

LEGANZA (MY2000)

Service Manual

FOREWORD

This manual includes procedures for maintenance, adjustment, service operations, and removal and installation of components for the LEGANZA vehicle.

When reference is made in this manual to a brand name, number, or specific tool, an equivalent product may be used in place of the recommended item.

All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time without notice.

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SECTION 0B

GENERAL INFORMATION

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SPECIFICATIONS

TECHNICAL DATA

Performance - Manual Transaxle

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Maximum Speed (km/h)	188	206	TBD
Gradeability (tan Ø)	0.54	0.57	TBD
Minimum Turning Radius (m)	5.5	5.5	TBD

Performance - Automatic Transaxle

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Maximum Speed (km/h)	187	192	TBD
Gradeability (tan Ø)	0.62	0.65	TBD
Minimum Turning Radius (m)	5.5	5.5	TBD

Engine

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Engine Type	Overhead Cam L-4	Dual Overhead Cam L-4	Dual Overhead Cam L-4
Bore (mm)	86	86	86
Stroke (mm)	86	86	94.6
Total Displacement (cm ³)	1,998	1,998	2,198
Compression Ratio	9.2:1	9.6:1	9.6:1
Maximum Power (kw/rpm)	78 (at 5,000)	98 (at 5,400)	TBD
Maximum Torque (N•m/rpm)	178.5 (at 4,000)	184 (at 4,600)	TBD

Ignition System

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Ignition Type	Direct Ignition System	Direct Ignition System	Direct Ignition System
Ignition Timing (° BTDC)	8	5	6
Ignition Sequence	1-3-4-2	1-3-4-2	1-3-4-2
Spark Plug Gap (mm)	0.9	0.8	0.8 / 1.0
Spark Plug Maker	Bosch	Bosch	Bosch
Spark Plug Type	WR8DC	FR8LDC4	FR8LDC4 / FLR8LDU

Clutch - Manual Transaxle

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Type	Single Dry Plate	Single Dry Plate	Single Dry Plate
Outside Diameter (mm)	215	225	225
Inside Diameter (mm)	145	150	150
Thickness (mm)	3.4	3.4	3.4
Fluid Capacity	Common Use; Brake Fluid	Common Use; Brake Fluid	Common Use; Brake Fluid

Manual Transaxle

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Maker	DWMC	DWMC	DWMC
Type or Model	D-16	D-20	D-20
Gear Ratio:	-	-	-
1st	3.545:1	3.545:1	3.545:1
2nd	2.048:1	2.158:1	2.158:1
3rd	1.346:1	1.478:1	1.478:1
4th	0.971:1	1.129:1	1.129:1
5th	0.763:1	0.886:1	0.886:1
Reverse	3.333:1	3.333:1	3.333:1
Final Drive Ratio	3.944:1	3.722:1	3.722:1
Oil Capacity (L)	1.8	1.8	1.8

Automatic Transaxle

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Maker	ZF	ZF	AISIN
Type or Model	4HP14	4HP14	50-40LE
Gear Ratio:	-	-	-
1st	2.412:1	2.412:1	3.900:1
2nd	1.369:1	1.369:1	2.228:1
3rd	1.000:1	1.000:1	1.477:1
4th	0.739:1	0.739:1	1.062:1
Reverse	2.828:1	2.828:1	4.271:1
Final Drive Ratio	4.225:1	3.979:1	2.654:1
Oil Capacity for Replacement (L)	2.5	2.5	6.5~7.0

Brake

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Booster Size:	-	-	-
Booster 1 (in.)	7	7	7
Booster 2 (in.)	8	8	8
Master Cylinder Diameter (mm)	23.8	23.8	23.8
Booster Ratio	5.0:1	5.0:1	5.0:1
Front Brake:	-	-	-
Disc Type	Ventilated	Ventilated	Ventilated
Rear Brake:	-	-	-
Disc Type	Solid	Solid	Solid
Fluid Capacity (L)	0.5	0.5	0.5

Tire and Wheel

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Standard Tire Size	195/70R14	205/60R15	205/60R15
Standard Wheel Size	5.5JX14	6.0JX15	6.0JX15
Inflation Pressure at Full Load:	-	-	-
195/70R14:	-	-	-
Front	29	-	-
Rear	29	-	-
205/60R15:	-	-	-
Front	-	29	29
Rear	-	29	29

Steering System

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Gear Type	Power Rack and Pinion	Power Rack and Pinion	Power Rack and Pinion
Wheel Alignment:	-	-	-
Front:	-	-	-
Toe-In at Each wheel (°/mm)	-0.1 ± 0.08 (-0.6 ± 0.5)	-0.1 ± 0.08 (-0.6 ± 0.5)	-0.1 ± 0.08 (-0.6 ± 0.5)
Caster (°)	3 ± 1	3 ± 1	3 ± 1
Camber (°)	-0.2 ± 1	-0.2 ± 1	-0.2 ± 1
Rear:	-	-	-
Toe-In at Each wheel (°/mm)	0.16 ± 0.08 (1 ± 0.5)	0.16 ± 0.08 (1 ± 0.5)	0.16 ± 0.08 (1 ± 0.5)
Camber (°)	-0.8 ± 1	-0.8 ± 1	-0.8 ± 1
Oil Capacity (L)	1.0	1.0	1.0

