

# MOTOR VEHICLE

## Specifications

METRIC (U.S. Customary)

Passenger Car

# 1985

Manufacturer Mitsubishi Motors Corporation	Car Line Starion	
Mailing Address 33-8, Shiba 5-chome, Minato-ku, Tokyo, 108, Japan	Issued 3-1-1984	Revised

Questions concerning these specifications should be directed to the manufacturer whose address is shown above.

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

# **MVMA Specifications Form**

## **Passenger Car**

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#### **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 completion and are subject to change without notice by the manufacturer.
4. Additional Car and Body Dimensions and/or drawings (based in part on SAE J1100a "Motor Vehicle Dimensions") may be available from the manufacturer.

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Issued 3-1-1984 Revised (•)           

## Car Models

Model Description FWD/RWD	Introduction Date	Make, Car Line, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load—Kilograms (Pounds)
2 DOOR HATCH BACK (RWD)		A187AMNULF/H A187AMRULF/H A187AMNXLF/H A187AMRXLF/H A187AMNGLF/H	5(2/3) 5(2/3) 5(2/3) 5(2/3) 5(2/3)	35kg (77lbs)

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**Power Teams** (Indicate whether standard or optional)

SAE J1349 Net bhp (brake horsepower) and net torque connected to 77° F/25° C and 29.61 in. Hg/100 Kpa atmospheric pressure.

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Engine Description/Carb.  
 Engine Code

G54B with Turbo (2.555 Liters)	
M/T	A/T

**ENGINE — GENERAL**

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sonc, donc, ohv, hemi, wedge, pre-camber, etc.)	In line front longitudinal	
No. of cylinders	4	
Bore	91.1	
Stroke	98	
Bore spacing (c/l to c/l)	101	
Cylinder block material	Cast iron	
Cylinder block deck height	251	
Deck clearance (minimum) (above or below block)	Below 0.6	
Cylinder head material	Aluminum alloy	
Cylinder head volume (cm <sup>3</sup> )	75.2	
Head gasket thickness (compressed)	1.25	
Minimum combustion chamber total volume (cm <sup>3</sup> )	105.6	
Cyl. no. system (front to rear)*	L. Bank	N.A.
	R. Bank	N.A.
Firing order	1-3-4-2	
Recommended fuel (leaded, unleaded, diesel)	Unleaded	
Fuel antiknock index $\frac{(R + M)}{2}$	RON 91 (minimum)	
Total dressed engine mass (wt) dry**	172.4	165.4

**Engine — Pistons**

Material & mass, g (weight, oz.) piston	Aluminum alloy 464 (16)
--	-------------------------

**Engine — Camshaft**

Location	Center of IN. and EX. valve on cylinder-head	
Material (kg., weight, lbs.)	Cast iron 2.8 (6.2)	
Drive type	Chain/belt	Chain
	Width/pitch	23.3 / 9.525

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

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

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## Engine -- Valve System

Hydraulic lifters (std., opt., NA)	N.A.
Valves	Number intake / exhaust 4 / 4
	Head O.D. intake / exhaust 46 / 38

## Engine -- Connecting Rods

Material & mass [kg., (weight, lbs.)]	Drop-forged steel, 0.830 (1.8)
---------------------------------------	--------------------------------

## Engine -- Crankshaft

Material & mass [kg., (weight, lbs.)]	Drop-forged steel
End thrust taken by bearing (no.)	17.5 (38.6)
Number of main bearings	5

## Engine -- Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	390 (56.5)
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full flow
Capacity of c/case, less filter-refill-L (qt.)	3.8 (3.3)

## Engine -- Diesel Information

Diesel engine manufacturer	-
Glow plug, current drain at 0°F	-
Injector nozzle	Type Opening pressure [kPa (psi)]
Pre-chamber design	-
Fuel in-jection 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	With-Mitsubishi Heavy Industries Ltd.
Super charger - manufacturer	None
Charge cooler	None

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## Engine – Cooling System

Coolant recovery system (std., opt., n.a.)		
Coolant fill location (rad., bottle)		2.6 L 2.8 L
Radiator cap relief valve pressure (kPa (psi))		88.2 kpa
Circulation thermostat	Type (choke, bypass)	By Pass 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 - Belt
	Bearing type	Ball, integral shaft, permanently sealed
By-pass recirculation [type (inter.. ext.)]		External
Cooling system capacity	With heater—L(qt.)	
	With air cond.—L(qt.)	
	Opt. equipment [specify—L(qt.)]	
Water jackets full length of cyl. (yes, no)		Yes
Water all around cylinder (yes, no)		No
Radiator core	Describe (type, material, no. of rows)	Down Flow Brass
	Std., A/C, HD	
	Width	646 648 (mm)
	Height	400 (mm)
	Thickness	32 (mm)
	Fins per inch	11 14
Fan	Std., elec., opt.	Std.
	Number of blades & type (flex, solid, material)	7 - Uneven
	Diameter & projected width	410 (mm)
	Ratio (fan to crankshaft rev.)	1.1
	Fan cutout type	Thermal hydraulic coupling
	Drive [type (direct, remote)]	V - belt, direct
	RPM at idle (elec.)	-
	Motor rating (wattage) (elec.)	-
	Motor switch (type & location) (elec.)	-
	Switch point (temp., pressure) (elec.)	-
	Fan shroud (material)	-

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**Engine — Fuel System** (See supplemental page for details of Fuel injection, Supercharger, Turbocharger, etc. if used)

Induction type: carburetor, fuel injection system, etc.		Fuel injection	
Carburetor	Mfr.	-	
	Choke (type)	-	
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	-
		Automatic	-
Idle A/F mix.		14.7	
Fuel injection	Point of injection (no.)	On throttle valve (two)	
	Constant, pulse, flow	28.0 mm <sup>3</sup> / 2.5 msec	
	Control (electronic, mech.)	Electronic	
	System pressure [kPa (psi)]	245 kPa	
Intake manifold heat control (exhaust or water) thermostatic or fixed		Water, fixed	
Air cleaner type	Standard	Dry, Non-woven cloth	
	Optional	N.A.	
Fuel pump	Type (elec. or mech.)	Electric	
	Location (eng., tank)	Near by Fuel Tank	
	Pressure range [kPa (psi)]	620 to 800 (90 to 120)	

**Fuel Tank**

Capacity (refill L (gallons))		75 L (19.8 gallons)
Location (describe)		Underneath rear floor pan cargo area between axle and rear bumper
Attachment		Bolts
Material		Steel
Filler pipe	Location & material	Left side rear quarter panel, Steel pipe
	Connection to tank	Rubber hose
Fuel line (material)		Steel pipe
Fuel hose (material)		Rubber hose
Return line (material)		Steel pipe
Vapor line (material)		Steel pipe
Extended range tank	Opt. n.a.	-
	Capacity [L (gallons)]	-
	Location & material	-
	Attachment	-
Auxiliary tank	Opt. n.a.	-
	Capacity [L (gallons)]	-
	Location & material	-
	Attachment	-
	Selector switch or valve	-
Separate fill		-



