

ORIGINAL

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1989

Manufacturer SUZUKI MOTOR CO., LTD. HAMAMATSU-NISHI, P.O. BOX 1 432-91, HAMAMATSU, JAPAN	Vehicle Line GEO METRO	
Mailing Address Chevrolet-Pontiac-Canada Group Engineering Center General Motors Corporation 30003 Van Dyke Warren, MI 48090-9060	Issued June, 1988	Revised September, 1988

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 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.

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MVMA Specifications Form

METRIC (U.S. Customary)

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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 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.

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MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

Vehicle Origin

Design & development (company)	SUZUKI MOTOR CO., LTD.
Where built (country)	JAPAN
Authorized U.S. sales marketing representative	GEO

Vehicle Models

Model Description & Drive (FWD/RWD/AWD/4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load—Kilograms (Pounds)
FWD				
METRO LSi/SPRINT				
2-DOOR HATCHBACK SEDAN		1MR08	2/2	40 (88)
4-DOOR HATCHBACK SEDAN		1MR68	2/2	40 (88)
METRO				
2-DOOR HATCHBACK SEDAN		1MS08	2/2	40 (88)
FIREFLY				
2-DOOR HATCHBACK SEDAN		7MR08	2/2	40 (88)
4-DOOR HATCHBACK SEDAN		7MR68	2/2	40 (88)
TURBO SPRINT				
2-DOOR HATCHBACK SEDAN		1MR08	2/2	40 (88)
TURBO FIREFLY				
2-DOOR HATCHBACK SEDAN		7MR08	2/2	40 (88)

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

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Power Teams (Indicate whether standard or optional)

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

SERIES AVAILABILITY	ENGINE						E x h a u s t S/D*	TRANSMISSION/ TRANSAXLE	AXLE RATIO (std. first)
	Code	Displ. Liters (in ³)	Induction (FI, CARB/ BBL, etc.)	Compr. Ratio	SAE Net at RPM				
					Power kW (bhp)	Torque N·m (lb. ft.)			
METRO/ SPRINT/ FIREFLY, Base - All states	FAA FAB CAA CAB	L-3 1.0 L (61in ³)	*EFI	9.5:1	41 (55) @5,700	79 (58) @3,300	S	Man. 5-speed (3.42 low) - Base Auto. 3-speed Available	4.10 3.87 (Equiva.)
METRO except High altitude	FAC CAC	L-3 1.0 L (61in ³)	*EFI	9.5:1	36 (49) @4,700	79 (58) @3,300	S	Man. 5-speed (3.42 low) - Base	3.79
TURBO SPRINT TURBO FIREFLY	FDA	L-3 1.0 L (61in ³)	*EFI	8.3:1	52 (70) @5,500	108 (80) @3,500	S	Man. 5-speed (3.42 low) - Base	4.10
* EFI: Electronic Fuel Injection									

* Single / Dual

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METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

L-3 1.0 L EFI, FAA, FAB, FAC, CAA, CAB, CAC: L-3 1.0 L EFI (TURBO), FDA

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hem, wedge, pre-camber, etc.)	Inline, Front SOHC Transverse, Front of engine faces right side of vehicle		
Manufacturer	Suzuki		
No. of cylinders	3		
Bore	74 mm (2.91 in.)		
Stroke	77 mm (3.03 in.)		
Bore spacing (C/L to C/L)	84 mm (3.31 in.)		
Cylinder block material & mass kg (lbs.) (machined)	Aluminum alloy, 11.85 (26.12)		
Cylinder block deck height	186.8 mm (7.35 in.)		
Cylinder block length	288 mm (11.34 in.)		
Deck clearance (minimum) (above or below block)	0.4 mm (0.02 in.) above	0 mm	
Cylinder head material & mass kg (lbs.)	Aluminum alloy, 5.12 (11.29)		
Cylinder head volume (cm ³)	1,896		
Cylinder liner material	Cast iron		
Head gasket thickness (compressed)	1.2 mm (0.05 in.)		
Minimum combustion chamber total volume (cm ³)	38.96	45.36	
Cyl. no. system (front to rear)*	L Bank	1-2-3	
	R Bank	---	
Firing order	1-3-2		
Intake manifold material & mass [kg (lbs.)]**	Aluminum alloy, 1.66 (3.66)	Al. alloy, 2.80 (6.16)	
Exhaust manifold material & mass [kg (lbs.)]**	Cast iron, 3.37 (7.43)	Cast iron, 1.65 (3.36)	
Fuel required unleaded, diesel, etc.	Unleaded		
Fuel antiknock index (R + M) + 2	86 or more		
Engine mounts	Number	3	
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)	Rubber, Elastomeric	
	Added isolation (sub-frame, crossmember, etc.)	None	
Total dressed engine mass (wt) dry***	MT: 61.0 (134.5), AT: 56.5 (124.6)	72.5 (159.8)	

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Alluminum alloy 220 gr.	Aluminum alloy 233 gr. (METRO)	Aluminum alloy 234 gr.
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Engine - Camshaft

Location	In cylinder head		
Material & mass kg (weight, lbs.)	Cast iron, 1.24 (2.73)		
Drive type	Chain / belt	Belt	
	Width / pitch	19.1 mm / 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:

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Engine Description/Carb.
 Engine Code

L-3 1.0 L EFI, FAA,FAB,FAC,CAA,CAB,CAC | L-3 1.0 L EFI (TURBO), FDA

Engine - Valve System

Hydraulic lifters (std., opt., NA)	Std.
Valves	Number intake / exhaust
	Head O.D. intake / exhaust

3/3
 35/28 mm (1.38/1.10 in.)

Engine - Connecting Rods

Material & mass (kg., (weight, lbs.))*	Forged steel 0.415(0.915),0.36(0.794)-METRO	0.455 (1.003)
Length (axes± to±) mm	120 mm (4.72 in.)	

Engine - Crankshaft

Material & mass (kg., (weight, lbs.))*	Nodular iron 6.666(14.696),5.90(13.007)-METRO	6.666 (14.696)
End thrust taken by bearing (no.)	2	
Length & number of main bearings	18 mm (0.71 in.) x 4	
Seal (material, one, two piece design, etc.)	Front	One
	Rear	One

Engine - Lubrication System

Normal oil pressure (kPa (psi) at engine rpm)	333 (392) @ 4,000
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full flow
Capacity of c/case, less filter-refill-L (qt.)	3.4 (3.6)

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)	N.A.
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.	ISHIKAWAJIMA HARIMA
Super charger - manufacturer	"	
Intercooler	"	TOYO RADIATOR

*Finished State

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Engine Description/Carb.
Engine Code

L-3 1.0 L EFI (M/T)	L-3 1.0 L EFI (A/T)	L-3 1.0 L EFI
FAA, FAC, CAA, CAC	FAB, CAB	(TURBO, M/T), FDA

Engine - Cooling System

Coolant recovery system (std., opt., n.s.)		Std.		
Coolant fill location (rad., bottle)		Bottle		
Radiator cap relief valve pressure [kPa (psi)]		88.3 (12.8)		
Circulation thermostat	Type (choke, bypass)	Choke		
	Starts to open at °C (°F)	88 (190), 92 (198) - METRO		82 (180)
Water pump	Type (centrifugal, other)	Centrifugal		
	GPM 1000 pump rpm	15 l/min.		
	Number of pumps	1		
	Drive (V-belt, other)	V ribbed belt (3PK)		
	Bearing type	Ball & ball		
	Impeller material	Steel		
Housing material		Aluminum alloy		
By-pass recirculation (type (inter., ext.))		Ext.		
Cooling system capacity	With heater-L/qt.)	3.9 (4.1)	4.0 (4.2)	4.1 (4.3)
	With air cond.-L/qt.)	3.9 (4.1)	4.0 (4.2)	4.1 (4.3)
	Opt. equipment (specify-L/qt.)	---		
Water jackets full length of cyl. (yes, no)		Yes		
Water all around cylinder (yes, no)		Yes		
Water jackets open at head face (yes, no)		Yes		
Radiator core	Std., AVC, HD	Std.		
	Type (cross-flow, etc.)	Vertical-flow		
	Construction (fin & tube mechanical, braze, etc.)	Fin & tube		
	Material, mass [kg (wtg. lbs.)]	Copper&brass, 2.1(4.6)	3.0 (6.6)	2.8 (6.2)
	Width	358 mm (14.09 in.)	328 mm (12.91 in.)	
	Height	350 mm (13.78 in.)	325 mm (12.80 in.)	
	Thickness	16 mm (0.63 in.)	32 mm (1.26 in.)	
	Fins per inch	11.3	10	
Radiator end tank material		Plastics		
Fan	Std., elec., opt.	Std., Elec.		
	Number of blades & type (flex, solid, material)	4, solid, Plastics		
	Diameter & projected width	300 mm (11.81 in.)		
	Ratio (fan to crankshaft rev.)	N.A.		
	Fan cutout type	---		
	Drive type (direct, remote)	Electric motor drive		
	RPM at idle (elec.)	2,100 rpm (electric)		
	Motor rating (wattage) (elec.)	80		
	Motor switch (type & location) (elec.)	Bimetal type, On thermostat case		
	Switch point (temp., pressure) (elec.)	ON/OFF: 96/91(205/196), 100/95(212/203)-METRO		91, 86(196/187)
	Fan shroud (material)	Plastics		Steel

