

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1995

Manufacturer CHEVROLET MOTOR DIVISION GENERAL MOTORS CORPORATION	Vehicle Line LUMINA MINIVAN	
Mailing Address 30007 VAN DYKE WARREN, MI 48090-9065	Issued SEPTEMBER, 1994	Revised

Direct questions concerning these specifications to the manufacturer listed above.

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

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.

AAMA

American Automobile Manufacturers Association

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FORM AAMA-95

MVMA Specifications

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

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 8/94 Revised (e) _____

METRIC (U.S. Customary)

Vehicle Origin

Design & development (company)	G.M., Midsize Car Division
Where built (country)	U.S.A.
Authorized U.S. sales marketing representative	Chevrolet Motor Division

Vehicle Models

Model Description & Drive (FWD / RWD / AWD / 4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfg's Model Code)	No. of Designated Seating Positions (Front / Rear)	Max. Trunk/Cargo Load-Kilograms (Pounds)	EPA Fuel Economy (City/Hwy)
LUMINA					
3-Door Cargo Minivan FWD	8/94	1UM05	2 (2/-)		18/23
3-Door Minivan		1UM06	5 (2/3), Std. 7 (2/3/2), Opt.		18/23

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

MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 8/94 Revised (#) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3.1 LITER V6 (191 CID)
 ELECTRONIC FUEL INJECTION RPO LG6

Engine - General

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)	60 deg. V, Front, Transverse	
Manufacturer	General Motors Powertrain Division	
No. of cylinders	6	
Bore	89.0 mm (3.50 in.)	
Stroke	84 mm (3.3 in.)	
Bore Spacing (C / L to C / L)	111.8 mm (4.40 in.)	
Cylinder block material & mass kg. (lbs.) (machined)	Cast Iron, 53.12 (117)	
Cylinder block deck height	224 mm (8.8 in.)	
Cylinder block length	435.5 mm (17.1 in.)	
Deck clearance (minimum) (above or below block)	0.12 mm (.005 in.) Below Deck, Nominal	
Cylinder head material & mass kg. (lbs.)	Cast Iron, 11.227 (24.8)	
Cylinder head volume cm ³ (inches ³)	51.346 (3.13)	
Cylinder liner material	Not Applicable	
Head gasket thickness (compressed)	1.0 mm (.039 in.)	
Minimum combustion chamber total volume cm ³ (inches ³)	50.346 (3.07)	
Cyl. no. system (front to rear)*	L. Bank	2-4-6
	R. Bank	1-3-5
Firing order	1-2-3-4-5-6	
Intake manifold material & mass kg. (lbs.)**	Cast Aluminum, 6.0 (13.2)	
Exhaust manifold material & mass kg. (lbs.)**	Cast Iron, 3.610 (8.0) RH, 2.425 (5.3) LH	
Knock sensor (number & location)	None	
Fuel required unleaded, diesel, etc.	Unleaded	
Fuel antiknock index (R + M) + 2	87	
Engine Mounts	Quantity	4 (1 Engine, 2 Transmission)
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)	2 - Elastomeric, 1 - Hydraulic, 1 - Torque Strut
	Added isolation (sub-frame, crossmember, etc.)	Isolated Engine Cradle
Total dressed engine mass (wt) dry***	151.0 kg. (332.9 lbs.)	

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum Alloy, 365 (12.8)
--	----------------------------

Engine - Camshaft

Location	In Block Above Crankshaft	
Material & mass kg (weight, lbs.)	Cast Iron, 3.098 (6.83)	
Drive type	Chain / belt	Chain
	Width / pitch	19.4/60.9

* 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: All those items necessary to make the engine a complete ready-to-run unit.



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (●) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3800 V6 (231 CID)
 MULTI-PORT FUEL INJECTION RPO L27

Engine - General

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.)	90 deg. V, Front, Transverse	
Manufacturer	General Motors Powertrain Division	
No. of cylinders	6	
Bore	96.52 mm (3.800 in.)	
Stroke	86.36 mm (3.400 in.)	
Bore Spacing (C/L to C/L)	107.7 mm (4.24 in.)	
Cylinder block material & mass kg. (lbs.) (machined)	Cast Iron, 58.46 (128.88)	
Cylinder block deck height	241.9 mm (9.522 in.)	
Cylinder block length	398.0 mm (15.67 in.)	
Deck clearance (minimum) (above or below block)	1.09 mm (.043 in.) Below	
Cylinder head material & mass kg. (lbs.)	Cast Iron, 13.09 (28.86)	
Cylinder head volume cm ³ (inches ³)	37.36 (2.28)	
Cylinder liner material	None	
Head gasket thickness (compressed)	1.57 mm (.062 in.)	
Minimum combustion chamber total volume cm ³ (inches ³)	84.49 (5.156)	
Cyl. no. system (front to rear)*	L. Bank	1-3-5
	R. Bank	2-4-6
Firing order	1-6-5-4-3-2	
Intake manifold material & mass kg. (lbs.)**	Aluminum Lower, 6.142 (13.54); Thermoplastic Upper, 4.0 (8.8)	
Exhaust manifold material & mass kg. (lbs)**	Stainless Steel: Left, 3.312 (7.286); Right, 3.607 (7.952)	
Knock sensor (number & location)	1, Cylinder Case	
Fuel required unleaded, diesel, etc.	Unleaded	
Fuel antiknock index (R + M) + 2	87	
Engine Mounts	Quantity	4 (1 Engine, 2 Transmission)
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.)	2 - Elastomeric, 1 - Hydraulic, 1 - Torque Strut
	Added isolation (sub-frame, crossmember, etc.)	Isolated Sub-Frame
Total dressed engine mass (wt) dry***	176.9 kg (390.0 lbs.)	

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum Alloy, 413 (14.568)
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Engine - Camshaft

Location	Above Crankshaft at Center of V	
Material & mass kg (weight, lbs.)	5150 Steel 3.08 (6.776)	
Drive type	Chain / belt	Chain
	Width / pitch	9.75 mm (.384 in.) Over Guides / 9.53 mm (.375 in.)

* 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: All those items necessary to make the engine a complete ready-to-run unit.



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (•) _____

METRIC (U.S. Customary)

Engine Description	3.1 LITER V6 (191 CID) ELECTRONIC FUEL INJECTION RPO LG6
Engine Code	

Engine - Valve System

Hydraulic lifters (std., opt., n.a.)	Standard	
Valves	Number Intake / exhaust	6/6
	Head O.D. Intake / exhaust	43.84 mm (1.72 in.)/36.20 mm (1.43 in.)

Engine - Connecting Rods

Material & mass kg., (weight, lbs.)*	Forged Steel, 582 (1.30)
Length (axis C/L to C/L)	144.78 mm (5.79 in.)

Engine - Crankshaft

Material & mass kg., (weight, lbs.)*	Nodular Cast Iron, 17.8 (39.5)	
End thrust taken by bearing (no.)	3	
Length & number of main bearings	29.5 mm - 1, 4; 24.0 mm - 2, 3/Four	
Seal (material, one, two piece design, etc.)	Front	Fluoroelastomer, One-Piece, Lip Seal
	Rear	Fluoroelastomer, One-Piece, Lip Seal

Engine - Lubrication System

Normal oil pressure kPa (psi) at engine rpm	345-448 (50-65) @ 1200
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full Flow
Capacity of oil case, less filter-refill-L (qt.)	3.8 (4.0)

Engine - Diesel Information

(NOT APPLICABLE)

Diesel engine manufacturer		
Glow plug, current drain at 0°F.		
Injector nozzle	Type	
	Opening pressure kPa (psi)	
Pre-chamber design		
Fuel injection pump	Manufacturer	
	Type	
Fuel injection pump drive (belt, chain, gear)		
Supplementary vacuum source (type)		
Fuel heater (yes/no)		
Water separator, description (std., opt.)		
Turbo manufacturer		
Oil cooler-type (oil to engine coolant; oil to ambient air)		
Oil filter		

Engine - Intake System

(NOT APPLICABLE)

Turbo charger - manufacturer		
Super charger - manufacturer		
Intercooler		

* Finished State



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*) _____

METRIC (U.S. Customary)

Engine Description	3800 V6 (231 CID) MULTI-PORT FUEL INJECTION RPO L27
Engine Code	

Engine - Valve System

Hydraulic lifters (std., opt., n.a.)	Standard	
Valves	Number Intake / exhaust	6/6
	Head O.D. Intake / exhaust	43.4 mm (1.71 in.)/38.1 mm (1.5 in.)

Engine - Connecting Rods

Material & mass kg., (weight, lbs.)*	Pearlitic Malleable Iron .697 (1.534)
Length (size C/L to C/L)	162 mm (6.382 in.)

Engine - Crankshaft

Material & mass kg., (weight, lbs.)*	Nodular Iron, 15.100 (33.29)	
End thrust taken by bearing (no.)	2	
Length & number of main bearings	4	
Seal (material, one, two piece design, etc.)	Front	One-Piece Rubber Lip
	Rear	One-Piece Rubber Lip

Engine - Lubrication System

Normal oil pressure kPa (psi) at engine rpm	255 (37) @ 2400
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	3.78 (4.0)

Engine - Diesel Information

(NOT APPLICABLE)

Diesel engine manufacturer		
Glow plug, current drain at 0°F.		
Injector nozzle	Type	
	Opening pressure kPa (psi)	
Pre-chamber design		
Fuel injection pump	Manufacturer	
	Type	
Fuel injection pump drive (belt, chain, gear)		
Supplementary vacuum source (type)		
Fuel heater (yes/no)		
Water separator, description (std., opt.)		
Turbo manufacturer		
Oil cooler-type (oil to engine coolant; oil to ambient air)		
Oil filter		

Engine - Intake System

(NOT APPLICABLE)

Turbo charger - manufacturer	
Super charger - manufacturer	
Intercooler	

* Finished State



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (●) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

**3.1 LITER V6 (191 CID)
 ELECTRONIC FUEL INJECTION RPO LG6**

Engine - Cooling System

Coolant recovery system (std., opt., n.a.)		Standard	
Coolant fill location (rad., bottle)		Bottle, Coolant Recovery	
Radiator cap relief valve pressure kPa (psi)		103.4 (15)	
Circulation thermostat	Type (choke, bypass)	Bypass	
	Starts to open at °C (°F)	81 (185)	
Water pump	Type (centrifugal, other)	Centrifugal	
	GMP 1000 pump rpm	15.5	
	Number of pumps	1	
	Drive (V-ball, other)	Single Belt Poly V Accessory Drive (Serpentine)	
	Bearing type	Sealed Ball-Roller	
	Impeller material	Cast Iron	
Housing material		Aluminum	
By-pass recirculation type (inter., ext.)		Internal	
Cooling System capacity	With heater - L (qt.)	11.50 (12.15); w/C36 Rear Heater, 13.02 (13.76)	
	With air conditioner - L (qt.)	11.80 (12.47); w/C36 Rear Heater, 13.32 (14.08)	
	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., A/C, HD	Standard	A/C (Opt.)
	Type (cross-flow, etc.)	Cross-Flow	Cross-Flow
	Construction (fin & tube mechanical, braze, etc.)	Tube & Center, Brazed	Tube & Center, Brazed
	Material, mass kg (wgt., lbs.)	Aluminum, 6.0 (13.1)	Aluminum, 6.0 (13.1)
	Width	668 mm (26.3 in.)	668 mm (26.3 in.)
	Height	438 mm (17.2 in.)	438 mm (17.2 in.)
	Thickness	24 mm (0.94 in.)	34 mm (1.33 in.)
	Fins per inch	12.7	17.0
Radiator end tank material		Plastic	Plastic
Fan	Std., elec., opt.	Standard, Front A/C Electric	
	Number of blades & type (flex, solid, material)	5, Solid, Plastic	
	Number & location (front, rear of radiator)	1-Rear of Radiator	
	Diameter & projected width	415 (16.3)	
	Ratio (fan to crankshaft rev.)	--	
	Fan cutout type	None	
	Drive type (direct, remote)	Direct	
	RPM at idle (elec.)	1750-1800	
	Motor rating (wattage/elec.)	150	
	Motor switch (type & location/elec.)	Remote, Behind Radiator	
	Switch point (temp./pressure/elec.)	223 deg. F/200 psi	
Fan shroud (material)		Plastic	



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3800 V6 (231 CID)
 MULTI-PORT FUEL INJECTION RPO L27

