

## SCHEDULED MAINTENANCE INTERVALS

### Mitsubishi—Montero, Montero Sport

TO BE SERVICED	TYPE OF SERVICE	VEHICLE MILEAGE INTERVAL (x1000)													
		7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	
Engine oil & filter	R	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Automatic transmission & transfer oil	S/I		✓		✓		✓		✓		✓		✓		
Brake hoses	S/I		✓		✓		✓		✓		✓		✓		
Disc brake pads & rotors	S/I		✓		✓		✓		✓		✓		✓		
Drive shaft boots	S/I		✓		✓		✓		✓		✓		✓		
Air cleaner filter	R				✓				✓				✓		
Automatic transmission & transfer oil (4WD)	R				✓				✓				✓		
Engine coolant	R				✓				✓				✓		
Ball joints & steering linkage seals	S/I				✓				✓				✓		
Drive belt(s)	S/I				✓				✓				✓		
Drum brake linings & wheel cylinders	S/I				✓				✓				✓		
Exhaust system	S/I				✓				✓				✓		
Front & rear axle	S/I				✓				✓				✓		
Fuel hoses	S/I				✓				✓				✓		
Manual transmission & transfer oil (4WD)	S/I				✓				✓				✓		
Propeller shaft joint	S/I				✓				✓				✓		
Ignition cables	R								✓						
Timing belt	R								✓						
Distributor cap & rotor	S/I								✓						
EVAP system (except EVAP canister)	S/I								✓						
EGR valve A	S/I														
EVAP canister A	S/I														
PCV system B	S/I														
Spark plugs C	R														

R: Replace S/I: Service or Inspect

A Replace at 100,000 miles.

B PCV system (except EVAP canister): service or inspect at 100,000 miles.

C Iron tips: 30,000 miles  
Platinum tips: 60,000 miles  
Iridium tips: 100,000 miles

### FREQUENT OPERATION MAINTENANCE (SEVERE SERVICE)

If a vehicle is operated under any of the following conditions it is considered severe service:

- Extremely dusty areas.
- 50% or more of the vehicle operation is in 32°C (90°F) or higher temperatures, or constant operation in temperatures below 0°C (32°F).
- Prolonged idling (vehicle operation in stop and go traffic).
- Frequent short running periods (engine does not warm to normal operating temperatures).
- Police, taxi, delivery usage or trailer towing usage.

Oil & oil filter: replace every 3000 miles.

Front disc brake pads (dusty or salty conditions): service or inspect every 6000 miles.

Front disc brake pads: service or inspect every 7500 miles.

Air cleaner filter: service or inspect every 15,000 miles.

Rear drum brake linings & rear wheel cylinders: service or inspect every 15,000 miles.

Spark plugs (iron tip): replace every 15,000 miles.

PCV system: service or inspect every 60,000 miles.

## BRAKE SPECIFICATIONS

All measurements in inches unless noted

Year	Model		Brake Disc			Brake Drum Diameter			Minimum Lining Thickness		Brake Caliper	
			Original Thickness	Minimum Thickness	Maximum Runout	Original Inside Diameter	Max. Wear Limit	Maximum Machine Diameter	Front	Rear	Bracket Bolts (ft. lbs.)	Mounting Bolts (ft. lbs.)
1999	Montero	F	1.060	1.000	0.002	—	—	—	0.079	—	65	54
		R	0.710	0.646	0.003	—	—	—	—	0.040	65	32
	Montero Sport	F	0.940	0.880	0.002	—	—	—	0.079	—	65	55
		R	0.700	0.650	0.003	10.63	—	10.71	—	A	94	32
2000	Montero	F	1.060	1.000	0.002	—	—	—	0.079	—	65	54
		R	0.710	0.646	0.003	—	—	—	—	0.040	65	32
	Montero Sport	F	0.940	0.880	0.002	—	—	—	0.079	—	65	55
		R	0.700	0.650	0.003	10.63	—	10.71	—	A	94	32
2001	Montero	F	1.023	0.960	0.002	—	—	—	0.079	—	65	54
		R	0.866	0.803	0.003	—	—	—	—	0.079	65	32
	Montero Sport	F	0.940	0.880	0.001	—	—	—	0.079	—	65	55
		R	0.710	0.650	0.003	10.63	—	10.71	—	A	94	32
2002-03	Montero	F	1.023	0.960	0.002	—	—	—	0.079	—	65	54
		R	0.866	0.803	0.003	—	—	—	—	0.079	65	32
	Montero Sport	F	0.940	0.880	0.001	—	—	—	0.079	—	65	55
		R	0.710	0.650	0.003	10.63	—	10.71	—	A	94	32

