

C - SPECIFICATIONS

1998 Mitsubishi Montero

1998 ENGINE PERFORMANCE

Mitsubishi - Service & Adjustment Specifications

Diamante, Eclipse, Galant, Mirage, Montero, Montero Sport,
3000GT

INTRODUCTION

Use this article to quickly find specifications related to servicing and on-vehicle adjustments. This is a quick reference article to use when you are familiar with an adjustment procedure and only need a specification.

CAPACITIES

BATTERY SPECIFICATIONS TABLE

Application	Group Size	CCA Rating
Diamante	57NAS	520
Eclipse	86	430 Or (1) 525
Galant	D26	490
Mirage	55B24L	433
Montero	75D26R-MF	490
Montero Sport	75D23R	520
3000GT	75D23R-MF	520

(1) - Used on 2.0L non-turbo with A/T.

NOTE: Refill capacities are approximate. Correct fluid level should be determined by mark on dipstick, if applicable.

FLUID CAPACITIES TABLE

Application	Quantity
Automatic Transaxle	
(Mitsubishi Plus/Mopar Plus/Dexron-II)	
Diamante	9.0 Qts. (8.5L)
Eclipse	
2.0L	
Non-Turbo	9.1 Qts. (8.6L)
Turbo	7.1 Qts. (6.7L)
2.4L	6.4 Qts. (6.1L)
Galant	6.3 Qts. (6.0L)
Mirage	8.2 Qts. (7.8L)
3000GT	7.9 Qts. (7.5L)
Automatic Transmission	
(Mitsubishi Plus/Mopar Plus/Dexron II)	
Montero	10.0 Qts. (9.8L)
Montero Sport	10.4 Qts. (9.8L)
Cooling System	
(Includes Heater & Reserve Tank)	
Diamante	10 Qts. (9.5L)
Eclipse & Galant	7.4 Qts. (7.0L)
Mirage	
1.5L	5.3 Qts. (5.0L)
1.8L	6.3 Qts. (6.0L)

Montero	10.0 Qts.	(9.5L)
Montero Sport		
2.4L		
With Rear Heater	9.5 Qts.	(9.0L)
Without Rear Heater	8.5 Qts.	(8.0L)
3.0L		
With Rear Heater	10.6 Qts.	(10.0L)
Without Rear Heater	9.5 Qts.	(9.0L)
3000GT	8.5 Qts.	(8.0L)
Crankcase (Includes Filter)		
Diamante	4.5 Qts.	(4.3L)
Eclipse		
Non-Turbo	4.5 Qts.	(4.3L)
2.0L Turbo	4.6 Qts.	(4.4L)
Galant	4.5 Qts.	(4.3L)
Mirage		
1.5L	3.5 Qts.	(3.3L)
1.8L	4.0 Qts.	(3.8L)
Montero	(1) 5.0 Qts.	(4.8L)
Montero Sport		
2.4L	4.5 Qts.	(4.3L)
3.0L	5.2 Qts.	(4.9L)
3000GT		
Non-Turbo	4.5 Qts.	(4.3L)
Turbo	5.0 Qts.	(4.6L)
Differential (SAE 80W-90/API GL-5)		
Eclipse	.9 Qt.	(.8L)
Montero		
Front	1.3 Qts.	(1.2L)
Rear	3.3 Qts.	(3.2L)
Montero Sport		
Front	1.2 Qts.	(1.1L)
Rear		
2.4L	1.6 Qts.	(1.5L)
3.0L	2.7 Qts.	(2.6L)
3000GT	1.2 Qts.	(1.1L)
Manual Transaxle (SAE 75W-85/API GL-4)		
Eclipse		
Non-Turbo (2)	2.1 Qts.	(2.0L)
Turbo		
AWD	2.4 Qts.	(2.3L)
FWD	2.1 Qts.	(2.0L)
Galant	2.3 Qts.	(2.2L)
Mirage		
1.5L	2.2 Qts.	(2.1L)
1.8L	2.3 Qts.	(2.2L)
3000GT		
AWD	2.5 Qts.	(2.4L)
FWD	2.4 Qts.	(2.3L)
Manual Transmission (SAE 75W-85/API GL-4)		
Montero	3.3 Qts.	(3.2L)
Montero Sport	2.4 Qts.	(2.3L)
Power Steering (Dexron-II)		
3000GT W/4-Wheel Steering	3.2 Pts.	(1.5L)
Montero	2.2 Pts.	(1.1L)
All Others	1.9 Pts.	(.9L)
Transfer Case (SAE 75W-85/API GL-4)		
Eclipse (AWD)	1.1 Pts.	(.5L)
Montero	5.0 Pts.	(2.5L)
Montero Sport	4.6 Pts.	(2.3L)
3000GT	.7 Pt.	(.3L)