Engine - Cooling System

Coolant recovery system (std., opt., n.a.)		Standard	
Coolant fill location (rad., bottle)		Bottle, Coolant Recovery	
Radiator cap relief valve pressure kPa (psi)		103.4 (15)	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open at °C (°F)	91 (195)	
Water pump	Type (centrifugal, other)	Centrifugal	
	GMP 1000 pump rpm	8.0	
	Number of pumps	1	
	Drive (V-belt, other)	Single Belt Poly V Accessory Drive (Serpentine)	
	Bearing type	Two Row Ball	
	Impeller material	Aluminum Alloy	
Housing material		Aluminum Alloy	
By-pass recirculation type (inter., ext.)		External	
Cooling System capacity	With heater - L (qt.)	Not Applicable	
	With air conditioner - L (qt.)	10.75 (11.4); HD (V08), 10.69 (11.3)	
	Opt. equipment specify - L (qt.)	12.27 (13.0) w/C34 Front & Rear A/C; V08 + C34, 12.21 (12.9)	
Water jackets full length of cyl. (yes, no)		No	
Water all around cylinder (yes, no)		Yes	
Water jackets open at head face (yes, no)		No	
Radiator core	Std., A/C, HD	A/C	V08 (H.D) (Opt. W/V82)
	Type (cross-flow, etc.)	Cross-Flow	Cross-Flow
	Construction (fin & tube mechanical, braze, etc.)	Tube & Center, Brazed	Tube & Center, Brazed
	Material, mass kg (wgt., lbs.)	Aluminum, 7.2 (15.9)	Aluminum, 6.7 (14.8)
	Width	718 mm (28.3 in.)	718 mm (28.3 in.)
	Height	438 mm (17.2 in.)	438 mm (17.2 in.)
	Thickness	34.0 mm (1.33 in.)	34.0 mm (1.33 in.)
	Fins per inch	16.93, Fins Per Inch (3.0 K)	16.93 Fins Per Inch (3.0 K)
Radiator and tank material		Plastic	Plastic
Fan	Std., elec., opt.	Standard, Electric	Standard, Electric
	Number of blades & type (flex, solid, material)	5, Solid, Plastic	6, Solid, Plastic
	Number & location (front, rear of radiator)	1-Rear of Radiator	1-Front of Radiator/Condenser
	Diameter & projected width	415 mm (16.3 in.)	300 mm (11.8 in.)
	Ratio (fan to crankshaft rev.)	-	-
	Fan cutout type	None	None
	Drive type (direct, remote)	Direct	Direct
	RPM at idle (elec.)	1800	2000
	Motor rating (wattage/elec.)	150	80
	Motor switch (type & location/elec.)	Remote, ECM Driven From Inlet Manifold Sensor/ Pressure Switch at Refrigerant Orifice	
	Switch point (temp./pressure/elec.)	212 deg. F. A/C "On"	226 deg. F/195 psi
	Fan shroud (material)	Plastic	Plastic



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (e) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

**3.1 LITER V6 (181 CID)
 ELECTRONIC FUEL INJECTION RPO LG6**

Engine - Fuel System (See Supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used.)

Induction type: carburetor, fuel injection system, etc.		Throttle Body Fuel Injection
Manufacturer		AC/Rochester Products
Carburetor no. of barrels		Not Applicable
Idle A/F mix.		Preset - No Adjustment Provided - ECM Controlled
Fuel Injection	Point of injection (no.)	Throttle Body, 2
	Constant, pulse, flow	Pulse
	Control (electronic, mech.)	ECM
	System pressure kPa (psi)	78 (11)
Idle speed-rpm (spec. neutral or drive and propane if used)	Manual	Not Applicable
	Automatic	PCM Controlled
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water
Air cleaner type		Replaceable Paper Element Single Snorkel
Fuel filter (type/location)		Stainless Steel/Left Underbody - Mid Car - In Line
Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Tank
	Pressure range kPa (psi)	81-85 (11.7-12.3)
	Flow rate at regulated pressure L (gal)/hr @ kPa (psi)	72.0 (18.0) ± 17.0 (4.5) @ 83.0 (12.0) ± 2.0 (0.3)

Fuel Tank

Capacity refill L (gallons)		75.7 (20.0)
Location (describe)		Left Center of Vehicle Between Rails
Attachment		Steel Straps - Cross Car
Material & Mass kg. (weight lbs.)		High Density Polyethylene
Filler pipe	Location & material	Behind Left Rear Wheel - Steel
	Connection to tank	Hose and Clamp
Fuel line (material)		Nylon
Fuel hose (material)		Low Permeation/Kevlar Reinforced
Return line (material)		Nylon
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Applicable
	Capacity L (gallons)	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	Not Applicable
	Capacity L (gallons)	"
	Location & material	"
	Attachment	"
	Selector switch or valve	"
	Separate fill	"



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (•) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3800 V6 (231 CID)
 MULTI-PORT FUEL INJECTION RPO L27

Engine - Fuel System (See Supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used.)

Induction type: carburetor, fuel injection system, etc.		Port Fuel Injection
Manufacturer		Bosch
Carburetor no. of barrels		Not Applicable
Idle A/F mix.		PCM Controlled
Fuel Injection	Point of injection (no.)	6
	Constant, pulse, flow	Pulse
	Control (electronic, mech.)	Electronic
	System pressure kPa (psi)	230-300 (33-43)
Idle speed-rpm (spec. neutral or drive and propane if used)	Manual	Not Applicable
	Automatic	Computer Controlled
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water Thermostatic
Air cleaner type		Replaceable Paper Element Single Snorkel
Fuel filter (type/location)		Stainless Steel/Left Underbody - Mid Car
Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Tank
	Pressure range kPa (psi)	345-355 (50-51)
	Flow rate at regulated pressure L (gal)/hr @ kPa (psi)	13 Min @ 350 ± 5.0

Fuel Tank

Capacity refill L (gallons)		75.7 (20.0)
Location (describe)		Left Center of Vehicle Between Rails
Attachment		Steel Straps -Cross Car
Material & Mass kg. (weight lbs.)		High Density Polyethylene
Filler pipe	Location & material	Behind Left Rear Wheel
	Connection to tank	Hose and Clamp
Fuel line (material)		Nylon
Fuel hose (material)		Low Permeation/Kevlar Reinforced
Return line (material)		Nylon
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Applicable
	Capacity L (gallons)	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	Not Applicable
	Capacity L (gallons)	"
	Location & material	"
	Attachment	"
	Selector switch or valve	"
Separate fill		"



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3.1 LITER V6 (191 CID)
 ELECTRONIC FUEL INJECTION RPO L68

Vehicle Emission Control

Type (air injection, engine modifications, other)		--		
Exhaust Emission Control	Air Injection	Pump or pulse	Not Applicable	
		Driven by	-	
		Air distribution (needle, manifold, etc.)	-	
		Point of entry	-	
	Exhaust Gas	Type (controlled flow, open orifice, other)	Backpressure Type Controlled Flow	
		Exhaust source	Manifold Exhaust Crossover	
	Recirculation	Point of exhaust injection (specor, carburetor, manifold, other)	Inlet Manifold	
		Type	Single Bed, Oxidizing & Reducing	
	Catalytic Converter	Number of	1	
		Location(s)	Beneath RF Underbody	
Volume L (in ³)		2.78 (170)		
Substrate type		Monolith		
Noble metal type		Platinum (Pt), Palladium (Pd), Rhodium (Rh)		
Noble metal concentration (g/cm ²)		.00836		
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Closed Induction System	
	Energy source (manifold vacuum, carburetor, other)		Manifold Vacuum	
	Discharges to (intake manifold, other)		Inlet Manifold	
	Air inlet (breather cap, other)		Air Cleaner	
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel Tank	Fuel Tank to Canister to TBI Port	
		Carburetor	--	
	Vapor storage provision		Charcoal	
Electronic system	Closed loop (yes/no)		Yes	
	Open loop (yes/no)		No	

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Single W/Cross Over
Muffler no. & type (reverse flow, straight thru, separate resonator), Muffler volume (liters), Material & Mass kg. (weight lbs.)		1, Reverse Flow
Resonator no., type, & volume (liters)		None
Exhaust pipe	Branch o.d., wall thickness	50.8 mm (2.0 in.), Diameter
	Main o.d., wall thickness	50.8 x 1.52 mm (2.0 x .060 in.)
	Material & Mass kg. (weight lbs.)	Stainless Steel
Intermediate pipe	o.d. & wall thickness	57.2 x 1.22 mm (2.25 x .048 in.)
	Material & Mass kg. (weight lbs.)	Stainless Steel
Tail pipe	o.d. & wall thickness	50.8 x 1.40 mm (2.0 x .055 in.)
	Material & Mass kg. (weight lbs.)	Stainless Steel



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 8/94 Revised (●) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3800 V6 (231 CID)
 MULTI-PORT FUEL INJECTION RPO L27

Vehicle Emission Control

Type (air injection, engine modifications, other)		-		
Exhaust Emission Control	Air Injection	Pump or pulse	Not Applicable	
		Driven by	-	
		Air distribution (head, manifold, etc.)	-	
		Point of entry	-	
	Exhaust Gas	Type (controlled flow, open orifice, other)	Linear Controlled Flow	
		Exhaust source	Manifold Exhaust Crossover	
	Recirculation	Point of exhaust injection (spacer, carburetor, manifold, other)	Inlet Manifold	
		Type	Single Bed, Oxidizing & Reducing	
	Catalytic Converter	Number of	1	
		Locations(s)	Beneath RF Underbody	
Volume L (in ³)		2.78 (170)		
Substrate type		Monolith		
Noble metal type		Platinum (Pt), Palladium (Pd), Rhodium (Rh)		
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Positive Ventilation to Induction System	
	Energy source (manifold vacuum, carburetor, other)		Manifold Vacuum	
	Discharges to (intake manifold, other)		Inlet Manifold	
	Air Inlet (breather cap, other)		Throttle Body	
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel Tank	Canister	
		Carburetor	Not Applicable	
	Vapor storage provision		Canister	
Electronic system	Closed loop (yes/no)		Yes	
	Open loop (yes/no)		No	

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Single W/Cross Over
Muffler no. & type (reverse flow, straight thru, separate resonator), Muffler volume (liters), Material & Mass kg. (weight lbs.)		1, Reverse Flow, Stainless Steel
Resonator no., type, & volume (liters)		1, Straight Thru Separate Resonator, Stainless Steel
Exhaust pipe	Branch o.d., wall thickness	57.2 mm (2.25 in.), Diameter
	Main o.d., wall thickness	57.2 x 2.05 mm (2.25 x .080 in.)
	Material & Mass kg. (weight lbs.)	Stainless Steel
Intermediate pipe	o.d. & wall thickness	57.2 x 1.4 mm (2.25 x .056 in.)
	Material & Mass kg. (weight lbs.)	Stainless Steel
Tail pipe	o.d. & wall thickness	57.2 x 1.4 mm (2.25 x .056 in.)
	Material & Mass kg. (weight lbs.)	Stainless Steel

MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (e) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3.1 LITER V6 (191 CID)
 ELECTRONIC FUEL INJECTION RPO LG6

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

Manual 4-speed (manufacturer/country)	Not Applicable
Manual 5-speed (manufacturer/country)	"
Manual 6-speed (manufacturer/country)	"
Automatic (manufacturer/country)	Hydra-Matic, U.S.A., MD9
Automatic overdrive (manufacturer/country)	Not Applicable

Manual Transmission/Transaxle

(NOT APPLICABLE)

Number of forward speeds		
Gear ratios	1st	
	2nd	
	3rd	
	4th	
	5th	
	6th	
	Reverse	
Synchronous meshing (specify gears)		
Shift lever location		
Trans. case material & mass kg. (lbs.)*		
Lubricant	Capacity L. (pt.)	
	Type recommended	

Clutch (Manual Transmission)

(NOT APPLICABLE)

Clutch manufacturer		
Clutch type (dry, wet; single, multiple disc)		
Linkage (hydraulic, cable, rod, lever, other)		
Max. pedal effort (nom. spring load) N (lbs.)	Depressed	
	Released	
Assist (spring, power/percent, nominal)		
Type pressure plate springs		
Total spring load (nominal) N (lbs.)		
Clutch facing	Facing mfr. & material coding	
	Facing material & construction	
	Rivets per facing	
	Outside x inside dia. (nominal)	
	Total eff. area cm ² (in. ²)	
	Thickness (pressure plate side/ly wheel side)	
	Rivet depth (pressure plate side/ly wheel side)	
Engagement cushion method		
Release bearing type & method lub.		
Torsional damping method, springs, hysteresis		

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



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METRIC (U.S. Customary)

Engine Description
 Engine Code

3900 V6 (231 CID)
 MULTI-PORT FUEL INJECTION RPO L27

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

Manual 4-speed (manufacturer/country)	Not Applicable
Manual 5-speed (manufacturer/country)	-
Manual 6-speed (manufacturer/country)	-
Automatic (manufacturer/country)	-
Automatic overdrive (manufacturer/country)	Hydra-Matic, U.S.A. (M13)