A disc pad: 0.79

brake shoe: 0.04

## CAPACITIES

Year	Model	Engine		Engine	Transmission		Transfer	Drive Axle		Fuel	Cooling
		Displacement	Engine	Oil with	(pts.)		Case	Front	Rear	Tank	System
		Liters (cc)	VIN	Filter	5-Spd	Auto.	(pts.)	(pts.)	(pts.)	(gal.)	(qts.)
1999	Montero	3.5 (3497)	M	5.5	—	17.8	5.2	2.4	6.6	24.3	10.0
	Montero Sport	2.4 (2351)	G	4.5	4.8	—	—	—	3.2	19.5	8.5
		3.0 (2972)	P	5.2	4.8	20.8	4.8	2.4	5.5	19.5	9.5
		3.5 (3497)	M	5.2	—	20.8	4.8	2.4	5.5	19.5	9.5
2000	Montero	3.5 (3497)	M	5.1	—	19.6	6	2.6	3.4	23.8	9.5
	Montero Sport	3.5 (3497)	M	4.7	—	20.6	5.2	1.9	5.6	19.5	A
		3.0 (2972)	P	4.6	—	20.6	5.2	1.9	6.8	19.5	A
2001	Montero	3.5 (3497)	M	5.1	—	19.6	6	2.6	3.4	23.8	9.5
	Montero Sport	3.5 (3497)	M	4.7	—	20.6	5.2	1.9	5.6	19.5	A
		3.0 (2972)	P	4.6	—	20.6	5.2	1.9	6.8	19.5	A
2002-03	Montero	3.5 (3497)	M	5.1	—	19.6	6	2.6	3.4	23.8	9.5
	Montero Sport	3.5 (3497)	M	4.7	—	20.6	5.2	1.9	5.6	19.5	A
		3.0 (2972)	P	4.6	—	20.6	5.2	1.9	6.8	19.5	A

A without rear heater: 9.5

i h e a h e a e

## CRANKSHAFT AND CONNECTING ROD SPECIFICATIONS

All measurements are given in inches.

Year	Engine		Crankshaft				Connecting Rod		
	Displacement Liters (cc)	Engine ID/VIN	Main Brg. Journal Dia.	Main Brg. Oil Clearance	Shaft End-play	Thrust on No.	Journal Diameter	Oil Clearance	Side Clearance
1999	2.4 (2351)	G	2.2436- 2.2441	0.0008- 0.0040	0.0020- 0.0098	3	1.7709- 1.7717	0.0008- 0.0040	0.0039- 0.0160
	3.0 (2972)	P	2.3614- 2.3622	0.0008- 0.0040	0.0020- 0.0120	3	2.1646- 2.1654	0.0008- 0.0040	0.0039- 0.0160
	3.5 (3497)	M	2.3614- 2.3622	0.0008- 0.0040	0.0020- 0.0120	3	1.9700	0.0008- 0.0040	0.0039- 0.0160
2000	3.0 (2972)	P	2.3614- 2.3622	0.0008- 0.0040	0.0020- 0.0120	3	2.1646- 2.1654	0.0008- 0.0040	0.0039- 0.0160
	3.5 (3497)	M	2.3614- 2.3622	0.0008- 0.0040	0.0020- 0.0120	3	1.9700	0.0008- 0.0040	0.0039- 0.0160
2001	3.0 (2972)	P	2.3614- 2.3622	0.0008- 0.0040	0.0020- 0.0120	3	2.1646- 2.1654	0.0008- 0.0040	0.0039- 0.0160
	3.5 (3497)	M	2.3614- 2.3622	0.0008- 0.0040	0.0020- 0.0120	3	1.9700	0.0008- 0.0040	0.0039- 0.0160
2002-03	3.0 (2972)	P	2.3614- 2.3622	0.0008- 0.0040	0.0020- 0.0120	3	2.1646- 2.1654	0.0008- 0.0040	0.0039- 0.0160
	3.5 (3497)	M	2.3614- 2.3622	0.0008- 0.0040	0.0020- 0.0120	3	1.9700	0.0008- 0.0040	0.0039- 0.0160

