

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

1991 Mitsubishi Montero

1991 WHEEL ALIGNMENT Specifications & Procedures

Chrysler Motors: Colt, Colt Vista, Colt 200,
Ram-50, Stealth, Summit
Mitsubishi: Eclipse, Galant, Mirage, Montero,
Pickup, Precis, 3000GT

WHEEL ALIGNMENT PROCEDURES

NOTE: On vehicles with electronic chassis controls, ensure all systems are functional before attempting to adjust riding height or wheel alignment.

CAMBER ADJUSTMENT

Montero, Pickup & Ram-50

1) Check tire inflation. Place front wheel on turning radius gauge, and level vehicle (unladen). On 2WD models, remove hub cap and cotter pin. On 4WD models, remove free wheeling hub assembly.

2) On all models, measure camber with camber/caster/kingpin gauge attached. See appropriate WHEEL ALIGNMENT SPECIFICATIONS table. If camber is not within specification, remove shock absorber mounting nut and lock nut.

3) Compress shock absorber and loosen upper arm mounting bolts and nuts. Adjust camber by increasing or decreasing shims between upper arm shaft and crossmember. See Fig. 1.

CAUTION: Difference in shim thickness between front and rear must be .16" (4 mm) or less. DO NOT use more than 3 shims at one location.

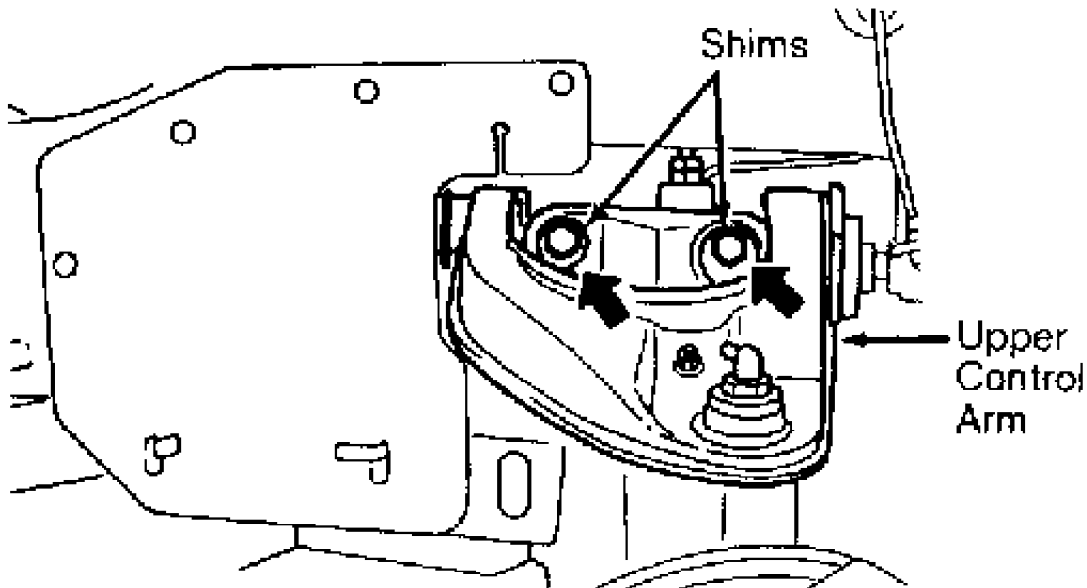
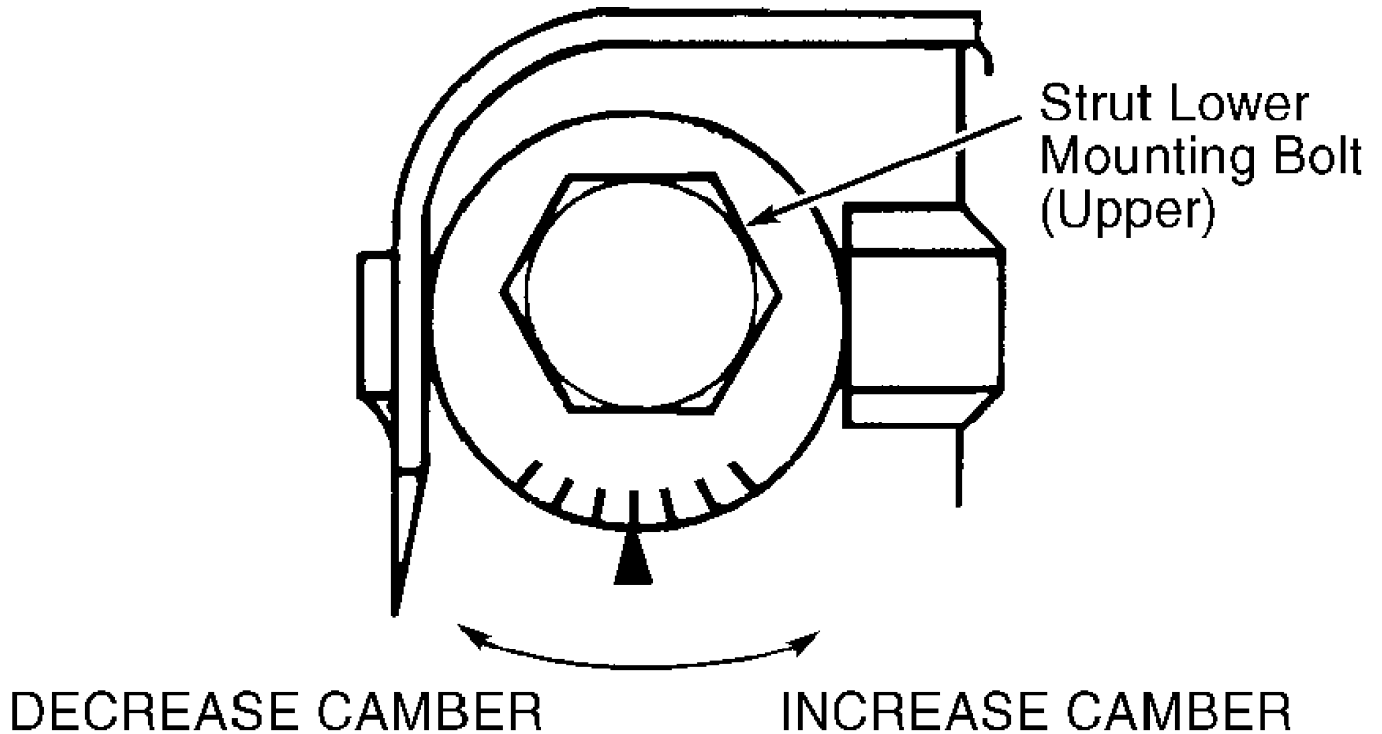