Manual Transmission/Transaxle (NOT APPLICABLE)

Number of forward speeds		
Gear ratios	1st	
	2nd	
	3rd	
	4th	
	5th	
	6th	
	Reverse	
Synchronous meshing (specify gears)		
Shift lever location		
Trans. case material & mass kg. (lbs.)*		
Lubricant	Capacity L (pt.)	
	Type recommended	

Clutch (Manual Transmission) (NOT APPLICABLE)

Clutch manufacturer		
Clutch type (dry, wet; single, multiple disc)		
Linkage (hydraulic, cable, rod, lever, other)		
Max. pedal effort (nom. spring load) N (lbs.)	Depressed	
	Released	
Assist (spring, power/percent, nominal)		
Type pressure plate springs		
Total spring load (nominal) N (lbs.)		
Clutch facing	Facing mfg. & material coding	
	Facing material & construction	
	Rivets per facing	
	Outside x inside dia. (nominal)	
	Total eff. area cm ² (in. ²)	
	Thickness (pressure plate side/ty wheel side)	
	Rivet depth (pressure plate side/ty wheel side)	
Engagement cushion method		
Release bearing type & method lub.		
Torsional damping method, springs, hysteresis		

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



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (e) _____

METRIC (U.S. Customary)

Engine Description	3.1 LITER V6 (191 CID)
Engine Code	ELECTRONIC FUEL INJECTION RPO LG6

Automatic Transmission/Transaxle

Trade Name	Hydra-Matic 3T40 (MD9) Transaxle	
Type and special features (describe)	3-Speed Automatic W/Torque Converter Clutch	
Shift mechanics	Hydraulic Clutches	
Gear selector	Location (column, floor, other)	Column (Mechanical)
	Ltr./No. designation (e.g. PRND21)	P-R-N-D-2-1
	Shift interlock (yes, no, describe)	Yes-Brake, Ignition Key
Gear ratios	1st	2.84
	2nd	1.60
	3rd	1.00
	4th	Not Applicable
	5th	"
	6th	"
	Reverse	2.07
Final drive ratio	3.06	
Max. upshift vehicle speed - drive range km/h (mph)	1 - 2 = 67.6 (42) 2 - 3 = 117.5 (73)	
Max. upshift engine speed RPM	5200 RPM	
Max. kickdown speed - drive range km/h (mph)	3 - 2 = 114.3 (71) 2 - 1 = 56.3 (35)	
Min. overdrive speed km/h (mph)	Not Applicable	
Torque converter	Type	Lock-Up
	Torus design	Full
	Number of elements	3
	Max. ratio at stall	1.95
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	245 mm (9.65 in.)
Capacity factor "K"	180	
Pump type	Variable Displacement Vane	
Lubricant	Capacity refill L (pt.)	6.6 (14), Dry Transmission
	Type recommended	Dexron IIE
Oil cooler (std., opt., N.A., internal, external, air, liquid)	Standard - Liquid	
Transmission mass kg (lbs.) & case material**	65.7 (144.81), Cast Aluminum	

All Wheel / 4 Wheel Drive (NOT APPLICABLE)

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

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

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



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3800 V6 (231 CID)
 MULTI-PORT FUEL INJECTION RPO L27

Automatic Transmission/Transaxle

Trade Name		Hydra-Matic4T60-E (M13) Transaxle	
Type and special features (describe)		4-Speed Automatic W/Torque Converter Clutch	
Shift mechanics		Hydraulic Clutches/Electronic Controls	
Gear selector	Location (column, floor, other)	Column (Mechanical)	
	Ltr./No. designation (e.g. PRND21)	P-R-N-(D)-D-2-1	
	Shift interlock (yes, no, describe)	Yes-Brake, Ignition Key	
Gear ratios	1st	2.92	
	2nd	1.57	
	3rd	1.00	
	4th	.70	
	5th	Not Applicable	
	6th	-	
	Reverse	2.38	
Final drive ratio		3.06	
Max. upshift vehicle speed - drive range km/h (mph)		1 - 2 = 72 (45) 2 - 3 = 130 (81) 3 - 4 = 166 (103)	
Max. upshift engine speed RPM		5200 RPM	
Max. kickdown speed - drive range km/h (mph)		3 - 2 = 121 (75) 2 - 1 = 61 (38)	
Min. overdrive speed km/h (mph)		72 (45)	
Torque converter	Type	Lock-Up	
	Torus design	Yes	
	Number of elements	3	
	Max. ratio at stall	1.73	
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	245 mm (9.65 in.)	
Capacity factor "K"		163 K	
Pump type		Variable Displacement Vane	
Lubricant	Capacity refill L (pt.)	9.5 (20), Dry Transmission	
	Type recommended	Dexron IIE	
Oil cooler (std., opt., N.A., internal, external, air, liquid)		Standard - Liquid	
Transmission mass kg (lbs.) & case material**		81.0 (178.5), Cast Aluminum	

All Wheel / 4 Wheel Drive

(NOT APPLICABLE)

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

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

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



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*)

METRIC (U.S. Customary)

Engine Description **3.1 LITER V6 (191 CID)**
 Engine Code **ELECTRONIC FUEL INJECTION RPO LG6**

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

Effective final drive ratio (or overall top gear ratio)		3.06
Transfer ratio and method (chain, gear, etc.)		1.12, Chain
Front drive unit	Ring gear o.d.	Not Applicable
	No. of teeth	"
	Pinion	"
	Ring gear	"

Front Drive Unit

Description (Integral to trans., etc.)		Planetary Final Drive Integral with Transmission
Limited slip differential (type)		Not Applicable
Drive pinion	Type	"
	Offset	"
No. of differential pinions		2
Pinion / differential	Adjustment (shim, etc.)	Not Applicable
	Bearing adjustment	"
Driving wheel bearing (type)		"
Lubricant	Capacity L (pt.)	See Automatic Trans Specs
	Type recommended	See Automatic Trans Specs

Axle Shafts - Front Wheel Drive

Manufacturer and number used		Saginaw Division (2)		
Type (straight, solid bar, tubular, etc.)	Left	Straight, Solid		
	Right	Straight, Solid		
Outer diam. x length* x wall thickness	Manual Transaxle	Left	Not Applicable	
		Right	"	
	Automatic transaxle	Left	27.1 x 300 mm (1.07 x 11.81 in.)	
		Right	27.1 x 418 mm (1.07 x 16.46 in.)	
	Optional transaxle	Left	Not Applicable	
		Right	"	
Slip yoke	Type	Not Applicable		
	Number of teeth	"		
	Spline o.d.	"		
Universal joints	Make and mfg. no.	Inner	Saginaw Division	
		Outer	Saginaw Division	
	Number used		Inbrd. & Outbrd. on Each Axle	
	Type, size, plunge	Inner	Tripot - 66.0 mm Stroke - Plunge	
		Outer	Rzeppa - Fixed Center	
	Attach (u-bolt, clamp, etc.)		Retaining Ring	
Bearing	Type (plain, anti-friction)	Inner - Ball & Needle Outer - Ball		
	Lubrication (fitting, prepack)	Prepacked		
Drive taken through (torque tube, arms or springs)		Wishbone Lower Control Arm, Upper MacPherson Strut		
Torque taken through (torque tube, arms or springs)		Engine Mounting System		

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



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 8/94 Revised (•) _____

METRIC (U.S. Customary)

Engine Description
 Engine Code

3800 V6 (231 CID)
 MULTI-PORT FUEL INJECTION RPO L27

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

Effective final drive ratio (or overall top gear ratio)		3.06
Transfer ratio and method (chain, gear, etc.)		1.0, Chain
Front drive unit	Ring gear o.d.	Not Applicable
	No. of teeth	"
	Pinion	"
	Ring gear	"

Front Drive Unit

Description (integral to trans., etc.)		Planetary Final Drive Integral with Transmission
Limited slip differential (type)		Not Applicable
Drive pinion	Type	"
	Offset	"
No. of differential pinions		2
Pinion / differential	Adjustment (shim, etc.)	Not Applicable
	Bearing adjustment	"
Driving wheel bearing (type)		"
Lubricant	Capacity L (pt.)	See Automatic Trans Specs
	Type recommended	See Automatic Trans Specs

Axle Shafts - Front Wheel Drive

Manufacturer and number used		Saginaw Division (2)		
Type (straight, solid bar, tubular, etc.)	Left	Straight, Solid		
	Right	Straight, Solid		
Outer diam. x length* x wall thickness	Manual Transaxle	Left	Not Applicable	
		Right	"	
	Automatic transaxle	Left	27.1 x 300.0 mm (1.07 x 11.81 in.)	
		Right	27.1 x 337.0 mm (1.07 x 13.3 in.)	
	Optional transaxle	Left	Not Applicable	
		Right	"	
Slip yoke	Type	Not Applicable		
	Number of teeth	"		
	Spline o.d.	"		
Universal joints	Make and mfg. no.	Inner	Saginaw Division	
		Outer	Saginaw Division	
	Number used	Inbrd. & Outbrd. on Each Axle		
	Type, size, plunge	Inner	Tripot - 68.0 mm Stroke	
		Outer	Rzeppa - Fixed Center	
	Attach (u-bolt, clamp, etc.)		Retaining Ring	
Bearing	Type (plain, anti-friction)	Inner - Ball & Needle Outer - Ball		
	Lubrication (fitting, prepack)	Prepacked		
Drive taken through (torque tube, arms or springs)		Wishbone Lower Control Arm, Upper MacPherson Strut		
Torque taken through (torque tube, arms or springs)		Engine Mounting System		

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



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
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METRIC (U.S. Customary)

Model Code/Description And/Or
 Engine Code/Description

ALL

Suspension - General Including Electronic Controls

Car leveling	Standard/optional/not available	Optional	
	Manual/automatic control	Automatic	
	Type (air/hydraulic)	Air	
	Primary/assist spring	Assist	
	Rear only/4 wheel leveling	Rear Only	
	Single/dual rate spring	Single	
	Single/dual ride heights	Single	
	Provision for jacking	No	
Shock absorber damping controls	Standard/option/not available	Not Available	
	Manual/automatic control	"	
	Number of damping rates	"	
	Type of actuation (manual/ electric motor/air, etc.)	"	
	Sensors	Lateral acceleration	"
		Deceleration	"
Acceleration		"	
Road surface		"	
Shock absorber (front & rear)	Type	Front: MacPherson Strut, Rear: Direct, Double Action	
	Make	Delco Chassis Division	
	Piston diameter	Frnt. 32 (1.26); Rear 25 (1.00)	
	Rod diameter	Frnt. 20 (.80); Rear 12.5 (.50)	

Suspension - Front

Type and description	MacPherson Strut with Coil Springs, Stamped Lower Control Arms and Nodular Iron Steering Knuckles	
Travel	Full jounce (define load condition)	97 from Curb
	Full rebound	77 from Curb
Spring	Type (coil, leaf, other & material)	Coil, Steel
	Insulators (type & material)	Upper, Natural Rubber
	Size (Leaf: length & width; Coil: design height & i.d.; Bar: length & diameter)	
	Spring rate N/mm (lb./in.)	27.0 (239)
	Rate at wheel N/mm (lb./in.)	27.0 (239)
Stabilizer	Type (link, linkless, frameless)	Linkless
	Material & O.D. bar/tube, wall thickness	27.0 mm (1.06 in.)