Suspension

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Front Type	MacPherson Strut	MacPherson Strut	MacPherson Strut
Rear Type	Dual Link Strut	Dual Link Strut	Dual Link Strut

Fuel System

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Fuel Delivery	MPI	MPI	MPI
Fuel Pump Type	Electric Motor Pump	Electric Motor Pump	Electric Motor Pump
Fuel Filter Type	Cartridge	Cartridge	Cartridge
Fuel Capacity (L)	65	65	65

Lubricating System

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Lubricating Type	Forced Feed	Forced Feed	Forced Feed
Oil Pump Type	Duocentric Rotor	Duocentric Rotor	Duocentric Rotor
Oil Filter Type	Cartridge (Full Flow)	Cartridge (Full Flow)	Cartridge (Full Flow)
Oil Pan Capacity Including Oil Filter (L)	4.0	4.0	4.0

Cooling System

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Cooling Type	Forced Water Circulation	Forced Water Circulation	Forced Water Circulation
Radiator Type	Cross-flow	Cross-flow	Cross-flow
Water Pump Type	Centrifugal	Centrifugal	Centrifugal
Thermostat Type	Pellet Type	Pellet Type	Pellet Type
Coolant Capacity (L)	7.0	7.0	7.0

Electric System

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Battery (Amps)	550 Cold Cranking 610 Cold Cranking	550 Cold Cranking 610 Cold Cranking	550 Cold Cranking 610 Cold Cranking
Alternator (Amps)	95	95	95
Starter (No-Load Test Current Draw):	-	-	-
1.4 kW (Amps/Volts)	Minimum 80 Maximum 120 (at 10)	Minimum 80 Maximum 120 (at 10)	Minimum 80 Maximum 120 (at 10)

VEHICLE DIMENSIONS AND WEIGHTS

Vehicle Dimensions - Manual and Automatic

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Overall Length (mm)	4,671	4,671	4,671
Overall Width (mm)	1,779	1,779	1,779
Overall Height (mm)	1,437	1,437	1,437
Minimum Ground Clearance (mm)	167	167	167
Wheel Base (mm)	2,670	2,670	2,670
Tread:	-	-	-
Front (mm)	1,515	1,515	1,515
Rear (mm)	1,507	1,507	1,507