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**Vehicle Emission Control**

Exhaust Emission Control	Type (air injection, engine modifications, other)		Three-way catalyst with feedback control. Exhaust gas recirculation and Air induction.
	Air Injection	Pump or pulse	Pulse
		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
		Exhaust source	Exhaust port NO. 2
		Point of exhaust injection (spacer, carburetor, manifold, other)	Intake manifold
	Catalytic Converter	Type	Three-way
		Number of	2
		Location(s)	In engine compartment & Under floor
		Volume [L (in <sup>3</sup> )]	1.0 (61) + 1.0 (61)
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 cleaner
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister
		Carburetor	
Electronic system	Vapor storage provision		Canister
	Closed loop (yes/no)		
	Open loop (yes/no)		

**Engine — Exhaust System**

Type (single, single with cross-over, dual, other)		Single	
Muffler no. & type (reverse flow, straight thru, separate resonator)		One (Straight flow)	
Resonator no. & type		One (Straight flow)	
Exhaust pipe.	Branch o.d., wall thickness		
	Main o.d., wall thickness	54 X 1.6	(mm)
	Material	Stainless Steel tube	
Inter-mediate pipe	o.d. & wall thickness	54 X 1.2	(mm)
	Material	Aluminized Steel tube	
Tail pipe	o.d. & wall thickness	54 X 1.2	(mm)
	Material	Aluminized Steel tube	

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## Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.)	N.A.
Manual 4-speed (std., opt., n.a.)	N.A.
Manual 5-speed (std., opt., n.a.)	Std.
Manual overdrive (std., opt., n.a.)	N.A.
Automatic (std., opt., n.a.)	N.A.
Automatic overdrive (std., opt., n.a.)	Std.

## Manual Transmission/Transaxle

Number of forward speeds		5
Transmission ratios	In first	3.369
	In second	2.035
	In third	1.360
	In fourth	1.000
	In fifth	0.856
	In overdrive	
	In reverse	3.578
Synchronous meshing (specify gears)		1, 2, 3, 4, 5
Shift lever location		
Lubricant	Capacity (L (pt.))	2.3 (4.9)
	Type recommended	Multipurpose gear oil conforming to API GL4
	SAE viscosity number	Summer SAE 80W, 75W-85W
		Winter SAE 80W, 75W-85W
		Extreme cold SAE 80W, 75W-85W

## Clutch (Manual Transmission)

Make, type, engagement (describe)		Daikin Manufacturing Co., Ltd.
Type pressure plate springs		Diaphragm
Total spring load [N (lb.)]		5394 (1213)
No. of clutch driven discs		One
Clutch facing	Material	Woven Asbestos
	Manufacturer	Hitachi Chemical Co., Ltd.
	Part number	None
	Rivets/plate	
	Rivet size	4 (mm)
	Outside & inside dia.	225 X 150 (mm)
	Total eff. area [cm <sup>2</sup> (in. <sup>2</sup> )]	442 (68.5)
	Thickness	3.5 (mm)
	Engagement cushion method	Flat-wave springs
Release bearing	Type & method of lubrication	Ball bearing, permanently lubricated
Torsional damping	Method: springs, friction material	Coil springs and friction washers

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**Automatic Transmission/Transaxle**

Trade name	JATCO L4N71B	
Type and special features (describe)	Lock up torque converter with automatically operated planetary gear transmission	
Selector	Location	Lever : Console mounted
	Ltr./No. designation	P. R. N. D. 2. 1 / 6
Gear ratios	R	2.182
	D	2.458, 1.458, 1.000, 0.686
	L <sub>3</sub>	-
	L <sub>2</sub>	1.458
	L <sub>1</sub>	2.458
Max. upshift speed - drive range [km/h (mph)]		107 (67)
Max. kickdown speed - drive range [km/h (mph)]		89 (56)
Min. overdrive speed [km/h (mph)]		44 (28)
Torque converter	Number of elements	Three
	Max. ratio at stall	1.84 : 1
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	236
Lubricant	Capacity [refill L (pt.)]	7.0 (14.9)
	Type recommended	DEXRON or DEXRON II automatic transmission fluid
Oil cooler (std., opt., NA, internal, external, air, liquid)		External air cooling

**Axle or Front Wheel Drive Unit**

Type (front, rear)	Rear	
Description	Separable	
Limited slip differential (type)	Opt. (Friction)	
Drive pinion offset	30	(mm)
Drive pinion (type)	Hypoid	
No. of differential pinions	2	
Pinion adjustment (shim, other)	Shim	
Pinion bearing adj. (shim, other)	Shim	
Driving wheel bearing (type)	Ball	
Lubricant	Capacity [L (pt.)]	1.3 (2.4)
	Type recommended	Multipurpose gear oil conforming to API GL-5
	SAE viscosity number	Summer SAE 90
		Winter SAE 90
		Extreme cold SAE 90

**Axle or Transaxle Ratio and Tooth Combinations** (See "Power Teams" for axle ratio usage.)

Axle ratio (or overall top gear ratio)		3.545
No. of teeth	Pinion	11
	Ring gear or gear	39
Ring gear o.d.		184.0 (mm)
Transaxle	Transfer gear ratio	
	Final drive ratio	

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**Propeller Shaft — Conventional Drive**

Type (straight tube, tube-in-tube, internal-external damper, etc.)		Straight tube	
Outer diam. x length* x wall thickness	Manual 3-speed trans.	N.A.	N.A.
	Manual 4-speed trans.	N.A.	N.A.
	Manual 5-speed trans.	75 X 722 X 1.6 (mm)	N.A.
	Overdrive	N.A.	N.A.
	Automatic transmission	N.A.	75 X 538 X 1.6 (mm)
Inter-mediate bearing	Type (plain, anti-friction)		
	Lubrication (fitting, prepack)		
Slip yoke	Type	Sliding spline	Sliding spline
	Number of teeth	23 (24 Indexed)	25 (26 Indexed)
	Spline o.d.	27.3	28.5
Universal joints	Make and mfg. no.	Front	Cross: MMC, Bearing: Koyo Seiko Co., Ltd.
		Rear	Cross: MMC, Bearing: Koyo Seiko Co., Ltd.
	Number used	Two	
	Type (ball and trunnion, cross)	Cross	
	Rear attach (u-bolt, clamp, etc.)	Clamp (Snap ring)	
	Bearing	Type (plain, anti-friction)	Anti-friction
		Lubric. (fitting, prepack)	Prepack
Drive taken through (torque tube, arms or springs)		Torque tube	
Torque taken through (torque tube, arms or springs)		Torque tube	

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

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Body Type And/Or  
Engine Displacement

G54B with Turbo (2.555 Liters)

## Suspension - General

Car leveling	Std./opt./n.a.	N.A.	
	Type (air, hyd., etc.)	-	
	Manual/auto. controlled	-	
Provision for brake dip control		N.A.	
Provision for accel. squat control		N.A.	
Provisions for car jacking		N.A.	
Shock absorber (front & rear)	Type	Front: Strut type	Rear: Strut type
	Make	Kayaba Industry Co., Ltd.	Tokiko Co., Ltd.
	Piston diameter	30	32 (mm)
	Rod diameter	22	