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Engine Description/Carb. Engine Code

L-3 1.0 L EFI (METRO) FAC, CAC	L-3 1.0 L EFI (BASE) FAA, FAB, CAA, CAB	L-3 1.0 L EFI (TURBO), FDA
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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	
Manufacturer		NIPPON DENSO CO., LTD.	
<input checked="" type="checkbox"/> Carburetor no. of barrels	N.A.		
Idle A/F mix.		14.6	
Fuel injection	Point of injection (no.)	Intake manifold (1)	Port injection (3)
	Constant, pulse, flow	N.A.	
	Control (electronic, mech.)	Electronic	
	System pressure [kPa (psi)]	180 (26)	250 (36)
Idle spd -rpm (Spec. neutral or drive and propane if used)	Manual	700 (neutral)	750 (neutral)
	Automatic		850 (neutral)
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water (coolants)	N.A.
Air cleaner type		Replaceable nonwoven fabric element, Single snorkel	
Fuel filter (type/location)		Paper/Fuel tank side	
<input checked="" type="checkbox"/> Fuel pump	Type (elec. or mech.)	Elec.	
	Location (eng., tank)	Tank	
	Pressure range [kPa (psi)]	180 (26)	250 (36)
	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	50 @ 180 (13.2 @ 26)	80 @ 250 (21.1 @ 36)
Fuel Tank			
Capacity (refill L (gallons))		40 (10.6)	
Location (describe)		Under floor - rear	
Attachment		Bolt	
Material & Mass (kg (weight lbs))		Steel, 8.6 (18.9)	
Filler pipe	Location & material	Left side rear quarter panel, Steel	
	Connection to tank	Kevlar reinforced rubber hose	
Fuel line (material)		Steel	
Fuel hose (material)		FKM/GHC/CHC	
Return line (material)		Steel	
Vapor line (material)		Steel	
Extended range tank	Opt., n.a.	N.A.	
	Capacity [L (gallons)]	"	
	Location & material	"	
	Attachment	"	
Auxiliary tank	Opt., n.a.	N.A.	
	Capacity [L (gallons)]	"	
	Location & material	"	
	Attachment	"	
	Selector switch or valve	"	
	Separate fill	"	

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Engine Description/Carb.
Engine Code

L-3 1.0 L EFI FAA,FAR

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Feedback fuel injection + 3 way cata.
	Air Injection	Pump or pulse	N.A.
		Driven by	"
		Air distribution (head, manifold, etc.)	"
		Point of entry	"
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	N.A.
		Exhaust source Point of exhaust injection (spacer, carburetor, manifold, other)	"
	Catalytic Converter	Type	Single bed
		Number of	1
		Location(s)	Under floor
Volume [L (in ³)]		0.95 (58.0)	
Substrate type		Monolith	
Noble metal type		Platinum & Rhodium	
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Induction system
	Energy source (manifold vacuum, carburetor, other)		Manifold vacuum
	Discharges (to intake manifold, other)		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)	Yes	
	Open loop (yes/no)	No	

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Single
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass (kg (weight lbs))		1, Straight thru.
Resonator no. & type		1, Straight thru.
Exhaust pipe	Branch o.d. wall thickness	N.A.
	Main o.d. wall thickness	48.6-1.6/38.1-1.2 mm
	Material & Mass (kg (weight lbs))	Inner: Stainless steel, Outer: Aluminum coated steel
Inter-mediate pipe	o.d. & wall thickness	45.0-1.6/35.0-1.2 mm
	Material & Mass (kg (weight lbs))	Inner: Stainless steel, Outer: Aluminum coated steel
Tail pipe	o.d. & wall thickness	35.0-1.2 mm
	Material & Mass (kg (weight lbs))	Aluminum coated steel

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Engine Description/Carb. Engine Code

L-3 1.0 L EFI CAA,CAB,CAC,FAC	L-3 1.0 L EFI (TURBO) FDA
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Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Feedback fuel injection + 3 way cata. + EGR		
	Air Injection	Pump or pulse	N.A.		
		Driven by	"		
		Air distribution (head, manifold, etc.)	"		
		Point of entry	"		
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back pressure controlled		
		Exhaust source Point of exhaust injection (spacer, carburetor, manifold, other)	Manifold		
	Catalytic Converter	Type	Single bed		
		Number of	1	2	
		Location(s)	Under floor	1st - Exhaust manifold 2nd - Under floor	
Volume (L (in ³))		0.95 (58.0)	1st-0.30(18.3), 2nd-0.95(58.0)		
Substrate type		Monolith			
Noble metal type		Platinum & Rhodium			
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Induction system		
	Energy source (manifold vacuum, carburetor, other)		Manifold vacuum		
	Discharges (to intake manifold, other)		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)	Yes			
	Open loop (yes/no)	No			

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Single	
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass (kg (weight lbs))		1, Straight thru.	
Resonator no. & type		1, Straight thru.	
Exhaust pipe	Branch o.d., wall thickness	N.A.	
	Main o.d., wall thickness	48.6-1.6/38.1-1.2 mm	54.0-1.6/42.7-1.2 mm
	Material & Mass (kg (weight lbs))	Inner: Stainless steel, Outer: Aluminum coated steel	
Inter-mediate pipe	o.d. & wall thickness	45.0-1.6/35.0-1.2 mm	45.0-1.6/41.3-1.2 mm
	Material & Mass (kg (weight lbs))	Inner: Stainless steel, Outer: Aluminum coated steel	
Tail pipe	o.d. & wall thickness	35.0-1.2 mm	35.0-1.2 (dual) mm
	Material & Mass (kg (weight lbs))	Aluminum coated steel	

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Engine Description/Carb. Engine Code	L-3 1.0 L EFI (M/T) FAA, FAC, CAA, CAC	L-3 1.0 L EFI (A/T) FAB, CAB	L-3 1.0 L EFI (TURBO, M/T) FDA
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Transmissions/Transaxle (Std., Opt., N.A.)

Manual 3-speed (manufacturer/country)	N.A.		
Manual 4-speed (manufacturer/country)	"		
Manual 5-speed (manufacturer/country)	Std., SUZUKI MOTOR CO., LTD./JAPAN		
Automatic (manufacturer/country)	N.A.	Opt., AISIN SEIKI/JAPAN	N.A.
Automatic overdrive (manufacturer/country)	N.A.		

