MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1991

Manufacturer	Vehicle Line
Mitsubishi Motors Corporation	Mitsubishi Eclipse ECLIPSE 2WD MODELS
Mailing Address 33-8, Shiba 5-chome, Minato-ku, Tokyo, 108, Japan	Issued: 1990-8 / Revised:

Direct questions concerning these specifications to the manufacturer listed above.

The information contained herein is prepared, distributed by, and is solely the responsibility of the vehicle manufacturing company to whose products it relates. This suggested specification form was developed by the vehicle manufacturing companies under the auspices of the Motor Vehicle Manufacturers Association of the United States, Inc.

The General Specifications herein are those in effect at date of compilation and are subject to change without notice or incurring obligation by the manufacturer.

Motor Vehicle Manufacturers Association of the United States, Inc.

Forms Provided by Technical Affairs Division

FORM MVMA-91

MVMA Specifications

METRIC (U.S. Customary)

Table of Contents

∅ **Indicates Format Change From Previous Year**

NOTE:

1. This form uses both SI metric units and U.S. Customary units. The metric unit of measure is presented first, and the U.S. Customary unit follows in parentheses.
2. UNLESS OTHERWISE INDICATED:
   a. Specifications apply to standard models without optional equipment. Significant deviations are noted.
   b. Nominal design dimensions are used throughout these specifications.
   c. All linear dimensions are in millimeters (inches), and all mass (weight) specifications are in kilograms (pounds).
3. The General Specifications herein are those in effect at date of compilation and are subject to change without notice or incurring obligation by the manufacturer.
4. Additional Vehicle Dimensions (based in part on SAE J1100 "Motor Vehicle Dimensions") may be available from the manufacturer.

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

Vehicle Origin

Design & development (company)	Mitsubishi Motors Corporation.
Where built (country)	U.S.A
Authorized U.S. sales marketing representative	Mitsubishi Motors Sales of America Inc.

∅ Vehicle Models

Model Description & Drive (FWD / RWD / AWD / 4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfgr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load-Kilograms (Pounds)	EPA Fuel Economy (City/Hwy)
2 DOOR		D21AMNJEL 4M/9M	4 (2/2)	28 Kg	23/32
Coupe		D21AMRJEL 4M/9M		(62 lbs)	23/30
(FWD)		D21AMNHEL 4M/9M			23/32
		D21AMRHEL 4M/9M			23/30
		D22AMNHML 4M/9M			22/29
		D22AMRHML 4M/9M			22/27
		D22AMNPFL 4M/9M			21/28
		D22AMRPFL 4M/9M			19/23

* FWD - Front Wheel Drive RWD - Rear Wheel Drive AWD - All Wheel Drive 4WD - Four Wheel Drive

∅MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)

Power Teams

SAE J1349 Net bhp (brake horsepower) and Net Torque corrected to 77°F/25°C and 29.61 in. Hg/100 kPa atmospheric pressure.

			A		B		C	D
ENGINE	Engine Code		4G37		4G63		4G63	4G63
	Displacement Liters (in³)		1.755(107)		1.997(122)		1.997(122)	1.997(122)
	Induction system (FI, Carb, etc.)		F.I.		F.I.		F.I.	F.I.
	Compression ratio		9.0		9.0		7.8	7.8
	SAE Net at RPM	Power kW (bhp)	69(92) at 5000		101(135) at 6000		142(190) at 6000	134(180) at 5500
		Torque N • m (lb. ft.)	142(105) at 3500		169(125) at 5000		275(203) at 3000	265(195) at 3000
	Exhaust single, dual		Dual		Dual		Single	Single
TRANS	Transmission/ Transaxle		*1 Manual 5-Speed	*2 Automatic 4-Speed	*1 Manual 5-Speed	*2 Automatic 4-Speed	Manual 5-Speed	Automatic 4-Speed •
	Axle Ratio (std. first)		4.322	4.007	4.322	4.007	4.153	4.376

Series Availability		Power Teams (A - B - C - D)	
Model	Code	Standard	Optional
2 Door Coupe (FWD)	D21AMNJEL	A*1	–
	D21AMRJEL	A*2	–
	D21AMNHEL	A*1	–
	D21AMRHEL	A*2	–
	D22AMNHML	B*1	–
	D22AMRHML	B*2	–
	D22AMNPFL	C	–
	D22AMRPFL	D	–

MVMA Specifications

Vehicle Line: Mitsubishi Eclipse
Model Year: 1991 Issued: 1990-8 Revised (•):

METRIC (U.S. Customary)

Engine Description / Engine Code	4G37(1.755 Liters)		4G63(1.997 Liters)		4G63 with Turbo (1.997 Liters)	
	MT	AT	MT	AT	MT	AT

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		In line, Front, Transverse, SOHC		In line, Front, Transverse, DOHC		
Manufacturer		Mitsubishi Motors Corp.				
No. of cylinders		4				
Bore		80.6		85.0		
Stroke		86.0		88.0		
Bore spacing (C / L to C / L)		87.5		93		
Cylinder block material & mass kg (lbs.) (machined)		Cast iron, 34.2 (75.4)		Cast iron, 37.5 (82.7)		
Cylinder block deck height		230.2		229		
Cylinder block length		385.5		439		
Deck clearance (minimum) (above or below block)		Above 0.5 mm		0.0 mm		
Cylinder head material & mass kg (lbs.)		Aluminum alloy, 6.2 (13.6)		Aluminum alloy, 12.6 (27.8)		
Cylinder head volume cm³ (inches³)		57.9		45.5		
Cylinder liner material		N.A.				
Head gasket thickness (compressed)		1.35		1.25		
Minimum combustion chamber total volume cm³ (inches³)		54.1	61.7		72.7	
Cyl. no. system (front to rear)*	L. Bank	N.A.				
	R. Bank	N.A.				
Firing order		1-3-4-2				
Intake manifold material & mass kg (lbs.)**		Aluminum alloy, 5.3 (11.7)		Aluminum alloy, 5.5 (12.1)		
Exhaust manifold material & mass kg (lbs.)**		Cast iron, 5.7 (12.6)	Cast iron, 7.6 (16.8)		Cast iron, 5.1 (11.2)	
Knock sensor (yes / no)		No			Yes	
Fuel required unleaded, diesel, etc.		Unleaded				
Fuel antiknock index (R + M) ÷ 2		No less than 87			No less than 91 or 87 with knock control	
Engine mounts	Quantity	4				
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.	Rubber (Elastomeric)				
	Added isolation (sub-frame, crossmember, etc.)	Crossmember and Centermember				
Total dressed engine mass (wt) dry***		120	115	150	145	165	155

Engine – Pistons

Material & mass, g (weight, oz.) - piston only		Aluminum alloy, 322 (11.4)		Aluminum alloy, 343 (12.1)		Aluminum alloy, 362 (12.8)

Engine – Camshaft

Location		Center of IN. and EX. valve on cylinder-head		Above each IN. and EX. valve on cylinder-head		
Material & mass kg (weight, lbs.)		Cast iron, 2.32 (5.27)		Cast iron, IN:1.9 (4.2), EX:1.9 (4.2)		
Drive type	Chain / belt	Belt				
	Width / pitch	19.05/9.525		29/9.525		

* Rear of engine – drive takeoff. View from drive takeoff end to determine left & right side of engine.

** Finished state.

*** Dressed engine mass (weight) includes the following:

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)

Engine Description / Engine Code		4G37 (1.755 Liters)	4G63 (1.997 Liters)	4G63 with Turbo (1.997 Liters)
Engine – Valve System				
Hydraulic lifters (std., opt., n.a.)		Std.		
Valves	Number intake / exhaust	4/4	8/8	
	Head O.D. intake / exhaust	42/34	34/30.5	
Engine – Connecting Rods				
Material & mass kg., (weight, lbs.)*		Forged iron, 0.612(1.35)	Forged iron, 0.69 (1.52)	
Length (axes C/L to C/L)		153.7	150.0	
Engine – Crankshaft				
Material & mass kg., (weight, lbs.)*		Forged iron, 12.4(27.3)	Forged iron, 16.3 (35.9)	
End thrust taken by bearing (no.)		3		
Length & number of main bearings		23mm, 5		
Seal (material, one, two piece design, etc.)	Front	Synthetic rubber, One piece		
	Rear	Synthetic rubber, One piece		
Engine – Lubrication System				
Normal oil pressure kPa (psi) at engine rpm		280 (40.6) at 2000		
Type oil intake (floating, stationary)		Stationary		
Oil filter system (full flow, part, other)		Full flow		
Capacity of c/case, less filter-refill-L (qt.)		3.5	4.0	
Engine – Diesel Information				
Diesel engine manufacturer		–		
Glow plug, current drain at 0°F		–		
Injector nozzle	Type	–		
	Opening pressure kPa (psi)	–		
Pre-chamber design		–		
Fuel injection pump	Manufacturer	–		
	Type	–		
Fuel injection pump drive (belt, chain, gear)		–		
Supplementary vacuum source (type)		–		
Fuel heater (yes/no)		–		
Water separator, description (std., opt.)		–		
Turbo manufacturer		–		
Oil cooler-type (oil to engine coolant; oil to ambient air)		–		
Oil filter		–		
Engine – Intake System				
Turbo charger - manufacturer		N.A.		Mitsubishi Heavy Industries Ltd.
Super charger - manufacturer		N.A.		N.A.
Intercooler		N.A.		Std.