## Suspension - Front

Type and description		Independent strut type	
Drive and torque taken through			
Travel	Full jounce	80	(mm)
	Full rebound	90	(mm)
Spring	Type (coil, leaf, other) & material	Coil / SUP9 (Spring steel, Specified in JIS)	
	Insulators (type & material)	Cylindrical, Rubber	
	Size (coil design height & i.d., bar length x dia.)	309 X 117.5 X 2350 X 12.5 (mm)	
	Spring rate [N/mm (lb./in.)]	26.0 (148.6)	
	Rate at wheel [N/mm (lb./in.)]	24.2 (138.5)	
Stabilizer	Type (link, linkless, frameless)	Link	
	Material & bar diameter	SUP6, 21 (mm)	

## Suspension - Rear

Type and description		Independent strut type	
Drive and torque taken through		Torque tube	
Travel	Full jounce	95	(mm)
	Full rebound	90	(mm)
Spring	Type (coil, leaf, other) & material	Coil / SUP6	
	Size (length x width, coil design height & i.d., bar length & dia.)	320 X 108.0 X 2550 X 12.0 (mm)	
	Spring rate [N/mm (lb./in.)]	22.6 (129.5)	
	Rate at wheel [N/mm (lb./in.)]	19.6 (112.1)	
	Insulators (type & material)	Cylindrical, Rubber	
	If leaf	No. of leaves	-
		Shackle (comp. or tens.)	-
Stabilizer	Type (link, linkless, frameless)	Link	
	Material & bar diameter	S45C, 18	
Track bar (type)		-	

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**Brakes — Service**

Description			A187AM	NULF,H NXLF,H	RULF,H RXLF,H	A187A	MNGLF	MNGLH	
Brake type (std., opt., n.a.)		Front (disc or drum)	Disc.						
		Rear (disc or drum)	Disc.						
Self-adjusting (std., opt., n.a.)			Std.						
Special 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.)			In line						
Vacuum reservoir (volume in. <sup>3</sup> )			-						
Vacuum pump-type (elec., gear driven, belt driven, if other so state)			-						
Anti-skid device type (std., opt., n.a.) (F/R)			Opt. (Rear wheel)		Std. (Rear wheel)				
Effective area [cm <sup>2</sup> (in. <sup>2</sup> )]*		(F/R)	184 (28.5) / 128 (19.8)						
Gross lining area [cm <sup>2</sup> (in. <sup>2</sup> )]** (F/R)			189 (29.3) / 133 (20.6)						
Swept area [cm <sup>2</sup> (in. <sup>2</sup> )]*** (F/R)			1316 (204.0)/ 999 (154.9)						
Rotor	Outer working diameter	F/R	252 / 245 (mm)						
	Inner working diameter	F/R	147 / 168 (mm)						
	Thickness	F/R	24 / 18 (mm)						
	Material & type (vented/solid)	F/R	Cast iron (Vented)						
Drum	Diameter (nominal)	F/R	-						
	Type and material	F/R	-						
Wheel cylinder bore		(F/R)	57.2 / 41.3 (mm)						
Master cylinder	Bore/stroke	F/R	23.81 / 31 (mm)						
Pedal arc ratio			4.42						
Line pressure at 445 N (100 lb.) pedal load [kPa (psi)]			10563 (1532)						
Lining clearance per shoe		F/R	No major adjustment required/ No major adjustment required						
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Bonded					
		Rivet size		-					
		Manufacturer		Akebono Brake Industry Ltd.					
		Lining code		AKV 3017 FF					
		Material		Molded					
		****	Primary or out-board	107.0 X 43.0 X 10 (mm)					
		Size	Secondary or in-board	107.0 X 43.0 X 10 (mm)					
		Shoe thickness (no lining)		5.5 (mm)					
	Rear wheel	Bonded or riveted (rivets/seg.)		Bonded					
		Manufacturer		Akebono Brake Industry Ltd.					
		Lining code		AKS 26 GF					
		Material		Molded					
		****	Primary or out-board	95 X 33.8 X 8.5 (mm)					
		Size	Secondary or in-board	95 X 33.8 X 8.5 (mm)					
		Shoe thickness (no lining)		6 (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 Work Ing Dia. minus Square of Inner Working Dia. multiplied by Pi/2 for each brake.)

\*\*\*\* Size for drum brakes includes length x thickness.

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**Tires And Wheels (Standard)**

Tires	Size (load range, ply)		P195 / 70R14	
	Type (bias, radial, etc.)		Radial	
	Inflation pressure (cold) for recommended max. vehicle load	Front (kPa (psi))	190 (27)	
		Rear (kPa (psi))	190 (27)	
	Rev./mile—at 70 km/h (45 mph)		520	
Wheels	Type & material		Disc. Aluminum	
	Rim (size & flange type)		14 X 6JJ	
	Wheel offset		18	(mm)
	Attachment	Type (bolt or stud)	Stud	
		Circle diameter	114.3	(mm)
Spare	Number & size		Four, M12 X 1.5 (Metric)	
	Tire and wheel (same, if other describe)		Other, T125 / 70D15 High pressure tire	
	Storage position & location (describe)		Luggage room	

**Tires And Wheels (Optional)**

Size (load range, ply)		P215 / 60R15
Type (bias, radial, etc.)		Radial
Wheel (type & material)		Disc. Aluminum
Rim (size, flange type and offset)		15 X 6 1/2 JJ, off set 18
Size (load range, ply)		
Type (bias, radial, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
Size (load range, ply)		
Type (bias, radial, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
Size (load range, ply)		
Type (bias, radial, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
Spare tire and wheel (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)		

**Brakes — Parking**

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

**MVMA Specifications Form**  
**Passenger Car**  
**METRIC (U.S. Customary)**

Car Line Starion  
 Model Year 1985 Issued 3-1-1984 Revised (\*)

Body Type And/Or  
 Engine Displacement

G54B with Turbo (2.555 Liters)

**Steering**

Manual (std., opt., n.a.)				N.A.
Power (std., opt., n.a.)				Std.
Adjustable steering wheel (tilt, swing, other)		Type and description		Tilt
		(Std., opt., n.a.)		Std.
Wheel diameter		Manual		-
		Power		380 (mm)
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)		10.7 (35.1)
		Curb to curb (l. & r.)		9.6 (31.5)
	Inside rear	Wall to wall (l. & r.)		-
		Curb to curb (l. & r.)		-
Scrib Radius				
Manual	Gear	Type		N.A.
		Make		N.A.
		Ratios	Gear	N.A.
			Overall	N.A.
	No. wheel turns (stop to stop)			N.A.
Power	Type (coaxial, linkage, etc.)			Integral type power steering
	Make			Koyo Seiko Co., Ltd.
	Gear	Type		Recirculating ball nut
		Ratios	Gear	14.3
			Overall	15.9
	Pump (drive)			V-belt
No. wheel turns (stop to stop)			3.0	
Linkage	Type			Parallelogram, trailing, equal length the rods
	Location (front or rear of wheels, other)			Rear
	Drag links (trans. or longit.)			Transverse center
	Tie rods (one or two)			Two
Steering axis	Inclination at camber (deg.)			10°00'
	Bearings (type)	Upper		Ball bearing
		Lower		Ball joint
		Thrust		-
Steering spindle & joint type				Ball
Wheel spindle	Diameter	Inner bearing		31.750 (mm)
		Outer bearing		19.050 (mm)
	Thread (size)			M16 X 1.0 (Metric)
	Bearing (type)			Tapered roller