Suspension - Rear

Type and description	Trailing Arm with Stamped Control Arms and Open Section Transverse Beam	
Travel	Full jounce (define load condition)	85 from Curb
	Full rebound	92 from Curb
Spring	Type (coil, leaf, other & material)	Coil, Steel
	Size (Leaf: length & width; Coil: design height & i.d.; Bar: length & diameter)	
	Spring rate N/mm (lb./in.)	48.3 (275), Standard; 48.0/57.0 (277/326), Optional
	Rate at wheel N/mm (lb./in.)	28.5 (162)
	Insulators (type & material)	Upper & Lower, Natural Rubber
	if leaf	No. of leaves
Shackle (comp. or lens.)		"
Stabilizer	Type (link, linkless, frameless)	Linkless
	Material & O.D. bar/tube, wall thickness	25.4 mm (1.0 in.)
Track bar (type)	Transverse Link - Open Section	

MVMA Specifications

Vehicle Line LUMINA MINIVAN
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METRIC (U.S. Customary)

Model Code/Description And/Or
 Engine Code/Description

ALL

Brakes - Service

Description		Single Piston Caliper Disc Front; Leading-Trailing Drum Rear			
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)	Disc			
	Rear (disc or drum)	Drum			
Valving type (proportion, delay, metering, other)		Proportioning			
Power brake (std., opt., n.a.)		Standard			
Booster type (remote, integral, vac., hyd., etc.)		Vacuum			
Vacuum	Source (inline, pump, etc.)	Inline			
	Reservoir (volume in. ³)	None			
	Pump-type (elec., gear or belt driven)	Not Available			
Traction assist	Operational speed range	All Speeds			
	Type (engine or brake intervention)	Brake and Powertrain Torque Management			
Antilock device	Front/rear (std., opt., n.a.)	Standard			
	Manufacturer	Delco Chassis Division, G.M.			
	Type (electronic, mech.)	Electronic			
	Number sensors or circuits	Four			
	Number antilock hydraulic circuits	Four			
	Integral or add-on system	Add-On Mounted to Master Cylinder			
	Yaw control (yes, no)	Yes			
Hyd. power source (elec., vac., mtr., pwr., strg.)		Not Applicable			
Effective area cm ² (in. ²)*		F 243.6 (37.8)/R 383.0 (59.4)			
Gross Lining area cm ² (in. ²)** (F/R)		F 243.6 (37.8)/R 394.7 (61.2)			
Swept area cm ² (in. ²)** (F/R)		F 1552 (240.6)/R 620.6 (96.2)			
Rotor	Outer working diameter	F/R	278 mm (10.94 in.)		
	Inner working diameter	F/R	167 mm (6.57 in.)		
	Thickness	F/R	32.2 mm (1.27 in.)		
	Material & type (vented/solid)	F/R	Cast Iron, Vented		
Drum	Diameter & width	F/R	225 x 45 mm (8.86 x 1.77 in.)		
	Type and material	F/R	Composite Cast Iron, Finned		
Wheel cylinder bore		F 64 mm (2.52 in.)/R 23.8 mm (.94 in.)			
Master cylinder	Bore/stroke	F/R	24.0 mm (.94 in.)/35.5 mm (1.40 in.)		
Pedal arc ratio		3.4:1			
Line press. at 445 N (100 lb.) pedal load [kPa (psi)]		14944 kPa (2167 psi)			
Lining clearance		F/R	Self-Adjusting 0/.381 mm		
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Integrally Molded	
		Rivet Size		Not Applicable	
		Manufacturer		Delco Chassis Division, G.M.	
		Lining code *****		DM 131 EE	
		Material		Semi-Metallic	
		****	Primary or out-board	136 x 46.7 x 11.2 mm (5.35 x 1.84 x .44 in.)	
		Size	Secondary or in-board	124 x 48.6 x 12.4 mm (4.88 x 1.91 x .49 in.)	
	Shoe thickness (no lining)		4.85 mm		
	Rear wheel	Bonded or riveted (rvts/seg.)		Riveted	
		Manufacturer		Delco Chassis Division, G.M.	
		Lining code *****		245 FF	
		Material		Semi-Metallic	
		****	Primary or out-board	224.8 x 43.9 x 6.4 mm (8.85 x 1.73 x .25 in.)	
		Size	Secondary or in-board	224.8 x 43.9 x 6.4 mm (8.85 x 1.73 x .25 in.)	
Shoe thickness (no lining)		2 mm (.079 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 for formulation designation and coefficient of friction classification.



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 Model Year 1995 Issued 9/94 Revised (#) _____

METRIC (U.S. Customary)

Model Code/Description And/Or
 Engine Code/Description

ALL

Tires And Wheels (Standard)

Tires	Size (service description)		P205/70R15 All Season 95S
	Type (bias, radial, steel, nylon, etc.)		Steel Belted Radial
	Inflation pressure (cold) for recommended max. vehicle load	Front kPa (psi)	240 (35)
		Rear kPa (psi)	240 (35)
Rev./mile at 70 km/h (45 mph)			
Wheels	Type & material		Steel
	Rim (size & flange type)		15 x 6.0 J
	Wheel offset		36 mm
	Attachment	Type (bolt or stud & nut)	Stud/Nut
		Circle diameter	115 mm (4.53 in.)
Number & size		5, M12 x 1.5	
Spare	Tire and wheel		T125/70R15 B.W. Compact Spare, Radial, Wheel Dia. x Width 15 x 4, Inflation Pressure (60 psi/415 kPa)
	Storage position & location (describe)		Horizontal, Under Floor

Tires And Wheels (Optional)

Tire size (service description)		P205/70R15 Touring 95S
Type (bias, radial, steel, nylon, etc.)		Steel Belted Radial
Wheel (type & material)		Cast Aluminum or Steel
Rim (size, flange type and offset)		15 x 6.0 J x 36
Tire size (service description)		P205/70R15 95S
Type (bias, radial, steel, nylon, etc.)		Steel Belted Radial Touring w/Sealant
Wheel (type & material)		
Rim (size, flange type and offset)		
Tire size (service description)		
Type (bias, radial, steel, nylon, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
Tire size (service description)		
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		Foot Pedal Application
Location of control		Under Instrument Panel, Left of Steering Column
Operates on		Rear Service Brakes
If separate from service brakes	Type (internal or external)	--
	Drum diameter	--
	Lining size (length x width x thickness)	--

MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (#) _____

METRIC (U.S. Customary)

Model Code/Description And/Or
 Engine Code/Description

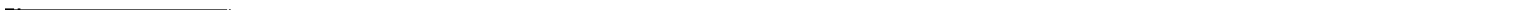
ALL

Steering

Manual (std., opt., n.a.)		Not Applicable		
Power (std., opt., n.a.)		Standard		
Speed-sensitive (std., opt., n.a.)		N/A		
4-wheel steering (std., opt., n.a.)		N/A		
Adjustable steering wheel/column (tilt, telescope, other)	Type	Tilt Column		
	Manufacturer	Saginaw Division		
	(std., opt., n.a.)	Optional		
Wheel diameter** (W9) SAE J1100	Manual	N/A		
	Power	OD 380.0 mm (15.1 in.)		
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)	13.79 (45.2) / 13.90 (45.6)	
		Curb to curb (l. & r.)	13.1 (43.0) / 13.2 (43.3)	
	Inside rear	Wall to wall (l. & r.)	8.24 (27.0) / 8.30 (27.2)	
		Curb to curb (l. & r.)	8.32 (27.3) / 8.40 (27.6)	
Scrub Radius*		2.0 mm (.079 in.)		
Manual	Gear	Type	Not Applicable	
		Manufacturer	"	
		Ratios	Overall	"
No. wheel turns (stop to stop)		"		
Power	Type (coaxial, elec. hyd., etc.)		Hydraulic	
	Manufacturer		Saginaw Division	
	Gear	Type	Rack and Pinion with Integral Power Unit	
		Ratios	Gear	49.90 mm / REV 45.13 mm / REV
	Overall		15.70:1/2.74 17.56:1/On Center	
	Pump (drive)		Belt Off Crankshaft Pulley	
No. wheel turns (stop to stop)		15.70:1/2.74 17.56:1/On Center		
Linkage	Type		End Take-Off Tie Rods	
	Location (front or rear of wheels, other)		Rear of Front Wheel Centerline	
	Tie rods (one or two)		2	
Steering axles	Inclination at camber (deg.)		14.6	
	Bearings (type)	Upper	Ball Bearing	
		Lower	Ball Joint	
		Thrust	Ball Bearing	
Steering spindle/knuckle & joint type		MacPherson Strut with Lower Ball Joint		

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

** See Page 23.



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 8/94 Revised (●) _____

METRIC (U.S. Customary)

Model Code/Description And/Or
 Engine Code/Description

ALL

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	3.0 (±) .7; Left and Right Should be Within .7
		Camber (deg.)	0.0 (±) .5; Left and Right Should be Within .7
		Toe-in outside track mm (in.)	0.0 (±) 0.2 Total
	Service reset*	Caster (deg.)	Not Adjustable
		Camber (deg.)	0.0 (±) .5; Left and Right Should be Within .7
		Toe-in mm (in.)	0.0 (±) 0.2 Total
	Periodic M.V. In-spection	Caster (deg.)	Not Adjustable
		Camber (deg.)	0.0 (±) .5
		Toe-in mm (in.)	0.0 (±) 0.2 Total
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	-0.1 (±) 0.3
		Toe-in outside track mm (in.)	-0.0 (±) 0.3 Total (Thrust = ± .15)
	Service reset*	Camber (deg.)	Not Adjustable
		Toe-in mm (in.)	"
	Periodic M.V. Insp.	Camber (deg.)	-0.1 (±) 0.3
		Toe-in mm (in.)	0.0 (±) 0.3 Total

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

Electrical - Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Analog Standard
	Trip odometer (std., opt., n.a.)	Standard
	Standard, optional, not available	Not Available
	Type	Secondary, opto-electronic
		"
Head-up display	Speedometer	Digital
	Status/warning indicators	Turn signals, high beam, low fuel, check gauges
	Brightness control	Day / night mode, adjustable
		"
	EGR maintenance indicator	"
Charge indicator	Type	Analog
	Warning device (light, audible)	Not Available
Temperature indicator	Type	Analog
	Warning device (light, audible)	Not Available
Oil pressure indicator	Type	Light
	Warning device (light, audible)	Light
Fuel indicator	Type	Analog
	Warning device (light, audible)	Not Available
	Type (standard)	Pulse Wipe NDP
Windshield wiper	Type (optional)	"
	Blade length	24 in. (600 mm)
	Swept area cm ² (in. ²)	9052 (1403)
	Type (standard)	Wet-Arm System
Windshield washer	Type (optional)	Not Available
	Fluid level indicator (light, audible)	Not Available
Rear window wiper, wiper/washer (std., opt., n.a.)		Standard (Delay Wipe/Demand Wash)
	Type	Air Tone
Horn	Number used	2
ABS Fault / Active Indicator	Type	Light
	Warning Device	Not Available



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*) _____

METRIC (U.S. Customary)

Engine Code/Description

3.1 LITER V6 (191 CID)
 ELECTRONIC FUEL INJECTION RPO LG6

Electrical - Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	75-525
	Voltage	12
	Amps at 0° F. cold crank	525
	Minutes-reserve capacity	90
	Amps/hrs.-20 hr. rate	—
	Location	Engine Compartment
Alternator	Manufacturer	Delco Remy
	Rating (idle/max. rpm)	36/100
	Ratio (alt. crank/rev.)	2.65:1
	Output at idle (rpm, park)	62 Amps w/AC
Regulator	Optional (type & rating)	4Q/105 Req'd with RHVAC (C34)/RR Htr (C36)
	Type	Integral W/Alternator

Electrical - Starting System

Motor	Manufacturer	Delco Remy
	Current drain _____ °C (°F)	340 Amps
	Power rating (hp)	1.5 (SD210)
Motor drive	Engagement type	Solenoid Operated Shift Lever
	Pinion engages from (front, rear)	Front

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)	Standard	
	Other (specify)	—	
Coil	Manufacturer	Delco Remy	
	Model	High Efficiency (High Energy Ignition) Remote Mount	
	Current	Engine stopped - A	100 ma (Approximate)
		Engine idling - A	6 Amps Peak
Spark plug	Manufacturer	AC	
	Model	.R43TS	
	Thread (mm)	14 x 1.25	
	Tightening torque N-m (lb. ft.)	9-20 (7-15)	
	Gap	1.14 mm (.045 in.)	
	Number per cylinder	1	
Distributor	Manufacturer	Delco Remy	
	Model	6-89 mm	

Electrical - Suppression

Locations & type	Internal Alternator Capacitor, Non-Metallic High Tension Ignition Cables, Resistor Spark Plugs, Ignition Coil By-Pass Capacitor, Internal AC Blower Motor By-Pass Capacitor & A/C Compressor Diode, Internal Capacitors for Cooling Fan and Windshield Wiper Motor.
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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (●) _____

METRIC (U.S. Customary)

Engine Code/Description

3800 V6 (231 CID)
 MULTI-PORT FUEL INJECTION RPO L27

Electrical - Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	75-630
	Voltage	12
	Amps at 0° F, cold crank	630
	Minutes-reserve capacity	90
	Amps/hrs. -20 hr. rate	--
Location		Engine Compartment
Alternator	Manufacturer	Delco Remy
	Rating (idle/max. rpm)	50/140
	Ratio (alt. crank/rev.)	2.98:1
	Output at idle (rpm, park)	90 Amps w/AC
Optional (type & rating)		50/140 Req'd W/RHVAC (C34)/RR Htr (C36)
Regulator	Type	Integral W/Alternator

Electrical - Starting System

Motor	Manufacturer	Delco Remy
	Current drain _____ °C (°F)	440 Amps
	Power rating kw (hp)	1.7 (SD250)
Motor drive	Engagement type	Solenoid Operated Shift Lever
	Pinion engages from (front, rear)	Front

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)	Standard	
	Other (specify)	--	
Coil	Manufacturer	Magnavox	
	Model	DIS (Direct Ignition System)	
	Current	Engine stopped - A	75 ma (Approximate)
		Engine idling - A	9.5 Amps
Spark plug	Manufacturer	AC	
	Model	R45LTS6 41-601	
	Thread (mm)	14 x 1.25	
	Tightening torque N-m (lb. ft.)	20-34 (15-25)	
	Gap	1.52 (.060)	
Distributor	Number per cylinder	1	
	Manufacturer	Not Applicable	
	Model	.	