(1) - Add .5 qt. (.3L) if oil cooler is drained.

(2) - Use Texaco MTX FM fluid.

QUICK-SERVICE

SERVICE INTERVALS & SPECIFICATIONS

REPLACEMENT INTERVALS TABLE (DIAMANTE)

Component	Miles
Air Filter	30,000
Automatic Transaxle Fluid	(1)
Coolant	30,000
Oil	7500
Oil Filter	(2) 15,000
Spark Plugs	60,000
Spark Plug Wires	60,000
Timing Belt	60,000

(1) - Inspect fluid every 15,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.

(2) - Replace oil filter at oil change if annual mileage is less than 7500 miles.

REPLACEMENT INTERVALS TABLE (ECLIPSE)

Component	Miles
Air Filter	30,000
Automatic Transaxle Fluid	(1)
Coolant	30,000
Oil	
Non-Turbo	7500
Turbo	5000
Oil Filter	
Non-Turbo	(2) 15,000
Turbo	(2) 10,000
Spark Plugs	30,000
Spark Plug Wires	60,000
Transfer Case Fluid	(3)
Timing Belt	60,000

(1) - Inspect fluid every 15,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.

(2) - Replace oil filter at oil change if annual mileage is less than 7500 miles.

(3) - Inspect fluid every 30,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.

REPLACEMENT INTERVALS TABLE (GALANT)

Component	Miles
Air Filter	30,000
Automatic Transaxle Fluid	(1)
Coolant	(2)

Oil	7500
Oil Filter	(3) 15,000
Spark Plugs	30,000
Spark Plug Wires	60,000
Timing & Balance Shaft Belts	60,000

- (1) - Inspect fluid every 15,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.
- (2) - Inspect fluid every 30,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.
- (3) - Replace oil filter at oil change if annual mileage is less than 7500 miles.

REPLACEMENT INTERVALS TABLE (MIRAGE)

Component	Miles
Air Filter	30,000
Automatic Transaxle Fluid	(1)
Coolant	(2)
Oil	7500
Oil Filter	(3) 15,000
Spark Plugs	30,000
Spark Plug Wires	60,000
Timing Belt	60,000

- (1) - Inspect fluid every 15,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.
- (2) - Inspect fluid every 30,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.
- (3) - Replace oil filter at oil change if annual mileage is less than 7500 miles.

REPLACEMENT INTERVALS TABLE (MONTERO)

Component	Miles
Air Filter	30,000
Automatic Transmission Fluid	(1)
Coolant	30,000
Front & Rear Axle Fluid (2)	30,000
Oil	7500
Oil Filter	(3) 15,000
Manual Transmission	(4)
Spark Plugs (5)	60,000
Spark Plug Wires	60,000
Timing Belt	60,000

- (1) - Inspect fluid every 15,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.
- (2) - Limited-slip differential.
- (3) - Replace oil filter at oil change if annual mileage is less than 7500 miles.
- (4) - Inspect fluid every 30,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.

(5) - Use Platinum spark plugs only.