Manual Transmission/Transaxle

Number of forward speeds	5		
Gear ratios	1st	3.42	
	2nd	1.89	
	3rd	1.28	
	4th	0.91	
	5th	0.76	
	Reverse	3.27	
Synchronous meshing (specify gears)	All forward gears		
Shift lever location	Floor mounted		
Trans. case mat'l. & mass kg (lbs)*	Aluminum die-cast, 7.7 (16.9)		
Lubricant	Capacity (L (pt.))	2.4 (5.1)	
	Type recommended	Hypord Gear Oil	

Clutch (Manual Transmission)

Clutch manufacturer	F.C.C. CO., LTD.	DAIKIN MANUFACTURING	
Clutch type (dry, wet, single, multiple disc)	Dry, Single		
Linkage (hydraulic, cable, rod, lever, other)	Cable		
Max. pedal effort (nom. spring load, new) N (lbs)	Depressed	78 (17.5) 103 (23.2)	
	Released	50 (11.2) 70 (15.7)	
Assist (spring, power/percent, nominal)	Nominal		
Type pressure plate springs	Diaphragm		
Total spring load (nominal, new) N (lbs)	2,550 (573.3)	3,190 (717.1)	
Clutch facing	Facing mfg. & material coding	F.C.C. CO., LTD., FCC505	NIHON VALQUA, NK50
	Facing material & construction	Semi mold	
	Rivets per facing	16	
	Outside x inside dia. (nominal)	170 x 110 mm (6.69 x 4.33 in.)	190x132mm(7.48x5.20in.)
	Total eff. area [cm ² (in. ²)]	132 (20.5)	147 (22.8)
	Thickness (pressure plate side/ fly wheel side)	3.0/3.0 mm (0.12/0.12 in.)	3.5/3.5mm(0.14/0.14in.)
	Rivet depth (pressure plate side/ fly wheel side)	Min. 0.9/0.9 mm (0.04/0.04 in.)	Min. 1.3/1.3 mm (0.05/0.05 in.)
	Engagement cushion method	Separate cushion type	
Release bearing type & method lub.	Automatic center adjusting type with grease lubrication		
Torsional damping method, springs, hysteresis	Springs		

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

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METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

L-3 1.0 L EFI (BASE) FAA, FAB, CAA, CAB | (METRO) FAC, CAC / (TURBO) FDA

Automatic Transmission/Transaxle

Trade name		3-speed automatic	
Type and special features (describe)		Torque converter with planetary gears	
Selector	Location	Floor mounted on console	
	Ltr./No. designation	P-R-N-D-2-L	
Gear ratios	1st	2.81 (Equivalent)	
	2nd	1.55 (")	
	3rd	1.00 (")	
	4th	N.A.	
	Reverse	2.30 (Equivalent)	
Max. upshift speed - drive range (km/h (mph))		1 → 2: 52 (32.3), 2 → 3: 97 (60.3)	
Max. lockdown speed - drive range (km/h (mph))		2 → 1: 37 (23.0), 3 → 2: 82 (50.9)	
Min. overdrive speed (km/h (mph))		N.A.	
Torque converter	Number of elements	3	
	Max. ratio at stall	2.1	
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	210 mm (8.27 in.)	
	Capacity factor "K"	1.2 x 10 ⁻⁶	
Lubricant	Capacity (refill L (pt.))	4.05 (8.6)	
	Type Recommended	DEXRON	
Oil cooler (std., opt., NA, internal, external, air, liquid)		Std., Integral with radiator	
Transmission case material & mass kg (lbs)**		Aluminum die-cast, 51 (112.4)	

Axle or Front Wheel Drive Unit

Type (front, rear)		Front	
Description		Front differential with helical gears and ball bearing	
Limited slip differential (type)		None	
Drive pinion offset		N.A.	
Drive pinion (type)		Helical gear	
No. of differential pinions		2	
Pinion/differential adjustment (shim, other)		Shim	
Pinion/differential bearing adjustment (shim, other)		N.A.	
Driving wheel bearing (type)		Ball bearing	
Lubricant	Capacity [L (pt.)]	N.A.	
	Type recommended	Automatic transmission fluid	

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

Axle ratio (or overall top gear ratio)		Reduction gear - 0.98, Final gear - 3.95	
No. of teeth	Pinion	51,	20
	Ring gear or gear	50,	79
Ring gear o.d.		186.98 mm (7.36 in.)	
Transaxle	Transfer gear ratio	N.A.	
	Final drive ratio	N.A.	

* Input speed + √ torque
 ** Includes shift linkage, lubricant, & clutch housing. If other specify.

MVMA Specifications Form

Vehicle Line BEIRO/SPRINT/FAIRLEY
 Model Year 1989 Issued _____ Revised (e) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

L-3 1.0 L, EFI, FAA, FAB, FAC, CAA, CAB, CAC, FDA

Axle Shafts - Front Wheel Drive

Manufacturer and number used		NTN TOYO BEARING CO., LTD., 2	
Type (straight, solid bar, tubular, etc.)	Left	Solid bar	
	Right	Solid bar	
Outer diam. x length ¹ x wall thickness	Manual transaxle	Left	23 x 455.7 mm (0.91 x 17.94 in.)
		Right	23 x 546.5 mm (0.91 x 21.52 in.)
	Automatic transaxle	Left	19.4 x 410.1 mm (0.76 x 16.15 in.)
		Right	19.4 x 591.6 mm (0.76 x 23.29 in.)
	Optional transaxle	Left	None
		Right	"
Slip yoke	Type	None	
	Number of teeth	"	
	Spline o.d.	"	
Universal joints	Make and mtg. no.	Inner	NTN TOYO BEARING CO., LTD.
		Outer	" "
	Number used	4	
	Type, size, plunge	Inner	Tripod, TJ75
		Outer	Rzeppa, BJ75
	Attach (u-bolt, clamp, etc.)	Serration	
Bearing	Type (plain, anti-friction)	Anti-friction	
	Lubrication (fitting, prepack)	Prepack	
Drive taken through (torque tube, arms or springs)		Lower - Control arm, Upper - McPherson strut	
Torque taken through (torque tube, arms or springs)		Engine mounting system	

All Wheel/4 Wheel Drive

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

¹ Centerline to centerline of universal joints, or to centerline of attachment.

MVMA Specifications Form

Vehicle Line METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

2 DOOR H/B	4 DOOR H/B	2 DOOR H/B TURBO
------------	------------	------------------

Suspension - General Including Electronic Controls

Car leveling	Standard/optional/not avail.	N.A.	
	Manual/automatic control	"	
	Type (air/hydraulic)	"	
	Primary/assist spring	"	
	Rear only/4 wheel leveling	"	
	Single/dual rate spring	"	
	Single/dual ride heights	"	
	Provision for jacking	"	
Shock absorber damping controls	Standard/option/not avail.	N.A.	
	Manual/automatic control	"	
	Number of damping rates	"	
	Type of actuation (manual/electric motor/air, etc.)	"	
	s e n s o r s	Lateral acceleration	"
		Deceleration	"
Acceleration		"	
Road surface		"	
Shock absorber (front & rear)	Type	Front: McPherson, Rear: McPherson, Double acting hydraulic	
	Make	Front: SHOWA, Rear: TOKIKO	
	Piston diameter	Front: 25 mm (0.984 in.), Rear: 25 mm (0.984 in.)	
	Rod diameter	Front: 18 mm (0.71 in.), Rear: 18 mm (0.71 in.)	

Suspension - Front

Type and description		McPherson strut with coil spring		
Travel*	Full jounce	100 mm		
	Full rebound	50 mm		
Spring	Type (coil, leaf, other) & material	Coil, Steel		
	Insulators (type & material)	Rubber top only		
	Size (coil design height & i.d., bar length & dia.)	301 x 125.6 mm	291 x 125.2 mm	
	Spring rate (N/mm (lb./in.))	17.2	19.6	
	Rate at wheel (N/mm (lb./in.))	17.2	19.6	
Stabilizer	Type (link, fridless, frameless)	N.A.		
	Material & bar diameter	N.A. Link Steel, 18 mm		

Suspension - Rear

Type and description		McPherson strut, Separate coil spring			
Travel*	Full jounce	130 mm (5.12 in.)			
	Full rebound	50 mm (1.97 in.)			
Spring	Type (coil, leaf, other) & material	Coil, SUP 7 or SUP 12V			
	Size (length x width, coil design height & i.d., bar length & dia.)	258 x 95 mm	262 x 95 mm	252.5 x 95 mm	
	Spring rate (N/mm (lb./in.))	45.1 (257.5)	50.5 (288.4)		
	Rate at wheel (N/mm (lb./in.))	17.6 (100.5)	19.6 (111.9)		
	Insulators (type & material)	Rubber top only			
	if leaf	No. of leaves	N.A.		
		Shackle (comp. or tens.)	"		
Stabilizer	Type (link, fridless, frameless)	None			
	Material & bar diameter	" S48C, 15mm (0.59 in.)			
Track bar (type)		"			

* Define load condition:

METRIC (U.S. Customary)