Fig. 1: Adjusting Camber & Caster (Pickup & Ram-50 Shown; Montero Camber Adjustment Similar)
Courtesy of Mitsubishi Motor Sales of America.

Stealth & 3000GT

Check camber. If camber is not within specification, loosen eccentric cam nut. Rotate eccentric cam bolt to obtain correct camber. See Fig. 2. Each marking represents a change of 1/8-1/4 degree of camber.



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Fig. 2: Adjusting Camber (Stealth & 3000GT)
Courtesy of Mitsubishi Motor Sales of America.

All Other Models

Check camber using a camber/caster/kingpin gauge and turning radius gauge. See WHEEL ALIGNMENT SPECIFICATIONS table. If camber is not within specification, replace damaged or bent parts.

CASTER ADJUSTMENT

Colt Vista

Check tire inflation. Place front wheel on turning radius gauge, and level vehicle (unloaded). Remove hub cap and cotter pin. Measure caster with camber/caster/kingpin gauge attached. See WHEEL ALIGNMENT SPECIFICATIONS table. If caster is not within specification, adjust by changing strut bar lock position. See Fig. 3.

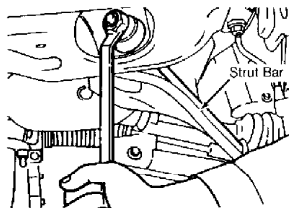


Fig. 3: Adjusting Caster (Colt Vista)
Courtesy of Mitsubishi Motor Sales of America.

Remove free wheeling hub. Measure caster with camber/caster/kingpin gauge and turning radius gauge. See WHEEL ALIGNMENT SPECIFICATIONS table. If caster is not within specification, remove upper arm from crossmember. Adjust caster by turning upper arm shaft. See Fig. 4.