REPLACEMENT INTERVALS TABLE (MONTERO SPORT)

Component	Miles
Air Filter	30,000
Automatic Transmission	
Except 4WD	(1)
4WD	30,000
Axle Fluid (2)	30,000
Coolant	30,000
Oil	7500
Oil Filter	(3) 15,000
Spark Plugs (4)	60,000
Spark Plug Wires	60,000
Timing Belt	60,000

- (1) - Inspect fluid every 15,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.
- (2) - Limited-slip differential.
- (3) - Replace oil filter at oil change if annual mileage is less than 7500 miles.
- (4) - Use Platinum spark plugs only.
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REPLACEMENT INTERVALS TABLE (3000GT)

Component	Miles
Air Filter	30,000
Automatic Transaxle Fluid	(1)
Coolant	30,000
Oil	
Non-Turbo	7500
Turbo	5000
Oil Filter	
Non-Turbo	15,000
Turbo	10,000
Spark Plugs	
Except Platinum	30,000
Platinum	60,000
Spark Plug Wires (2)	60,000
Timing Belt	60,000

- (1) - Inspect fluid every 15,000 miles. Replace fluid if evidence of contamination appears, after repairing reason for contamination.
- (2) - Except vehicles equipped with Federal Emissions.
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BELT ADJUSTMENT TABLE

Application	(1) Deflection New Belt - In. (mm)	(1) Deflection Used Belt - In. (mm)
Diamante		
Generator & A/C	.24-.28 (6.0-7.2)	.32-.37 (8.2-9.3)
P/S	.33-.37 (8.4-9.3)	.46-.52 (11.7-13.4)
Eclipse		
2.0L Non-Turbo		

Generator	.30-.41	(7.5-10.5)	.....	.35-.47	(9.0-12.0)
P/S (W/O A/C)	.26-.37	(6.5-9.5)	.....	.43-.55	(11.0-14.0)
P/S & A/C	.32-.35	(8.0-9.0)	.....	.39-.43	(10.0-11.0)
2.0L Turbo & 2.4L					
A/C	.22-.24	(5.5-6.0)	.....	.26-.30	(6.5-7.5)
Generator	.30-.35	(7.5-9.0)	.....	.39	(10.0)
P/S	.18-.22	(4.5-5.5)	.....	.24-.28	(6.0-7.0)
Galant					
A/C	.22-.24	(5.5-6.0)	.....	.26-.30	(6.5-7.6)
Generator	.30-.35	(7.5-8.8)	.....	.39	(10.0)
P/S	.18-.22	(4.5-5.6)	.....	.24-.28	(6.0-7.0)
Mirage					
1.5L					
A/C	.13-.17	(3.4-4.3)	.....	.20-.22	(5.0-5.7)
Generator	.26-.33	(6.6-8.3)	.....	.36-.42	(9.2-10.6)
P/S	.28-.36	(7.2-9.0)	.....	.40-.46	(10.2-11.6)
1.8L					
Generator	.28-.31	(7.0-8.0)	.....	.33-.39	(8.5-10.0)
P/S & A/C	.28-.36	(7.0-9.0)	.....	.39-.43	(10.0-11.0)
Montero					
A/C	.20-.24	(5.0-6.0)	.....	.26-.30	(6.5-7.5)
Generator	.16-.20	(4.0-5.0)	.....	.22-.26	(5.5-6.5)
P/S	.42-.54	(10.7-13.7)	...	.58-.66	(14.8-16.8)
Montero Sport					
2.4L					
A/C	.20-.22	(5.0-6.0)	.....	.24-.26	(6.0-6.5)
Generator	.22-.29	(5.5-7.5)	.....	.30-.33	(7.5-8.5)
P/S	.16-.24	(4.0-6.0)	.....	.24-.28	(6.0-7.0)
3.0L					
A/C	.17-.20	(4.3-5.1)	.....	.22-.26	(5.6-6.5)
Generator	.22-.29	(5.5-7.5)	.....	.31-.35	(8.0-9.0)
P/S	.44-.52	(11.0-13.0)	...	.56-.64	(14.0-16.0)
3000GT					
SOHC					
A/C	.26-.28	(6.5-7.0)	.....	.30-.34	(7.5-8.5)
Generator & P/S	.16-.20	(4.0-5.0)	.....	.24-.32	(6.0-8.0)
DOHC					
Generator	.14-.16	(3.5-4.0)	.....	.16-.20	(4.0-5.0)
P/S	.30-.35	(7.5-9.0)	.....	.41-.49	(10.4-12.4)

(1) - With 22 lbs. (10 kg) pressure applied midway between pulleys.