Body Type And/Or
Engine Displacement

2 DOOR H/B	4 DOOR H/B	2 DOOR H/B TURBO
------------	------------	------------------

Brakes - Service

Description		Hydraulic, Front - Floating caliper type Rear - Leading trailing shoe type		
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)	AISIN SEIKI, Disc		
	Rear (disc or drum)	NISHINBO, Drum		
Valving type (proportion, delay, metering, other)		Proportion		
Power brake (std., opt., n.a.)		Std.		
Booster type (remote, integral, vac., hyd., etc.)		Vac.		
Vacuum	Source (line, pump, etc.)	Inline (Intake manifold)		
	Reservoir (volume in. ³) and source	N.A.		
	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.)	"		
	Manufacturer	"		
	Type (electronic, mech.)	"		
	Number sensors or circuits	"		
	Number anti-lock hydraulic circuits	"		
	Integral or add-on system	"		
	Yaw control (yes, no)	"		
Hydraulic power source (elect., vac. mt., pwr. strg)		"		
Effective area (cm ² (in. ²))*		148/172 (22.9/26.7)	136/172 (21.1/26.7)	
Gross lining area (cm ² (in. ²))** (F/R)		152/172 (23.6/26.7)	139/172 (21.5/26.7)	
Swept area (cm ² (in. ²))*** (F/R)		869/282 (134.7/43.7)	902/282 (139.8/43.7)	
Rotor	Outer working diameter	F/R 213/--- mm (8.39 in.)	229/- mm (0.92 in.)	
	Inner working diameter	F/R 133/--- mm (5.24 in.)	154/- mm (6.06 in.)	
	Thickness	F/R 10/--- mm (0.39 in.)	17/- mm (0.67 in.)	
	Material & type (vented/solid)	F/R Cast iron, Solid	Cast iron, Vent	
Drum	Diameter & width	F/R ---/180 x 25 mm (---/7.09 x 0.98 in.)		
	Type and material	F/R ---/Cast iron		
Wheel cylinder bore		F/R 48.1/15.8 mm (1.89/0.62 in.)		
Master cylinder	Bore/stroke	F/R 20.6/28.5 mm (0.81/1.12 in.)		
Pedal arc ratio		4.1 : 1		
Line pressure at 445 N (100 lb.) pedal load (kPa (psi))		---		
Lining clearance		F/R	Self adjusting/Self adjusting	
Brake Lining	Front wheel	Bonded or riveted (rivets/seg.)		Bonded
		Rivet size		N.A.
		Manufacturer		AKEBONO BRAKE INDUSTRY
		Lining code*****		AK V3016 EE
		Material		Resin mold including metal
		---	Primary or out-board	103x40x10 mm (4.06x1.57x0.39 in.)
	Size	Secondary or in-board	104x40x10 mm (4.09x1.57x0.39 in.)	(4.13x1.48x0.39 in.)
	Shoe thickness (no lining)		5 mm (0.20 in.)	
	Rear wheel	Bonded or riveted (rivets/seg.)		Bonded
		Manufacturer		NISSHIN SPINNING
		Lining code*****		NBK D9007 FF
		Material		Resin mold
---		Primary or out-board	172.7 x 25 x 4.3 mm (6.80 x 0.98 x 0.17 in.)	
Size		Secondary or in-board	172.7 x 25 x 4.3 mm (6.80 x 0.98 x 0.17 in.)	
Shoe thickness (no lining)		1.8 mm (0.07 in.)		

*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 or formulation designation and coefficient of friction classification.

MVMA Specifications Form

Vehicle Line METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

2 DOOR H/B	4 DOOR H/B	2 DOOR H/B TURBO
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Tires And Wheels (Standard)

Tires	Size (load range, ply)	P145/80R12		P165/65R13	
	Type (bias, radial, steel, nylon, etc.)	Radial			
	Inflation pressure (cold) for recommended max. vehicle load	Front (kPa (psi))	220	180	
		Rear (kPa (psi))	220	180	
	Rev./mile—at 70 km/h (45 mph)	985		978	
Wheels	Type & material	5° drop center rim contours, Steel			
	Rim (size & flange type)	12 x 4.00B	13 x 4½J		
	Wheel offset	45			
	Attachment	Type (bolt or stud)	Stud		
		Circle diameter	114.3		
Number & size		4 - M10	4 - M12		
Spare	Tire and wheel	T105/80D13, 13 x 4T	T115/70D14, 14 x 4T		
	Storage position & location (describe)	Flat under rear load floor			

Tires And Wheels (Optional)

Tire size (load range, ply)	N.A.
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)	"
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)	"

Brakes - Parking

Type of control	Lever - hand operated	
Location of control	Between front seat	
Operates on	Rear service brakes	
If separate from service brakes	Type (internal or external)	N.A.
	Drum diameter	"
	Lining size (length x width x thickness)	"

METRIC (U.S. Customary)

Body Type And/Or
Engine Displacement

2 DOOR H/B	4 DOOR H/B	2 DOOR H/B TURBO
------------	------------	------------------

Steering

Manual (std., opt., n.a.)		Std.		
Power (std., opt., n.a.)		N.A.		
Adjustable steering wheel/column (tilt, telescope, other)	Type	"		
	Manufacturer	"		
	(Std., opt., n.a.)	"		
Wheel diameter** (W9) SAE J1100	Manual	375 mm (14.76 in.)	365 mm (14.37 in.)	
	Power	N.A.		
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)	10.0 10.0	
		Curb to curb (l. & r.)	9.2 9.2	
	Inside rear	Wall to wall (l. & r.)	N.A.	
		Curb to curb (l. & r.)	N.A.	
Scrub Radius*		-1		
Manual	Gear	Type	Rack and pinion	
		Manufacturer	SUZUKI MOTOR CO., LTD.	
	Ratios	Gear	N.A..	
		Overall	18 : 1	
No. wheel turns (stop to stop)		3.6		
Power	Type (coaxial, elec., hyd., etc.)		N.A.	
	Manufacturer		"	
	Gear	Type	"	
		Ratios	Gear	"
			Overall	"
	Pump (drive)		"	
No. wheel turns (stop to stop)		"		
Linkage	Type		"	
	Location (front or rear of wheels, other)		"	
	Tie rods (one or two)		2	
Steering axis	Inclination or camber (deg.)		25.7°	
	Bearings (type)	Upper	Ball bearing	
		Lower	Rubber bushing	
		Thrust	N.A.	
Steering spindle & joint type		Serrated shaft		
Wheel spindle/hub	Diameter	Inner bearing	Inner dia. - 35 mm, Outer dia. - 62 mm N.A.	
		Outer bearing	" " " " "	
	Thread (size)		M18 x 1.5	
	Bearing (type)		Ball bearing Double row angular contact ball.	

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

**See Page 22

MVMA Specifications Form

Vehicle Line METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

2 DOOR H/B	4 DOOR H/B	2 DOOR H/B TURBO
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Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	3°	
		Camber (deg.)	0°	
		Toe-in (outside track-mm (in.))	0	
	Service reset*	Caster	Not adjustable	
		Camber	" "	
		Toe-in	Adjustable	
	Periodic M.V. inspection	Caster	3 ± 2°	
		Camber	0 ± 1°	
		Toe-in	-2 ~ 2 mm	
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	0°	
		Toe-in (outside track-mm (in.))	2 mm	
	Service reset*	Camber	Not adjustable	
		Toe-in	Adjustable	
	Periodic M.V. inspection	Camber	0 ± 1°	
		Toe-in	2 ± 2 mm	

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

Electrical - Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Analog
	Trip odometer (std., opt., n.a.)	Std.
EGR maintenance indicator		N.A.
Charge indicator	Type	Telltale warning light
	Warning device (light, audible)	Light
Temperature indicator	Type	Electric gauge with pointer
	Warning device (light, audible)	None
Oil pressure indicator	Type	Telltale warning light
	Warning device (light, audible)	Light
Fuel indicator	Type	Electric gauge with pointer
	Warning device (light, audible)	None
Windshield wiper	Type (standard)	Electric 2-speed
	Type (optional)	Intermittent
	Blade length:	Dr: 500 mm (19.68 in.), As: 450 mm (17.72 in.)
	Swept area (cm ² (in. ²))	6,161 (955)
Windshield washer	Type (standard)	Electric, Push-button on instrument panel
	Type (optional)	None
	Fluid level indicator (light, audible)	None
Rear window wiper/washer (std., opt., n.a.)		Opt.
Horn	Type	Electric resonator
	Number used	1
Other	Service & parking brake failure warning light, seat belt warning light and buzzer, headlamp high beam indicating light, check engine indicating light, turn signal indicating light, turbo indicator (TURBO)	

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

L-3 1.0 L EFI (METRO) FAC,CAC	L-3 1.0 L EFI (M/T) FAA,FAB CAA,CAB	L-3 1.0 L EFI (A/T) FAB,CAB	L-3 1.0 L EFI (TURBO) FDA
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Electrical - Supply System