* Finished State

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Engine Description / Engine Code	4G37(1.755 Liters)		4G63(1.997 Liters)		4G63 with Turbo (1.997 Liters)
	MT	AT	MT	AT	

Engine – Cooling System

Coolant recovery system (std., opt., n.a.)		Std.				
Coolant fill location (rad., bottle)		Bottle				
Radiator cap relief valve pressure kPa (psi)		88				
Circulation thermostat	Type (choke, bypass)	Choke pellet				
	Starts to open at °C (°F)	88 (190.4)				
Water pump	Type (centrifugal, other)	Centrifugal				
	GPM 1000 pump rpm	–				
	Number of pumps	1				
	Drive (V-belt, other)	V ribbed belt				
	Bearing type	Ball, integral shaft, permanently sealed		Roller & Ball, integral shaft, permanently sealed		
	Impeller material	Cold-rolled carbon steel sheet				
	Housing material	Aluminum die casting				
By-pass recirculation type (inter., ext.)		External				
Cooling system capacity	With heater – L(qt.)	5.0		7.0		
	With air conditioner – L(qt.)	5.0		7.0		
	Opt. equipment specify – L(qt.)	N.A.				
Water jackets full length of cyl. (yes, no)		Yes				
Water all around cylinder (yes, no)		No				
Water jackets open at head face (yes, no)		No				
Radiator core	Std., A/C, HD	Std. & A/C				
	Type (cross-flow, etc.)	Down-flow				
	Construction (fin & tube mechanical, braze, etc.)	Tube and Corrugated Fin Brazed				
	Material, mass kg (wgt., lbs.)	Brass & Copper 3.7	Brass & Copper 4.05	Brass & Copper 5.35	Brass & Copper 5.7	Brass & Copper 5.35
	Width	668				
	Height	350				
	Thickness	16		32		
	Fins per inch	20		17		
Radiator end tank material		Plastic				
Fan	Std., elec., opt.	Electric				
	Number of blades & type (flex, solid, material)	4				
	Diameter & projected width	320				
	Ratio (fan to crankshaft rev.)	N.A.				
	Fan cutout type	N.A.				
	Drive type (direct, remote)	N.A.				
	RPM at idle (elec.)	2150	2080			
	Motor rating (wattage elec.)	80	120			
	Motor switch (type & location elec.)	Thermo Switch, RAD				
	Switch point (temp., pressure elec.)	82°C–85°C				
	Fan shroud (material)	Plastic				

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Engine Description / Engine Code	4G37 (1.755 Liters)	4G63 (1.997 Liters)	4G63 with Turbo (1.997 Liters)	
			MT	AT

Engine – Fuel System (See supplemental page for detailes of Fuel Injection, Supercharger, Turbocharger, etc. if used)

Induction type: carburetor, fuel injection system, etc.		Fuel Injection			
Manufacturer		Nippon Injector Co.,Ltd.			
Carburetor no. of barrels		-			
Idle A/F mix.		14.7			
Fuel injection	Point of injection (no.)	Inlet port (4)			
	Constant, pulse, flow	6.07mm³ / 2.5 msec	6.09 mm³ / 2.2 msec	8.07 mm³ / 1.8 msec	7.10 mm³ /1.8 msec
	Control (electronic, mech.)	Electronic			
	System pressure kPa (psi)	329 (47.71)		250 (36.25)	294 (42.67)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	700 rpm	750 rpm		
	Automatic	700rpm(650rpm Drive)	750rpm(650rpm Drive)		
Intake manifold heat control (exhaust or water thermostatic or fixed)		N.A.			
Air cleaner type		Dry non-woven cloth			
Fuel filter (type/location)		Paper, Engine room			
Fuel pump	Type (elec. or mech.)	Electric			
	Location (eng., tank)	In tank			
	Pressure range kPa (psi)	250 to 328 (36 to 48)			294 to 378(43 to 54)
	Flow rate at regulated pressure L (gal)/hr @ kPa (psi)	90 (23.8) @ 250 (36)			125(33.0) @ 294(43)

Fuel Tank

Capacity refill L (gallons)		60 (15.9)
Location (describe)		Under rear seatpan
Attachment		Strap
Material & Mass kg (weight lbs.)		Steel, 13.2
Filler pipe	Location & material	Left, rear quarter panel, Steel
	Connection to tank	Rubber hose
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	N.A.
	Capacity L (gallons)	N.A.
	Location & material	N.A.
	Attachment	N.A.
Auxiliary tank	Opt., n.a.	N.A.
	Capacity L (gallons)	N.A.
	Location & material	N.A.
	Attachment	N.A.
	Selector switch or valve	N.A.
	Separate fill	N.A.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)

Engine Description / Engine Code	4G37 (1.755 Liters)	4G63 (1.997 Liters)	4G63 with Turbo (1.997 Liters)

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Three-way catalyst with feedback control, Exhaust gas recirculation		
	Air Injection	Pump or pulse	N.A.		
		Driven by	N.A.		
		Air distribution (head, manifold, etc.)	N.A.		
		Point of entry	N.A.		
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled flow (Calif. only; and electronic)		
		Exhaust source Point of exhaust injection (spacer, carburetor, manifold, other)	Exhaust Manifold Port No.2 Intake manifold	Exhaust Manifold Port No.4 Intake manifold	Exhaust Manifold Port No.4 Single tank
	Catalytic Converter	Type	Three-way		
		Number of	1		
		Location(s)	Under floor		
		Volume L (in³)	Calif.; 1.0 (61.02) + 0.7 (42.71), Fed; 1.7 (103.7)		
		Substrate type	Monolith		
		Noble metal type	–		
		Noble metal concentration (g/cm³)	–		
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Induction System		
	Energy source (manifold vacuum, carburetor, other)		Intake Manifold Vacuum		
	Discharges to (intake manifold, other)		To intake manifold		
	Air inlet (breather cap, other)		Air intake hose		
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister		
		Carburetor	–		
	Vapor storage provision		Canister		
Electronic system	Closed loop (yes/no)		Yes		
	Open loop (yes no)		Yes		

Engine – Exhaust System

Type (single, single with cross-over, dual, other)		Single with cross-over		
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass kg (weight lbs)		One (Reverse flow) Stainless steel, 5.6 (12.3)	One (Reverse flow) Stainless steel, 6.3 (13.9)	One (Reverse flow) Stainless steel, 6.4 (14.1)
Resonator no. & type		TWO(Straight thru), Stainless steel, 2.4(5.3)		–
Exhaust pipe	Branch o.d., wall thickness	42.7 X 2.0 (Dual)		54 X 1.5
	Main o.d., wall thickness	48.6X1.5, 54X1.5	54 X 1.5	
	Material & Mass kg (weight lbs)	Stainless steel tube, 5.7(12.6)	Stainless steel tube, 5.8(12.8)	Stainless steel tube, 5.7(12.6)
Intermediate pipe	o.d. & wall thickness	48.6X1.5, 48.6X2.0	54X1.5, 54X2.0	54X1.5
	Material & Mass kg (weight lbs)	Stainless steel tube, 4.9(10.8)	Stainless steel tube, 5.2(11.5)	Stainless steel tube, 5.9(13.0)
Tail pipe	o.d. & wall thickness	48.6 X 1.2	38.1 X 1.2(Dual)	42.7 X 1.2(Dual)
	Material & Mass kg (weight lbs)	Stainless steel tube, 0.3(0.7)	Stainless steel tube, 0.8(1.8)	Stainless steel tube, 0.9(2.0)

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)

Engine Description / Engine Code	4G37(1.755 Liters)	4G63(1.997 Liters)	4G63 with Turbo (1.997 Liters)

Transmissions/Transaxle (Std., Opt., N.A.)

Manual 3-speed (manufacturer/country)	N.A.
Manual 4-speed (manufacturer/country)	N.A.
Manual 5-speed (manufacturer/country)	Std., Mitsubishi Motors Corp./Japan
Automatic (manufacturer/country)	N.A.
Automatic overdrive (manufacturer/country)	Std., Mitsubishi Motors Corp./Japan

Manual Transmission/Transaxle

Number of forward speeds		5		
Gear ratios	1st	3.363		3.090
	2nd	1.947		1.833
	3rd	1.285		1.217
	4th	0.939		0.888
	5th	0.756		0.741
	Reverse	3.083		3.166
Synchronous meshing (specify gears)		1,2,3,4,5		
Shift lever location		Floor		
Trans. case mat'l. & mass kg (lbs)*		Aluminum alloy, 9.9 (21.8)		Aluminum alloy 11.5 (25.4)
Lubricant	Capacity L (pt.)	1.8 (3.8)		2.2 (4.6)
	Type recommended	Multipurpose gear oil conforming to API GL-4		

Clutch (Manual Transmission)

Clutch manufacturer		Aishin Seiki Co.,Ltd.	Daikin Manufacturing Co.,Ltd.	
Clutch type (dry, wet; single, multiple disc)		Dry single plate		
Linkage (hydraulic, cable, rod, lever, other)		Hydraulic		
Max. pedal effort (nom. spring load) N (lbs)	Depressed	123 (27.7)		
	Released	83 (18.7)		
Assist (spring, power/percent, nominal)		No		Spring/25Kg
Type pressure plate springs			Diaphragm	
Total spring load (nominal) N (lbs)		4168 (937)	4511 (1014)	6178 (1389)
Clutch facing	Facing mfgr. & material coding	Hitachi Chemical Co.,Ltd.		
	Facing material & construction	Woven (Asbestos)	Woven (Non-Asbestos)	
	Rivets per facing	16		
	Outside x inside dia. (nominal)	200 X 130 (mm)	215 X 140 (mm)	225 X 150 (mm)
	Total eff. area cm²(in.²)	363 (56.3)	418 (64.8)	442 (68.5)
	Thickness (pressure plate side/fly wheel side)	3.5/3.5 (mm)		
	Rivet depth (pressure plate side/fly wheel side)	1.6/1.6 (mm)		1.3/1.3 (mm)
	Engagement cushion method	Flat-wave spring		
Release bearing type & method lub.		Ball bearing, permanently lubricated		
Torsional damping method, springs, hysteresis		Damper rubbers-coil springs and Friction washers		

* Includes shift linkage, lubricant, and clutch housing. If other specify.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Engine Description / Engine Code	D21A (SOHC, MPI)	D22A (DOHC, NA)

Automatic Transmission/Transaxle

Trade Name		Mitsubishi Motors Corp. F4A22	
Type and special features (describe)		Torque converter with automatically operated Planetary gear Transmission Electronic control F4A22	
Gear selector	Location (column, floor, other)	Lever : Console mounted	
	Ltr./No. designation (e.g. PRND21)	P.R.N.D.2.L / 6	
	Shift interlock (yes, no, describe)	Yes. Shift lock with Key inter lock	
Gear ratios	1st	2.846	
	2nd	1.581	
	3rd	1.000	
	4th	0.685	
	Reverse	2.176	
Max. upshift speed - drive range km/h (mph) *		1-2 48/41 (30/26), 2-3 94/80 (59/50), 3-4 167/142 (104/89)	1-2 59/50 (37/31), 2-3 113/95 (71/59), 3-4 197/169 (123/106)
Max. kickdown speed - drive range km/h (mph) *		2-1 43/35 (27/22), 3-2 86/73 (54/46), 4-3 150/127 (94/79)	2-1 45/35 (28/22), 3-2 107/86 (67/54), 4-3 172/151 (108/94)
Min. overdrive speed km/h (mph)		28 (18)	29 (18)
Torque converter	Number of elements	Three	
	Max. ratio at stall	2.0 : 1	
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	230	
	Capacity factor "K"**	277	240
Lubricant	Capacity refill L (pt.)	DIA ATF SP or MITSUBISHI ATF PLUS automatic Trans.fluid	
	Type recommended	DIA ATF SP or MOPAR ATF PLUS automatic Trans.fluid	
Oil cooler (std., opt., N.A., internal, external, air, liquid)		Std., External liquid	
Transmission mass kg (lbs) & case material**		66.4 (146.4), Aluminum alloy	

*Power/Economy

All Wheel / 4 Wheel Drive

Description & type (part-time, full-time, 2/4 shift while moving, mechanical, elect., chain/gear, etc.)		-
Transfer case	Manufacturer and model	-
	Type and location	-
Low-range gear ratio		-
System disconnect (describe)		-
Center differential	Type (bevel, planetary, w or w o viscous bias, torsen, etc.)	-
	Torque split (% front/rear)	-