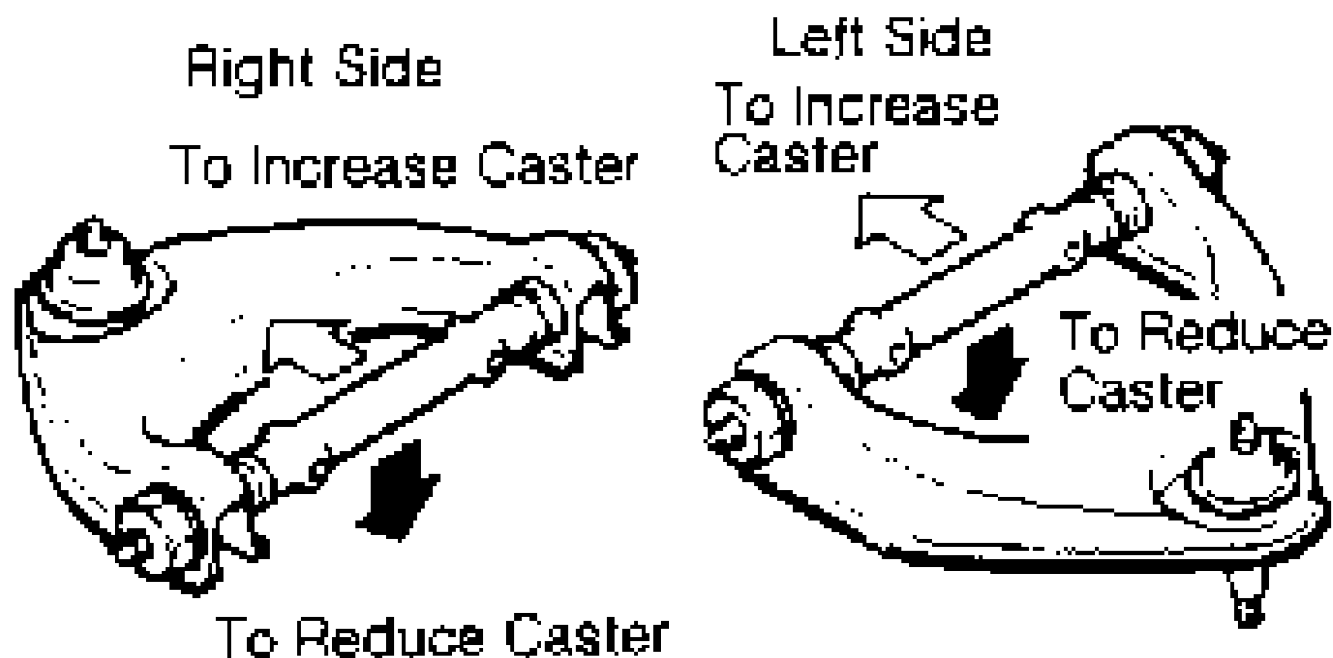


Fig. 4: Adjusting Caster (Montero)
Courtesy of Mitsubishi Motor Sales of America.

Pickup & Ram-50

1) Check tire inflation. Place front wheel on turning radius gauge, and level vehicle (unloaded). On 2WD models, remove hub cap and cotter pin. On 4WD models, remove free wheeling hub assembly.

2) On all models, measure caster with camber/caster/kingpin gauge attached. See WHEEL ALIGNMENT SPECIFICATIONS table. If caster is not within specification, remove shock absorber mounting nut and lock nut.

3) Compress shock absorber and loosen upper arm mounting bolts and nuts. Adjust caster by increasing or decreasing shims between upper arm shaft and crossmember. See Fig. 1.

CAUTION: Difference in shim thickness between front and rear must be .16" (4 mm) or less. DO NOT use more than 3 shims at one location.

All Other Models

Check caster using a camber/caster/kingpin gauge and turning radius gauge. See WHEEL ALIGNMENT SPECIFICATIONS table. If caster is not to specification, replace damaged or bent parts.

TOE-IN ADJUSTMENT

Check toe-in. See WHEEL ALIGNMENT SPECIFICATIONS table. If

toe-in is not within specification, remove clips. Turn tie rods or turnbuckles the same amount, but in opposite directions. Recheck toe-in.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application	Ft. Lbs. (N.m)
Shock Absorber-To-Crossmember Nut	
Montero, Pickup & Ram-50	10-13 (14-18)
Shock Absorber-To-Lower Arm Bolt	
Montero	11-16 (15-22)
Pickup & Ram-50	10 (14)
Upper Arm Shaft To Crossmember	
Montero, Pickup & Ram-50	72-87 (98-118)
Wheel Lug Nut	
Colt Vista	
Aluminum Wheels	65-80 (88-108)
Steel Wheels	50-57 (68-77)
Eclipse, Pickup, Ram-50, Stealth & 3000GT	87-101 (118-137)
Montero	72-87 (98-118)
All Others	65-80 (88-108)