Electrical - Suppression

Locations & type	Internal Alternator Capacitor, Non-Metallic High Tension Ignition Cables, Resistor Spark Plugs, Ignition Coil By-Pass Capacitor, Internal AC Blower Motor By-Pass Capacitor & A/C Compressor Diode, Internal Capacitors for Cooling Fan and Windshield Wiper Motor.
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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (e) _____

METRIC (U.S. Customary)

Model Code/Description

ALL

Body

Structure	Full Unitized Steel Spaceframe Construction. Roof, Body Sides and Rear Surround SMC Panels are Adhesively Attached to Form Body Shell. Doors, Hood and Liftgate Features Double Panel Construction.
Bumper system front - rear	Foam Energy Absorbers, Azdel Front Impact Bar, 'Azdel' Polypropylene Rear Impact Bar, TPO Fascia - Front and Rear
Anti-corrosion treatment	Galvanized Metals, Zinc Rich Primers and Wax Coatings Used Throughout

Body - Miscellaneous Information

Type of finish (lacquer, enamel, other)	Base Coat/Clear Coat High Solids Enamel	
Hood	Material & mass	SMC
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Four Bar Link with a Prop Rod at the Front
	Release control (internal, external)	Body Interior Release of Primary Latch with Lever Operation Secondary
Trunk lid	Material & mass	Not Applicable
	Type (counterbalance, other)	"
	Internal release control (elec., mech., n.a.)	"
Hatchback lid	Material & mass	"
	Type (counterbalance, other)	"
	Internal release control (elec., mech., n.a.)	"
Tailgate	Material & mass	SMC
	Type (drop, lift, door)	Liftgate One Piece with Fixed Glass
	Internal release control (elec., mech., n.a.)	External Key Operated Unlatch
Vent window control (crank, friction, pivot, power)	Front	Not Applicable
	Rear	"
Window regulator type (cable, tape, flex drive, etc.)	Front	Single Arm Crank Type
	Rear	Rear Side Glass is Flip Out Hinged at the Front Over Center Latch at Rear
Seat cushion type (e.g., 60/40 bucket, bench, wire, foam, etc.)	Front	Buckets with Full Foam Cushions
	Rear	Std. - Bench w/Full Foam Cushion Easy Removal Opt. - Buckets w/Full Foam Cushions Flip Up or Easy Remove for Stowage
	3rd seat	Buckets w/Full Foam Cushions Flip Up or Easy Remove for Stowage
Seat back type (e.g., 60/40 bucket, bench, wire, foam, etc.)	Front	Bucket Full Foam
	Rear	Bucket Full Foam; Bench Full Foam
	3rd seat	Bucket Full Foam

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Unitized Space Frame. Separate Engine/Front Suspension Cradle.
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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (●) _____

METRIC (U.S. Customary)

Model Code/Description

ALL

Restraint System

Seating Position			Left	Center	Right
Active	Type & description (lap & shoulder belt, lap belt, etc.)	First seat	Lap & Shoulder Belt		Lap & Shoulder Belt
	Standard / Optional	Second seat	Lap & Shoulder Belt	Lap Belt	Lap & Shoulder Belt
		Third seat	Lap & Shoulder Belt		Lap & Shoulder Belt
Passive	Type & description (air bag, motorized-2-point belt, fixed belt, knee bolster, manual-lap belt)	First seat	Air Bag & Knee Bolster		
	Standard / Optional	Second seat			
		Third seat			
Glass		SAE Ref.No.			
Windshield glass exposed surface area cm ² (in. ²)		S1	16169 (2506.2)		
Side glass exposed surface area cm ² (in. ²) - total 2 sides		S2	27250 (4223.8)		
Backlight glass exposed surface area cm ² (in. ²)		S3	9886 (1532.3)		
Total glass exposed surface area cm ² (in. ²)		S4	53305 (8262.3)		
Windshield glass (type/thickness)			Laminated Glass, 5.4 mm		
Side glass (type/thickness)			Tempered Glass, 4.0 mm		
Backlight glass (type/thickness)			Tempered Glass, 4.0 mm		
Tinted (yes/no, location)			Yes, Front Doors		
Solar control (yes/no, coated/batched, location)			Yes, Coated, Windshield: Batched, Sides and Liftgate		

Headlamps

Description (sealed beam, halogen, replaceable bulb, etc.)	Halogen Replaceable Bulb; 9005-9006
Shape	Rectangular
Lo-beam type (2A1, 2B1, 2C1, etc.)	9006 Bulb
Quantity	2 - 1 On Each Side (Outboard)
Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	9005 Bulb
Quantity	2 - 1 On Each Side (Inboard C/C)



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 8/94 Revised (●) _____

METRIC (U.S. Customary)

Engine Code/Description

3.1 LITER V6

Climate Control System

Air conditioning (std., opt., man., auto.)		Manual Optional C67 Front A/C
Condenser	Type	Header Tube Aluminum
	Eff. face area (sq. mm.)	268,787
	Fins per inch	17
Evaporator	Type	Plate & Center
	Eff. face area (sq. mm.)	61,300
	Fins per inch	14
Heater core	Material	Copper-Brass
	Eff. face area (sq. mm.)	39,700
	Fins per inch	11
Compressor	Type	Variable Disp. 5 Cylinder Axial
	Displacement (cc.)	150.7
	Manufacturer	Harrison Divison
	A/C pulley ratio	1.23
Accumulator	Type	Aluminum
	Height (mm.)	232.2
	Diameter (mm.)	88.8
Receiver	Type	Not Applicable
	Height (mm.)	"
	Diameter (mm.)	"
Refrigerant control (CCOT, TVS, etc.)		CCOT
Heater water valve (yes / no)		No
Refrigerant (R - 12, R - 134a, etc.)		R-134a
Charge level (lbs. - oz.)		2 lbs. 4 oz.
Cold engine lockout switch (yes / no)		No
Wide open throttle cutout switch (yes / no)		Yes



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 8/94 Revised (•) _____

METRIC (U.S. Customary)

Engine Code/Description

3800 V6

Climate Control System

Air conditioning (std., opt., man., auto.)		Manual Optional C67 Front A/C	Manual Optional C34 Front & Rear A/C
Condenser	Type	Header Tube Aluminum	Header Tube Aluminum
	Eff. face area (sq. mm.)	268,787	268,787
	Fins per inch	17	17
Evaporator	Type	Plate & Center	Plate & Center Rear: Staggered Rib Plate
	Eff. face area (sq. mm.)	61,300	61,300 + Rear, 33,200
	Fins per inch	14	14
Heater core	Material	Copper-Brass	Copper - Brass
	Eff. face area (sq. mm.)	39,700	39,700 + 29,300
	Fins per inch	11	11
Compressor	Type	Axial 6 Cylinder	
	Displacement (cc.)	163.8	
	Manufacturer	Harrison Divison	
	A/C pulley ratio	1.24	
Accumulator	Type	Aluminum	
	Height (mm.)	232.2	
	Diameter (mm.)	88.8	
Receiver	Type	Not Applicable	
	Height (mm.)	"	
	Diameter (mm.)	"	
Refrigerant control (CCOT, TVS, etc.)		CCOT	CCOT + TXV
Heater water valve (yes / no)		No	Yes
Refrigerant (R - 12, R - 134a, etc.)		R-134a	R-134a
Charge level (lbs. - oz.)		2 lbs. 4 oz.	3 lbs.
Cold engine lockout switch (yes / no)		No	No
Wide open throttle outout switch (yes / no)		Yes	Yes



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (9)

METRIC (U.S. Customary)

Model Code/Description

ALL

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

Clock (digital, analog)		Digital Standard, included W/Standard Ratio
Compass / thermometer		Not Available
Console (floor, overhead)		Floor - Std. / Overhead - Std. Exc. Cargo Van
Defroster, electric windshield		Not Available
Defroster, electric backlight		Optional
Electronic	Diagnostic monitor (integrated, individual)	Not Available
	Instrument cluster (list instruments)	Speedometer, Temperature Gage, Oil Pressure Gage, Fuel Gage, Odometer, Trip Odometer
	Keyless entry	Optional (Active, 2-Button); (Active 3-Button W/Opt. Pwr.Sliding Dr.)
	Trip/finder (avg. spd., fuel)	Not Available
	Voice alert (list items)	.
	Other	
Fuel door lock (remote, key, electric)		Not Available
Integrated Child Seating	Std./opt. & location in vehicle	Optional; 1 or 2 Child Seats Located 2nd Row Outboard
	Number of occupants	1 Per Seat
	Occupant weight/height (min. & max.)	20-40 Pounds and Less than 40" - Use 5-Point Belt System Plus 40 Pounds - Use 3 Point Belt System
	Restraint system description (3 or 5-point belts/booster seat capability)	
Lamps	Auto head on/off delay, dimming	Not Available
	Cornering	.
	Courtesy (map, reading)	Standard, Not Available Cargo
	Door lock, ignition	Interior Door Lock Switches Lighted (W/Opt. Power Door Locks)
	Engine compartment	Standard, Not Available Cargo
	Fog	Not Available
	Glove compartment	Standard
	Trunk	Not Applicable
	Illuminated entry system (list lamps, activation)	Standard -- I/P Courtesy (2), Center Dome, Sliding Door Stepwell W/Door Jamb Switches, Roof-Console Map Lamps (2), Liftgate Cargo Lamps (2) (Liftgate Cargo Lamps N.A. Cargo Van.)
	Other	Rear Area Switchable Dome Reading Lamp Standard
Mirrors	Day / night (auto., man.)	Standard - Manual
	L.H. (remote, power, heated)	Cable Remote, Standard; Power Optional
	R.H. (convex, remote, power, heated)	Fixed - Convex, Standard; Power Optional
	Visor vanity (RH / LH, illuminated)	RH/LH Non-Illum. Standard
Navigation system (describe)		Not Available
Parking brake-auto release (warning light)		Warning Light Standard; Auto Release Not Available



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*) _____

METRIC (U.S. Customary)

Model Code/Description

ALL

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

Power equipment	Deck lid (release, pull down)		Not Applicable
	Door locks (manual, automatic, describe system)		Optional System Provides Lock/Unlock of All Doors Inc. Liftgate Via Front Door Switches, Sliding Door Lock Delay, Auto Lock Out of Park, Customized Feature with RKE
	Seats	2 - 4 - 6 way, etc.	6-Way Power Optional for Driver Seat
		Reclining (R.H., L.H.)	Not Available
		Memory (R.H., L.H., preset recline)	"
		Support (lumbar, hip, thigh, etc.)	"
		Heated (R.H., L.H., other)	"
	Side windows		Optional - Front Door Windows Only
Vent windows		Not Available	
Rear windows		Not Available	
Radio systems	Antenna (location, whip, windshield, power)		Integrated Roof Antenna Above Headliner
	Standard	AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM Stereo/Clock
	Optional		AM/FM Stereo/Cassette - Not Available Cargo AM/FM Stereo/Compact Disc - Not Available Cargo
	Speaker (number, location)		2 - 4x6 Front - Standard 2 - 6 in. Round-Rear-Standard No Optional Speakers Available Cargo Van - 2 - 4 x 6 Front Standard
Roof: open air or fixed (flip-up, sliding, "T")			Fixed, Manual Flip-Up-Optional; N/A Cargo Van
Speed control device			Optional, Includes Resume Speed and Acceleration Feature
Speed warning device (light, buzzer, etc.)			Not Available
Tachometer (rpm)			Not Available
Telephone system (describe)			Not Available
Theft deterrent system			Not Available

Trailer Towing

Towing capable	Yes / No	Yes
Engine / transmission / axle	Std. / Opt.	3.1L V6/3A/3.06, Std.; 3.8L V6/4A/3.06, Opt.
Tow class (I, II, III)*	Std. / Opt.	I (Class II W/Opt. 3.8L Engine (L27) and Opt. Trailing Provisions (V92))
Max. gross trailer wgt. (lbs.)	Std. / Opt.	2000 lbs. (Limited by Max. GCW of 6400 lbs.), Std.; 3000 lbs. (Limited by Max. GCW of 7400 lbs.), Opt.
Max. trailer tongue load (lbs.)	Std. / Opt.	200 lbs., Std.; 300 lbs., Opt.
Towing package available	Yes / No	Yes, W/Opt. Trailing Provisions (V92) and Opt. 3.8L V6 Engine (L27) Not Available - Cargo Van.