* Input speed ÷ $\sqrt{\text{torque}}$

** Dry weight including torque converter. If other, specify.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Engine Description / Engine Code	D22A (DOHC, T/C)

Automatic Transmission/Transaxle

Trade Name		Mitsubishi Motors Corp. F4A33
Type and special features (describe)		Torque converter with automatically operated Planetary gear Transmission Electronic control F4A33
Gear selector	Location (column, floor, other)	Lever : Console mounted
	Ltr./No. designation (e.g. PRND21)	P.R.N.D.2.L / 6
	Shift interlock (yes, no, describe)	Yes, Shift lock with key inter lock
Gear ratios	1st	2.551
	2nd	1.488
	3rd	1.000
	4th	0.685
	Reverse	2.176
Max. upshift speed - drive range km/h (mph) *		1-2 54/43 (34/27), 2-3 103/103 (64/64), 3-4 148/148 (93/93)
Max. kickdown speed - drive range km/h (mph) *		2-1 42/31 (26/19), 3-2 93/93 (58/58), 4-3 133/133 (83/83)
Min. overdrive speed km/h (mph)		26 (16)
Torque converter	Number of elements	Three
	Max. ratio at stall	1.7 : 1
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	260
	Capacity factor "K"*	224
Lubricant	Capacity refill L (pt.)	7.0 (14.9)
	Type recommended	DIA ATF SP or MITSUBISHI ATF PLUS automatic Trans. fluid
Oil cooler (std., opt., N.A., internal, external, air, liquid)		Std. External liquid + air
Transmission mass kg (lbs) & case material**		82.4 (181.6), Aluminum alloy

*Power/Economy

All Wheel / 4 Wheel Drive

Description & type (part-time, full-time, 2/4 shift while moving, mechanical, elect., chain/gear, etc.)		-
Transfer case	Manufacturer and model	-
	Type and location	-
Low-range gear ratio		-
System disconnect (describe)		-
Center differential	Type (bevel, planetary, w or w/o viscous bias, torsen, etc.)	-
	Torque split (% front/rear)	-

* Input speed ÷ $\sqrt{\text{torque}}$

** Dry weight including torque converter. If other, specify.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Engine Description / Engine Code	4G37(1.755 Liters)and 4G63(1.997 Liters)		4G63 with Turbo(1.997 Liters)	
	MT	AT	MT	AT

Axle Ratio and Tooth Combinations (See 'Power Teams' for axle ratio usage)

Effective final drive ratio (or overall top gear ratio)			3.941	3.562	3.437	3.562
Transfer ratio and method (chain, gear, etc.)			1.096	1.125	1.208	1.228
Front drive unit	Ring gear o.d.		179.26	175.73	187.69	199.5
	No. of teeth	Pinion	17	16		
		Ring gear	67	57	55	57

Front Drive Unit

Description (integral to trans., etc.)		Separable
Limited slip differential (type)		–
Drive pinion	Type	–
	Offset	–
No. of differential pinions		2
Pinion / differential	Adjustment (shim, etc.)	Shim
	Bearing adjustment	Shim
Driving wheel bearing (type)		Double row angular contact ball bearing
Lubricant	Capacity L (pt.)	Refer to transmission Spec.
	Type recommended	Refer to transmission Spec.

Axle Shafts – Front Wheel Drive

Manufacturer and number used			Toyo Bearing Co.,Ltd.		
Type (straight, solid bar, tubular, etc.)		Left	Straight bar		
		Right	Straight bar		
Outer diam. x length* x wall thickness	Manual transaxle	Left	26 X 708	26 X 706	30 X 706
		Right	23.2 X 368	24 X 366	24 X 366
	Automatic transaxle	Left	26 X 708	26 X 706	30 X 702
		Right	23.2 X 368	24 X 366	24 X 370
	Optional transaxle	Left	–		
		Right	–		
Slip yoke	Type		None		
	Number of teeth		–		
	Spline o.d.		–		
Universal joints	Make and mfg. no.	Inner	Toyo Bearing Co.,Ltd.		
		Outer	Toyo Bearing Co.,Ltd.		
	Number used		Two X Two		
	Type, size, plunge	Inner	C.V. joint		
		Outer	C.V. joint		
	Attach (u-bolt, clamp, etc)		–		
	Bearing: Type (plain, anti-friction)		–		
	Bearing: Lubrication (fitting, prepack)		–		
Drive taken through (torque tube, arms or springs)			Lower arm & Strut		
Torque taken through (torque tube, arms or springs)			Lower arm & Strut		

* Centerline to centerline of universal joints, or to centerline of attachment.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	D21A	D22A

Suspension – General Including Electronic Controls

Car leveling	Standard/optional/not avail.	N.A.
	Manual/automatic control	N.A.
	Type (air/hydraulic)	N.A.
	Primary/assist spring	N.A.
	Rear only/4 wheel leveling	N.A.
	Single/dual rate spring	N.A.
	Single/dual ride heights	N.A.
	Provision for jacking	N.A.
Shock absorber damping controls	Standard/option/not avail.	N.A.
	Manual/automatic control	N.A.
	Number of damping rates	N.A.
	Type of actuation (manual/electric motor/air, etc.)	N.A.
	Sensors: Lateral acceleration	N.A.
	Sensors: Deceleration	N.A.
	Sensors: Acceleration	N.A.
	Sensors: Road surface	N.A.
Shock absorber (front & rear)	Type	Front : Strut Type Rear : Telescopic Type
	Make	Front:KYB INDUSTRIES, INC./Rear : Kayaba Industry Co.,Ltd. or GENERAL MOTORS DELCO DIVISION
	Piston diameter	Front : 32 Rear : 25 (mm)
	Rod diameter	Front : 22 Rear : 12.5 (mm)

Suspension – Front

Type and description		Independent Strut Type	
Travel*	Full jounce	92 (mm)	83 (mm)
	Full rebound	78 (mm)	87 (mm)
Spring	Type (coil, leaf, other & material)	Coil (9254 Steel, Specified in SAE)	
	Insulators (type & material)	–	
	Size (coil design height & i.d.)	327 X 146.6 or 335 X 146.4	314 X 146.3 or 322 X 146.1
	Spring rate N/mm (lb./in.)	21.6 (123.2)	23.5 (134.4)
	Rate at wheel N/mm (lb./in)	20.3 (116.0)	22.1 (126.3)
Stablizer	Type (link, linkless, frameless)	Link	
	Material & bar diameter	ASB 25N, ϕ 17.3 (mm)	Spring steel, ϕ 19 (mm)

Suspension – Rear

Type and description		3-Link torsion axle	
Travel*	Full jounce	110 (mm)	100 (mm)
	Full rebound	75	(mm)
Spring	Type (coil, leaf, other & material)	Coil (9254 Steel, Specified in SAE)	
	Size (length x width, coil design height & i.d.)	337 X 84.9	317 X 84.8
	Spring rate N/mm (lb./in.)	19.6 (112.0)	22.5 (128.8)
	Rate at wheel N/mm (lb./in.)	19.6 (112.0)	22.5 (128.8)
	Insulators (type & material)	Rubber pad	
	If leaf: No. of leaves	–	
	If leaf: Shackle (comp. or tens.)	–	
Stabilizer	Type (link, linkless, frameless)	Bar	
	Material & bar diameter	S38C, ϕ 20 (mm)	S38C, ϕ 25 (mm)
Track bar (type)		–	

* Define load condition:

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement

4G37 (1.755 Liters)	4G63 (1.997 Liters)	4G63 with Turbo (1.997 Liters)

Brakes – Service

Description				–		
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)			AKEBONO Brake Industry Co.,Ltd., Disc		
	Rear (disc or drum)			AKEBONO Brake Industry Co.,Ltd., Disc		
Valving type (proportion, delay, metering, other)				Proportion valve		
Power brake (std., opt., n.a.)				Std.		
Booster type (remote, integral, vac., hyd., etc.)				Integral		
Vacuum	Source (inline, pump, etc.)			Inline		
	Reservoir (volume in.³)			–		
	Pump-type (elec, gear driven, belt driven)			–		
Traction control	Operational speed range			–		
	Type engine intervention (electronic, mech.)			–		
Anti-lock device	Front / rear (std., opt., n.a.)			N.A.	Opt. (Front & Rear)	
	Manufacturer			N.A.	NIPPON ABS LTD	
	Type (electronic, mech.)			N.A.	Electronic	
	Number sensors or circuits			N.A.	4	
	Number anti-lock hydraulic circuits			N.A.	4	
	Integral or add-on system			N.A.	Add-on	
	Yaw control (yes, no)			N.A.	No	
	Hydraulic power source (elec., vac. mtr., pwr. strg.)			N.A.	Hydraulic	
Effective area cm²(in.²)*				F: 187 (29.0) / R: 120 (18.6)		
Gross Lining area cm²(in.²)**(F/R)				F: 193 (29.9) / R: 120 (18.6)		
Swept area cm²(in.²)***(F/R)				F:1192 (184.8) / R: 1177 (182.5)		
Rotor	Outerworking diameter		F/R	F: 254	/ R: 263	(mm)
	Inner working diameter		F/R	F: 163	/R: 178	(mm)
	Thickness		F/R	F: 24	/ R: 10	(mm)
	Material & type (vented/solid)		F/R	F: Cast iron vented / R: Cast iron solid		
Drum	Diameter & width		F/R	–		
	Type and material		F/R	–		
Wheel cylinder bore				F: 53.97 / R: 30.16		(mm)
Master cylinder	Bore/stroke		F/R	Bore: 22.22/Stroke: Primary: 13, Secondary: 15 (mm)	Bore: 22.22/Stroke: Primary 13, Secondary: 15 (mm)(Opt.ABS 23.81/13:15)	Bore: 23.81/Stroke: Primary: 13, Secondary: 15 (mm)
Pedal arc ratio				4.4		
Line pressure at 445 N(100 lb.) pedal load kPa (psi)			1	12162(1773)	12162(1773) Opt. ABS 12656 (1844)	12656(1844)
Lining clearance			F/R	F:No major adjustment required/R:No major adjustment required		
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Bonded		
		Rivet size		–		
		Manufacturer		AKEBONO Brake Industry Co.,Ltd.		
		Lining code*****		AKEBONO NS 137HEE		
		Material		Molded		
		**** Primary or out-board		116 X 41.9 X 10		(mm)
		Size Secondary or in-board		116 X 41.9 X 10		(mm)
		Shoe thickness (no lining)		6.0		(mm)
	Rear wheel	Bonded or riveted (rivets/seg.)		Bonded		
		Manufacturer		AKEBONO Brake Industry Co.,Ltd.		
		Lining code*****		AK NS512 FF		
		Material		Molded		
		**** Primary or out-board		72 X 41.6 X 8.5		(mm)
		Size Secondary or in-board		72 X 41.6 X 8.5		(mm)
		Shoe thickness (no lining)		6.0		(mm)