## ENGINE AND VEHICLE IDENTIFICATION CHART

Engine							Model Year	
Code	Liters (cc)	Cu. In.	Cyl.	Fuel Sys.	Engine Type	Eng. Mfg.	Code	Year
G	2.4 (2351)	143.4	4	MFI	SOHC	Mitsubishi	X	1999
M	3.5 (3479)	213.4	6	MFI	SOHC	Mitsubishi	Y	2000
H	3.0 (2972)	181.4	6	MFI	SOHC	Mitsubishi	1	2001
P	3.0 (2972)	181.4	6	MFI	SOHC	Mitsubishi	2	2002
							3	2003

MFI: Multi-port Fuel Injection

## ENGINE TUNE-UP SPECIFICATIONS

Year	Engine Displacement Liters (cc)	Engine VIN	Spark Plugs Gap (in.)	Ignition Timing (deg.)		Fuel Pump (psi)	Idle Speed (rpm)		Valve Clearance	
				MT	AT		MT	AT	In.	Ex.
1999	2.4 (2351)	G	0.039-0.043	5B	—	38 A	750	—	HYD	HYD
	3.5 (3479)	M	0.039-0.043	—	5B	38 A	—	700	HYD	HYD
	3.0 (2972)	P	0.039-0.043	5B	5B	38 A	750	750	HYD	HYD
2000	3.5 (3479)	M	0.039-0.043	—	5B	38 A	—	700	HYD	HYD
	3.0 (2972)	P	0.039-0.043	—	5B	38 A	—	750	HYD	HYD
2001	3.5 (3479)	M	0.039-0.043	—	5B	38 A	—	700	HYD	HYD
	3.0 (2972)	P	0.039-0.043	—	5B	38 A	—	750	HYD	HYD
2002-03	3.5 (3479)	M	0.039-0.043	—	5B	38 A	—	700	HYD	HYD
	3.0 (2972)	P	0.039-0.043	—	5B	38 A	—	750	HYD	HYD

B: Before top dead center

HYD: Hydraulic

A With vacuum hose connected

## GENERAL ENGINE SPECIFICATIONS

Year	Engine Displacement Liters (cc)	Engine VIN	Fuel System Type	Net Horsepower @ rpm	Net Torque @ rpm (ft. lbs.)	Bore x Stroke (in.)	Compression Ratio	Oil Pressure @ rpm
<b>1999</b>	2.4 (2351)	G	MFI	134@5500	148@3000	3.41x3.94	9.5:1	41@2000
	3.5 (3497)	M	MFI	200@5000	228@3500	3.66x3.38	9.0:1	30-80@2000
	3.0 (2972)	P	MFI	173@5500	188@4500	3.59x2.99	9.0:1	30-80@2000
<b>2000</b>	3.5 (3497)	M	MFI	200@5000	228@3500	3.66x3.38	9.0:1	30-80@2000
	3.0 (2972)	P	MFI	173@5500	188@4500	3.59x2.99	9.0:1	30-80@2000
<b>2001</b>	3.5 (3497)	M	MFI	200@5000	228@3500	3.66x3.38	9.0:1	30-80@2000
	3.0 (2972)	P	MFI	173@5500	188@4500	3.59x2.99	9.0:1	30-80@2000
<b>2002-03</b>	3.5 (3497)	M	MFI	200@5000	228@3500	3.66x3.38	9.0:1	30-80@2000
	3.0 (2972)	P	MFI	173@5500	188@4500	3.59x2.99	9.0:1	30-80@2000

## PISTON AND RING SPECIFICATIONS

All measurements are given in inches.