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



MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*)

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

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

Model Code/Description	SAE Ref. No.	ALL
Width		
Tread (front)	W101	1503 (59.2)
Tread (rear)	W102	1559 (61.4)
Vehicle width	W103	1878 (73.8)
Body width at SgRP (front)	W117	1874 (73.8)
Vehicle width (front doors open)	W120	3364 (132.4)
Vehicle width (rear doors open)	W121	Not Required with Sliding Door
Tumble-home (degrees)	W122	19.5
Outside mirror width	W410	2116 (83.3)

Length

Wheelbase	L101	2788 (109.8)
Vehicle length	L103	4863 (191.5)
Overhang (front)	L104	1047 (41.2)
Overhang (rear)	L105	1028 (40.5)
Upper structure length	L123	-
Rear Wheel C/L "X" coordinate	L127	4583 (180.4)

Height **

Passenger distribution (front/rear)	PD1 ,2,3	**
Trunk/cargo load		**
Vehicle height	H101	1870 (65.7)
Cowl point to ground	H114	1096 (43.1)
Deck point to ground	H138	No Deck
Rocker panel-front to ground	H112	286 (11.3)
Rocker panel-rear to ground	H111	301 (11.9)
Windshield slope angle (degrees)	H122	66.0
Backlight slope angle (degrees)	H121	22.0

Ground Clearance **

Front bumper to ground	H102	241 (9.5)
Rear bumper to ground	H104	337 (13.3)
Bumper to ground front at curb mass (wt.)	H103	Not Available
Bumper to ground rear at curb mass (wt.)	H105	"
Angle of approach (degrees)	H106	"
Angle of departure (degrees)	H107	"
Ramp breakover angle (degrees)	H147	"
Axle differential to ground (front/rear)	H153	"
Min. running ground clearance	H156	"
Location of min. running ground clear.		"

** 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 which weigh three pounds or more and which are sold on at least 33% of the car line, plus two occupants.

All linear dimensions are in millimeters (inches).



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*)

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Model Code/Description	SAE Ref. No.	ALL
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Front Compartment

SgRP front, "X" coordinate	L31	Height = 912 (35.9), Fore & Aft = 3077.5 (121.16)
Effective head room	H61	996 (39.2)
Max. effective leg room (accelerator)	L34	1016 (40.0)
SgRP to heel point	H30	372 (14.6)
SgRP to heel point	L53	762 (30.0)
Back angle (degrees)	L40	24.0
Hip angle (degrees)	L42	99.0
Knee angle (degrees)	L44	114.0
Foot angle (degrees)	L46	87.0
Design H-point front travel	L17	181 (7.1)
Normal driving & riding seat track trvl.	L23	178 (7.0)
Shoulder room	W3	1540 (60.6)
Hip room	W5	1410 (55.5)
*** Upper body opening to ground	H50	1236 (48.7)
Steering wheel maximum diameter**	W9	381 (15.0)
Steering wheel angle (degrees)	H18	28.0
Accel. heel pt. to steer. whl. cntr.	L11	395 (15.6)
Accel. heel pt. to steer. whl. cntr.	H17	851 (33.5)
Undepressed floor covering thickness	H67	11.0 (0.433)

Front Compartment Interior Dimensions are Measured with the Seating Reference Point (SgRP) _____ mm forward and _____ mm Upward of Rearmost Position.

Rear Compartment

SgRP point couple distance	L50	872 (34.3)	Not Applicable
Effective head room	H63	991 (39.0)	"
Min. effective leg room	L51	917 (36.1)	"
SgRP (second to heel)	H31	288 (11.3)	"
Knee clearance	L48	69 (2.7)	"
Shoulder room	W4	1504 (59.2)	"
Hip room	W6	1402 (55.2)	"
*** Upper body opening to ground	H51	1250 (49.2)	"
Back angle (degrees)	L41	24.0	"
Hip angle (degrees)	L43	86.0	"
Knee angle (degrees)	L45	92.0	"
Foot angle (degrees)	L47	127.0	"
Depressed floor covering thickness	H73	10 (0.4)	"

Luggage Compartment

*** Usable luggage capacity L (cu. ft.)	V1	
*** Lifter height	H195	570 (22.4)

Interior Volumes (EPA Classification)

(NOT APPLICABLE)

Vehicle class	
Interior volume index including trunk/cargo (cu. ft.)**	
Trunk/cargo index (cu. ft.)	

* See page 14.

** See definition page 33.

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

*** EPA Loaded Vehicle Weight, Loading Conditions



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (●) _____

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions .

Model Code/Description

SAE
Ref.
No.

ALL

Station Wagon/MPV* -Third Seat

Seal facing direction	SD1	FWD	Not Applicable
SgRP couple distance	L85	792 (31.2)	"
Shoulder room	W85	1580 (62.2)	"
Hip room	W86	1060 (41.7)	"
Effective leg room	L86	935 (36.8)	"
Effective head room	H86	960 (37.8)	"
SgRP to heel point	H87	283 (11.1)	"
Knee clearance	L87	25 (0.98)	"
Back angle (degrees)	L88	24.0	"
Hip angle (degrees)	L89	81.5	"
Knee angle (degrees)	L90	79.0	"
Foot angle (degrees)	L91	121.0	"

Station Wagon/MPV* - Cargo Space

Cargo length (open front)	L200	Not Required for Lift Gate
Cargo length (open second)	L201	Not Required for Lift Gate
Cargo length (closed front)	L202	2110 (83.1)
Cargo length (closed second)	L203	1204 (47.4)
Cargo length at belt (front)	L204	1855 (73.0)
Cargo length at belt (second)	L205	1054 (41.5)
Cargo width (wheelhouse)	W201	1024 (40.3)
Rear opening width at floor	W203	1314 (51.7)
Opening width at belt	W204	1282 (50.5)
Min. rear opening width above belt	W205	1092 (43.0)
Cargo height	H201	1143 (45.0)
Rear opening height	H202	1050 (41.3)
Tailgate to ground height	H250	Not Required for Lift Gate
Front seat back to load floor height	H197	710 (28.0)
Cargo volume index m ³ (ft. ³)	V2	Not Applicable
Hidden cargo volume index m ³ (ft. ³)	V4	
Cargo volume index-rear of 2-seat	V10	
Cargo volume index*	V6	3187 L (112.6 cu. ft.)
Cargo width at floor*	W500	1504 (59.3)
Maximum cargo height*	H505	1143 (45.0)

Hatchback - Cargo Space

Cargo length at front seatback height	L208	1790 (70.3)
Cargo length at floor (front)	L209	2107 (83.0)
Cargo length at second seatback height	L210	1002 (39.4)
Cargo length at floor (second)	L211	557 (21.9)
Front seatback to load floor height	H197	710 (28.0)
Second seatback to load floor height	H198	695 (27.4)
Cargo volume index m ³ (ft. ³)	V3	
Hidden cargo volume index m ³ (ft. ³)	V4	
Cargo volume index - rear of 2-seat	V11	

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

* MPV - Multipurpose Vehicle

** EPA Loaded Vehicle Weight, Loading Conditions



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MVMA Specifications

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (•) _____

METRIC (U.S. Customary)

Model Code/
Description

ALL

Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location	
Front	X - Fiducial mark to vertical zero grid line - front measured horizontally, from the zero grid line to the front fiducial mark located on top of the front seat adjuster mounting bolt. Y - Fiducial mark to centerline of car - front, width measurement made from centerline car to fiducial mark located on top of the front seat adjuster mounting bolt. Z - Fiducial mark to horizontal zero grid line - front, measured vertically from zero grid line to front fiducial mark located on top of the front seat adjuster mounting bolt.	
Rear	X - Fiducial mark to vertical zero grid line - rear, measured horizontally from the zero grid line to rear fiducial mark located on the rail (compartment pan - longitudinal.) Y - Fiducial mark to centerline of car - rear, width measurement made from centerline of car to fiducial mark located on the rail (compartment pan - longitudinal.) Z - Fiducial mark to horizontal zero grid line - rear, measured vertically from the zero grid line to rear fiducial mark located on the rail (compartment pan - longitudinal.)	
NOTE: Provide 3 of 4 Fiducial Mark Locations		
Front	W21**	Not Available
	L54**	2885 (113.6)
	H81**	Not Available
	H161**	"
	H163**	"
Rear	W22**	Not Available
	L55**	"
	H82**	"
	H162**	"
	H164**	"

* Reference - SAE Recommended Practice, J182a, Motor Vehicle Fiducial Marks.

** Reference - SAE Recommended Practice J1100 - Motor Vehicle Dimensions.

*** EPA Loaded Vehicle Weight, Loading Conditions

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



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MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 8/94 Revised (e) _____

Code	Equipment	Optional Equipment Differential Mass (weight)*			Remarks Restrictions, Requirements
		MASS, kg. (lb.)			
		Front	Rear	Total	
AB5	Power Door Locks	3.4 (7.5)	1.0 (2.2)	4.4 (9.7)	
AD8	7-Passenger Seating - Includes One Integral Child Seat	1.8 (4.0)	51.8 (114.2)	53.6 (118.2)	N/A Cargo 1UM05
AD9	7-Passenger Seating - Includes Two Integral Child Seats	-7.2 (-15.9)	65.4 (144.2)	58.2 (128.3)	N/A Cargo 1UM05
AG9	6-Way Power Adjuster	.4 (.9)	.2 (.4)	.6 (1.3)	N/A Cargo 1UM05
AP9	Convenience Net	-.2 (-.4)	.6 (1.3)	.4 (.9)	N/A Cargo 1UM05
AR9	Front Bucket Seat, Reclining, Cloth	4.2 (9.3)	3.2 (7.1)	7.4 (16.3)	Opt., Cargo 1UM05; Std., Lumina 1UM06
AUO	Remote Keyless Entry	.2 (.4)	.2 (.4)	.4 (.9)	N/A Cargo 1UM05
A31	Power Window	.8 (1.8)	.6 (1.3)	1.4 (3.1)	N/A Cargo 1UM05
B51	Acoustics Package	4.0 (8.8)	1.2 (2.6)	5.2 (11.5)	N/A Cargo 1UM05 Included w/LS Package Y91
C34	F/R HVAC	8.0 (17.6)	13.0 (28.7)	21.0 (46.3)	w/3.8L Engine L27; N/A Cargo 1UM05
C54	Sunroof	9.6 (21.2)	.2 (.4)	9.8 (21.6)	N/A Cargo 1UM05
C40	Heater/Vent	-19.2 (-42.30)	-1.2 (-2.6)	-20.4 (-45.0)	Standard
C67	Air Conditioning	20.4 (45.0)	0 (0)	20.4 (45.0)	
DD9	Electric Power Mirrors	2.0 (4.4)	0 (0)	2.0 (4.4)	N/A Cargo 1UM05
E58	Power Sliding Door	4.6 (10.1)	4.6 (10.1)	9.2 (20.3)	N/A Cargo 1UM05
G67	Auto Level Control	.4 (.9)	6.0 (13.2)	6.4 (14.1)	N/A Cargo 1UM05
KG9	Generator, 140 Amp	2.0 (4.4)	0 (0)	2.0 (4.4)	N/A Cargo 1UM05
K05	Engine Block Heater	.4 (.9)	0 (0)	.4 (.9)	w/3.1L Engine, LG6
K05	Engine Block Heater	.2 (.4)	0 (0)	.2 (.4)	w/3.8L Engine L27

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



MVMA Specifications
METRIC (U.S. Customary)