* Excludes rivet holes, grooves, chamfers, etc. ** Includes rivet holes, grooves, chamfers, etc.
*** Total swept area for four brakes. (Drum brake: Widest lining contact width for each brake x its contact circumference.) (Disc brake: Square of Outer Working Dia. minus Square of inner Working Dia. multiplied by Pi/2 for each brake.)
**** Size for drum brakes includes length x width x thickness. ***** Manufacturer I.D., catalog for formulation designation and coefficient of friction classification.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	4G37 (1.755 Liters)	4G63 (1.997 Liters)	4G63 with Turbo (1.997 Liters)

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P185/70R14, Std load	P205/55R16 89V, Std load
	Type (bias, radial, steel, nylon, etc.)		Radial	
	Inflation pressure (cold) for recommended max. vehicle load	Front kPa (psi)	200 (29)	
		Rear kPa (psi)	180 (26)	
	Rev./mile-at 70 km/h (45 mph)		858	754
Wheels	Type & material		Disc, Steel	
	Rim (size & flange type)		14 X 5 1/2JJ	16 X 6JJ
	Wheel offset		46	
	Attachment	Type (bolt or stud)	Stud	
		Circle diameter	114.3	
		Number & size	5, M12 X 1.5	
Spare	Tire and wheel		T125/70D15, 4T X 15 High pressure tire	
	Storage position & location (describe)		On cargo Floor	

Tires And Wheels (Optional)

Tire size (load range, ply)	–	P205/55R16, 89V	–
Type (bias, radial, steel, nylon, etc.)	–	Radial	–
Wheel (type & material)	–	Disc, Steel or Aluminum	–
Rim (size, flange type and offset)	–	16 X 6JJ	–
Tire size (load range, ply)	–		
Type (bias, radial, steel, nylon, etc.)	–		
Wheel (type & material)	–		
Rim (size, flange type and offset)	–		
Tire size (load range, ply)	–		
Type (bias, radial, steel, nylon, etc.)	–		
Wheel (type & material)	–		
Rim (size, flange type and offset)	–		
Tire size (load range, ply)	–		
Type (bias, radial, steel, nylon, etc.)	–		
Wheel (type & material)	–		
Rim (size, flange type and offset)	–		
Spare tire and wheel size (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	–	T125/80D16, 4T X 16 High Pressure Tire	

Brakes – Parking

Type of control		One handle, Hand-operated
Location of control		Between front seats
Operates on		Rear wheels
If separate from service brakes	Type (internal or external)	N.A.
	Drum diameter	N.A.
	Lining size (length x width x thickness)	N.A.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	D21A	D22A(DOHC)		D22A(DOHC,T/C)	
		MT	AT	MT	AT

Steering

Manual (std., opt., n.a.)				Std.	N.A.	
Power (std., opt., n.a.)				Opt.	Std.	
Adjustable steering wheel/column (tilt, telescope, other)			Type	Tilt		
			Manufacturer	Mitsubishi Motors Corp.		
			(std., opt., n.a.)	Std.		
Wheel diameter** (W9) SAE J1100			Manual	372	–	
			Power	–	372	
Turning diameter m (ft.)	Outside front		Wall to wall (l. & r.)	M/S:11.2(36.7) P/S:11.6(38.1)	11.6 (38.1)	12.8(42.0)
			Curb to curb (l. & r.)	M/S:10.4(34.1) P/S:10.8(35.4)	10.8 (35.4)	12.0(39.4)
	Inside rear		Wall to wall (l. & r.)	M/S: 6.0(19.7) P/S: 6.4(21.0)	6.4 (21.0)	7.6(24.7)
			Curb to curb (l. & r.)	M/S: 6.2(20.3) P/S: 6.6(21.7)	6.6 (21.7)	7.8(25.6)
Scrub Radius*				-10.9	-14.3	
Manual	Gear		Type	Rack & pinion	N.A.	
			Manufacture	Koyo Seiko Co.,Ltd.	N.A.	
		Ratios	Gear	–	N.A.	
			Overall	23.8	N.A.	
	No. wheel turns (stop to stop)			4.2	N.A.	
Power	Type (coaxial, elec., hyd., etc.)			Integral		
	Manufacturer			TRW KOYO STEERING SYSTEMS Co.		
	Gear		Type	Rack & Pinion		
		Ratios	Gear	–		
			Overall	15.8		
	Pump (drive)			V-belt		
	No. wheel turns (stop to stop)			2.7		2.4
Linkage	Type			Trailing, equal length tie rods		
	Location (front or rear of wheels, other)			Rear		
	Tie rods (one or two)			Two		
Steering axis	Inclination at camber (deg.)			14°06'	14°20'	
	Bearings (type)		Upper	Ball bearing		
			Lower	Ball joint		
			Thrust	N.A.		
Steering spindle-knuckle & joint type				Ball		

* The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.
** See Page 22.

⌀MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	D21A		D22A
	MNJEL, MRJEL	MNHEL, MRHEL	

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	2°20' ± 30'	
		Camber (deg.)	0°15' ± 30'	0°05' ± 30'
		Toe-in outside track-mm (in.)	0 ± 3 (0 ± 0.118)	
	Service reset*	Caster (deg.)	–	
		Camber (deg.)	–	
		Toe-in - mm (in.)	–	
	Periodic M.V. inspection	Caster (deg.)	–	
		Camber (deg.)	–	
		Toe-in - mm (in.)	–	
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	-0°45' ± 30'	
		Toe-in outside track-mm (in.)	0 ± 3 (0 ± 0.118)	
	Service reset*	Camber (deg.)	–	
		Toe-in - mm (in.)	–	
	Periodic M.V. inspection	Camber (deg.)	–	
		Toe-in - mm (in.)	–	

* Indicates pre-set, adjustable, trend set or other.

⌀Electrical – Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)		Analog (Std.)
	Trip odometer (std., opt., n.a.)		Std.
Head-up display	Standard, optional, not available		N.A.
	Type	Secondary, opto-electronic	N.A.
	Speedometer	Digital	N.A.
	Status / warning indicators	Turn signals, high beam, low fuel, check gauges	N.A.
	Brightness control	Day / night mode, adjustable	N.A.
EGR maintenance indicator			N.A.
Charge indicator	Type		Voltage relay
	Warning device (light, audible)		Light
Temperature indicator	Type		Cross coil
	Warning device (light, audible)		Driving pointer
Oil pressure indicator	Type		Pressure switch and Electric Thermal
	Warning device (light, audible)		Light
Fuel indicator	Type		Cross coil and Thermistor
	Warning device (light, audible)		Driving pointer & Light
Windshield wiper	Type (standard)		Electric two speed with variable intermittent
	Type (optional)		N.A.
	Blade length		500 (DR. Side, AS. Side) (mm)
	Swept area cm²(in.²)		6427 (996)
Windshield washer	Type (standard)		Electric
	Type (optional)		N.A.
	Fluid level indicator (light, audible)		N.A.
Rear window wiper, wiper/washer (std., opt., n.a.)			Opt.
Horn	Type		80 diameter
	Number used		One / Two
Other			Brake system and parking brake warning light, Fasten belts warning light, Coolant level warning light.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)

Engine Description / Engine Code	4G37(1.755 Liters)		4G63(1.997 Liters)		4G63 with Turbo (1.997 Liters)
	MT	AT	MT	AT	

Electrical – Supply System

Battery	Manufacturer	JOHNSON CONTROLS				
	Model, std., (opt.)	BCI Size GROUP 86				
	Voltage	12				
	Amps at 0°F cold crank	430				
	Minutes-reserve capacity	90				
	Amps/hrs.-20 hr. rate	55				
	Location	Front, right side of engine compartment				
Alternator	Manufacturer	Mitsubishi Electric Corp.				
	Rating (idle/max. rpm)	65	75	65	75	
	Ratio (alt. crank/rev.)	2.65	2.43	2.29		
	Output at idle (rpm, park)	–				
	Optional (type & rating)	N.A.				
Regulator	Type	Voltage control				

Electrical – Starting System

Motor	Manufacturer	Mitsubishi Electric Corp.			
	Current drain _____ °C(°F)	–			
	Power rating kw (hp)	0.7	0.9	1.2	
Motor drive	Engagement type	Solenoid			
	Pinion engages from (front, rear)	Front			

Electrical – Ignition System

Type	Electronic (std., opt., n.a.)	Std.			
	Other (specify)	–			
Coil	Manufacturer	N.A.	DIAMOND Electric Corp.		
	Model	N.A.	F-630		
	Current – Engine stopped – A	N.A.	0		
	Current – Engine idling – A	N.A.	1.4		
Spark plug	Manufacturer	NGK Spark Plug Co.,Ltd., Champion Spark Plug Co.,Ltd. or Nippon Denso			
	Model	BPR6ES-11, RN9YC4 or W20EPR-11			BPR6ES, RN9YC or W20EPR
	Thread (mm)	14			
	Tightening torque N•m (lb. ft)	20 to 30 (15 to 22)			
	Gap	1.0 to 1.1 (mm)			0.7 to 0.8 (mm)
	Number per cylinder	1			
Distributor	Manufacturer	Mitsubishi Electric Corp.		N.A.	
	Model	T6T 57371		N.A.	

Electrical – Suppression

Locations & type	–

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (-)

METRIC (U.S. Customary)

Body Type	D21A, D22A

Body

Structure	Monocock body
Bumper system front - rear	Impact absorbing system Fascia (Polyurethane) Energy absorber (Fluid type) Reinforcement (Steel)
Anti-corrosion treatment	Cathodic ED Paint Extended use of galvanized Wax injection Stone chipping resistance coating

Body – Miscellaneous Information

Type of finish (lacquer, enamel, other)		Heat setting acrylic enamel
Hood	Material & mass	Steel, 17.2 Kg
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Prop
	Release control (internal, external)	Internal
Trunk lid	Material & mass	–
	Type (counterbalance, other)	–
	Internal release control (elec., mech., n.a.)	–
Hatch-back lid	Material & mass	Steel, 10.1 Kg
	Type (counterbalance, other)	Gas spring
	Internal release control (elec., mech., n.a.)	Mech.
Tailgate	Material & mass	–
	Type (drop, lift, door)	–
	Internal release control (elec., mech., n.a.)	–
Vent window control (crank, friction, pivot, power)	Front	–
	Rear	–
Window regulator type (cable, tape, flex drive, etc.)	Front	Cable
	Rear	–
Seat cushion type (e.g., 60/40 bucket, bench, wire, foam, etc.)	Front	Bucket, Foam
	Rear	Bench, Foam
	3rd seat	–
Seat back type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Bucket, Spring
	Rear	50/50, Foam
	3rd seat	–

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Body Type	D21A, D22A

Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt, lap belt, etc.) Standard / optional	First seat	-	-	-
		Second seat	3 point seat belt with ELR	-	3point seat belt with ELR
		Third seat	-	-	-
Passive	Type & description (air bag, motorized - 2-point belt, fixed belt, knee bolster, manual - lap belt) Standard / optional	First seat	Motorized 2 point belt & manual lap belt	-	Motorized 2 point belt & manual lap belt
		Second seat	-	-	-
		Third seat	-	-	-

Glass	SAE Ref. No.	
Windshield glass exposed surface area $cm^2(in.^2)$	S1	10291 (1595)
Side glass exposed surface area $cm^2(in.^2)$ - total 2-sides	S2	9393 (1456)
Backlight glass exposed surface area $cm^2(in.^2)$	S3	8839 (1370)
Total glass exposed surface area $cm^2(in.^2)$	S4	28523 (4421)
Windshield glass (type)		Curved-laminated plate
Side glass (type)		Curved-Tempered plate
Backlight glass (type)		Curved-tempered plate

Headlamps

Description (sealed beam, halogen, replaceable bulb, etc.)	Sealed beam, Halogen
Shape	Rectangular
Lo-beam type (2A1, 2B1, 2C1, etc.	2E1
Quantity	Two
Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	2E1
Quantity	Two

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	-

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)

Body Type	D21A		D22A	
	MNJEL, MRJEL	MNHEL, MRHEL	MNHML, MRHML	MNPFL, MRPFL

Convenience Equipment (standard, optional, n.a.)