Battery	Manufacturer	FURUKAWA BATTERY CO., LTD.		
	Model, std., (opt.)	55B24R-MF (55B24S-MF)		
	Voltage	12 V		
	Amps at 0°F cold crank	400 Amp		
	Minutes-reserve capacity	70 min.		
	Amp/hrs. - 20 hr. rate	45 AH		
Location	Left hand side of engine compartment			
Alternator	Manufacturer	NIPPON DENSO		
	Rating (idle/max. rpm)	50 A (2,500 rpm)		
	Ratio (alt. crank/rev.)	2.36 : 1		
	Output at idle (rpm. park)	18 A (750 rpm)	23 A (850 rpm)	18 A (750 rpm)
	Optional (type & rating)	None		
Regulator	Type	Integral with alternator		

Electrical - Starting System

Start, motor	Manufacturer	NIPPON DENSO		
	Current drain at 0°F	200 A max.		
	Power rating [kw (hp)]	0.8 (1.1)	1.0 (1.3)	0.8 (1.1)
Motor drive	Engagement type	Positive shift solenoid		
	Pinion engages from (front, rear)	Front		

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)	Electronic spark advance, Std.	N.A.
	Other (specify)	High energy ignition	
Coil	Manufacturer	NIPPON DENSO	
	Model	---	
	Current	Engine stopped - A	0
		Engine idling - A	1.5 A max.
Spark plug	Manufacturer	NGK	or 'ND
	Model	BPR6ES-11	W20EPR-U11
	Thread (mm)	14	14
	Tightening torque (N-m (lb. ft))	24.5	24.5
	Gap	1.1 mm	1.1 mm
	Number per cylinder	1	1
Distributor	Manufacturer	NIPPON DENSO	
	Model	---	

Electrical - Suppression

Locations & type	Internal alternator capacitor, resistor high-tension ignition cables, resistor spark plugs, ignition coil by-pass capacitor, flame spraying rotor distributor
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MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Models METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

Body Type

2 DOOR H/B	4 DOOR H/B
------------	------------

Body

Structure

Unitized frame

Bumper system front-rear

Bumper system is composed of energy absorption formed polypropylene, steel member and polypropylene cover.

Anti-corrosion treatment

1. Use of surface treatment steel in major body components
2. Application of vinyl chloride coating to floor bottom surface
3. Application of tipping coating to side sill outer surface
4. Application of corrosion protection oil to side sill inner surface

Body - Miscellaneous Information

Type of finish (lacquer, enamel, other)	Enamel	
Hood	Material & mass	Steel
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Prop
	Release control (internal, external)	Internal and external
Trunk lid	Material & mass	N.A.
	Type (counterbalance, other)	"
	Internal release control (elec., mech., n.a.)	"
Match-back lid	Material & mass	Steel
	Type (counterbalance, other)	Gas dumper stay
	Internal release control (elec., mech., n.a.)	Mech.
Tailgate	Material & mass	N.A.
	Type (drop, lift, door)	"
	Internal release control (elec., mech., n.a.)	"
Vent window control (crank, friction, pivot, power)	Front	N.A.
	Rear	Pivot N.A.
Window regulator type (cable, tape, flex, drive, etc.)	Front	Cable
	Rear	Cable
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Bucket type, Steel plate press frame, Urethane mold
	Rear	Bench type, Steel wire frame, Urethane mold
	3rd seat	N.A.
Seat back type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Bucket type, Steel tube and press frame, Urethane mold
	Rear	Bench type, Steel tube and press frame, Urethane mold
	3rd seat	N.A.

MVMA Specifications Form
METRIC (U.S. Customary)

Model Year 1989 Issued _____ Revised (e) _____

Body Type

2 DOOR H/B	4 DOOR H/B
------------	------------

Restraint System

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

Glass	SAE Ref. No.		
Windshield glass exposed surface area (cm ² (in. ²))	S1	8,281 (1,284)	8,620 (1,336)
Side glass exposed surface area (cm ² (in. ²)) - total 2-sides	S2	12,384 (1,920)	13,166 (2,041)
Backlight glass exposed surface area (cm ² (in. ²))	S3	4,071 (631)	3,882 (602)
Total glass exposed surface area (cm ² (in. ²))	S4	24,736 (3,834)	25,668 (3,979)
Windshield glass (type)		Laminated glass	
Side glass (type)		Tempered glass	
Backlight glass (type)		Tempered glass	

Lamps and Headlamp Locations

Headlamps	Description - sealed beam, halogen, replaceable bulb, etc.	Halogen, Replaceable bulb
	Shape	Flush
	Lo-beam type (2A1, 2B1, 2C1, etc.)	Flush
	Quantity	2
	Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	Flush
	Quantity	2

Frame

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

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

Body Type

2 DOOR H/B	4 DOOR H/B
------------	------------

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

<input checked="" type="checkbox"/>	Air conditioning (manual, auto, temp control)	Opt., Manual control
	Clock (digital, analog)	Opt., Digital, Integral with radio
	Compass/thermometer	N.A.
	Console (floor, overhead)	Opt.
	Defroster, elec. backlight	Opt.
Electronic	Diagnostic monitor (integrated, individual)	N.A.
	Instrument cluster (list instruments)	N.A.
	Keyless entry	N.A.
	Tripmeter (avg. spd., fuel)	N.A.
	Voice alert (list items)	N.A.
	Other	N.A.
Lamps	Fuel door lock (remote, key, electric)	N.A.
	Auto head on/off delay, dimming	N.A.
	Cornering	N.A.
	Courtesy (map, reading)	N.A.
	Door lock, ignition	N.A.
	Engine compartment	N.A.
	Fog	N.A.
	Glove compartment	N.A.
	Trunk	N.A.
	<input checked="" type="checkbox"/>	Illuminated entry system (list lamps, activation)
	Other	N.A.
Mirrors	Day/night (auto, man.)	Manual
	L.H. (remote, power, heated)	Remote
	R. H. (convex, remote, power, heated)	Convex
	Visor vanity (RH / LH, illuminated)	RH (up-level model only)
<input checked="" type="checkbox"/>	Navigation system (describe)	N.A.
	Parking brake-auto release (warning light)	N.A.

MVMA SPECIFICATIONS FORM
METRIC (U.S. Customary)

Model Year 1989 Issued _____ Revised (e) _____

Body Type

2 DOOR H/B	4 DOOR H/B
------------	------------

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

Ø Power equipment	Deck lid (release, pull down)		N.A.	
	Door locks (manual, automatic, describe system)		N.A.	
	Seats	2 - 4 - 6 way, etc.		N.A.
		Reclining (R.H., L.H.)		"
		Memory (R.H., L.H., preset, recline)		"
		Lumbar, hip, thigh, support		"
		Heated (R.H., L.H., other)		"
	Side windows		N.A.	
	Vent windows		N.A.	
	Rear windows		N.A.	
Ø Radio systems	Antenna (location, whip, w/shield, power)		Left front pillar, Whip	
	Standard		Antenna only	
	Optional	AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM AM/FM Stereo AM/FM Stereo with Cassette	
	Speaker (number, location)		Opt., 2: I.P. mounted, 2: Back door trim	
Roof open air fixed (flip-up, sliding, "T")		N.A.		
Speed control device		N.A.		
Speed warning device (light, buzzer, etc.)		N.A.		
Tachometer (rpm)		Optional (Standard on Turbo model)		
Telephone system (describe)		N.A.		
Theft deterrent system		Steering lock type		

MVMA Specifications Form

Vehicle Model METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (R) _____

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.	2 DOOR H/B	2 DOOR H/B (TURBO)	4 DOOR H/B
Width				
Tread (front)	W101	1,365 mm (53.74 in.)		
Tread (rear)	W102	1,340 mm (52.76 in.)		
Vehicle width	W103	1,575 mm	1,592 w/body side molding	(62.00 in.) 62.68 in.
Body width at Sq RP (front)	W117	1,575 mm	1,592 w/body side molding	(62.00 in.) 62.68 in.
Vehicle width (front doors open)	W120	3,590 mm (141.34 in.)		3,250 mm (127.95 in.)
Vehicle width (rear doors open)	W121	-		2,990 mm (117.72 in.)
Front fender overall width	W106	1,570 mm (61.81 in.)		
Rear fender overall width	W107	1,573 mm (61.93 in.)		
Turn-in angle (deg.)	W122	22.5°		22.0°
Vehicle width including mirrors		1,817 mm (71.54 in.) with Suzuki Mirrors		

Length

Wheelbase	L101	2,265 mm (89.17 in.)	2,365 mm (93.11 in.)
Vehicle length	L103	3,710 mm (146.06 in.)	3,810 mm (150.00 in.)
Overhang (front)	L104	767 mm (30.20 in.)	
Overhang (rear)	L105	678 mm (26.69 in.)	
Upper structure length	L123	2,618 mm (103.07 in.)	2,709 mm (106.65 in.)
Rear wheel C/L "X" coordinate	L127	2,810 mm (110.63 in.)	2,910 mm (114.57 in.)
Cowl point "X" coordinate	L125	783 mm (30.83 in.)	
Front end length at centerline	L126	923 mm (36.34 in.)	
Rear end length at centerline	L129	11 mm (0.43 in.)	19 mm (0.75 in.)