**MVMA Specifications Form**  
**Passenger Car**  
(METRIC (U.S. Customary))

Car Line Starion  
Model Year 1985 Issued 3-1-1984 Revised (\*)

Body Type And/Or  
Engine Displacement

G54B with Turbo (2.555 Liters)

**Wheel Alignment**

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	5°20' ± 30'
		Camber (deg.)	-0°10'
		Toe-in [outside track-mm (in.)]	-5 (-0.20) to 5 (0.20)
	Service reset*	Caster	
		Camber	
		Toe-in	
	Periodic M.V. in-spection	Caster	
		Camber	
		Toe-in	
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	-0°15'
		Toe-in [outside track-mm (in.)]	-2 (-0.08) to 2 (0.08)
	Service reset*	Camber	
		Toe-in	
	Periodic M.V. in-spection	Camber	
		Toe-in	

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

**Electrical — Instruments and Equipment**

Speed-ometer	Type	In-line driving pointer or Digital
	Trip odometer (std., opt., n.a.)	Standard with combination meter
EGR maintenance indicator		N.A.
Charge indicator	Type	Moving iron
	Warning device	Driving pointer (Anpmeter) or LCD (Volt Meter)
Temperature indicator	Type	Electric thermal (Anpmeter) or Digital (Bow graph)
	Warning device	Driving pointer (Anpmeter) or LCD (Volt Meter)
Oil pressure indicator	Type	Electric thermal (Anpmeter) or Digital (Bow graph)
	Warning device	Driving pointer (Anpmeter) or LCD (Volt Meter)
Fuel indicator	Type	Electric thermal (Anpmeter) or Digital (Bow graph)
	Warning device	Driving pointer (Anpmeter) or LCD (Volt Meter)
Wind-shield wiper	Type (standard)	Electric two speed with variable intermittent operation
	Type (optional)	N.A.
	Blade length	480 (mm)
	Swept area [cm <sup>2</sup> (in. <sup>2</sup> )]	5630 (873)
Wind-shield washer	Type (standard)	Electric
	Type (optional)	N.A.
	Fluid level indicator	Warning light
Horn	Type	90 diameter
	Number used	two
Other		Brake system and parking brake warning light, fasten belts warning light.

# MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line Starion  
Model Year 1985 Issued 3-1-1984 Revised (•) \_\_\_\_\_

Engine Description/Carb.  
Engine Code

G54B with Turbo (2.555 Liters)

## Electrical – Supply System

		YUASA BATTERY CO.,LTD. or JAPAN STORAGE BATTERY CO.,LTD. or MATSUSHITA
Battery	Make	BATTERY IND. CO.,LTD. or SHIN-KOBE ELECTRIC MACHINERY CO.,LTD.
	Model, std., (opt.)	NX100-S6(S)-MF
	Voltage	12
	Amps at 0°F cold crank	420
	Minutes-reserve capacity	75
	Amp/hrs. - 20 hr. rate	45
	Location	Front, left side of engine compartment
Generator or alternator	Type and rating	65
	Ratio (alt. crank/rev.)	2.06 : 1
	Optional (type & rating)	N.A.
Regulator	Type	Voltage Control

## Electrical – Starting System

Start, motor	Current drain at 0°F	
Motor drive	Engagement type	Solenoid
	Pinion engages from (front, rear)	Front

## Electrical – Ignition System

Type	Conventional (std., opt., n.a.)		N.A.
	Electronic (std., opt., n.a.)		Std.
	Other (specify)		
Coil	Make		Diamond Electric Manufacturing Co.,Ltd.
	Model		LB-119
	Current	Engine stopped – A	N.A.
		Engine idling – A	1.4
Spark plug	Make		NGK Spark Plug Co.,Ltd. or Nippon Denso
	Model		BUR6EA-11 or W20EPR-S11
	Thread (mm)		14
	Tightening torque [N-m (lb., ft.)]		20 to 30 (15 to 22)
	Gap		1.0 to 1.1
	Number per cylinder		1
Distributor	Make		Mitsubishi Electric Corp.
	Model		

## Electrical – Suppression

Locations & type	
------------------	--

**MVMA Specifications Form**  
**Passenger Car**  
**METRIC (U.S. Customary)**

Car Line Starion  
 Model Year 1985 Issued 3-1-84 Revised (\*) \_\_\_\_\_

Body Type

G54B with Turbo (2.555 Liters)

**Body — Miscellaneous Information**

Type of finish (lacquer, enamel, other)		-
Hood	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	-
	Release control (internal, external)	Internal
Trunk lid	Type (counterbalance, other)	Gas spring
	Internal release control (elec., mech., n.a.)	Mech.
Hatch back lid	Type (counterbalance, other)	Gas spring
	Internal release control (elec., mech., n.a.)	Mech.
Bumper front	Bar material & mass (wt.)	Polyurethane (2.09kg)
	Reinforcement material & mass (wt.)	Steel (10.9kg)
Bumper rear	Bar material & mass (wt.)	Polyurethane (2.68kg)
	Reinforcement material & mass (wt.)	Steel (11.0kg)
Vent window control (crank, friction, pivot, power)	Front	None
	Rear	None
Seat cushion type	Front	Spring
	Rear	Urethane form
	3rd seat	-
Seat back type	Front	Spring
	Rear	Urethane form
	3rd seat	-
Vehicle ident. no. location		-

**Frame**

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

**Glass**

Backlight slope angle (deg.)	H121	69.5	(°)
Windshield slope angle (deg.)	H122	60	(°)
Tumble-Home (deg.)	W122	30.5	(°)
Windshield glass exposed surface area [cm <sup>2</sup> (in. <sup>2</sup> )]	S1	7368 (1142)	
Side glass exposed surface area [cm <sup>2</sup> (in. <sup>2</sup> )]	S2	8740 (1350)	
Backlight glass exposed surface area [cm <sup>2</sup> (in. <sup>2</sup> )]	S3	9350 (1450)	
Total glass exposed surface area [cm <sup>2</sup> (in. <sup>2</sup> )]	S4	25458 (3942)	
Windshield glass (type)		Curved-Laminated plate	
Side glass (type)		Curved-Tempered plate	
Backlight glass (type)		Curved-Tempered plate	

**MVMA Specifications Form****Passenger Car****METRIC (U.S. Customary)****Car and Body Dimensions** See Key Sheets for definitionsCar Line StarionModel Year 1985 Issued 3-1-84 Revised (\*) \_\_\_\_\_

Body Type

SAE  
Ref.  
No.