WHEEL ALIGNMENT SPECIFICATIONS

WHEEL ALIGNMENT SPECIFICATIONS TABLE (COLT, COLT 200, MIRAGE, SUMMIT)

Application	Preferred	Range
Camber (Degrees)		
Front	0	-1/2 to 1/2
Rear	-11/16	-13/16 to -3/16
Caster (Degrees)	2 5/16	1 13/16 to 2 13/16
Toe-In (In. (mm))		
Front	0 (0)	-1/8 to 1/8 (-3 to 3)
Rear	0 (0)	-3/16 to 3/16 (-5 to 5)
Toe-In (Degrees)		
Front	0	-1/4 to 1/4
Rear	0	-3/8 to 3/8

WHEEL ALIGNMENT SPECIFICATIONS TABLE (COLT VISTA)

Application	Preferred	Range
Two Wheel Drive		
Camber (Degrees)		
Front	7/16	-1/16 to 15/16.
Rear	-9/16	-1 1/8 to 0
Caster (Degrees)	13/16	5/16 to 15/16
Toe-In (In. (mm))		
Front & Rear	0 (0)	-1/8 to 1/8 (-3 to 3)
Toe-In (Degrees)		
Front & Rear	0	-1/4 to 1/4
Toe-Out on Turns (Degrees)		
Inner	37 3/4	.....
Outer	30 11/16	.....
Four Wheel Drive		

Camber (Degrees)			
Front	13/16	5/16 to 15/16	
Rear	0	-1/2 to 1/2	
Caster (Degrees)			
Front & Rear	13/16	5/16 to 15/16	
Toe-In (In. (mm))			
Front & Rear	0 (0)	-1/8 to 1/8 (-3 to 3)	
Toe-In (Degrees)			
Front & Rear	0	-1/4 to 1/4	
Toe-Out on Turns (Degrees)			
Inner	37 3/4		
Outer	30 11/16		

WHEEL ALIGNMENT SPECIFICATIONS TABLE (ECLIPSE)

Application	Preferred	Range
1.8L Engine		
Camber (Degrees)		
Front	1/4	-1/4 to 3/4
Rear	-3/4	-1 1/4 to -1/4
Caster (Degrees)		
Front & Rear	2 5/16	1 13/16 to 2 13/16
Toe-In (In. (mm))		
Front & Rear	0 (0)	-1/8 to 1/8 (-3 to 3)
Toe-In (Degrees)		
Front & Rear	0	-1/4 to 1/4
2.0L Engine (2WD)		
Camber (Degrees)		
Front	1/16	-7/16 to 9/16
Rear	-3/4	-1 1/4 to -1/4
Caster (Degrees)		
Front & Rear	2 3/8	1 7/8 to 2 7/8
Toe-In (In. (mm))		
Front & Rear	0 (0)	-1/8 to 1/8 (-3 to 3)
Toe-In (Degrees)		
Front & Rear	0	-1/4 to 1/4
2.0L Engine (4WD)		
Camber (Degrees)		
Front	3/16	-5/16 to 11/16
Rear	-1 9/16	-2 1/16 to -1 1/16
Caster (Degrees)		
Front & Rear	2 5/16	1 13/16 to 2 13/16
Toe-In (In. (mm))		
Front	0 (0)	-1/8 to 1/8 (-3 to 3)
Rear	9/64 (3.6)	-1/32 to 1/4 (-.6 to 6.6)
Toe-In (Degrees)		
Front	0	-1/4 to 1/4
Rear	9/32	1/16 to 1/2

WHEEL ALIGNMENT SPECIFICATIONS TABLE (GALANT)

Application	Preferred	Range
Two Wheel Drive		
Camber (Degrees)		
Front	3/8	-1/8 to 7/8
Rear	-3/4	-1 1/4 to -1/4
Caster (Degrees)		
Front & Rear	2	1 1/2 to 2 1/2
Toe-In (In. (mm))		
Front & Rear	0 (0)	-1/8 to 1/8 (-3 to 3)
Toe-In (Degrees)		
Front & Rear	0	-1/4 to 1/4
Four Wheel Drive		
Camber (Degrees)		