Height **

Passenger distribution (front/rear)	PD1.2.3	2/2	**
Trunk/cargo load		---	**
Vehicle height	H101	1,330 mm (52.36 in.)	1,360 mm (53.54 in.)
Cowl point to ground	H114	821 mm (32.32 in.)	871 mm (34.29 in.)
Deck point to ground	H138	---	
Rocker panel-front to ground	H112	193 mm (7.60 in.)	
Bottom of door closed-front to ground	H133	283 mm (11.14 in.)	282 mm (11.10 in.)
Rocker panel-rear to ground	H111	205 mm (8.07 in.)	207 mm (8.15 in.)
Bottom of door closed-rear to ground	H135	---	286 mm (11.26 in.)
Windshield slope angle	H122	60°	59°
Backlight slope angle	H121	51.5°	44°

Ground Clearance **

Front bumper to ground	H102	218 mm (8.58 in.)	184 mm (7.24 in.)	215 mm (8.46 in.)
Rear bumper to ground	H104	260 mm (10.24 in.)	237 mm (9.33 in.)	263 mm (10.35 in.)
Bumper to ground (front at curb mass (wt.))	H103	235 mm (9.25 in.)	201 mm (7.91 in.)	233 mm (9.17 in.)
Bumper to ground (rear at curb mass (wt.))	H105	283 mm (11.14 in.)	260 mm (10.24 in.)	285 mm (11.22 in.)
Angle of approach (degrees)	H106	20.5°	18°	20°
Angle of departure (degrees)	H107	22°	20.5°	22.5°
Ramp breakover angle (degrees)	H147	17°		16°
Axle differential to ground (front / rear)	H153	---		
Min. running ground clearance	H156	155 mm (6.10 in.)		
Location of min. run. grd. clear.		Catalyst case		

** All Vehicle Height And Ground Clearance Are Made Using EPA Loaded Vehicle Weight, Loading Conditions.

EPA Loaded Vehicle Weight is the Base Vehicle Weight Plus All Coolant And Fluids Necessary For Operation Plus 100% Of The Fuel Capacity. Plus The Weight Of All Options And Accessories Whic Weigh Three Pounds Or More And Which Are Sold On At Least 33% Of The Car Line. Plus Two Occupants

MVMA Specifications Form

Model Year 1989 Issued _____ Revised (e) _____

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Body Type	2 DOOR H/B	4 DOOR H/B
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Front Compartment	SAE Ref. No.	[]: Pass.
Sg RP front "X" coordinate	L31	1,850 mm (72.83 in.)
Effective head room	H61	760 mm (37.80 in.) 986 mm (38.82 in.)
Max. eff. leg room (accelerator)	L34	1,079 mm (42.48 in.)
SgRP to heel point	H30	240 mm (9.45 in.)
SgRP to heel point	L53	882 mm 645 mm (34.72 in. 25.39 in.)
Back angle	L40	25°
Hip angle	L42	97.5° 88.7°
Knee angle	L44	129° 107.3°
Foot angle	L46	87° 140°
Design H-point front travel	L17	210 mm (8.27 in.)
Normal driving & riding seat track trvl	L23	210 mm (8.27 in.)
Shoulder room	W3	1,310 mm (51.57 in.)
Hip room	W5	1,298 mm (51.10 in.)
Upper body opening to ground	H50	1,230 mm (48.43 in.) 1,253 mm (49.33 in.)
Steering wheel maximum diameter	W9	375 mm (14.76 in.)
Steering wheel angle	H18	25.7°
Accel. heel pt. to steer. whl. ctr	L11	452 mm (17.80 in.)
Accel. heel pt. to steer. whl. ctr	H17	615 mm (24.21 in.)
Steering wheel to C/L of thigh	H13	83 mm (3.27 in.)
Steering wheel torso clearance	L7	408 mm (16.06 in.)
Headlining to roof panel (front)	H37	15 mm (0.59 in.)
Undepressed floor covering thickness	H67	30 mm (1.18 in.)

Front Compartment Interior Dimensions Are Measured With The Seating Reference Point (SgRP) 0 mm Forward And 0 mm Upward of Rearmost Position.

Rear Compartment	SAE Ref. No.	[]: Pass.
Sg RP Point couple distance	L50	660 mm (25.98 in.) 735 mm (28.94 in.)
Effective head room	H63	928 mm (36.54 in.) 965 mm (37.99 in.)
Min. effective leg room	L51	757 mm (29.80 in.) 829 mm (32.64 in.)
Sg RP (second to heel)	H31	266 mm (10.47 in.)
Knee clearance	L48	- 73 mm (- 2.87 in.) - 14 mm (- 0.55 in.)
Compartment room	L3	578 mm (22.76 in.) 655 mm (25.77 in.)
Shoulder room	W4	1,282 mm (50.47 in.) 1,285 mm (50.59 in.)
Hip room	W6	1,080 mm (42.52 in.) 1,085 mm (42.72 in.)
Upper body opening to ground	H51	--- 1,262 mm (49.68 in.)
Back angle	L41	25°
Hip angle	L43	76° 79.5°
Knee angle	L45	66.5° 78°
Foot angle	L47	112° 120°
Headlining to roof panel (second)	H38	15 mm (0.59 in.)
Depressed floor covering thickness	H73	20 mm (0.79 in.)

Luggage Compartment	SAE Ref. No.	[]: Pass.
Usable luggage capacity (L (cu. ft.))	V1	158.9 (5.6) 175.7 (6.2)
Liftover height	H195	769 mm (30.28 in.)

Interior Volumes (EPA Classification)		
Vehicle class	Sub compact	
Interior volume index (cu. ft.)	78.8 ft ³	84.4 ft ³
Trunk / cargo index (cu. ft.)	10.3 ft ³	10.5 ft ³

All linear dimensions are in millimeters (inches).
 ** EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

Vehicle Line METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

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

Body Type

2 DOOR H/B	4 DOOR H/B
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Station Wagon - Third Seat

	SAE Ref. No.
Seat facing direction	SD1
Sg RP couple distance	L85
Shoulder room	W65
Hip room	W86
Effective leg room	L15
Effective head room	H26
Sg RP to heel point	H37
Knee clearance	L37
Back angle	L38
Hip angle	L39
Knee angle	L20
Foot angle	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	973 mm (38.31 in.)	1,100 mm (43.31 in.)
Cargo length at floor (front)	L209	1,018 mm (40.08 in.)	1,043 mm (41.06 in.)
Cargo length at second seatback height	L210	460 mm (18.11 in.)	452 mm (17.80 in.)
Cargo length at floor (second)	L211	600 mm (23.62 in.)	625 mm (24.61 in.)
Front seatback to load floor height	H197	645 mm (25.39 in.)	
Second seatback to load floor height	H198	427 mm (16.81 in.)	
Cargo volume index (m ³ (ft. ³))	V3	0.823 (29.1)	0.888 (31.4)
Hidden cargo volume index (m ³ (ft. ³))	V4	0.390 (13.8)	0.413 (14.6)
Cargo volume index-rear of 2-seat	V11	0.290 (10.2)	0.295 (10.4)

Aerodynamics*

Wheel lip to ground, front	593 mm (23.35 in.)
Wheel lip to ground, rear	600 mm (23.62 in.)
Frontal area (m ² (ft. ²))	1,748 (18.82) 1,779 (19.15)
Drag coefficient (Cd)	

* EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line MEIRU/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

Body Type	2 DOOR H/B	4 DOOR H/B
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Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location		
Front	Front suspension strut upper center		
Rear	Burring hole center of rear floor side member at rearmost bottom surface		
Fiducial Mark Number			
Front	W21*	512 mm (20.16 in.)	
	L54*	569 mm (22.40 in.)	
	H81*	525 mm (20.67 in.)	
	H161*	755 mm (29.72 in.)	
	** H163*	738 mm (27.06 in.)	737 mm (29.02 in.)
Rear	W22*	463 mm (18.23 in.)	
	L55*	3,260 mm (128.35 in.)	3,360 mm (132.28 in.)
	H82*	159 mm (6.26 in.)	
	H162*	413 mm (16.26 in.)	
	** H164*	390 mm (15.35 in.)	391 mm (15.99 in.)

