

Engine & CoolingFuelIgnitionElectricalRunning gearTorque settingsCapacitiesNotes & Illustrations



Automotive Technical
DATA BOOK

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Engine and cooling system

Carisma 1.81996 to 1997

Type		4G93 SOHC 16V 85kW
Capacity (cm ³) / number of cylinders		1834 / 4
Compression ratio / pressure	bar	10.0 / ≥9.6
Oil pressure	bar	—
Oil temperature	°C	—
Valve clearance - inlet	mm	H: 0.20
Valve clearance - exhaust	mm	H: 0.30
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	82
Radiator cap pressure	bar	0.75 to 1.05

Fuel system

Carisma 1.81996 to 1997

Idle speed - manual [auto]	rpm	800±100
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	≤0.3
HC @ idle speed [3000 rpm] - see page VI	ppm	≤15
CO2 @ idle speed [3000 rpm] - see page VI	%	—
O2 @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection		_Mitsubishi
Type / ref		MPI
Main jet / needle		—
Injection pressure	bar	2.6
Pump pressure	bar	3.2
Octane rating	RON	95[U]

Ignition system

Carisma 1.81996 to 1997

Type		Electronic
Ignition coil		—
Primary resistance	ohms	0.5 to 0.7
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		—
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		—
Ignition timing - basic [static	° Crankshaft @ rpm	5°±2° BTDC @ 800±100 WSM
V = Vacuum NV = No Vacuum		—
Total ignition advance	° Crankshaft @ rpm	Computer control
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	Computer control
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Vacuum range check	mbar	Computer control
Maximum vacuum advance	° Crankshaft	—
Spark plugs		NGK/Nippon Denso
Type		BKR6E-11 / K20PRU11
Electrode gap	mm	1.10

Electrical system

Carisma 1.81996 to 1997

Battery	V / CC / RC	—
Alternator voltage / full load current / engine rpm		14.6 / 90A
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	—

Running gear

Carisma 1.81996 to 1997

Brakes -		
Front (min. friction material thickness)	mm	1.0
Rear (min. friction material thickness)	mm	1.0

Tyres		
Saloon	Size	185/65x14: 195/60x14
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	Refer to vehicle
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	1.0±2.0
Camber		0°00'±30'
Castor		2°12'
King pin inclination		12°41'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	3.0±2.0
Camber		-0°41'±30'

Torque wrench settings

Carisma 1.81996 to 1997

Cylinder head - stage 1	Nm	74 oiled ¹
- stage 2	Nm	Slacken
Cylinder head - stage 3	Nm	20 +90°
- stage 4	Nm	+90°
Big-end bearings	Nm	20 +90°
Main bearings	Nm	25 +90°
Clutch cover	Nm	15 to 25
Flywheel [driveplate]	Nm	93 to 103
Front hubs	Nm	216 to 255 N
Rear hubs	Nm	172 N
Wheel nuts / bolts	Nm	98 to 117
Spark plugs	Nm	25

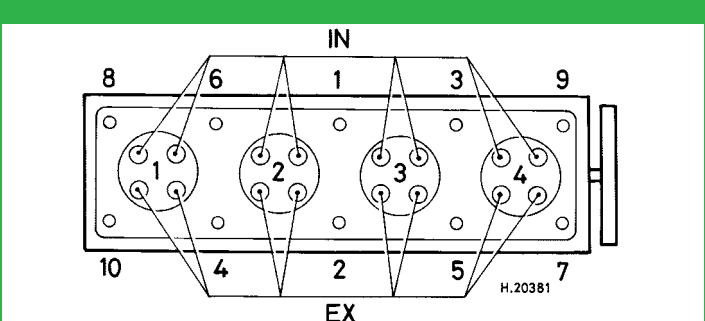
Capacities

Carisma 1.81996 to 1997

Engine oil & filter	litres	3.8
Gearbox - 4-speed [5-speed]	litres	3.4
Automatic transmission - refill	litres	7.8
Final drive	litres	WT
Cooling system	litres	6.0
Fuel tank	litres	60

Notes and Illustrations

¹Bolt shank length: ≤96.4



1834 cm³ 16V