Vehicle Line LUMINA MINIVAN
 Model Year 1995 Issued 9/94 Revised (*) _____

Code	Equipment	Optional Equipment Differential Mass (weight)*			Remarks Restrictions, Requirements
		MASS, kg. (lb.)			
		Front	Rear	Total	
K34	Cruise Control	1.2 (2.6)	0 (0)	1.2 (2.6)	
L27	3800 Multi-Port Fuel Injection Engine	28.8 (63.5)	.4 (.9)	29.2 (64.4)	Req's 4-Speed Automatic Transmission M13, N/A Cargo 1UM05
M13	4-Speed Automatic Transmission	20.0 (44.1)	-.8 (-1.8)	19.2 (42.3)	Req's 3800 Engine, L27 N/A Cargo 1UM05
NW9	Traction Control	2.0 (4.4)	.8 (-1.8)	2.8 (6.2)	Req's 3800 Engine, L27; N/A Cargo 1UM05
N33	Tilt Steering Column	.8 (1.3)	.0 (0)	.8 (1.3)	N/A Cargo 1UM05
PB2	Wheel Covers	.6 (1.3)	.4 (.9)	1.0 (2.2)	N/A Cargo 1UM05 Included w/LS Package Y91
PB4	Wheel Locks	.2 (.4)	.2 (.4)	.4 (.8)	N/A Cargo 1UM05 Included w/Aluminum Wheels PH3
PH3	15 x 6 Aluminum Wheels	-1.5 (-3.3)	-1.5 (-3.3)	-3.0 (-6.6)	N/A Cargo 1UM05
P42	Self-Sealing Tires	3.6 (7.9)	3.6 (7.9)	7.2 (15.9)	N/A Cargo 1UM05
UM6	AM/FM Stereo/Cassette	.6 (1.3)	.4 (.9)	1.0 (2.2)	N/A Cargo 1UM05
U1C	AM/FM Stereo/Compact Disc	.8 (1.8)	.2 (.4)	1.0 (2.2)	N/A Cargo 1UM05
VK3	License Plate - Front Mounting Package	.8 (1.8)	-.4 (-.9)	.4 (.9)	
V54	Luggage Rack	.4 (.9)	6.0 (13.2)	6.4 (14.1)	N/A Cargo 1UM05
V92	Trailer Provisions	3.0 (6.6)	.6 (1.3)	3.6 (7.9)	Req's. 3800 Engine L27; N/A Cargo 1UM05
XIN	15" Tires Front, Touring	-.4 (-.9)	0 (0)	-.4 (-.9)	N/A Cargo 1UM05
YIN	15" Tires Rear, Touring	0 (0)	-.4 (-.9)	-.4 (-.9)	N/A Cargo 1UM05
ZP7	7-Passenger Seating	-5.8 (-12.8)	53.0 (116.8)	47.2 (104.0)	

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

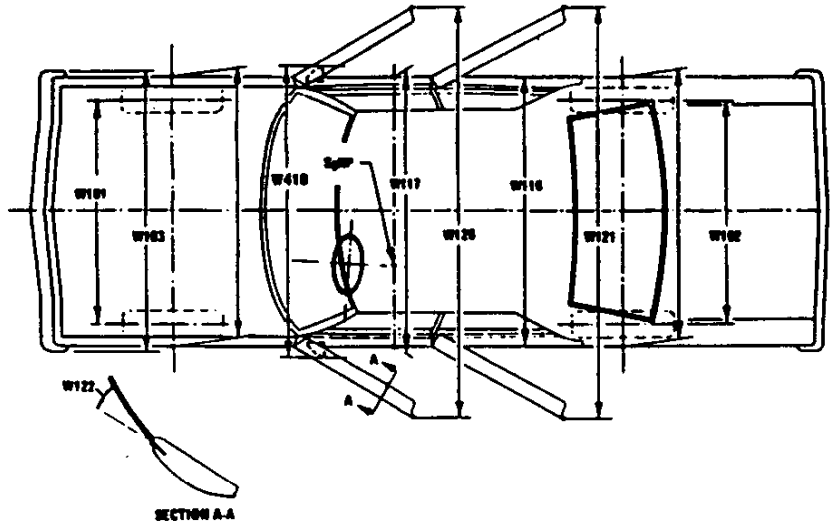
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MVMA Specifications

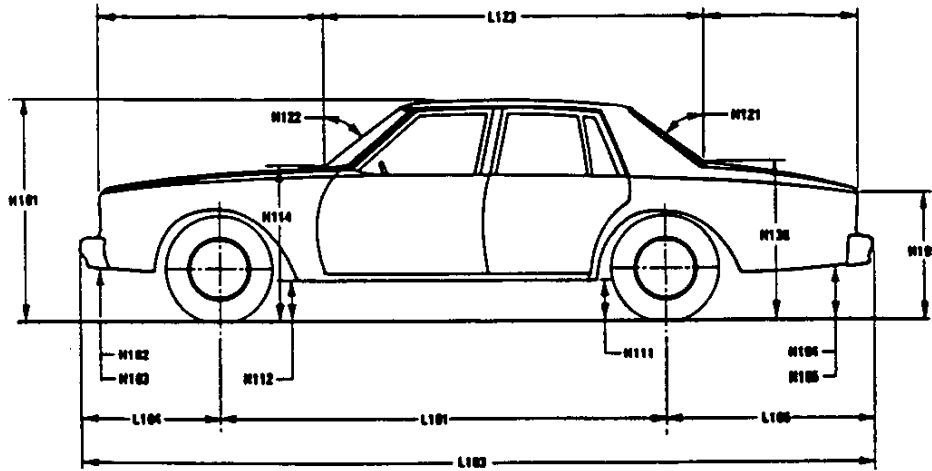
METRIC (U.S. Customary)

Exterior Vehicle And Body Dimensions – Key Sheet

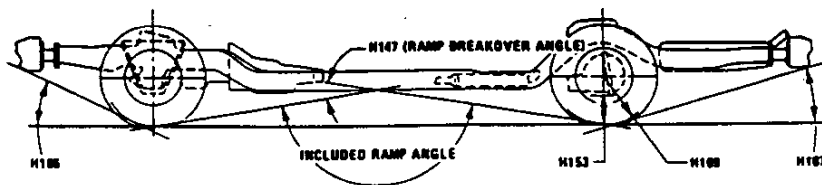
Exterior Width



Exterior Length & Height



Exterior Ground Clearance



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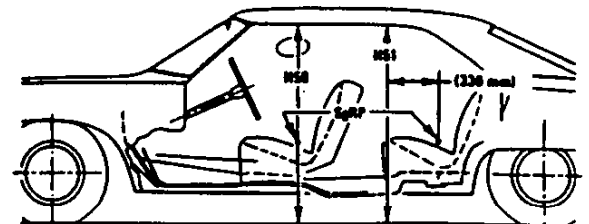
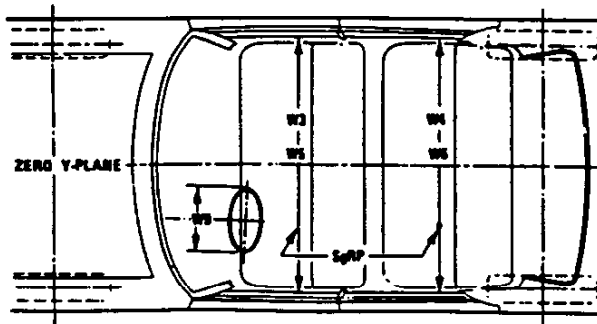
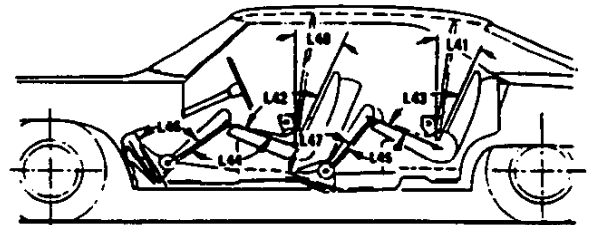
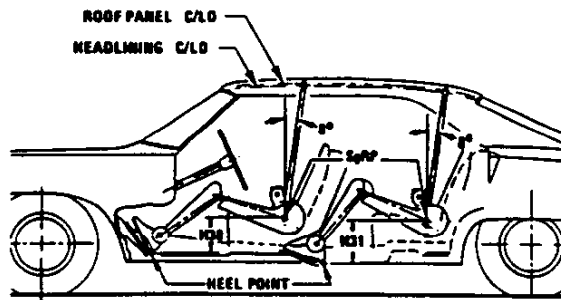
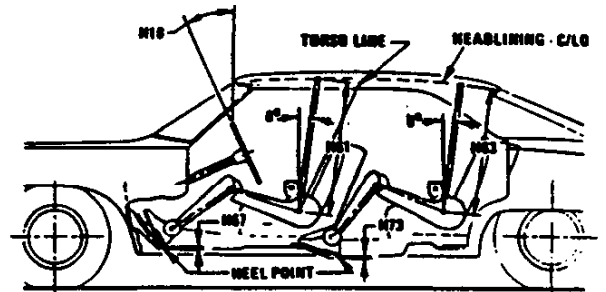
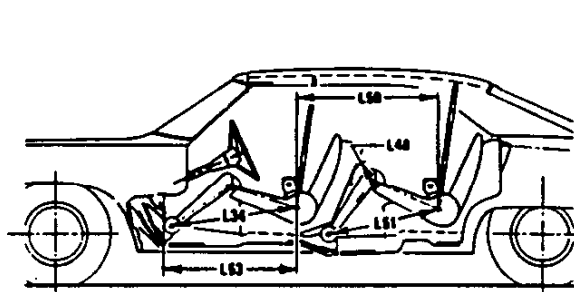
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MVMA Specifications Form

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions - Key Sheet



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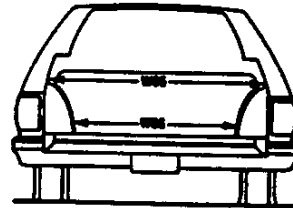
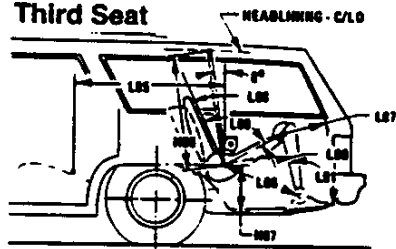
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MVMA Specifications

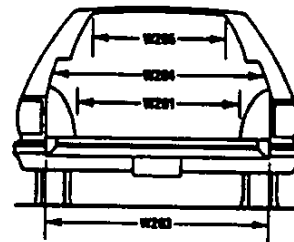
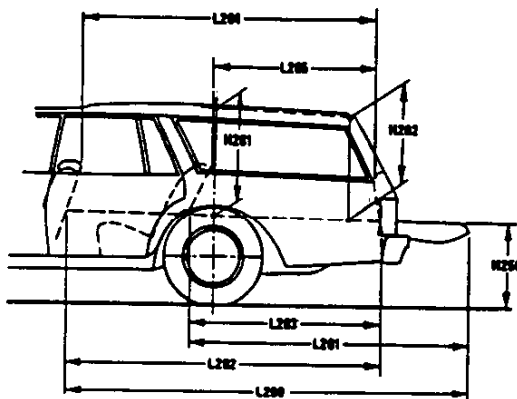
METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet

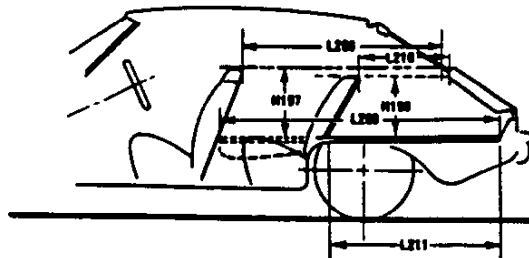
Third Seat



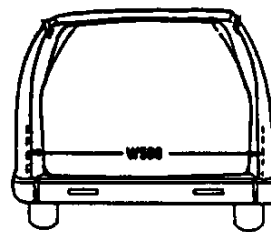
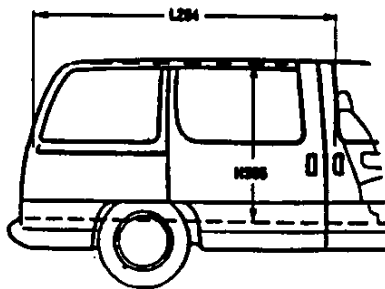
Cargo Space



Station Wagon



Hatchback



Multipurpose Vehicle



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MVMA Specifications

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.
- W117 BODY WIDTH AT SgRP – FRONT. The dimension measured laterally between the widest points on the body at the SgRP-front, excluding door handles, applied moldings, or appliques.
- W120 VEHICLE WIDTH – FRONT DOORS OPEN. The dimension measured between the widest point on the front doors in maximum hold-open position.
- W121 VEHICLE WIDTH – REAR DOORS OPEN. The dimension measured between the widest point on the rear doors in maximum hold-open position. For vehicles with a rear door on only one side, this dimension is to the zero "Y" plane.
- W122 TUMBLE – HOME. STRAIGHT SIDE GLASS. The angle measured from a vertical to the outside surface of the front door glass at the SgRP "X" plane.
CURVED SIDE GLASS. The angle measured from a vertical to a chord extending from the upper DLO to the lower DLO at the outside surface of the front door glass at the front SgRP "X" plane.
- W410 OUTSIDE MIRROR WIDTH: The dimension between the widest point on the outside mirrors. The standard right and left mirror adjusted for normal driving will be shown unless otherwise noted. When only one outside mirror is standard, the dimension will be to the zero "Y" plane.