G54B with Turbo (2.555 Liters)

**Restraint System**

Active restraint system	Standard/ optional	Standard
	Type and description	Front:3 point seat belt with ELR ; Rear:outboard:2 point seat belt with ALR Rear:center:2point seat belt with manual adjusting device
	Location	Front, Rear
Passive seat belts	Standard/ optional	N.A.
	Power/ manual	-
	2 or 3 point	-
	Knee bar/ lap belt	-

**MVMA Specifications Form**  
**Passenger Car**  
**METRIC (U.S. Customary)**

Car Line Starion  
 Model Year 1985 Issued 3-1-84 Revised (●) \_\_\_\_\_

Body Type

G54B with Turbo (2.555 Liters)

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

		Opt. (auto or manual)	
Air conditioning (manual, auto, temp control)			
Clock (digital, analog)		Std. (digital)	
Compass / thermometer		N.A.	
Console (floor, overhead)		Std. (floor)	
Defroster, elec. backlight		Std.	
Electronic	Diagnostic warning (integrated, individual)	Std. (partly integrated)	
	Instrument cluster (list instruments)	Opt. (speed, tacho, fuel, temp, trip-odo, volt, oil press, turbo)	
	Keyless entry	N.A.	
	Trip minder (avg. spd., fuel)	Opt.	
	Voice alert (list items)	N.A.	
	Other		
Fuel door lock (remote, key, electric)		Std. (remote, key)	
Lamps	Auto head on / off delay, dimming	N.A.	
	Cornering	N.A.	
	Courtesy (map, reading)	Std.	
	Door lock, ignition	Std.	
	Engine compartment	N.A.	
	Fog	Std.	
	Glove compartment	Std.	
	Trunk	Std.	
	Other		
Mirrors	Day/night (auto, man.)	Std. (man)	
	L.H. (remote, power, heated)	Std. (power)	
	R. H. (convex, remote, power, heated)	Std. (convex, power)	
	Visor vanity (RH / LH, illuminated)	RH/Std. LH/N.A.	RH/Std. (illu.) LH/N.A.
Parking brake-auto release (warning light)		(NUL, RUL, NGL)	(NXL, RXL)
Power equipment	Door locks / deck lid - specify	Opt. / N.A.	
	Seat (2-4-6 way) heated (driver, pass, other) lumbar, hip, thigh support (power, manual) reclining (driver, pass) memory (1-2 preset, recline)		
	Side windows	Std.	
	Vent windows	N.A.	
	Rear window	N.A.	
Radio systems	Antenna (location, whip, w/shield, power)	Std. (power on rear quarter)	
	AM, FM, stereo, tape, CB	Std. (AM/FM Mpx, electronic auto tuning radio with cassette player)	
	Speaker (number, location) Premium sound	Std. (4speakers-i/pnl rear she(f), Opt. 8speakers-i/pnl doors she(f))	
Roof open air/fixd (flip-up, sliding, "T")		Opt. (flip-up)	
Speed control device		Std.	
Speed warning device (light, buzzer, etc.)		N.A.	
Tachometer (rpm)		Std.	
Theft protection-type		Disk tumbler, key locks on ignition switch doors, fuel lid luggage compartment & lockable Steering)	

# MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line Starion

Model Year 1985

Issued 3-1-1984

Revised (\*)

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for all base body models of each car line.  
SAE Ref. no. refers to the definition published in SAE Recommended Practice.  
J1100a "Motor Vehicle Dimensions," unless otherwise specified.

Body Type

SAE  
Ref.  
No.

G54B with Turbo (2.555 Liters)

## Width

Tread (front)	W101	1395
Tread (rear)	W102	1400
Vehicle width	W103	1685 ( (1695) with protector )
Body width at Sg RP (front)	W117	1630
Vehicle width (front doors open)	W120	3745
Vehicle width (rear doors open)	W121	-

## Length

Wheelbase	L101	2435
Vehicle length	L103	4400
Overhang (front)	L104	970
Overhang (rear)	L105	995
Upper structure length	L123	2600
Rear wheel C/L "X" coordinate	L127	2010
Cowl point "X" coordinate	L125	85

## Height\*

Passenger distribution (frt./rear)	PD1,2,3	Front:2, Rear:3
Trunk/cargo load		-
Vehicle height	H101	1275
Cowl point to ground	H114	915
Deck point to ground	H138	895
Rocker panel-front to ground	H112	180
Bottom of door closed-front to grd.	H133	260
Rocker panel-rear to ground	H111	175
Bottom of door closed-rear to grd.	H135	-

## Ground Clearance\*

Front bumper to ground	H102	350
Rear bumper to ground	H104	300
Bumper to ground (front at curb mass (wt.))	H103	355
Bumper to ground (rear at curb mass (wt.))	H105	370
Angle of approach (degrees)	H106	18°
Angle of departure (degrees)	H107	19°
Ramp breakover angle (degrees)	H147	12°
Rear axle differential to ground	H153	160
Min. running ground clearance	H156	115
Location of min. run. grd. clear.		Exhaust pipe

All linear dimensions are in millimeters (inches/mm); all mass (weight) specifications are in kilograms (pounds); and all angular dimensions in degrees.

\* All vehicle height and ground clearances are made at the Manufacturer's Design Load Weight, unless otherwise specified.  
Manufacturers Design Load Weight is defined with indicated passenger distribution and trunk/cargo load.

**MVMA Specifications Form**  
**Passenger Car**  
**METRIC (U.S. Customary)**  
**Car and Body Dimensions**

Car Line Starion  
 Model Year 1985 Issued 3-1-1984 Revised (•) \_\_\_\_\_

See Key Sheets for definitions

Body Type

SAE  
Ref.  
No.

G54B with Turbo (2.555 Liters)

**Front Compartment**

Sg RP front, "X" coordinate	L31	995
Effective head room	H61	930
Max. eff. leg room (accelerator)	L34	1035
Sg RP (front to heel)	H30	215
Design H-point front travel	L17	180
Shoulder room	W3	1330
Hip room	W5	1350
Upper body opening to ground	H50	1190
Steering wheel angle	H18	
Back angle	L40	25°

**Rear Compartment**

Sg RP Point couple distance	L50	605
Effective head room	H63	900
Min. effective leg room	L51	740
Sg RP (second to heel)	H31	250
Knee clearance	L48	0
Compartment room	L3	525
Shoulder room	W4	1300
Hip room	W6	1030
Upper body opening to ground	H51	
Back angle	L41	25° (outboard) 28° (center)

**Luggage Compartment**

Usable luggage capacity [L (cu. ft.)]	V1	-
Liftover height	H195	-

**Interior Volumes (EPA Classification)**

Vehicle class		Sub compact
Interior volume index (cu. ft.)		86.5 ft <sup>3</sup>
Trunk/cargo index (cu. ft.)		10.3 ft <sup>3</sup>

**MVMA Specifications Form****Passenger Car****METRIC (U.S. Customary)****Car and Body Dimensions** See Key Sheets for definitionsCar Line StarionModel Year 1985 Issued 3-1-1984 Revised (●) \_\_\_\_\_

Body Type

SAE  
Ref.  
No.