Air conditioning (manual, auto, temp control)		Opt. (Manual temp control)	
Clock (digital, analog)		Std. (Digital)	
Compass / thermometer		N.A.	
Console (floor, overhead)		Floor console	
Defroster, elec. backlight		Std.	
Electronic	Diagnostic monitor (integrated, individual)	Integrated	
	Instrument cluster (list instruments)	Std. (Speedometer, Tachometer, Tripmeter, Fuel Ind. Eng. Coolant Ind., Oil pressure Ind., Battery Ind., Brake Ind.)	
		-	Boost Meter
	Keyless entry	N.A.	
	Tripminder (avg. spd., fuel)	N.A.	
	Voice alert (list items)	N.A.	
	Other	-	
Fuel door lock (remote, key, electric)		Remote	
Lamps	Auto head on / off delay, dimming	N.A.	
	Cornering	N.A.	
	Courtesy (map, reading)	Room, Map, Foot	
	Door lock, ignition	Ignition	
	Engine compartment	N.A.	
	Fog	N.A.	
	Glove compartment	Std.	
	Trunk	Std.	
	Illuminated entry system (list lamps, activation)	N.A.	
	Other	-	
Mirrors	Day / night (auto. man.)	Std. (Man)	
	L.H. (remote, power, heated)	Std. (Direct remote)	Std. (power)
	R.H. (convex, remote, power, heated)	Std. (Convex Direct remote)	Std. (Convex power)
	Visor vanity (RH / LH, illuminated)	RH/LH	
Navigation system (describe)		N.A.	
Parking brake-auto release (warning light)		N.A.	

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

METRIC (U.S. Customary)

Body Type	D21A		D22A	
	MNJEL, MRJEL	MNHEL, MRHEL	MNHML, MRHML	MNFEL, MRFEL

Convenience Equipment (standard, optional, n.a.)

Power equipment	Deck lid (release, pull down)		N.A.	
	Door locks (manual, automatic, describe system)		Single Action Key Less Lock	
			-	Opt. (Center Door Lock)
	Seats	2 - 4 - 6 way, etc.	N.A.	
		Reclining (R.H., L.H.)	N.A.	
		Memory (R.H., L.H., preset recline)	N.A.	
		Support (lumbar, hip, thigh, etc.)	N.A.	
		Heated (R.H., L.H., other)	N.A.	
	Side windows		N.A.	Opt. (Power Window)
	Vent windows		N.A.	
	Rear windows		N.A.	
Radio systems	Antenna (location, whip, w / shield, power)		Rear Quarter, Whip.	Rear Quarter, Whip• power
	Standard	AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM MPX ETR	AM/FM MPX ETR & Cassete Stereo
	Optional		AM/FM (MPX) ETR & Casset Stereo	-
			Audio System (AM/FM MPX ETR & Cassete Stereo with Graphic equalizer)	
			Audio System (AM/FM ETR MPX with Cassete Stereo & CD Player)	
	Speaker (number, location)		Std. (I/pan•••2, Rear Seat Side•••2)	
			Opt. (Front Door...2)	Std. (Front Door•••2)
Roof: open air or fixed (flip-up, sliding, "T")			Opt. (flip-up)	
Speed control device			Opt.	Std.
Speed warning device (light, buzzer, etc.)			N.A.	
Tachometer (rpm)			Std.	
Telephone system (describe)			N.A.	
Theft deterrent system			N.A.	Opt.

∅ Trailer Towing

Towing capable	Yes / No	No
Engine / transmission / axle	Std / Opt	-
Tow class (I, II, III)*	Std / Opt	-
Max. gross trailer wgt. (lbs.)	Std / Opt	-
Max. trailer tongue load (lbs.)	Std / Opt	-
Towing package available	Yes / No	No

* Class I – 2,000 lbs. Class II – 3,500 lbs. Class III – 5,000 lbs.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for all base body models of each vehicle line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	D21A, D22A
Width		
Tread (front)	W101	1465
Tread (rear)	W102	1450
Vehicle width	W103	1690
Body width at Sg RP (front)	W117	1690
Vehicle width (front doors open)	W120	1690
Vehicle width (rear doors open)	W121	–
Tumble-home (degrees)	W122	30°
Outside mirror width	W410	1861
Length		
Wheelbase	L101	2470
Vehicle length	L103	4330
Overhang (front)	L104	950
Overhang (rear)	L105	910
Upper structure length	L123	2560
Rear wheel C/L "X" coordinate	L127	2470
Height*		
Passenger distribution (front/rear)	PD1,2,3	Front: 2, Rear: 2
Trunk/cargo load		–
Vehicle height	H101	1306
Cowl point to ground	H114	920
Deck point to ground	H138	985
Rocker panel-front to ground	H112	216
Rocker panel-rear to ground	H111	218
Windshield slope angle (degrees)	H122	63°
Backlight slope angle (degrees)	H121	72°
Ground Clearance*		
Front bumper to ground	H102	201
Rear bumper to ground	H104	298
Bumper to ground front at curb mass (wt.)	H103	242
Bumper to ground rear at curb mass (wt.)	H105	347
Angle of approach (degrees)	H106	16.5°
Angle of departure (degrees)	H107	19.0°
Ramp breakover angle (degrees)	H147	16°
Axle differential to ground (front/rear)	H153	Front 195
Min. running ground clearance	H156	160
Location of min. run. grd. clear.		Flexible Pipe

* All vehicle **height** and **ground** clearances are measured at the Manufacturer's Design Load Weight.
Manufacturers Design Load Weight is defined with indicated passenger distribution and trunk/cargo load, unless otherwise specified.
All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)
Vehicle Dimensions See Key Sheets for definitions

Body Type		D21A, D22A
Front Compartment	**SAE Ref. No.**	
SgRP front, "X" coordinate	L31	1410
Effective head room	H61	962
Max. eff. leg room (accelerator)	L34	1114
SgRP to heel point	H30	197
SgRP to heel point	L53	910
Back angle (degrees)	L40	25°
Hip angle (degrees)	L42	101°
Knee angle (degrees)	L44	141°
Foot angle (degrees)	L46	95°
Design H-point front travel	L17	260°
Normal driving & riding seat track trvl.	L23	260
Shoulder room	W3	1370
Hip room	W5	1400
Upper body opening to ground	H50	1190
Steering wheel maximum diameter*	W9	370
Steering wheel angle (degrees)	H18	19°
Accel. heel pt. to steer. whl. cntr	L11	420
Accel. heel pt. to steer. whl. cntr	H17	760
Undepressed floor covering thickness	H67	20
Rear Compartment		
SgRP point couple distance	L50	635
Effective head room	H63	867
Min. effective leg room	L51	724
SgRP (second to heel)	H31	285
Knee clearance	L48	0
Shoulder room	W4	1330
Hip room	W6	1160
Upper body opening to ground	H51	1180
Back angle (degrees)	L41	27°
Hip angle (degrees)	L43	88°
Knee angle (degrees)	L45	72°
Foot angle (degrees)	L47	102°
Depressed floor covering thickness	H73	20
Luggage Compartment		
Usable luggage capacity L (cu. ft.)	V1	N.A.
Liftover height	H195	935
Interior Volumes (EPA Classification)		
Vehicle class		Sub compact cars
Interior volume index (cu. ft.)**		91
Trunk / cargo index (cu. ft.)		10.201

* See page 14.
** Includes passenger and trunk / cargo index - see definition page 32.
All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•) _____

METRIC (U.S. Customary)
Vehicle Dimensions See Key Sheets for definitions

Body Type	SAE Ref. No.	D21A, D22A
Station Wagon – Third Seat		
Seat facing direction	SD1	–
SgRP couple distance	L85	–
Shoulder room	W85	–
Hip room	W86	–
Effective leg room	L86	–
Effective head room	H86	–
SgRP to heel point	H87	–
Knee clearance	L87	–
Back angle (degrees)	L88	–
Hip angle (degrees)	L89	–
Knee angle (degrees)	L90	–
Foot angle (degrees)	L91	–
Station Wagon – Cargo Space		
Cargo length (open front)	L200	–
Cargo length (open second)	L201	–
Cargo length (closed front)	L202	–
Cargo length (closed second)	L203	–
Cargo length at belt (front)	L204	–
Cargo length at belt (second)	L205	–
Cargo width (wheelhouse)	W201	–
Rear opening width at floor	W203	–
Opening width at belt	W204	–
Min. rear opening width above belt	W205	–
Cargo height	H201	–
Rear opening height	H202	–
Tailgate to ground height	H250	–
Front seat back to load floor height	H197	–
Cargo volume index $m^3(ft.^3)$	V2	–
Hidden cargo volume index $m^3(ft.^3)$	V4	–
Cargo volume index-rear of 2-seat	V10	–
Hatchback – Cargo Space		
Cargo length at front seatback height	L208	840
Cargo length at floor (front)	L209	1405
Cargo length at second seatback height	L210	424
Cargo length at floor (second)	L211	755
Front seatback to load floor height	H197	488
Second seatback to load floor height	H198	368
Cargo volume index $m^3(ft.^3)$	V3	0.729 (25.7)
Hidden cargo volume index $m^3(ft.^3)$	V4	–
Cargo volume index-rear of 2-seat	V11	0.288 (10.2)

All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line Mitsubishi Eclipse
Model Year 1991 Issued 1990-8 Revised (•)

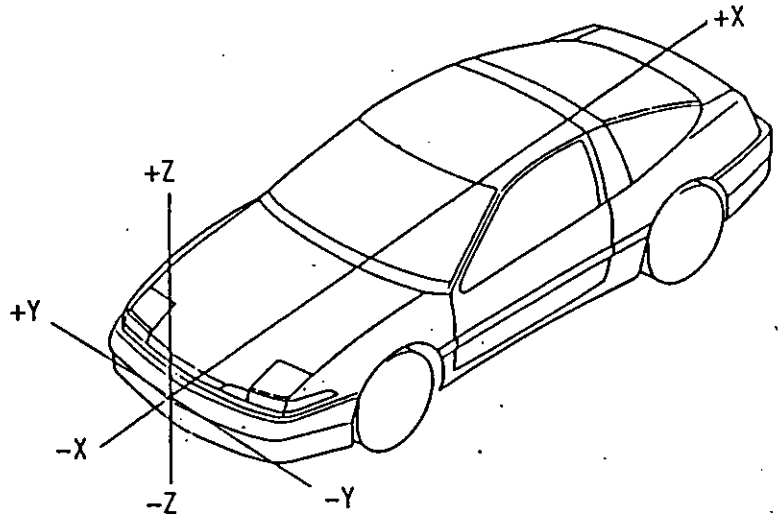
Body Type D21A, D22A

Vehicle Fiducial Marks

Fiducial Mark Number*

Define Coordinate Location

Front



Rear

Datum plane definition – Vertical longitudinal plane through the longitudinal center of the car.
Vertical transverse plane through the front wheel center.
Horizontal plane through the lower surface of the front floor panel.