MECHANICAL CHECKS

ENGINE COMPRESSION

Check engine compression with engine at normal operating temperature, all spark plugs removed and throttle wide open.

COMPRESSION SPECIFICATIONS TABLE

Application (1)	Specification
Compression Ratio	
1.5L (VIN A)	9.0:1
1.8L (VIN C)	9.5:1
2.0L	
(VIN F)	8.5:1
(VIN Y)	9.6:1
2.4L (VIN G)	9.5:1
3.0L	

(VIN H)	.....	8.9:1
(VIN J)	.....	10.0:1
(VIN K)	.....	8.0:1
(VIN P)	.....	9.0:1
3.5L (VIN M & P)	.....	9.0:1
Compression Pressure		
1.5L (VIN A)	.....	192 psi (13.4 kg/cm ²)
1.8L (VIN C)	.....	199 psi (13.9 kg/cm ²)
2.0L (VIN F)	.....	178 psi (12.5 kg/cm ²)
2.0L (VIN Y)	 170-225	psi (11.7-15.5 kg/cm ²)
2.4L (VIN G)	.....	192 psi (13.4 kg/cm ²)
3.0L		
(VIN H & P)	.....	171 psi (12.0 kg/cm ²)
(VIN J)	.....	185 psi (13.0 kg/cm ²)
(VIN K)	.....	156 psi (10.9 kg/cm ²)
3.5L (VIN M & P)	.....	171 psi (12.0 kg/cm ²)
Maximum Variation		
Between Cylinders (2)	.....	14 psi (1.0 kg/cm ²)
(1) - See A - ENGINE/VIN ID article for VIN information.		
(2) - On Eclipse 2.0L non-turbo engine, maximum variation between cylinders is 25 percent.		

VALVE CLEARANCE

NOTE: All engines are equipped with hydraulic lifters. No adjustment is required.

IGNITION SYSTEM

IGNITION COIL

IGNITION COIL RESISTANCE - Ohms @ 68°F (20°C) TABLE

Application (1)	Primary	Secondary
1.5L (VIN A)	5-.7	15,000-22,000
1.8L (VIN C)	 (2)	14,000-21,000
2.0L		
(VIN F)	70-.86	11,300-15,300
(VIN Y)	51-.61	11,500-13,500
2.4L (VIN G)		
Eclipse	74-.90	20,100-27,300
Galant	9-1.2	20,000-29,000
Montero Sport	67-.81	11,300-15,300
3.0L		
(VIN H)	72-.88	10,300-13,900
(VIN J & K)	67-.81	11,300-15,300
(VIN P)	74-.90	20,100-27,300
3.5L		
(VIN M)	74-90	20,100-27,300
(VIN P)	50-.70	9000-13,000

- (1) - See A - ENGINE/VIN ID article for VIN information.
(2) - Information is not available from manufacturer at time of publication.

HIGH TENSION WIRE RESISTANCE

Wire resistance should not exceed 22,000 ohms for all models

except Eclipse 2.0L non-turbo and Montero. On Eclipse 2.0L non-turbo, resistance should not exceed 8000 ohms. On Montero, resistance should not exceed 26,000 ohms.

SPARK PLUGS

SPARK PLUG TYPE TABLE

Application (1)	Nippondenso No.
1.5L (VIN A)	W16EPR-11
1.8L (VIN C)	K16PR-U11
2.0L (VIN F)	W20ETR-L8 Or W20EPR
2.0L (VIN Y)	(2) RC9YC5
2.4L (VIN G)	K16PR-U11
3.0L	
(VIN H)	W16EPR11
(VIN J, K & P)	PK20PR-P11
3.5L	
(VIN P)	PK20PR-11
(VIN M)	PK16PR-P11

- (1) - See A - ENGINE/VIN ID article for VIN information.
(2) - Champion Spark Plug.