G54B with Turbo (2.555 Liters)

**Station Wagon – Third Seat**

Shoulder room	W85	—
Hip room	W86	—
Effective leg room	L86	—
Effective head room	H86	—
Effective T-point head room	H89	—
Seat facing direction	SD1	—
Back angle	L88	—

**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	—
Max. 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 <sup>3</sup> (ft. <sup>3</sup> )]	V2	—
Hidden cargo volume [m <sup>3</sup> (ft. <sup>3</sup> )]	V4	—
Cargo volume, index-rear of 2-seat	V10	—

**Hatchback – Cargo Space**

Front seat back to load floor height	H197	285
Cargo length at front seat back height	L208	1250
Cargo length at floor (front)	L209	1515
Cargo volume index [m <sup>3</sup> (ft. <sup>3</sup> )]	V3	0.51
Hidden cargo volume [m <sup>3</sup> (ft. <sup>3</sup> )]	V4	—
Cargo volume index-rear of 2-seat	V11	—

**Aerodynamics\***

Wheel lip to ground, front	—
Wheel lip to ground, rear	—
Frontal area [m <sup>2</sup> (ft. <sup>2</sup> )]	1.74 (18.77)
Drag coefficient (Cd)	0.35

\* Describe measurement method.



# MVMA Specifications Form

## Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line Starion

Model Year 1985

Issued 3-1-1984

Revised (\*)

Body Type

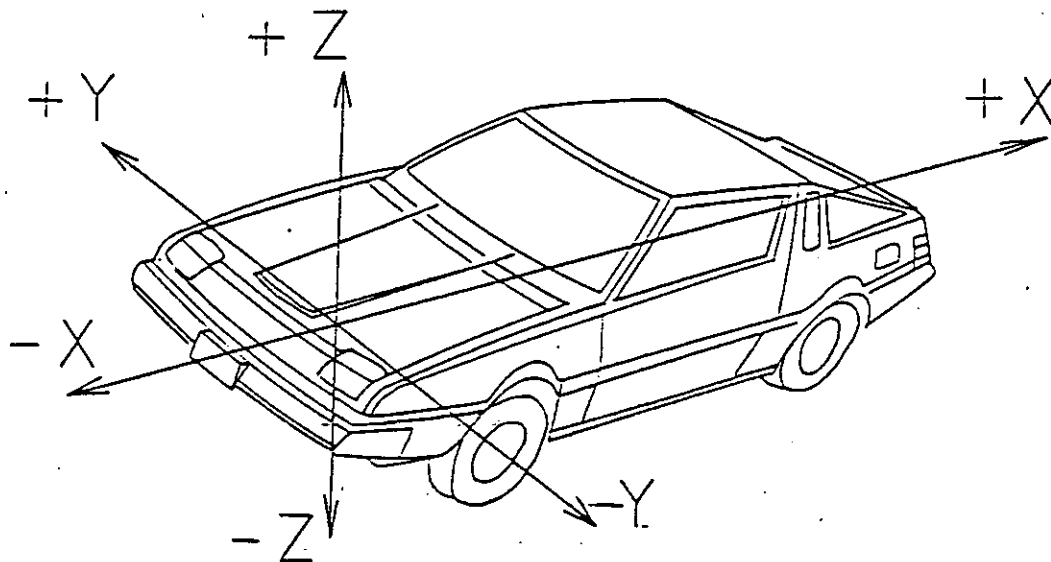
G54B with Turbo (2.555 Liters)

### 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 bottom of the rocker panel.

Fiducial  
Mark  
Number

Front	W21	345 BL
	L54	0.35 TL
	H81	111 WL
	H161	295
	H163	-

Rear	W22	520
	L55	2965
	H82	291
	H162	450
	H164	-

\* Reference - SAE Recommended Practice, J182a, Motor Vehicle Fiducial Marks - September, 1973.  
All linear dimensions are in millimeters (inches).

# MVMA Specifications Form

## Passenger Car

METRIC (U.S. Customary)

Car and Body Dimensions See Key Sheets for definitions

Car Line Starion  
 Model Year 1985 Issued 3-1-1984 Revised (\*)

Body Type

SAE  
Ref.  
No.

G54B with Turbo (2.555 Liters)

### Lamps and Headlamp Shape\*

Height above ground to center of bulb or marker	Headlamp (H127)	Highest**	720
		Lowest	-
	Taillamp (H128)	Highest**	725
		Lowest	720
	Sidemarker	Front	595
		Rear	745
Distance from C/L of car to center of bulb	Headlamp	Inside	-
		Outside**	560
	Taillamp	Inside	415 565
		Outside**	715
	Directional	Front	570
		Rear	415 565
	Headlamp shape		5.6 X 7.9 in rectangular unit

\* Measured at curb mass (weight).

\*\* If single lamps are used enter here.

**METRIC (U.S. Customary)**

Revised (•)

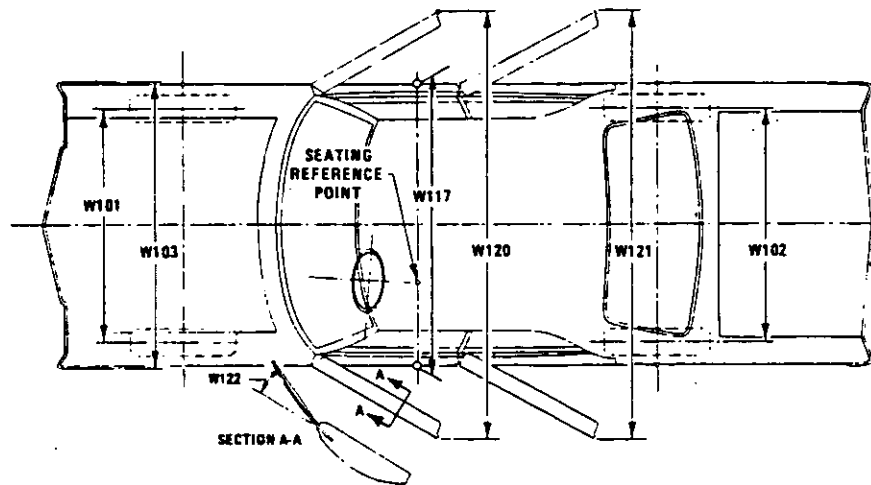
- \* Reference - SAE J1100a, Motor vehicle dimensions, curb weight definition.
- \*\* Shipping mass (weight) definition - Curb weight minus fuel (48 kg)