Fiducial Mark Number		
Front	W21*	480
	L54*	-405
	H81*	195
	H161*	410
	H163*	–
Rear	W22*	480
	L55*	2975
	H82*	196
	H162*	414
	H164*	–

* Reference – SAE Recommended Practice, J182, Motor Vehicle Fiducial Marks.
All linear dimensions are in millimeters (inches) unless otherwise noted.

∅MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line Mitsubishi Eclipse

Model Year 1991 Issued 1990-8 Revised (•) _____

Code	Model	Vehicle Mass (weight)					% PASS MASS DISTRIBUTION			
		CURB MASS, kg. (lb.)*			SHIPPING MASS kg(lb)***	ETWC** Code	Pass in Front		Pass in Rear	
		Front	Rear	Total			Front	Rear	Front	Rear
D21AMNJEL	4M, 9M	700	445	1145	1145	P	43	57	17	83
		(1543)	(981)	(2524)	(2524)					
D21AMRJEL	4M, 9M	725	445	1170	1170	Q	43	57	17	83
		(1598)	(981)	(2579)	(2579)					
D21AMNHEL	4M, 9M	715	452	1167	1167	Q	43	57	17	83
		(1576)	(996)	(2572)	(2572)					
D21AMRHEL	4M, 9M	740	452	1192	1192	Q	43	57	17	83
		(1631)	(996)	(2627)	(2627)					
D22AMNHML	4M, 9M	755	460	1215	1215	R	43	57	17	83
		(1664)	(1014)	(2678)	(2678)					
D22AMRHML	4M, 9M	780	460	1240	1240	R	43	57	17	83
		(1720)	(1014)	(2734)	(2734)					
D22AMNPFL	4M, 9M	780	465	1245	1245	R	43	57	17	83
		(1720)	(1025)	(2745)	(2745)					
D22AMRPFL	4M, 9M	815	465	1280	1280	S	43	57	17	83
		(1797)	(1025)	(2822)	(2822)					

* Reference – SAE J1100 Motor vehicle dimensions, curb weight definition.

** ETWC – Equivalent Test Weight Class – basis for U.S. Environmental Protection Agency emission certifications. Refer to ETWC code legend below for test weight class.

ETWC LEGEND

A	= 1000	I	= 2000	Q	= 3000	Y	= 4000
B	= 1125	J	= 2125	R	= 3125	Z	= 4250
C	= 1250	K	= 2250	S	= 3250	AA	= 4500
D	= 1375	L	= 2375	T	= 3375	BB	= 4750
E	= 1500	M	= 2500	U	= 3500	CC	= 5000
F	= 1625	N	= 2625	V	= 3625	DD	= 5250
G	= 1750	O	= 2750	W	= 3750	EE	= 5500
H	= 1875	P	= 2875	X	= 3875	FF	= 5750

*** Shipping Mass (weight) = Curb Weight Less:

0 (0)

MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line Mitsubishi Eclipse

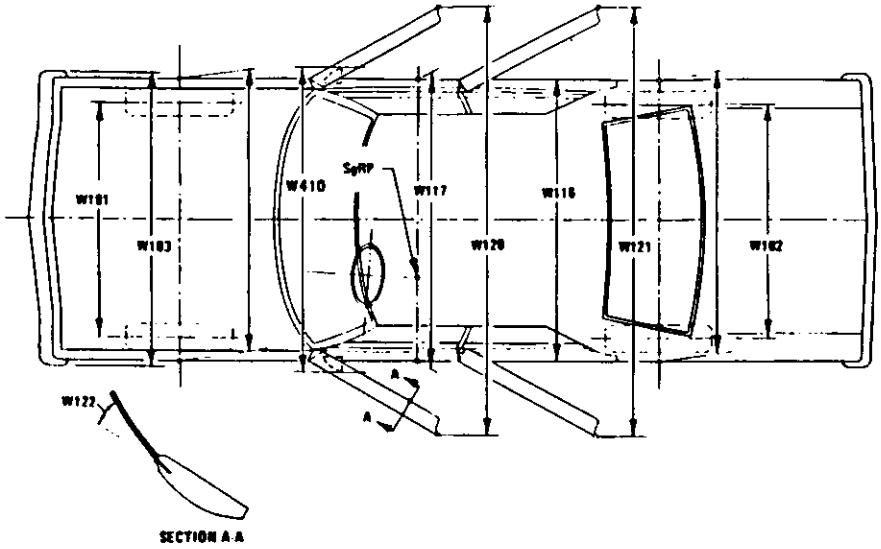
Model Year 1991 Issued 1990-8 Revised (•) _____

Code	Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (lb.) Front	Rear	Total	Remarks Restrictions, Requirements
	Air-Conditioner	22.4 (49.4)	0 (0)	22.4 (49.4)	
	Rear Shelf	0 (0)	2.6 (5.7)	2.6 (5.7)	
	Power Steering	6.7 (14.8)	0 (0)	6.7 (14.8)	
	Rear Window Wiper	0 (0)	3.7 (8.2)	3.7 (8.2)	
	Power Window	1.4 (3.1)	1.5 (3.3)	2.9 (6.4)	
	Auto Speed Control	3.8 (8.4)	0 (0)	3.8 (8.4)	
	Anti Skid Brake	15.0 (33.0)	0 (0)	15.0 (0)	

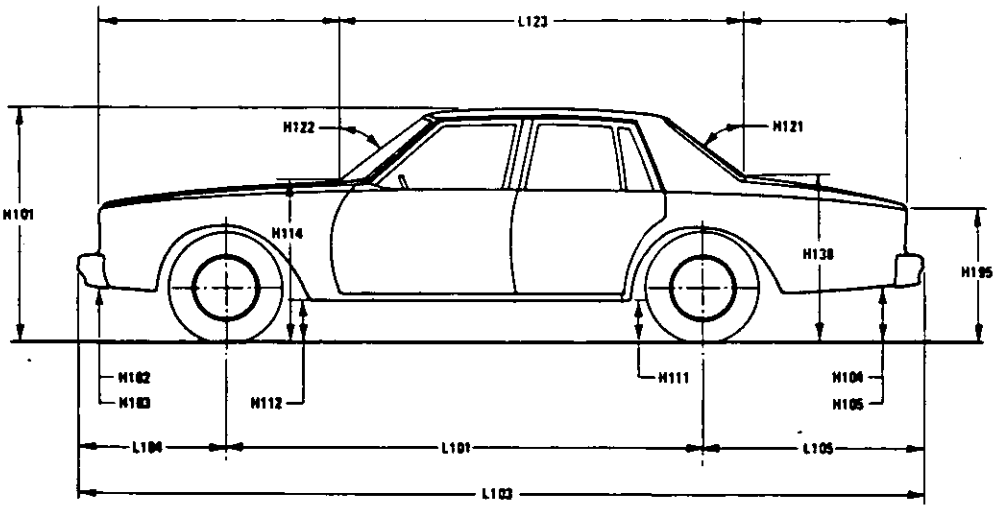
* Also see Engine - General Section for dressed engine mass (weight).

Exterior Vehicle And Body Dimensions – Key Sheet

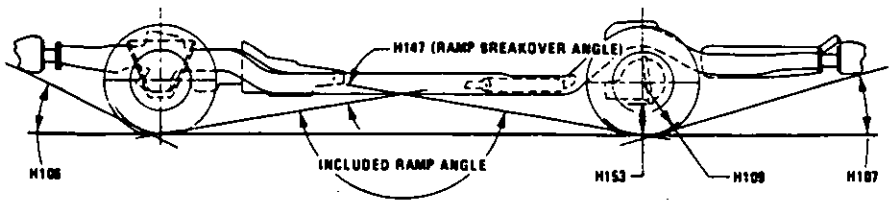
Exterior Width



Exterior Length & Height



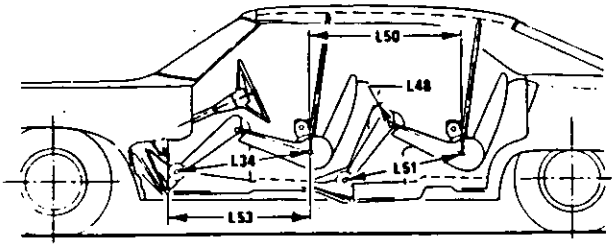
Exterior Ground Clearance

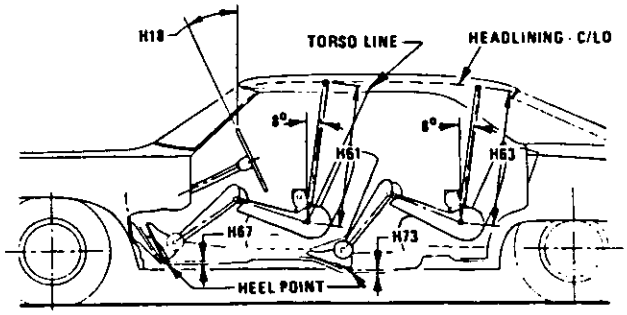


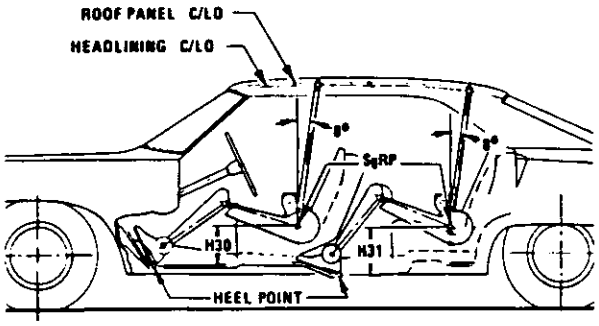
MVMA Specifications Form

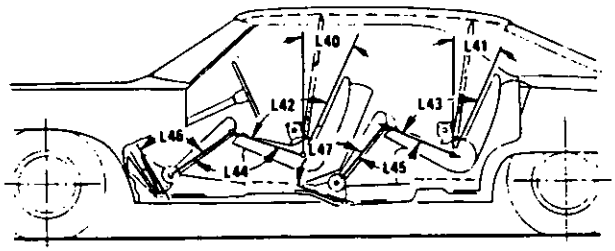
METRIC (U.S. Customary)