SPARK PLUG SPECIFICATIONS TABLE

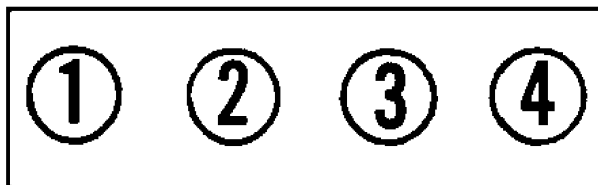
Application	(1) Gap In. (mm)	Torque Ft. Lbs. (N.m)
Diamante	.039-.043 (1.0-1.1)	 15-21 (20-30)
Eclipse 2.0L		
Non-Turbo	.048-.053 (1.2-1.4)	 20 (28)
Turbo	.028-.031 (.7-.8)	 18 (25)
All Others	.039-.043 (1.0-1.1)	 18 (25)

- (1) - DO NOT adjust gap on Platinum spark plugs.

FIRING ORDER

↓ FRONT OF VEHICLE (FWD)

← FRONT OF VEHICLE (RWD)



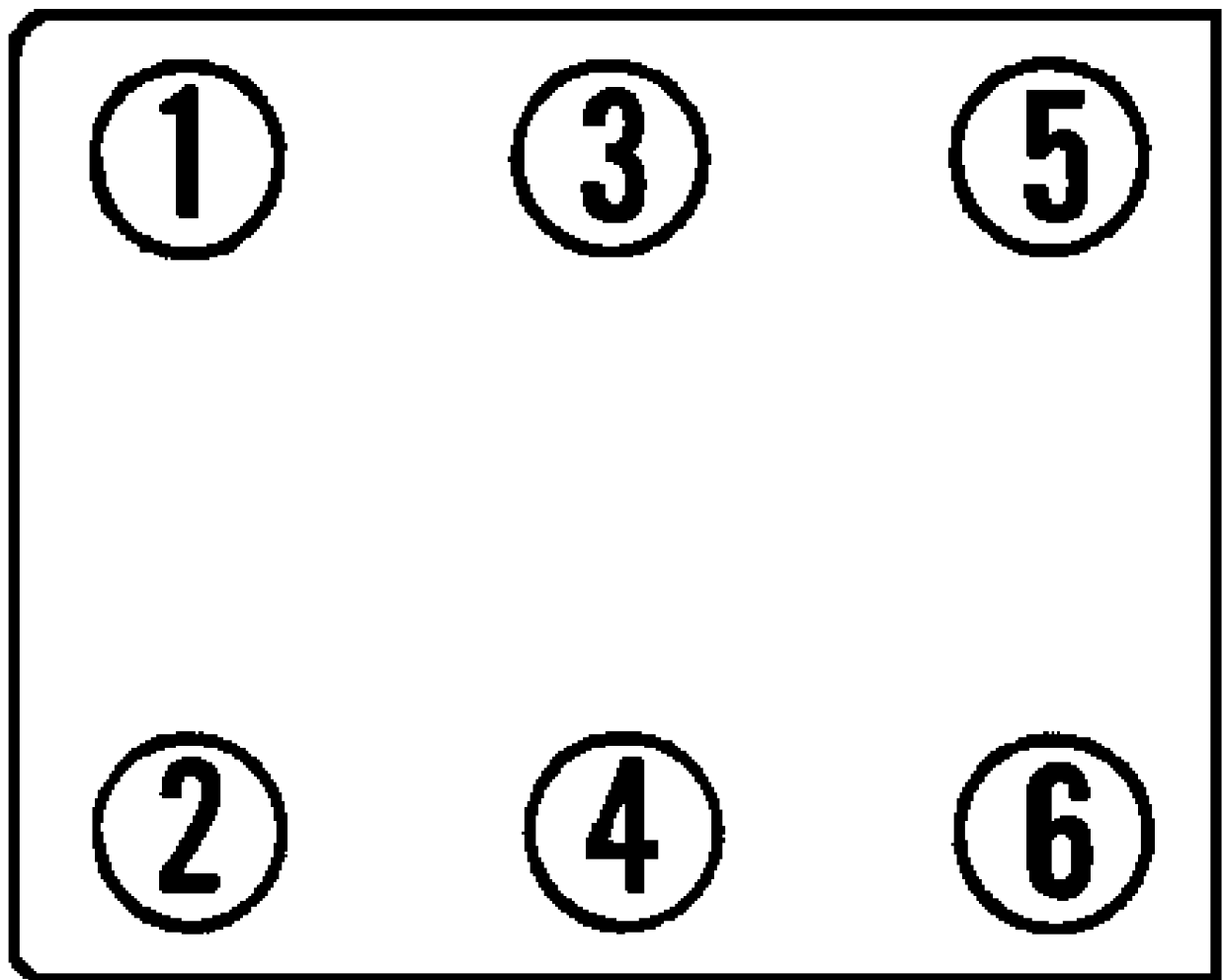
FIRING ORDER 1-3-4-2

G97C06418

Fig. 1: Firing Order Firing Order (4-Cylinder)

↑ FRONT OF VEHICLE (FWD)

← FRONT OF VEHICLE (RWD)



FIRING ORDER 1-2-3-4-5-6

97E06419

Fig. 2: Firing Order Firing Order (V6)

IGNITION TIMING

IGNITION TIMING (Degrees BTDC @ RPM) TABLE

Application	(1) Basic	(2) (3) (4) Actual
1.5L	2-78 @ 650-750	10 @ 600-800
1.8L	2-8 @ 600-800	5 @ 600-800
2.0L		
Non-Turbo	(5)	(5)
Turbo	2-8 @ 650-850	8 @ 650-850
2.4L	2-8 @ 650-850	10 @ 650-850
3.0L	2-8 @ 600-800	15 @ 600-800
3.5L	2-8 @ 600-800	15 @ 600-800

- (1) - With ignition timing adjustment connector grounded or vacuum hose (farthest from distributor) disconnected.
(2) - With ignition timing adjustment connector ungrounded or vacuum hose (farthest from distributor) connected.