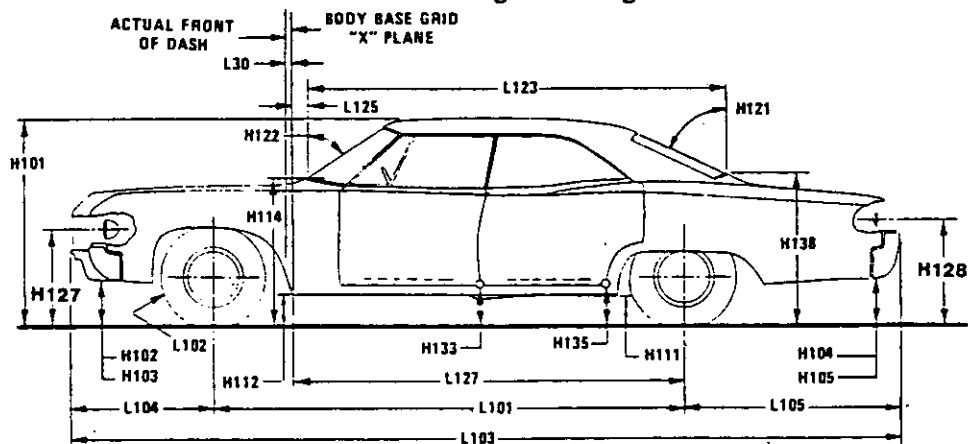
**MVMA Specifications Form**  
**Passenger Car**  
**METRIC (U.S. Customary)**

**Exterior Car And Body Dimensions – Key Sheet**

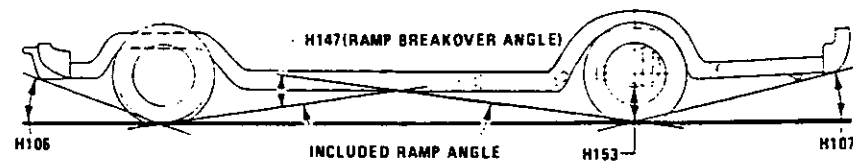
**Exterior Width**



**Exterior Length & Height**



**Exterior Ground Clearance**



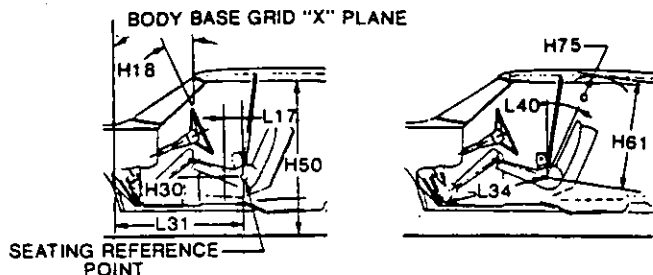
# MVMA Specifications Form

## Passenger Car

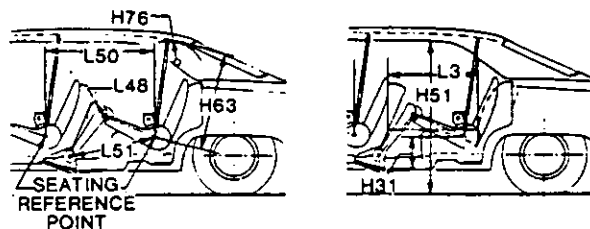
METRIC (U.S. Customary)

### Interior Car And Body Dimensions – Key Sheet

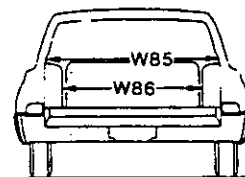
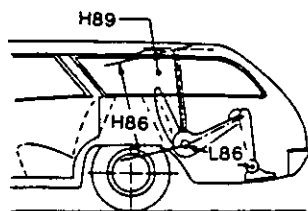
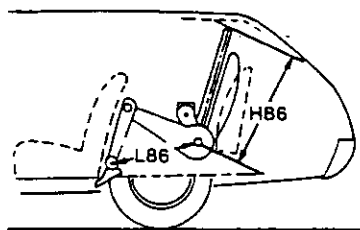
#### Front Compartment



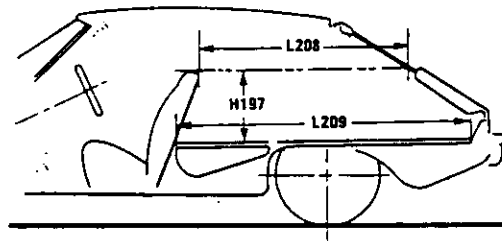
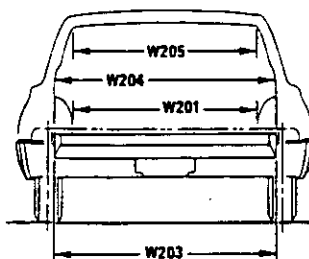
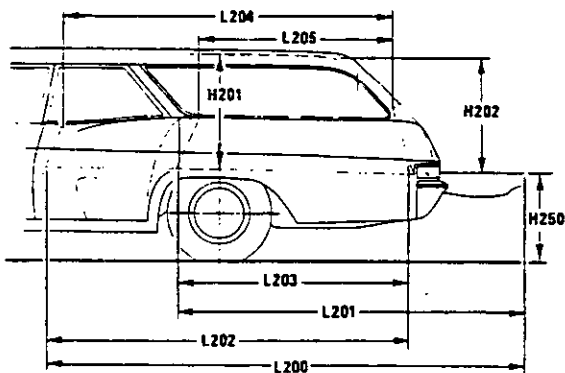
#### Rear Compartment



#### Third Seat



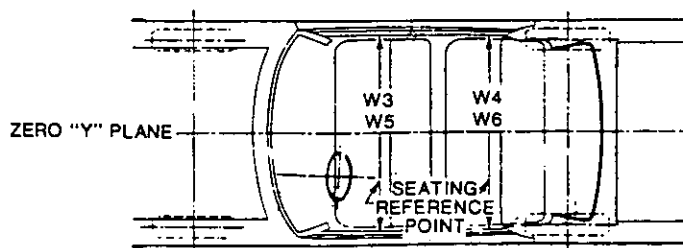
#### Cargo Space



#### Hatchback

#### Station Wagon

#### Interior Width



# MVMA Specifications Form

## Passenger Car

### METRIC (U.S. Customary)

#### Exterior Car 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, "Manikins for Use in Defining Vehicle Seating Accommodations," November 1962.

##### 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 positions. 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.

##### Length Dimensions

- L30 FRONT OF DASH "X" COORDINATE. A minus (-) dimension indicates actual front of dash in forward of the zero "X" plane.
- 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.
- L102 TIRE SIZE. As specified by the manufacturer.
- 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 OVERHANG–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 in the midpoint of the distance between the rear axle centerlines.
- L125 COWL POINT "X" COORDINATE.

##### Height Dimensions

- H101 VEHICLE HEIGHT. The dimension measured vertically from the highest point on the vehicle body to ground.
- H114 COWL POINT TO GROUND. Measured at zero "Y" plane.
- H138 DECK POINT TO GROUND. Measured at zero "Y" plane.
- 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.
- H132 BOTTOM OF DOOR OPEN–FRONT TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum hold-open position, 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.
- H134 BOTTOM OF DOOR OPEN–REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum hold-open position, to ground.
- H135 BOTTOM OF DOOR CLOSED–REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.
- 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 are 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.
- H127 HEADLAMP TO GROUND–CURB MASS (WT.). The dimension measured vertically from the centerline of the lowest headlamp lens to ground.
- H128 TAILLAMP TO GROUND–CURB MASS (WT.). The dimension measured vertically from the centerline of the upper bulb to ground.