Year	Engine		Piston Clearance	Ring Gap			Ring Side Clearance		
	Displacement Liters (cc)	Engine ID/VIN		Top	Bottom	Oil	Top	Bottom	Oil
				Compression	Compression	Control	Compression	Compression	Control
1999	2.4 (2351)	G	0.0008- 0.0016	0.0098- 0.0310	0.0157- 0.0310	0.0039- 0.0390	0.0012- 0.0040	0.0012- 0.0040	Snug
	3.0 (2972)	P	0.0008- 0.0020	0.0118- 0.0310	0.0177- 0.0310	0.0079- 0.0390	0.0012- 0.0040	0.0008- 0.0040	Snug
	3.5 (3497)	M	0.0008- 0.0020	0.0118- 0.0310	0.0177- 0.0310	0.0079- 0.0390	0.0012- 0.0040	0.0008- 0.0040	Snug
2000	3.0 (2972)	P	0.0008- 0.0020	0.0118- 0.0310	0.0177- 0.0310	0.0079- 0.0390	0.0012- 0.0040	0.0008- 0.0040	Snug
	3.5 (3497)	M	0.0008- 0.0020	0.0118- 0.0310	0.0177- 0.0310	0.0079- 0.0390	0.0012- 0.0040	0.0008- 0.0040	Snug
2001	3.0 (2972)	P	0.0008- 0.0020	0.0118- 0.0310	0.0177- 0.0310	0.0079- 0.0390	0.0012- 0.0040	0.0008- 0.0040	Snug
	3.5 (3497)	M	0.0008- 0.0020	0.0118- 0.0310	0.0177- 0.0310	0.0079- 0.0390	0.0012- 0.0040	0.0008- 0.0040	Snug
2002-03	3.0 (2972)	P	0.0008- 0.0020	0.0118- 0.0310	0.0177- 0.0310	0.0079- 0.0390	0.0012- 0.0040	0.0008- 0.0040	Snug
	3.5 (3497)	M	0.0008- 0.0020	0.0118- 0.0310	0.0177- 0.0310	0.0079- 0.0390	0.0012- 0.0040	0.0008- 0.0040	Snug

## TIRE, WHEEL AND BALL JOINT SPECIFICATIONS

Year	Model	OEM Tires		Tire Pressures (psi)		Wheel Size	Ball Joint Inspection
		Standard	Optional	Front	Rear		
1999	Montero	P265/70HR15	None	26	26	7-JJ	U: 7-30 in. A L: 0.010 in.
	Montero Sport	P235/75R15	P265/70R15	26	26	Std: 6-JJ Opt: 7-JJ	U: 7-30 in. A L: 0.010 in.
2000	Montero	P265/70HR15	None	26	26	7-JJ	U: 7-30 in. A L: 0.010 in.
	Montero Sport	P235/75R15	P265/70R15	26	26	Std: 6-JJ Opt: 7-JJ	U: 7-30 in. A L: 0.010 in.
2001	Montero	P265/70HR16	None	29	29	7-JJ	U: 7-30 in. A L: 0.010 in.
	Montero Sport	P235/75R15	P255/70R16	26	26	Std: 6-JJ Opt: 7-JJ	U: 7-30 in. A L: 0.010 in.
2002-03	Montero	P265/70HR16	None	29	29	7-JJ	U: 7-30 in. A L: 0.010 in.
	Montero Sport	P235/75R15	P255/70R16	26	26	Std: 6-JJ Opt: 7-JJ	U: 7-30 in. A L: 0.010 in.

OEM: Original Equipment Manufacturer

PSI: Pounds Per Square Inch

STD: Standard

OPT: Optional

A Torque required in inch lbs. to rotate ball joint when removed from the knuckle

## TORQUE SPECIFICATIONS

All readings in ft. lbs.