Length Dimensions

- L101 WHEELBASE (WB). The dimension measured longitudinally between front and rear wheel centerlines. In case of dual rear axles, the dimension shall be to the midpoint of the centerlines of the rear wheels.
- L103 VEHICLE LENGTH. The maximum dimension measured longitudinally between the foremost point and the rearmost point on the vehicle, including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.
- L104 OVERHAND – FRONT. The dimension measured longitudinally from the centerline of the front wheels to the foremost point on the vehicle including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.
- L105 OVERHANG – REAR. The dimension measured longitudinally from the centerline of the rear wheels; or in the case of dual rear axles, the dimension shall be the midpoint of the centerlines of the rear wheels, to the rearmost point on the vehicle including rear bumpers, bumper guards, tow hooks and rub strips, if standard equipment.

- L123 UPPER STRUCTURE LENGTH. The dimension measured longitudinally from the cowl point to the deck point.
- L127 REAR WHEEL CENTERLINE "X" COORDINATE or in the case of dual rear axles, the coordinate shall be the midpoint of the distance between the rear axle centerlines.

Height Dimensions

- H101 VEHICLE HEIGHT. The dimension measured vertically from the highest point on the vehicle body to ground.
- H111 ROCKER PANEL – REAR TO GROUND. The dimension measured vertically from the bottom of the rocker or side quarter panel at the front of the rear wheel opening, excluding flanges, to ground.
- H112 ROCKER PANEL – FRONT TO GROUND. The dimension measured vertically from the foremost point on the bottom of the rocker panels, excluding flanges, to ground.
- H114 COWL POINT TO GROUND. Measured at zero "Y" plane.
- H121 BACKLIGHT SLOPE ANGLE. The angle between the vertical reference line and the surface of backlight at vehicle zero "Y" plane. For curve backlight, the angle is to chord of backlight arc from lower DLO to upper DLO.
- H122 WINDSHIELD SLOPE ANGLE. The angle between the vertical reference line and a chord of the windshield arc running from the lower DLO to the upper DLO at the vehicle zero "Y" plane. In the case of wrap over glass, the angle to be measured will be formed by a chord 457 mm (18.0 in.) long drawn from the lower DLO to the intersecting point on the windshield.
- H138 DECK POINT TO GROUND. Measured at zero "Y" plane.
- H109 STATIC LOAD – TIRE RADIUS – REAR. Specified by the manufacturer in accordance with composite TIRE SECTION STANDARD.

Ground Clearance Dimensions

- H102 FRONT BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the front bumper to ground, including bumper guards, if standard equipment.
- H103 FRONT BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H102.
- H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.
- H105 REAR BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H104.
- H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius arc and the initial point of structural interference forward of the front tire to ground. The limiting structural component shall be designated.
- H107 ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius arc and the initial point of structural interference rearward of the rear tire to ground. The limiting component shall be designated.
- H147 RAMP BREAKOVER ANGLE. The angle measured between two lines tangent to the front and rear tire static loaded radius and intersecting at a point on the underside of the vehicle which defines the largest ramp over which the vehicle can roll.
- H153 REAR AXLE DIFFERENTIAL TO GROUND. The minimum dimension measured from the rear axle differential to ground.
- H156 MINIMUM RUNNING GROUND CLEARANCE. The minimum dimension measured from the sprung vehicle to ground. Specify location.

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MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions -- Key Sheet Dimensions Definitions

Glass Areas

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

Fiducial Mark Dimensions

- Fiducial Mark -- Number 1**
- L54 "X" coordinate.
- W21 "Y" coordinate.
- H81 "Z" coordinate.
- H161 Height "Z" coordinate to ground at curb weight.
- H163 Height "Z" coordinate to ground.
- Fiducial Mark -- Number 2**
- L55 "X" coordinate.
- W22 "Y" coordinate.
- W82 "Z" coordinate.
- H162 Height "Z" coordinate to ground at curb weight.
- H164 Height "Z" coordinate to ground.

Front Compartment Dimensions

- L11 ACCELERATOR HEEL POINT TO STEERING WHEEL CENTER. The dimension measured horizontally from the AHP to the intersection of the steering column centerline and a plane tangent to the upper surface of the steering wheel rim.
- L17 DESIGN H-POINT -- FRONT TRAVEL. The dimension measured horizontally between the design H-point--front in the foremost and rearmost seat track positions. (See SAE J1100)
- L23 NORMAL DRIVING AND RIDING SEAT TRACK TRAVEL. The dimension measured horizontally between a point on the design H-point travel line from the SgRP to the displaced point on the design H-point travel line with the seat moved to the foremost seat position, but not to include seat track travel used for purposes other than normal driving and riding positions. (See SAE J1100).
- L31 SgRP -- FRONT. "X" COORDINATED.
- L34 MAXIMUM EFFECTIVE LEG ROOM -- ACCELERATOR. The dimension measured along a line from the ankle pivot center to the SgRP -- front plus 254 mm (10.0 in.) measured with right foot on the undepressed accelerator pedal. For vehicles with SgRP to heel (H30) greater than 18 in., the accelerator pedal may be depressed as specified by the manufacturer. If the accelerator is depressed, the manufacturer shall place foot flat on pedal and note the depression of the pedal.
- L-40 BACK ANGLE -- FRONT. The angle measured between a vertical line through the SgRP -- front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.
- L-42 HIP ANGLE -- FRONT. The angle measured between torso line and thigh centerline.
- L44 KNEE ANGLE -- FRONT. The angle measured between thigh centerline and lower leg centerline measured on the right leg.
- L46 FOOT ANGLE -- FRONT. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the bare foot flesh line measured on the right leg. Ref SAE J826.
- L53 SgRP -- FRONT TO HEEL. The dimension measured horizontally from the SgRP -- front to the accelerator heel point.
- W3 SHOULDER ROOM -- FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP -- front at height between the belt line and 254 mm (10.0 in.) above the SgRP -- front, excluding the door assist strap and attaching parts.

- W5 HIP ROOM -- FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP -- front within 25 mm (1.0 in.) below and 76 mm (3.0 in.) above the SgRP -- front and 76 mm (3.0 in.) fore and aft of the SgRP -- front.
- W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.
- H7 ACCELERATOR HEEL POINT TO THE STEERING WHEEL CENTER. The dimension measured vertically from the AHP -- front to the intersection of the steering column centerline to a plane tangent to the upper surface of the steering wheel rim.
- H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.
- H30 SgRP -- FRONT TO HEEL. The dimension measured vertically from the SgRP -- front to the accelerator heel point.
- H50 UPPER BODY OPENING TO GROUND -- FRONT. The dimension measured vertically from the trimmed body opening to the ground on the SgRP -- front "X" plane.
- H61 EFFECTIVE HEAD ROOM -- FRONT. The dimension measured along a line 8 deg. rear of vertical from the SgRP -- front to the headlining plus 102 mm (4.0 in.).
- H67 FLOOR COVERING THICKNESS -- UNDEPRESSED -- FRONT. The dimension measured vertically from the surface of the undepressed floor covering to the underbody sheet metal at the accelerator heel point.

Rear Compartment Dimensions

- L-41 BACK ANGLE -- SECOND. The angle measured between a vertical line through the SgRP -- second and the torso line.
- L43 HIP ANGLE -- SECOND. The angle measured between torso line and thigh centerline.
- L45 KNEE ANGLE -- SECOND. The angle measured between thigh centerline and lower leg centerline.
- L47 FOOT ANGLE -- SECOND. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the three-dimensional devices bare foot flesh line (Reference J826).
- L48 KNEE CLEARANCE -- SECOND. The minimum dimension measured from the knee pivot center to the back of the front seatback minus 51 mm (2.0 in.).
- L50 SgRP COUPLED DISTANCE -- SECOND. The dimension measured horizontally from the driver SgRP -- front to the SgRP -- second.
- L51 MINIMUM EFFECTIVE LEG ROOM -- SECOND. The dimension measured along a line from the ankle pivot center to the SgRP -- second plus 254 mm (10.0 in.).
- W4 SHOULDER ROOM -- SECOND. The minimum dimension measured laterally between door or quarter trimmed surfaces on the "X" plane through the SgRP -- second at height between 254-406 mm (10.0-16.0 in.) above the SgRP -- second, excluding the door assist straps and attaching parts.
- W6 HIP ROOM -- SECOND. Measured in the same manner as W5.
- H31 SgRP -- SECOND TO HEEL. The dimension measured vertically from the SgRP -- second to the two dimensional device heel point on the depressed floor covering.
- H51 UPPER BODY OPENING TO GROUND -- SECOND. The dimension measured vertically from the trimmed body opening to the ground on the "X" plane 330 mm (13.0 in.) forward of the SgRP -- second.
- H63 EFFECTIVE HEAD ROOM -- SECOND. The dimension measured along a line 8 deg. rear of vertical from the SgRP to the headlining, plus 102 mm (4.0 in.).
- H73 FLOOR COVERING -- DEPRESSED -- SECOND. The dimension measured vertically from the heel point to the underbody sheet metal.

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MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

Luggage Compartment Dimensions

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

Interior Volumes (EPA Classification)

The Interior Volume Index is listed for each body style except two seaters. The Interior Volume Index 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 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 / MPV – Third Seat Dimensions

- L85 SgRP COUPLE DISTANCE – THIRD. The dimension measured horizontally from the SgRP – second to the SgRP – third.
- L86 EFFECTIVE LEG ROOM – THIRD. The dimension measured along a line from the ankle pivot center to the SgRP – third plus 254 mm (10.0 in.).
- L87 KNEE CLEARANCE – THIRD. The minimum dimension from the knee pivot center to the back of second seatback minus a constant of 51 mm (2.0 in.). With rear-facing third seat, dimension is measured to closure.
- L88 BACK ANGLE – THIRD. Measured in the same manner as L41.
- L89 HIP ANGLE – THIRD. Measured in the same manner as L43.
- L90 KNEE ANGLE – THIRD. Measured in the same manner as L45.
- L91 FOOT ANGLE – THIRD. Measured in the same manner as L47.
- W85 SHOULDER ROOM – THIRD. Measured in the same manner as W4.
- W86 HIP ROOM – THIRD. Measured in the same manner as W5.
- H86 EFFECTIVE HEAD ROOM – THIRD. The dimension, measured along a line 8 deg. from the SgRP – third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).
- H87 SgRP – THIRD TO HEEL POINT.
- SD1 SEAT FACING DIRECTION – THIRD.

Station Wagon / MPV – Cargo Space Dimensions

- L200 CARGO LENGTH – OPEN – FRONT. The minimum dimension measured longitudinally from the back of the front seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo surface if the rear closure is a conventional door type tailgate at the zero "Y" plane.
- L201 CARGO LENGTH – OPEN – SECOND. The dimension measured longitudinally from the back of the second seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo floor surface if the rear closure is a conventional door type tailgate, at the zero "Y" plane.

- L202 CARGO LENGTH – CLOSED – FRONT. The minimum dimension measured horizontally from the back of the front seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.
- L203 CARGO LENGTH – CLOSED – SECOND. The dimension measured horizontally from the back of the second seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.
- L204 CARGO LENGTH AT BELT – FRONT. The minimum dimension measured horizontally from the back of the front seatback at the seatback top to the foremost normal surface of the closed tailgate or inside surface of the cab backpanel at the height of the belt, on the zero "Y" plane.
- L205 CARGO LENGTH AT BELT – SECOND. The minimum dimension measured horizontally from the back of the second seatback at the seatback top to the foremost normal surface of the closed tailgate at the height of the belt, on the zero "Y" plane.
- W201 CARGO WIDTH – WHEELHOUSE. The minimum dimension measured laterally between the trimmed wheelhousings at floor level. For any vehicle not trimmed, measure to the sheet metal.
- W203 REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear opening at floor level.
- W204 REAR OPENING WIDTH AT BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening at belt height or top of pick up box.
- W205 REAR OPENING WIDTH ABOVE BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening above the belt height.
- W500 CARGO WIDTH AT FLOOR. The maximum dimension measured laterally between the limiting interferences at the floor level. This dimension shall include ribs and pillars, but will exclude wheelhouses.
- 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.
- H505 MAXIMUM CARGO HEIGHT. The maximum vertical dimension rear of the front seat from the cargo floor to roof bow or headlining at the zero "Y" plane.

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MVMA Specifications

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

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:

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

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

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

L209 CARGO LENGTH AT FLOOR – FRONT. 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. The minimum dimension measured from the "X" plane tangent to the rearmost surface of second seatback or the load floor which is stowed at least one half of the H198 dimension height above the rear load floor, to the rearmost inside limiting interference on the zero "X" plane.

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

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

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

V3 HATCHBACK.

Measured in inches:

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

Measured in mm:

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

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:

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

Measured in mm:

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



MVMA Specifications

METRIC (U.S. Customary)

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