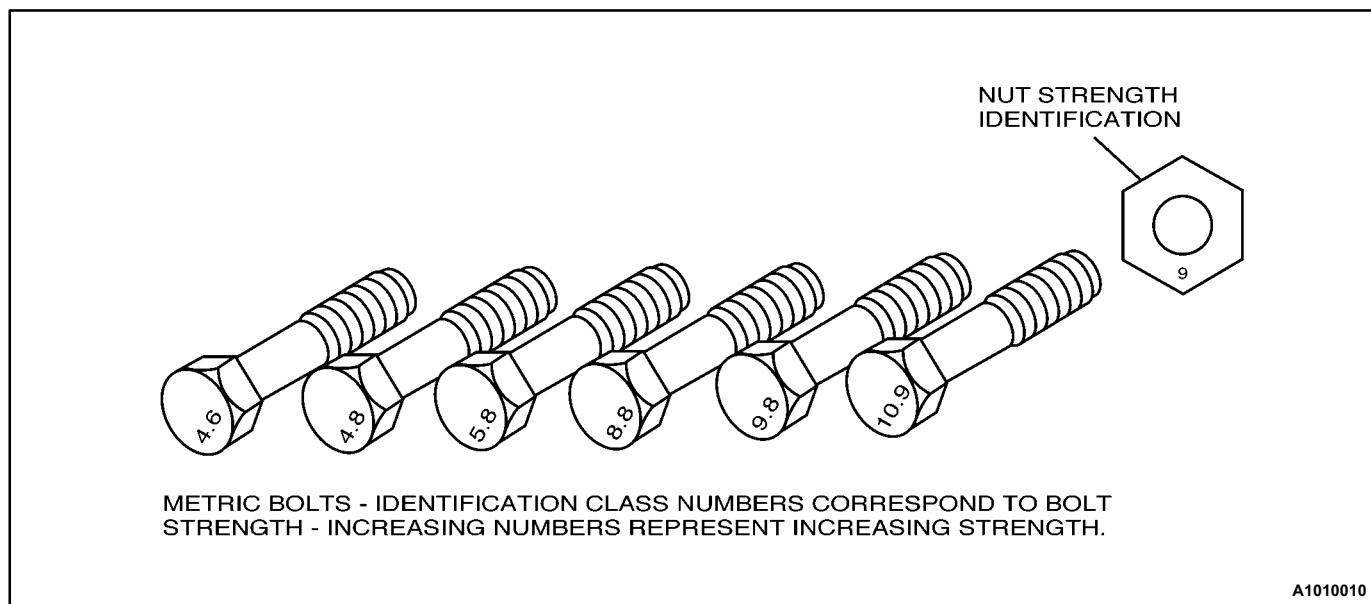
Vehicle Weights - 4 Door Notchback

Application	2.0L SOHC	2.0L DOHC	2.2L DOHC
Manual:	-	-	-
Curb Weight (kg)	1,295 - 1,320	1,325 - 1,365	TBD
Gross Vehicle Weight (kg)	1,830	1,830	TBD
Automatic:	-	-	-
Curb Weight: (kg)	1,305 - 1,330	1,336 - 1,376	TBD
Gross Vehicle Weight (kg)	1,830	1,830	TBD
Passenger Capacity	5	5	TBD

STANDARD BOLT SPECIFICATIONS

Bolt*	4T - Low Carbon Steel	7T - High Carbon Steel	7T - Alloy Steel
M6 X 1.0	4.1-8.1 N•m (36-72 lb•in)	4.1-9.5 N•m (48-84 lb•in)	-
M8 X 1.25	8.1-17.6 N•m (72-156 lb•in)	12.2-23.0 N•m (108-204 lb•in)	16-30 N•m (12-22 lb•ft)
M10 X 1.25	20-34 N•m (15-25 lb•ft)	27-46 N•m (20-34 lb•ft)	37-62 N•m (27-46 lb•ft)
M10 X 1.5	19-34 N•m (14-25 lb•ft)	27-45 N•m (20-33 lb•ft)	37-60 N•m (27-44 lb•ft)
M12 X 1.25	49-73 N•m (36-54 lb•ft)	61-91 N•m (45-67 lb•ft)	76-114 N•m (56-84 lb•ft)
M12 X 1.75	45-69 N•m (33-51 lb•ft)	57-84 N•m (42-62 lb•ft)	72-107 N•m (53-79 lb•ft)
M14 X 1.5	76-115 N•m (56-85 lb•ft)	94-140 N•m (69-103 lb•ft)	114-171 N•m (84-126 lb•ft)
M14 X 2.0	72-107 N•m (53-79 lb•ft)	88-132 N•m (65-97 lb•ft)	107-160 N•m (79-118 lb•ft)
M16 X 1.5	104-157 N•m (77-116 lb•ft)	136-203 N•m (100-150 lb•ft)	160-240 N•m (118-177 lb•ft)
M16 X 2.0	100-149 N•m (74-110 lb•ft)	129-194 N•m (95-143 lb•ft)	153-229 N•m (113-169 lb•ft)
M18 X 1.5	151-225 N•m (111-166 lb•ft)	195-293 N•m (144-216 lb•ft)	229-346 N•m (169-255 lb•ft)
M20 X 1.5	206-311 N•m (152-229 lb•ft)	270-405 N•m (199-299 lb•ft)	317-476 N•m (234-351 lb•ft)
M22 X 1.5	251-414 N•m (185-305 lb•ft)	363-544 N•m (268-401 lb•ft)	424-636 N•m (313-469 lb•ft)
M24 X 2.0	359-540 N•m (265-398 lb•ft)	431-710 N•m (318-524 lb•ft)	555-831 N•m (409-613 lb•ft)

* Diameter X pitch in millimeters



MAINTENANCE AND REPAIR

MAINTENANCE AND LUBRICATION

NORMAL VEHICLE USE

The maintenance instructions contained in the maintenance schedule are based on the assumption that the vehicle will be used for the following reasons:

- To carry passengers and cargo within the limitation indicated on the Tire Placard located on the edge of the driver's door.
- To be driven on reasonable road surfaces and within legal operating limits.

EXPLANATION OF SCHEDULED MAINTENANCE SERVICES

The services listed in the maintenance schedule are further explained below. When the following maintenance services are performed, make sure all the parts are replaced and all the necessary repairs are done before driving the vehicle. Always use the proper fluid and lubricants.

Drive Belt Inspection

When a separate belt drives the power steering pump, the air conditioning compressor and the generator, inspect it for cracks, fraying, wear, and proper tension. Adjust or replace the belt as needed.

Engine Oil and Oil Filter Change

Always use above the SJ grade engine oil. The SJ designation may be shown alone or in combination with other designations such as SJ/CC, etc.

Engine Oil Viscosity

Engine oil viscosity (thickness) has an effect on fuel economy and cold weather operation. Lower viscosity engine oils can provide better fuel economy and cold weather performance; however, higher temperature weather conditions require higher viscosity engine oils for satisfactory lubrication. Using oils of any viscosity other than those viscosities recommended could result in engine damage.

Cooling System Service

Drain, flush and refill the system with new coolant. Refer to „Recommended Fluids and Lubricants” in this section.

Fuel Micro-Filter Replacement

Replace the engine fuel filter every 45 000 km (27,000 miles).

The engine fuel filter is located on the center dash panel near the brake booster.