##### 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 H104.
- 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.

# MVMA Specifications Form

## Passenger Car

### METRIC (U.S. Customary)

#### Interior Car And Body Dimensions – Key Sheet

##### Dimensions Definitions

- H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius are 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 are the initial point of structural interference rearward of the rear tire to ground. The limiting component shall be designated.
- H147 REAR 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.

#### Front Compartment Dimensions

- PD1 PASSENGER DISTRIBUTION—FRONT.
- L31 SgRP—FRONT "X" COORDINATED.
- 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 (4.0 in.).
- H75 EFFECTIVE T-POINT HEAD ROOM—FRONT. The minimum radius from the T-point to the headlining plus 762 mm (30 in.).
- 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.
- H30 SgRP—FRONT TO HEEL. The dimension measured vertically from the SgRP—front to the accelerator heel point.
- L17 DESIGN H-POINT—FRONT TRAVEL. The dimension measured horizontally between the design H-point—front in the foremost and rearmost seat trace positions.
- W3 SHOULDER ROOM—FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP—front within the belt line and 254 mm (10.0 in.) above the SgRP—front.
- 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 the SgRP—front.
- 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.
- H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.
- 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.
- L40 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.

#### Rear Compartment Dimensions

- PD2 PASSENGER DISTRIBUTION—SECOND.
- L50 SgRP COUBLE DISTANCE. The dimension measured horizontally from the driver SgRP—front to 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.).
- H76 EFFECTIVE T-POINT HEAD ROOM—SECOND. Measured in the same manner as H75.
- 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.).
- 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.
- L48 KNEE CLEARANCE—SECOND. The minimum dimension measured from the knee pivot to the back of front seatback minus 51 mm (2.0 in.).
- L3 COMPARTMENT ROOM—SECOND. The dimension measured horizontally from the back of front seat to the front of the second seatback at a height tangent to the top of the second seat cushion.
- W4 SHOULDER ROOM—SECOND. The minimum dimension measured laterally between trimmed surfaces on the "X" plane through the SgRP—second within 254-406 mm (10.0-16.0 in.) above the SgRP—second.
- W6 HIP ROOM—SECOND. Measured in the same manner as W5.
- 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.
- L-41 Same as L-40.

#### 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.
- H195 LIFTOVER HEIGHT. The dimension measured vertically from the luggage compartment lower opening at the zero "Y" plane to ground.

#### Interior Volumes (EPA Classification)

The Interior Volume Index is listed for each body style except two seaters. The interior volume index estimates 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

- PD3 PASSENGER DIRECTION—THIRD.
- W85 SHOULDER ROOM—THIRD. Measured in the same manner as W5.
- W86 HIP ROOM—THIRD. Measured in the same manner as W5.
- 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.).
- 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.).
- H89 EFFECTIVE T-POINT HEAD ROOM—THIRD. Measured in the same manner as H75.
- L-88 Same as L-40.

#### Station Wagon – Cargo Space Dimensions

- L200 CARGO LENGTH—OPEN—FRONT. The minimum dimension measured longitudinally from the back of the front



# MVMA Specifications Form

## Passenger Car

### METRIC (U.S. Customary)

#### Interior Car And Body Dimensions – Key Sheet

##### Dimensions Definitions

#### Station wagon – Cargo Space Dimensions (con't.)

- seatback at the height of the undeepressed floor covering to the rearmost point on the undeepressed 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 undeepressed 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 undeepressed floor covering to the rearmost point on the undeepressed 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 undeepressed floor covering to the rearmost point on the undeepressed 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 back panel 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 the sheet metal.
- W203 REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear door 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.
- H201 CARGO HEIGHT. The dimension measured vertically from the top of the undeepressed floor covering to the headlining at the rear wheel "X" coordinated on the zero "Y" plane.
- H202 REAR OPENING HEIGHT. The dimension measured vertically from the top of the undeepressed 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 undeepressed floor covering on the lowered tailgate to ground on the zero "Y" plane.
- V2 STATION WAGON  
Measured in inches:  

$$\frac{W4 \times H201 \times L204}{1728} = \text{ft.}^3$$
 Measured in mm:  

$$\frac{W4 \times H201 \times L204}{10^9} = \text{m}^3 \text{ (cubic meter)}$$
- V4 HIDDEN CARGO VOLUME. As specified by the manufacturer.

#### V10 STATION WAGON (REAR OF SECOND SEAT) Measured in inches:

$$\frac{W4 \times H201 \times L205}{1728} = \text{ft.}^3$$

Measured in mm:

$$\frac{W4 \times H201 \times L205}{10^9} = \text{liters}$$

#### 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 electrically adjusted seats, see the manufacturer's specifications for Design "H" Point).

- H197 FRONT SEATBACK TO LOAD HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undeepressed floor covering.
- H198 SECOND SEATBACK TO LOAD FLOOR HEIGHT. The vertical dimension from the horizontal tangent to top of seatback to undeepressed floor covering at zero "Y" plane.
- 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 horizontal dimension from the "X" plane tangent to 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 "Y" plane.
- L211 CARGO LENGTH AT FLOOR—HATCHBACK—SECOND. The horizontal dimension 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.
- V3 HATCHBACK.  
Measured in inches:  

$$\frac{L208 + L209}{2} \times W4 \times H197 = \text{ft.}^3$$
 Measured in mm:  

$$\frac{L208 + L209}{2} \times W4 \times H197 = \text{m}^3 \text{ (cubic meter)}$$
- V11 HATCHBACK (REAR OF SECOND SEAT)  
Measured in inches:  

$$\frac{W4 \times H198 \times \frac{L210 + L211}{2}}{1728} = \text{ft.}^3$$
 Measured in mm:  

$$\frac{W4 \times H198 \times \frac{L210 + L211}{2}}{10^9} = \text{litres}$$

# MVMA Specifications Form

## Passenger Car

### METRIC (U.S. Customary)

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**MVMA Specifications Form**  
**Passenger Car**

Car Line Starion  
Model Year 1985 Issued 3-1-1984 Revised (•) \_\_\_\_\_

**FEATURE HIGHLIGHTS**

(Manufacturers selected list of special vehicle features;  
indicate if new or model year introduced)

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**BODY:**

- Aerodynamic style body (Cd. 0.35)
- Anti-corrosion treatment
- Safety body structure

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**CHASSIS:**

- Independent four wheel suspension with hi caster front suspension
- Ventilated four wheel disc brake
- Sporty power steering
- P215/60R15 low aspect ratio radial tire (option)

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**ENGINE:**

- 2.6 ECI turbo-charged engine with balancer shaft and MCA (Mitsubishi Clean Air) system

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**ELECTRICAL:**

- Electronic automatic tuning radio (AM/FM MPX) with cassette player with 8 speaker system
- Power window
- Headlight washers
- Digital quartz clock
- Digital speedometer

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**OTHER:**

- Air mix type dual by-level heater
- Feel support seat
- Retractable head light
- Aerodynamic wiper