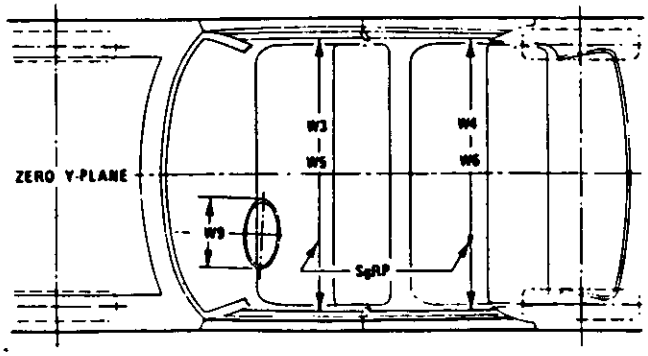
Interior Vehicle And Body Dimensions – Key Sheet

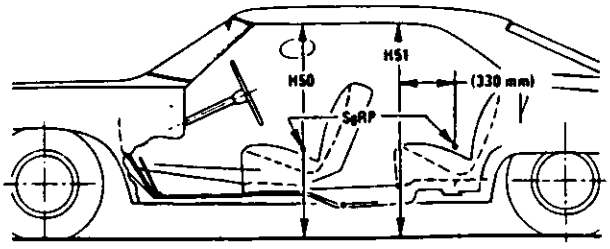






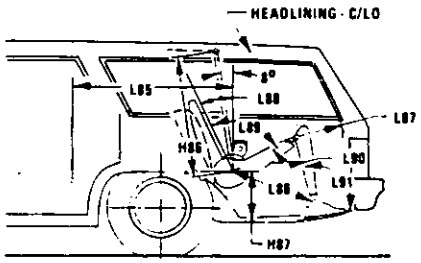


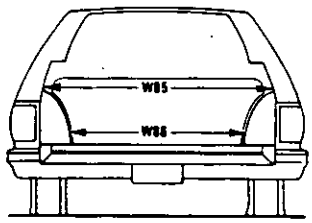




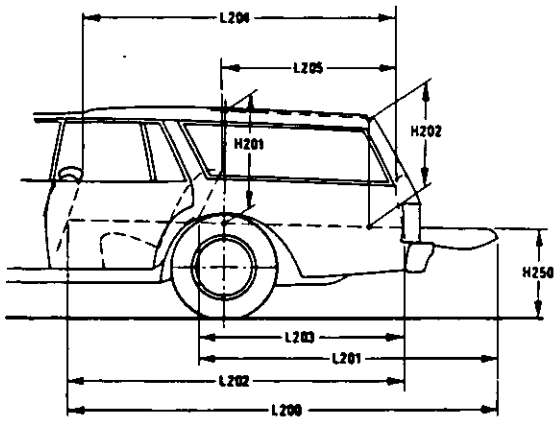
Interior Vehicle And Body Dimensions – Key Sheet

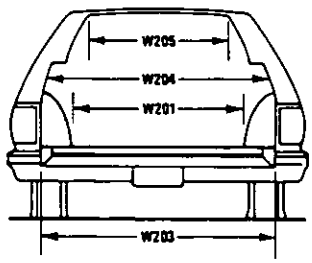
Third Seat



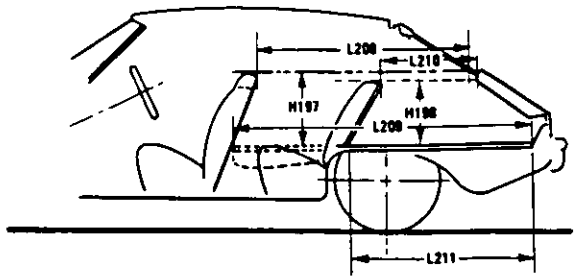


Cargo Space





Station Wagon



Hatchback

Exterior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

Seating Reference Point

SEATING REFERENCE POINT means the manufacturer's design reference point which –
(a) Establishes the rearmost normal design driving or riding position of each designated seating position in a vehicle;
(b) Has coordinates established relative to the design vehicle structure;
(c) Simulates the position of the pivot center of the human torso and thigh; and
(d) Is the reference point employed to position the two dimensional templates described in SAE Recommended Practice J826, "Devices for Use in Defining and Measuring Vehicle Seating Accommodations,".

Width Dimensions

W101 TREAD – FRONT. The dimension measured between the tire centerlines at the ground.

W102 TREAD – REAR. The dimension measured between the tire centerlines at the ground. In case of dual wheels, the dimension will be measured to the centerline of tire and wheel assemblies.

W103 VEHICLE WIDTH. The maximum dimension measured between the widest point on the vehicle, excluding exterior mirrors, flexible mud flaps, marker lamps, but including bumpers, moldings, sheet metal protrusions or dual wheels, if standard equipment.

W117 BODY WIDTH AT SgRP – FRONT. The dimension measured laterally between the widest points on the body at the SgRP-front, excluding door handles, applied moldings, or appliques.

W120 VEHICLE WIDTH – FRONT DOORS OPEN. The dimension measured between the widest point on the front doors in maximum hold-open position.

W121 VEHICLE WIDTH – REAR DOORS OPEN. The dimension measured between the widest point on the rear doors in maximum hold-open position. For vehicles with a rear door on only one side, this dimension is to the zero "Y" plane.

W122 TUMBLE – HOME. STRAIGHT SIDE GLASS. The angle measured from a vertical to the outside surface of the front door glass at the SgRP "X" plane.
CURVED SIDE GLASS. The angle measured from a vertical to a chord extending from the upper DLO to the lower DLO at the outside surface of the front door glass at the front SgRP "X" plane.

W410 OUTSIDE MIRROR WIDTH: The dimension between the widest point on the outside mirrors. The standard right and left mirror adjusted for normal driving will be shown unless otherwise noted. When only one outside mirror is standard, the dimension will be to the zero "Y" plane.

Length Dimensions

L101 WHEELBASE (WB). The dimension measured longitudinally between front and rear wheel centerlines. In case of dual rear axles, the dimension shall be to the midpoint of the centerlines of the rear wheels.

L103 VEHICLE LENGTH. The maximum dimension measured longitudinally between the foremost point and the rearmost point on the vehicle, including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

L104 OVERHAND – FRONT. The dimension measured longitudinally from the centerline of the front wheels to the foremost point on the vehicle including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

L105 OVERHANG – REAR. The dimension measured longitudinally from the centerline of the rear wheels; or in the case of dual rear axles, the dimension shall be the midpoint of the centerlines of the rear wheels, to the rearmost point on the vehicle including rear bumpers, bumper guards, tow hooks and rub strips, if standard equipment.

L123 UPPER STRUCTURE LENGTH. The dimension measured longitudinally from the cowl point to the deck point.

L127 REAR WHEEL CENTERLINE "X" COORDINATE or in the case of dual rear axles, the coordinate shall be the midpoint of the distance between the rear axle centerlines.

Height Dimensions

H101 VEHICLE HEIGHT. The dimension measured vertically from the highest point on the vehicle body to ground.

H111 ROCKER PANEL – REAR TO GROUND. The dimension measured vertically from the bottom of the rocker or side quarter panel at the front of the rear wheel opening, excluding flanges, to ground.

H112 ROCKER PANEL – FRONT TO GROUND. The dimension measured vertically from the foremost point on the bottom of the rocker panels, excluding flanges, to ground.

H114 COWL POINT TO GROUND. Measured at zero "Y" plane.

H121 BACKLIGHT SLOPE ANGLE. The angle between the vertical reference line and the surface of backlight at vehicle zero "Y" plane. For curve backlight, the angle is to chord of backlight arc from lower DLO to upper DLO.

H122 WINDSHIELD SLOPE ANGLE. The angle between the vertical reference line and a chord of the windshield arc running from the lower DLO to the upper DLO at the vehicle zero "Y" plane. In the case of wrap over glass, the angle to be measured will be formed by a chord 457 mm (18.0 in.) long drawn from the lower DLO to the intersecting point on the windshield.

H138 DECK POINT TO GROUND. Measured at zero "Y" plane.

H109 STATIC LOAD – TIRE RADIUS – REAR. Specified by the manufacturer in accordance with composite TIRE SECTION STANDARD.

Ground Clearance Dimensions

H102 FRONT BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the front bumper to ground, including bumper guards, if standard equipment.

H103 FRONT BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H102.

H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.

H105 REAR BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H104.

H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius arc and the initial point of structural interference forward of the front tire to ground. The limiting structural component shall be designated.

H107 ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius arc and the initial point structural interference rearward of the rear tire to ground. The limiting component shall be designated.

H147 RAMP BREAKOVER ANGLE. The angle measured between two lines tangent to the front and rear tire static loaded radius and intersecting at a point on the underside of the vehicle which defines the largest ramp over which the vehicle can roll.

H153 REAR AXLE DIFFERENTIAL TO GROUND. The minimum dimension measured from the rear axle differential to ground.

H156 MINIMUM RUNNING GROUND CLEARANCE. The minimum dimension measured from the sprung vehicle to ground. Specify location.

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

Glass Areas

S1 Windshield area.
S2 Side windows area. Includes the front door, rear door, vents, and rear quarter windows on both sides of the vehicle.
S3 Backlight areas.
S4 Total area. Total of all areas (S1 + S2 + S3).

Fiducial Mark Dimensions

Fiducial Mark – Number 1

L54 "X" coordinate.
W21 "Y" coordinate.
H81 "Z" coordinate.
H161 Height "Z" coordinate to ground at curb weight.
H163 Height "Z" coordinate to ground.

Fiducial Mark – Number 2

L55 "X" coordinate.
W22 "Y" coordinate.
W82 "Z" coordinate.
H162 Height "Z" coordinate to ground at curb weight.
H164 Height "Z" coordinate to ground.

Front Compartment Dimensions

L11 ACCELERATOR HEEL POINT TO STEERING WHEEL CENTER. The dimension measured horizontally from the AHP to the intersection of the steering column centerline and a plane tangent to the upper surface of the steering wheel rim.

L17 DESIGN H-POINT – FRONT TRAVEL. The dimension measured horizontally between the design H-point – front in the foremost and rearmost seat track positions. (See SAE J1100)

L23 NORMAL DRIVING AND RIDING SEAT TRACK TRAVEL. The dimension measured horizontally between a point on the design H-point travel line from the SgRP to the displaced point on the design H-point travel line with the seat moved to the foremost seat position, but not to include seat track travel used for purposes other than normal driving and riding positions. (See SAE J1100).

L31 SgRP – FRONT. "X" COORDINATED.