(3) - If vehicle altitude is more than 2300 feet above sea level, actual timing may be advanced (5 degrees).
(4) - Actual ignition timing is approximate and may fluctuate plus or minus 7 degrees.
(5) - Ignition timing is NOT adjustable.

FUEL SYSTEM

FUEL PUMP

REGULATED FUEL PRESSURE TABLE

Application	At Idle w/Vacuum psi (kg/cm ²)	At Idle w/o Vacuum psi (kg/cm ²)
Eclipse 2.0L		
Non-Turbo	(1)	47-50 (3.3-3.5)
Turbo	33 (2.3)	42-45 (3.0-3.5)
3000GT Turbo	34 (2.4)	43-45 (3.0-3.1)
All Other Models	38 (2.7)	47-50 (3.3-3.5)

- (1) - Information is not available from manufacturer at time of publication.

IDLE SPEED

IDLE SPEED SPECIFICATIONS TABLE

Application	Curb Idle	Basic Idle
1.5L & 1.8L	600-800	650-750
2.0L		
Non-Turbo	700-900	(1)
Turbo	650-850	700-800
2.4L	650-850	700-800
3.0L & 3.5L	600-800	650-750

- (1) - Information is not available from manufacturer at time of publication.

INJECTOR RESISTANCE

INJECTOR RESISTANCE TABLE

Application	Ohms
Non-Turbo	
Eclipse 2.0L	11-15
Except Eclipse 2.0L	13-16
Turbo	2-3

THROTTLE POSITION (TP) SENSOR

TP SENSOR SPECIFICATIONS TABLE

Application	(1) Volts
Eclipse 2.0L Non-Turbo	(2)
All Others	.4-1.0

(1) - At idle.

(2) - Information is not available from manufacturer at time of publication.