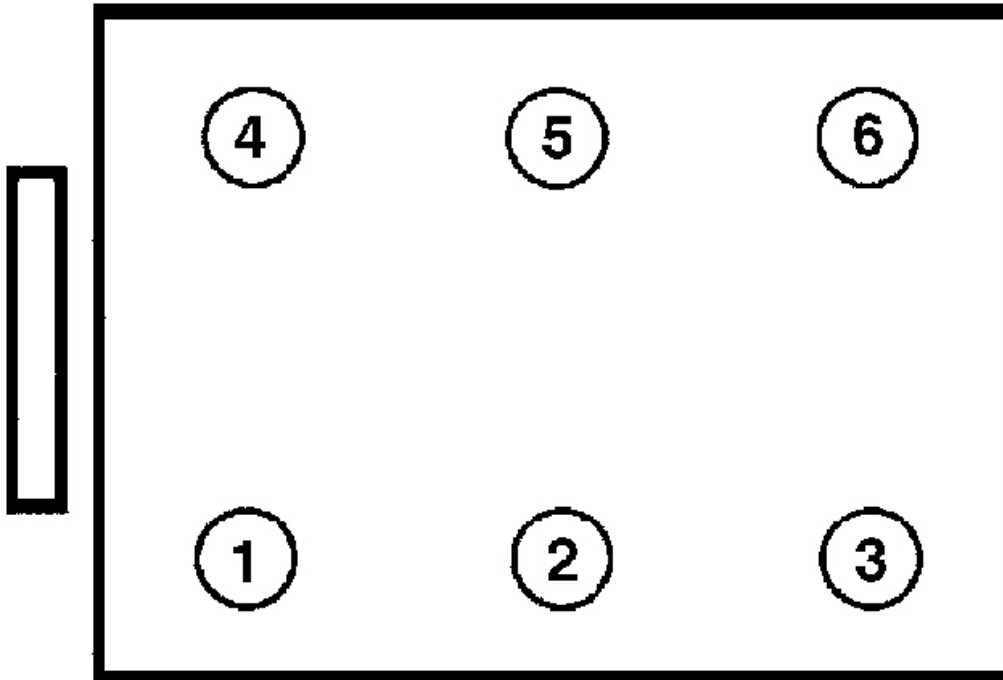
### FIRING ORDER



**Fig. 3: Identifying Firing Order (2.2L)**  
Courtesy of GENERAL MOTORS CORP.

Firing Order 1-4-2-5-3-6

← FRONT OF VEHICLE



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**Fig. 4: Identifying Firing Order (3.5L)**  
Courtesy of GENERAL MOTORS CORP.

## SPARK PLUGS

### Spark Plug Specifications

### SPARK PLUG SPECIFICATIONS

Application	Specification
Spark Plug Type	
2.2L	AC Delco 41-981
3.5L	IZFR5K-11 NGK Or SKJ16DR-M11 DENSO
Gap	
2.2L	0.042" (1.08 mm)

3.5L	0.039-0.043" (1-1.1 mm)
Tightening Torque	
2.2L	15 Ft. Lbs. (20 N.m)
3.5L	13 Ft. Lbs. (18 N.m)

## STARTING SYSTEM

### STARTER

#### Starter Service Specifications

#### STARTER SERVICE SPECIFICATIONS

Application	Specification
2.2L & 3.5L	PG-260D

#### Starter Torque Specifications

#### STARTER TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Starter Motor Bolts	
2.2L	30 (40)
3.5L	33 (44)
Starter-To-Engine Bolts	
Starter-To-Transmission Bolts	
<b>INCH Lbs. (N.m)</b>	
Starter Solenoid "B" Terminal Nut	89 (10)
"S" Terminal Nut	44 (5)