L34 MAXIMUM EFFECTIVE LEG ROOM – ACCELERATOR. The dimension measured along a line from the ankle pivot center to the SgRP – front plus 254 mm (10.0 in.) measured with right foot on the undepressed accelerator pedal. For vehicles with SgRP to heel (H30) greater than 18 in., the accelerator pedal may be depressed as specified by the manufacturer. If the accelerator is depressed, the manufacturer shall place foot flat on pedal and note the depression of the pedal.

L-40 BACK ANGLE – FRONT. The angle measured between a vertical line through the SgRP – front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.

L-42 HIP ANGLE – FRONT. The angle measured between torso line and thigh centerline.

L44 KNEE ANGLE – FRONT. The angle measured between thigh centerline and lower leg centerline measured on the right leg.

L46 FOOT ANGLE – FRONT. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the bare foot flesh line measured on the right leg. Ref SAE J826.

L53 SgRP – FRONT TO HEEL. The dimension measured horizontally from the SgRP – front to the accelerator heel point.

W3 SHOULDER ROOM – FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP – front at height between the belt line and 254 mm (10.0 in.) above the SgRP – front, excluding the door assist strap and attaching parts.

W5 HIP ROOM – FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP – front within 25 mm (1.0 in.) below and 76 mm (3.0 in.) above the SgRP – front and 76 mm (3.0 in.) fore and aft of the SgRP – front.

W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.

H7 ACCELERATOR HEEL POINT TO THE STEERING WHEEL CENTER. The dimension measured vertically from the AHP – front to the intersection of the steering column centerline to a plane tangent to the upper surface of the steering wheel rim.

H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.

H30 SgRP – FRONT TO HEEL. The dimension measured vertically from the SgRP – front to the accelerator heel point.

H50 UPPER BODY OPENING TO GROUND – FRONT. The dimension measured vertically from the trimmed body opening to the ground on the SgRP – front "X" plane.

H61 EFFECTIVE HEAD ROOM – FRONT. The dimension measured along a line 8 deg. rear of vertical from the SgRP – front to the headlining plus 102 mm (4.0in.).

H67 FLOOR COVERING THICKNESS – UNDEPRESSED – FRONT. The dimension measured vertically from the surface of the undepressed floor covering to the underbody sheet metal at the accelerator heel point.

Rear Compartment Dimensions

L-41 BACK ANGLE – SECOND. The angle measured between a vertical line through the SgRP – second and the torso line.

L43 HIP ANGLE – SECOND. The angle measured between torso line and thigh centerline.

L45 KNEE ANGLE – SECOND. The angle measured between thigh centerline and lower leg centerline.

L47 FOOT ANGLE – SECOND. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the three-dimensional devices bare foot flesh line (Reference J826).

L48 KNEE CLEARANCE – SECOND. The minimum dimension measured from the knee pivot center to the back of the front seatback minus 51 mm (2.0 in.).

L50 SgRP COUPLE DISTANCE – SECOND. The dimension measured horizontally from the driver SgRP – front to the SgRP – second.

L51 MINIMUM EFFECTIVE LEG ROOM – SECOND. The dimension measured along a line from the ankle pivot center to the SgRP – second plus 254 mm (10.0 in.).

W4 SHOULDER ROOM – SECOND. The minimum dimension measured laterally between door or quarter trimmed surfaces on the "X" plane through the SgRP – second at height between 254-406 mm (10.0-16.0 in.) above the SgRP – second, excluding the door assist straps and attaching parts.

W6 HIP ROOM – SECOND. Measured in the same manner as W5.

H31 SgRP – SECOND TO HEEL. The dimension measured vertically from the SgRP – second to the two dimensional device heel point on the depressed floor covering.

H51 UPPER BODY OPENING TO GROUND – SECOND. The dimension measured vertically from the trimmed body opening to the ground on the "X" plane 330 mm (13.0 in.) forward of the SgRP – second.

H63 EFFECTIVE HEAD ROOM – SECOND. The dimension measured along a line 8 deg. rear of vertical from the SgRP to the headlining, plus 102 mm (4.0 in.).

H73 FLOOR COVERING – DEPRESSED – SECOND. The dimension measured vertically from the heel point to the underbody sheet metal.

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

Luggage Compartment Dimensions

V1 USABLE LUGGAGE CAPACITY – Total of volumes of individual pieces of standard luggage set plus H-boxes stowed in the luggage compartment in accordance with the procedure described in paragraph 8.2 of SAE-J1100a.

Interior Volumes (EPA Classification)

The Interior Volume Index is listed for each body style except two seaters. The Interior Volume Index estiamtes the space in a car. It is based on four measurements – head room, shoulder room, hip room, and leg room – for the front and rear seats, plus trunk capacity. The Interior Volume Index is an estimate of the size of the passenger compartment.

The Trunk/Cargo Index is an estimate of the size of the trunk/cargo space. In station wagons and hatchbacks it is an estimate of the space behind the second seat.

Station Wagon – Third Seat Dimensions

L85 SgRP COUPLE DISTANCE – THIRD. The dimension measured horizontally from the SgRP – second to the SgRP – third.

L86 EFFECTIVE LEG ROOM – THIRD. The dimension measured along a line from the ankle pivot center to the SgRP – third plus 254 mm (10.0 in.).

L87 KNEE CLEARANCE – THIRD. The minimum dimension from the knee pivot center to the back of second seatback minus a constant of 51 mm (2.0 in.). With rear-facing third seat, dimension is measured to closure.

L88 BACK ANGLE – THIRD. Measured in the same manner as L41.

L89 HIP ANGLE – THIRD. Measured in the same manner as L43.

L90 KNEE ANGLE – THIRD. Measured in the same manner as L45

L91 FOOT ANGLE – THIRD. Measured in the same manner as L47.

W85 SHOULDER ROOM – THIRD. Measured in the same manner as W4.

W86 HIP ROOM – THIRD. Measured in the same manner as W5.

H86 EFFECTIVE HEAD ROOM – THIRD. The dimension, measured along a line 8 deg. from the SgRP – third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).

H87 SgRP – THIRD TO HEEL POINT.

SD1 SEAT FACING DIRECTION – THIRD.

Station Wagon – Cargo Space Dimensions

L200 CARGO LENGTH – OPEN – FRONT. The minimum dimension measured longitudinally from the back of the front seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo surface if the rear closure is a conventional door type tailgate at the zero "Y" plane.

L201 CARGO LENGTH – OPEN – SECOND. The dimension measured longitudinally from the back of the second seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo floor surface if the rear closure is a conventional door type tailgate, at the zero "Y" plane.

L202 CARGO LENGTH – CLOSED – FRONT. The minimum dimension measured horizontally from the back of the front seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.

L203 CARGO LENGTH – CLOSED – SECOND. The dimension measured horizontally from the back of the second seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.

L204 CARGO LENGTH AT BELT – FRONT. The minimum dimension measured horizontally from the back of the front seatback at the seatback top to the foremost normal surface of the closed tailgate or inside surface of the cab backpanel at the height of the belt, on the zero "Y" plane.

L205 CARGO LENGTH AT BELT – SECOND. The minimum dimension measured horizontally from the back of the second seatback at the seatback top to the foremost normal surface of the closed tailgate at the height of the belt, on the zero "Y" plane.

W201 CARGO WIDTH – WHEELHOUSE. The minimum dimension measured laterally between the trimmed wheelhousings at floor level. For any vehicle not trimmed, measure to the sheet metal.

W203 REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear opening at floor level.

W204 REAR OPENING WIDTH AT BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening at belt height or top of pick up box.

W205 REAR OPENING WIDTH ABOVE BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening above the belt height.

H197 FRONT SEATBACK TO LOAD FLOOR HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.

H201 CARGO HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the headlining at the rear wheel "X" coordinate on the zero "Y" plane.

H202 REAR OPENING HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the upper trimmed opening on the zero "Y" plane with rear door fully open.

H250 TAILGATE TO GROUND CURB MASS (WT.). The dimension measured vertically from the top of the undepressed floor covering on the lowered tailgate to ground on the zero "Y" plane.

V2 STATION WAGON

Measured in inches:

$$\frac{W4 \times H201 \times L204}{1728} = ft^3$$

Measured in mm:

$$\frac{W4 \times H201 \times L204}{10^9} = m^3 \text{ (cubic meter)}$$

MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

V4 HIDDEN LUGGAGE CAPACITY – REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.

V5 TRUCKS AND MPV'S WITH OPEN AREA.
Measured in inches:

$$\frac{L506 \times W505 \times H503}{1728} = ft^3$$

Measured in mm:

$$\frac{L506 \times W500 \times H503}{10^9} = m^3 \text{ (cubic meter)}$$

V6 TRUCKS AND MPV'S WITH CLOSED AREA.
Measured in inches:

$$\frac{L204 \times W500 \times H505}{1728} = ft^3$$

Measured in mm:

$$\frac{L204 \times W500 \times H505}{10^9} = m^3 \text{ (cubic meter)}$$

V8 HIDDEN LUGGAGE CAPACITY – REAR OF SECOND SEAT. The total volume of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the second seat.

V10 STATION WAGON CARGO VOLUME INDEX.
Measured in inches:

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{1728} = ft^3$$

Measured in mm:

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{10^9} = m^3 \text{ (cubic meter)}$$

Hatchback – Cargo Space Dimensions
All hatchback cargo dimensions are to be taken with the front seat in full down and rear position, and the rear seat folded down. The hatchback door is in the closed position. (For electronically adjusted seats, see the manufacturer's specifications for Design "H" Point).

L208 CARGO LENGTH AT FRONT SEATBACK HEIGHT. The minimum horizontal dimension from the "X" plane tangent to the rearmost surface of the driver's seatback to the inside limiting interference of the hatchback door on the vehicle zero "Y" plane.

L209 CARGO LENGTH AT FLOOR – FRONT – HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the front seatback to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.

L210 CARGO LENGTH AT SECOND SEATBACK HEIGHT – HATCHBACK. The minimum dimension measured from the "X" plane tangent to the rearmost surface of second seatback or the load floor which is stowed at least one half of the H198 dimension height above the rear load floor, to the rearmost inside limiting interference on the zero "X" plane.

L211 CARGO LENGTH AT FLOOR – SECOND HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the second seatback or load floor panel to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.

H197 FRONT SEATBACK TO LOAD HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.

H198 SECOND SEATBACK TO LOAD FLOOR HEIGHT: The dimension measured vertically from the second seatback to the undepressed floor covering.

V3 HATCHBACK.
Measured in inches:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{1728} = ft^3$$

Measured in mm:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{10^9} = m^3 \text{ (cubic meter)}$$

V4 HIDDEN LUGGAGE CAPACITY – REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.

V11 HATCHBACK CARGO VOLUME INDEX. Usable luggage (one (1) stand and luggage set) below floor:
Measured in inches:

$$\frac{\frac{L210 + L211}{2} \times W4 \times H198}{1728} = ft^3$$

Measured in mm:

$$\frac{\frac{L210 + L211}{2} \times W4 \times H198}{10^9} = m^3 \text{ (cubic meter)}$$

MVMA Specifications

METRIC (U.S. Customary)

Index