Front	.....	1/2	.....	0 to 1
Rear	.....	-1	.....	-1 1/2 to -1/2
Caster (Degrees)	.....	1 15/16	.....	1 7/16 to 2 7/16
Toe-In (In. (mm))				
Front	.....	0 (0)	.....	-1/8 to 1/8 (-3 to 3)
Rear	.....	1/8 (3)	.....	0 to 1/4 (0 to 6.4)
Toe-In (Degrees)				
Front	.....	0	.....	-1/4 to 1/4
Rear	.....	1/4	.....	0 to 1/2

WHEEL ALIGNMENT SPECIFICATIONS TABLE (MONTERO)

Application	Preferred	Range
Camber (Front) (1)	1	1/2 to 1 1/2
Caster (1)	2 15/16	1 15/16 to 3 15/16
Toe-In (Front) (2)	7/32 (5.5)	3/32 to 11/32 (2.5-8.5)
Toe-In (Front) (1)	7/16	3/16 to 11/16
Toe-Out on Turns (1)		
Inner	32 1/2	.....
Outer	29	.....

- (1) - Measurement in degrees.
(2) - Measurement in inches (mm).

WHEEL ALIGNMENT SPECIFICATIONS TABLE (RAM-50 & PICKUP)

Application	Preferred	Range
Two Wheel Drive		
Camber (Front) (1)	11/16	3/16 to 1 3/16
Caster (1)	2 1/2	1 1/2 to 3 1/2
Toe-In (Front) (2)	7/32 (5.5)	3/32 to 11/32 (2.5-8.5)
Toe-In (Front) (1)	7/16	3/16 to 11/16
Toe-Out on Turns (1)		
Inner	37	.....
Outer	30 3/8	.....
Four Wheel Drive		
Camber (Front) (1)	1	1/2 to 1 1/2
Caster (1)	2	1 to 3
Toe-In (Front) (2)	7/32 (5.5)	3/32 to 11/32 (2.5-8.5)
Toe-In (Front) (1)	7/16	3/16 to 11/16
Toe-Out on Turns (1)		
Inner	30	.....
Outer	27	.....

- (1) - Measurement in degrees.
(2) - Measurement in inches (mm).

WHEEL ALIGNMENT SPECIFICATIONS TABLE (PRECIS)

Application	Preferred	Range
Camber (Degrees)		
Front	0	-1/2 to 1/2
Rear	-11/16	-1 to -3/16
Caster (Degrees)		
With P/S	1 11/16	1 3/16 to 2 3/16
Without P/S	1	1/2 to 1 1/2
Toe-In (In. (mm))		

Front	.....	1/32 (1)	.....	-1/16 to 5/32 (-2 to 4)
Rear	.....	0 (0)	.....	.....
Toe-In (Degrees)				
Front	.....	1/16	.....	-1/8 to 5/16
Rear	.....	0	.....	.....
Toe-Out on Turns (Degrees)				
Inner	.....	37 3/8	.....	.....
Outer	.....	31 1/2	.....	.....

WHEEL ALIGNMENT SPECIFICATIONS TABLE (STEALTH & 3000GT)

Application		Preferred		Range
Front Wheel Drive				
Camber (Degrees)				
Front & Rear	.....	0	.....	-1/2 to 1/2
Caster (Degrees)	.....	3 29/32	.....	3 13/32 to 4 29/32
Toe-In (In. (mm))				
Front	.....	0 (0)	.....	-1/8 to 1/8 (-3 to 3)
Rear	.....	0 (0)	.....	-3/32 to 3/32 (-2 to 2)
Toe-In (Degrees)				
Front	.....	0	.....	-1/4 to 1/4
Rear	.....	0	.....	-3/16 to 3/16
Toe-Out on Turns (Degrees)				
Inner	.....	33 3/4	.....	.....
Outer	.....	28 11/32	.....	.....
All Wheel Drive				
Camber (Degrees)				
Front	.....	0	.....	-1/2 to 1/2
Rear	.....	-5/32	.....	-21/32 to 11/32
Caster (Degrees)	.....	3 29/32	.....	3 13/32 to 4 29/32
Toe-In (In. (mm))				
Front	.....	0 (0)	.....	-1/8 to 1/8 (-3 to 3)
Rear	.....	0 (0)	.....	-3/32 to 3/32 (-2 to 2)
Toe-In (Degrees)				
Front	.....	0	.....	-1/4 to 1/4
Rear	.....	0	.....	-3/16 to 3/16
Toe-Out on Turns (Degrees)				
Inner	.....	33 3/4	.....	.....
Outer	.....	28 11/32	.....	.....