* Reference - SAE Recommended Practice, J182, Motor Vehicle Fiducial Marks.

All linear dimensions are in millimeters (Inches).

** EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line METRO/SPRINT/FIREFLY
 Model Year 1989 Issued _____ Revised (e) _____

Vehicle Mass (weight)

Code	Model	CURB MASS kg (lb)*			% PASS. MASS DISTRIBUTION				ETWC**
		Front	Rear	Total	Pass in Front		Pass in Rear		
					Front	Rear	Front	Rear	
METRO/SPRINT/FIREFLY									
1MR08/7MR08		422	300	722	47	53	13	87	1875
2 DOOR H/B SEDAN		(930)	(661)	(1591)					
1MR68/7MR68		427	315	744	47	53	13	87	2000
4 DOOR H/B SEDAN		(946)	(694)	(1640)					
TURBO SPRINT/TURBO FIREFLY									
1MR08/7MR08									
2 DOOR H/B SEDAN									
METRO									
1MS08		421	298	719	47	53	13	87	NA
2 DOOR H/B SEDAN									

SHIPPING MASS (weight) = Curb Weight Less Kg. (lbs.)

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

** ETWC - Equivalent Test Weight Class - U.S. Environmental Protection Agency emission certifications are based on the ETWC's shown.

NA - Not Applicable - applies to model/series combinations not requiring testing.

METRIC (U.S. Customary)

Code	Equipment	Optional Equipment Differential Mass (weight)*			Remarks Restrictions, Requirements
		MASS, kg. (lb.)			
		Front	Rear	Total	
	Electric Rear Window Defogger	0	0.10	0.10	
	Air Conditioning	20.3	-2.0	18.3	
	Tachometer	0.085	0	0.085	
	Rear Window Washer & Wiper	0	1.30	1.30	
	Passenger Assist Grip (2 Dr H/B)	0.02	0.03	0.05	
	(4 Dr H/B)	0.04	0.11	0.15	
	Split Folding Rear Seat Back	0	0.4	0.4	
	Intermittent Wiper	0.02	0	0.02	
	Custom Trim Seat				
	Large Arm Rest (2 Dr H/B)	0.76	0	0.76	
	(4 Dr H/B)	0.72	0.55	1.27	
	Custom Door Trim	0	0	0	
	Quarter Window Trim (2 Dr H/B)	0.1	0.4	0.5	
	(4 Dr H/B)	0.06	0.67	0.73	
	Body Side Molding (2 Dr H/B)	0.34	0.34	0.68	
	(4 Dr H/B)	0.36	0.36	0.72	
	OSRV Mirror (RH)	0.6	0.5	1.1	GM supply
	Radio AM/FM				GM supply
	AM/FM Stereo				GM supply
	AM/FM Stereo w/Cassette Deck	2.0	0.7	2.7	GM supply
	Radio Speakers - Dual Rear	0.9	0.9	1.8	GM supply
	Floor Piece Mat	2	2	4	GM supply
	Engine Block Heater				GM supply
	Full Wheel Cover	0.77	0.77	1.54	
	Front and Rear Mud Guard	0.49	0.68	1.17	
	Automatic Transmission	26.0	-3.0	23.0	
	Console Box	0.43	0.20	0.63	

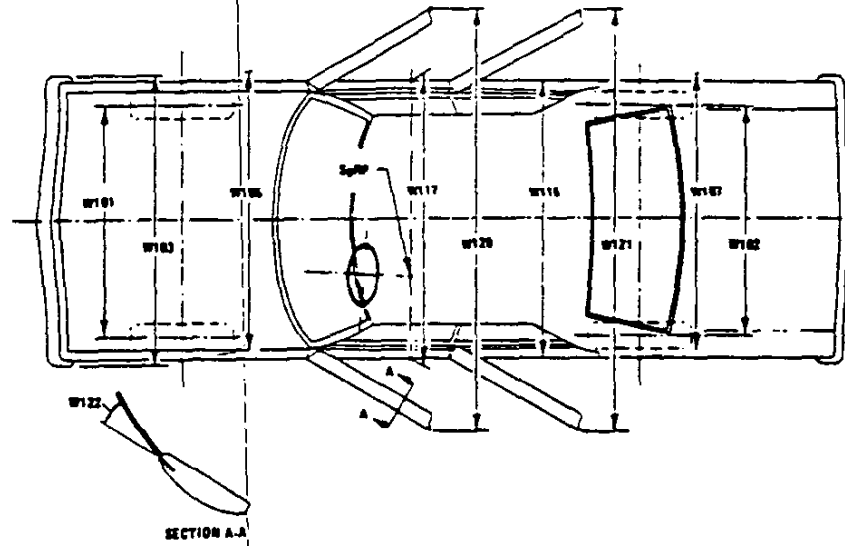
* Also see Engine - General Section for dressed engine mass (weight).

MVMA Specifications Form

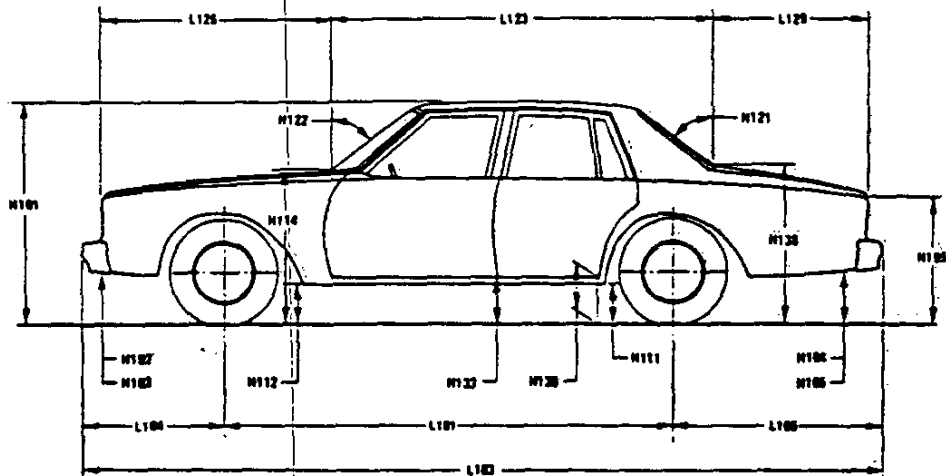
METRIC (U.S. Customary)