Year	Engine ID/VIN	Engine Displacement Liters (cc)	Cylinder Head Bolts	Main Bearing Bolts	Rod Bearing Bolts	Crankshaft Damper Bolts	Flywheel Bolts	Manifold		Spark Plugs	Lug Nut
								Intake *	Exhaust		
1999	G	2.4 (2351)	A	B	C	87	98	14	D	18	100
	M	3.5 (3497)	80	54	38	134	54	16	22	18	100
	P	3.0 (2972)	80	69	37	134	55	16	33	18	100
2000	M	3.5 (3497)	80	54	38	134	54	16	22	18	100
	P	3.0 (2972)	80	69	37	134	55	16	33	18	100
2001	M	3.5 (3497)	80	54	38	134	54	16	22	18	100
	P	3.0 (2972)	80	69	37	134	55	16	33	18	100
2002-03	M	3.5 (3497)	80	54	38	134	54	16	22	18	100
	P	3.0 (2972)	80	69	37	134	55	16	33	18	100

\* NOTE: Applies to Lower Manifold only.

**A** Step 1: 58 ft. lbs., then, loosen completely  
 Step 2: 14 ft. lbs. plus 1/4 turn  
 Step 3: Plus an additional 1/4 turn

**B** Step 1: 18 ft. lbs.  
 Step 2: Plus 1/4 turn

**C** Step 1: 14 ft. lbs.  
 Step 2: Plus 1/4 turn

**D** M8 fasteners: 22 ft. lbs.  
 M10 fasteners: 36 ft. lbs.

## VALVE SPECIFICATIONS

Year	Engine Displacement Liters (cc)	Engine VIN	Seat Angle (deg.)	Face Angle (deg.)	Spring Test Pressure (lbs. @ in.)	Spring Installed Height (in.)	Stem-to-Guide Clearance (in.)		Stem Diameter (in.)	
							Intake	Exhaust	Intake	Exhaust
1999	2.4 (2351)	G	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0012-0.0027	0.240	0.230
	3.5 (3497)	M	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0016-0.0028	0.236	0.236
	3.0 (2972)	P	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0016-0.0028	0.240	0.240
2000	3.5 (3497)	M	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0016-0.0028	0.236	0.236
	3.0 (2972)	P	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0016-0.0028	0.240	0.240
2001	3.5 (3497)	M	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0016-0.0028	0.236	0.236
	3.0 (2972)	P	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0016-0.0028	0.240	0.240
2002-03	3.5 (3497)	M	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0016-0.0028	0.236	0.236
	3.0 (2972)	P	44-44.5	45-45.5	60@1.74	1.740	0.0008-0.0020	0.0016-0.0028	0.240	0.240

## WHEEL ALIGNMENT

Year	Model		Caster		Camber		Toe-in (in.)	Axis Inclination (Deg.)
			Range (+/-Deg.)	Preferred Setting (Deg.)	Range (+/-Deg.)	Preferred Setting (Deg.)		
1999	Montero	F	1.00	+3.00	0.50	+0.66	0.14+/-0.14	—
		R	—	—	1.00	0	0	—
	Montero Sport	F	1.00	+2.66	0.50	+4.00	0.14+/-0.14	—
		R	—	—	—	0	0	—
2000	Montero	F	1.00	+3.00	0.50	+0.66	0.14+/-0.14	—
		R	—	—	1.00	0	0	—
	Montero Sport	F	1.00	+2.66	0.50	+4.00	0.14+/-0.14	—
		R	—	—	—	0	0	—
2001	Montero	F	0.50	+3.50	0.50	0	0.10+/-0.10	—
		R	—	—	0.50	0	0.12+/-0.12	—
	Montero Sport	F	1.00	+2.66	0.50	A	0.14+/-0.14	—
		R	—	—	—	0	0	—
2002-03	Montero	F	0.50	+3.50	0.50	0	0.10+/-0.10	—
		R	—	—	0.50	0	0.12+/-0.12	—
	Montero Sport	F	1.00	+2.66	0.50	A	0.14+/-0.14	—
		R	—	—	—	0	0	—

A. Right: 0.42  
Left: 0.92