Exterior Vehicle And Body Dimensions - Key Sheet

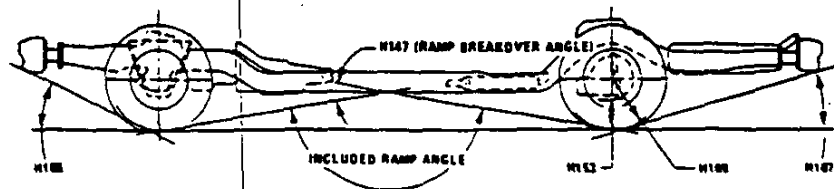
Exterior Width



Exterior Length & Height



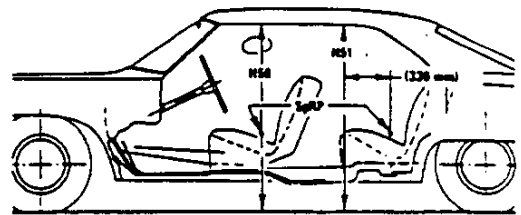
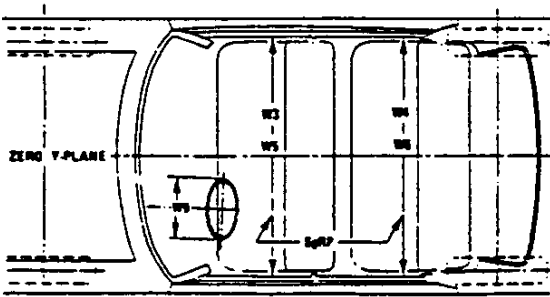
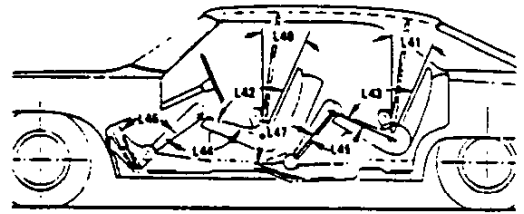
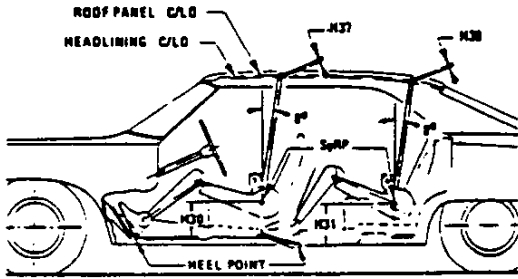
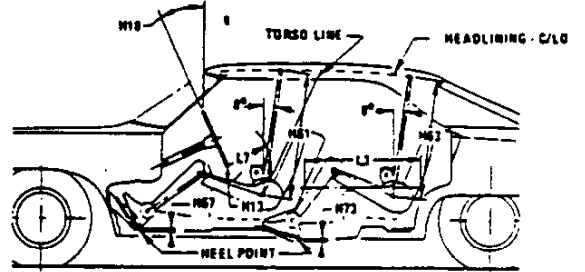
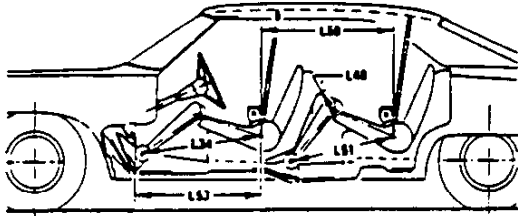
Exterior Ground Clearance



MVMA Specifications Form

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet

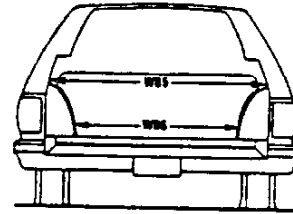
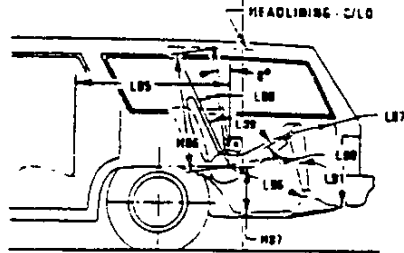


MVMA Specifications Form

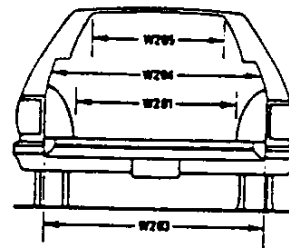
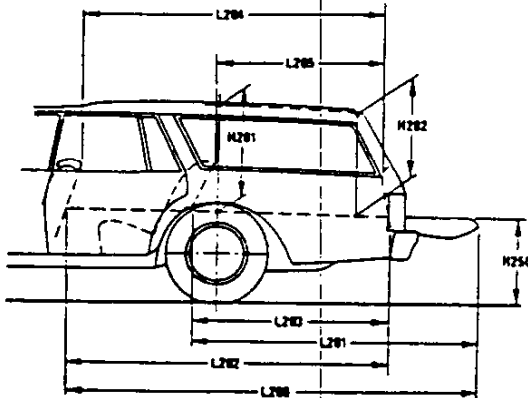
METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions - Key Sheet

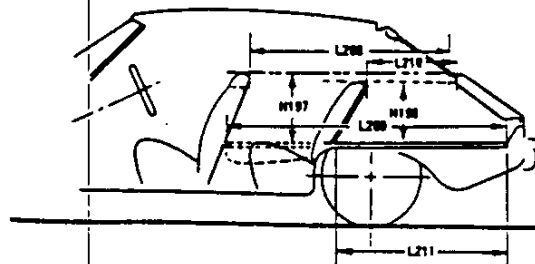
Third Seat



Cargo Space



Station Wagon



Hatchback

MVMA Specifications Form

METRIC (U.S. Customary)

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.
- W106 FRONT FENDER WIDTH. The dimension measured between the widest points at the front wheel centerline, excluding moldings.
- W107 REAR FENDER WIDTH. The dimension measured between the widest points at the rear wheel centerline, excluding moldings.
- 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.

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 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.
- L125 COWL POINT "X" COORDINATE.
- L126 FRONT END LENGTH. The dimension measured longitudinally from the cowl point to the foremost point on the vehicle at the zero "Y" plane excluding ornamentation or bumpers. In cases where bumpers and/or grills are integrated with the profile, measurement is made at the foremost point of front end contour.
- 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.
- L129 REAR END LENGTH. The dimension measured longitudinally from the deck point to the rearmost visible point on the body sheet metal at the zero "Y" plane, excluding ornamentation or bumpers.

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 intersection point on the windshield.
- H133 BOTTOM OF DOOR CLOSED-FRONT 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.
- 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.
- 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.

MVMA Specifications Form

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

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.	L31	SgRP-FRONT. "X" COORDINATED.
H105	REAR BUMPER TO GROUND - CURB MASS (WT.). Measured in the same manner as H104.	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.
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.	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.
H107	ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius arc and the initial point of structural interference rearward of the rear tire to ground. The limiting component shall be designated.	L-42	HIP ANGLE-FRONT. The angle measured between torso line and thigh centerline.
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.	L44	KNEE ANGLE-FRONT. The angle measured between thigh centerline and lower leg centerline measured on the right leg.
H153	REAR AXLE DIFFERENTIAL TO GROUND. The minimum dimension measured from the rear axle differential to ground.	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.
H156	MINIMUM RUNNING GROUND CLEARANCE. The minimum dimension measured from the sprung vehicle to ground. Specify location.	L53	SgRP-FRONT TO HEEL. The dimension measured horizontally from the SgRP-front to the accelerator heel point.
Glass Areas		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.
S1	Windshield area.	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.
S2	Side windows area. Includes the front door, rear door, vents, and rear quarter windows on both sides of the vehicle.	W9	STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.
S3	Backlight areas.	H13	STEERING WHEEL TO CENTERLINE OF THIGH. The minimum dimension measured from the bottom of steering wheel, with front wheels in the straight position, to the thigh centerline.
S4	Total area. Total of all areas (S1 + S2 + S3).	H17	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.
Fiducial Mark Dimensions		H18	STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.
Fiducial Mark - Number 1		H30	SgRP-FRONT TO HEEL. The dimension measured vertically from the SgRP-front to the accelerator heel point.
L54	"X" coordinate.	H37	HEADLINING TO ROOF PANEL-FRONT. The dimension measured from the intersection of the headlining and the extended effective head room line normal to the sheet metal.
W21	"Y" coordinate.	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.
H81	"Z" coordinate.	H81	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.).
H161	Height "Z" coordinate to ground at curb weight.	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.
H163	Height "Z" coordinate to ground.	Rear Compartment Dimensions	
Fiducial Mark - Number 2		L3	COMPARTMENT ROOM-SECOND. The dimension measured horizontally from the back of the front seat to the front of the second seatback at a height tangent to the top of the second seat cushion.
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			
L7	STEERING WHEEL TORSO CLEARANCE. The minimum dimension measured in the side view from the rearmost edge of the steering wheel, with front wheels in the straight ahead position, to the torso line.		
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)		

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Interior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

- 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 254mm (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.
- H38 HEADLINING TO ROOF PANEL-SECOND. The dimension measured from the intersection of the headlining and the extended effective head room line normally to the roof sheet metal.
- 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.

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

- 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 51mm (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.

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Interior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

- 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:

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

$$\frac{W4 \times H201 \times L204}{10^9} = \text{m}^3 \text{ (cubic meter)}$$
- 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.
- V5 TRUCKS AND MPV'S WITH OPEN AREA.**
Measured in inches:

$$\frac{L506 \times W500 \times H503}{1728} = \text{ft}^3$$
 Measured in mm:

$$\frac{L506 \times W500 \times H503}{10^9} = \text{m}^3 \text{ (cubic meter)}$$
- V6 TRUCKS AND MPV'S WITH CLOSED AREA.**
Measured in inches:

$$\frac{L204 \times W500 \times H505}{1728} = \text{ft}^3$$
 Measured in mm:

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

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{1728} = \text{ft}^3$$
 Measured in mm:

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

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 electrically 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 "Y" 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 seat back to the undepressed floor covering.
- V3 HATCHBACK.**
Measured in inches:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{1728} = \text{ft}^3$$
 Measured in mm:

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

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

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

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