MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC(U.S. Customary)

Passenger Car

1987

Manufacturer	Chevrolet Motor Division General Motors Corporation	Car Line	Cavalier
Mailing Address	Chevrolet-Pontiac-Canada Group Engineering Center General Motors Corporation 30003 Van Dyke Warren, MI 48090-9060	Issued June, 1986	Revised September, 1986

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

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

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

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mvma

Motor Vehicle Manufacturers Association
of the United States, Inc.

MVMA Specifications Form
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NOTE:

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

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Model Year 1987 Issued 6-86 Revised (•)

Car Models

Model Description & Drive (FWD/RWD)	Introduction Date	Make, Car Line, Series, Body Type (Mfgr's Model Code)	No. of Designated Seating Positions (Front/Rear)		Max. Trunk-Cargo Load-Kilograms (Pounds)
FRONT WHEEL DRIVE		MODEL NUMBER	FRONT/REAR		
CAVALIER					
2-Door Notchback Sedan		1JC27	2	3	60.0 (132.3)
4-Door Notchback Sedan		1JC69	2	3	61.8 (136.2)
4-Door Station Wagon		1JC35	2	3	92.7 (204.4)
CAVALIER 'CS'					
2-Door Hatchback Coupe		1JD77	2	3	72.0 (158.7)
4-Door Notchback Sedan		1JD69	2	3	61.8 (136.2)
4-Door Station Wagon		1JD35	2	3	92.7 (204.4)
CAVALIER 'RS'					
2-Door Notchback Coupe		1JE27	2	3	60.0 (132.3)
2-Door Hatchback Coupe		1JE77	2	3	72.0 (158.7)
4-Door Notchback Sedan		1JE69	2	3	61.8 (136.2)
4-Door Station Wagon		1JE35	2	3	92.7 (204.4)
2-Door Convertible Coupe		1JE67	2	2	48.2 (106.3)
CAVALIER Z24					
2-Door Notchback Coupe		1JF27	2	3	60.0 (132.3)
2-Door Hatchback Coupe		1JF77	2	3	72.0 (158.7)

NOTE: Any specifications on the following pages that are specific to California requirements are indicated accordingly.

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Power Teams (Indicate whether standard or optional)
SAE J1349 Net bhp (brake horsepower) and net torque corrected to 77°F/25° C and 29.61 in. Hg/100 kPa atmospheric pressure.

SERIES AVAILABILITY	ENGINE					Exhaust S/D	TRANSMISSION/ TRANSAXLE	Drive Ratios (:1) Axle Ratio Overall Veh. Base	Drive	Opt	Overall Veh. Drive
	Displ. Liters (in³)	Carb. (Barrels, FI, etc.)	Compr. Ratio	SAE Net at RPM Power kW (bhp)	Torque N·m (lb. ft.)						
Base - All States	L-4 2.0Liter (121 CID) LL8	EFI +	9.0:1	(90 @ 5600)	(108 @ 3200)	S	Man 4-Speed 3.53 Low Base (M19) 27,69 Models	3.65	2.96	--	--
							Man 5-Speed 3.73 Low Base (MR3) 35,67,77 Models	3.83	2.83	--	--
							Auto '125c' Avail (MD9)	3.18	3.18$	3.43$*	3.43
Base - All States For Convertible and Z24 Models only	V6 2.8Liter (173 CID) LB6	MFI %	8.9:1	(125 @ 4500)	(160 @ 3600)		Man 5-Speed 3.50 Low Opt. (MG2)	3.61	2.60	--	--
							Auto '125c' Avail. (MD9)	3.18$	3.18	--	--

+ - Electronic Fuel Injection
% - (2.8 Multi-Port FI)
* - Optional Axle Ratio
$ - Axle Ratio = Chain Drive x Differential Drive Ratio

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Engine Description/Carb. Engine Code	2.0 Liter L-4 (121 CID) Electronic Fuel Injection RPO LL8	2.8 Liter V6 (173 CID) (2.8 Multi-Port FI) RPO LB6

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		In line Front Transverse, front of engine faces right side of vehicle	
Manufacturer		Chevrolet	
No. of cylinders		4	6
Bore		89 (3.50)	89 (3.50)
Stroke		80 (3.15)	76 (2.99)
Bore spacing (C / L to C / L)		99 (3.90)	111.8 (4.40)
Cylinder block material & mass kg (lbs.) (machined)		Cast Iron/32.050 (70.7)	Cast Iron/48.2 (106.3)
Cylinder block deck height		215.55 (8.49)	224 (8.819)
Cylinder block length		443 (17.4)	435.5 (17.1)
Deck clearance (minimum) (above or below block)		0.15 (.006) below	0.15 (.006) above
Cylinder head material & mass kg (lbs.)		Aluminum 9.740 (21.5)	Aluminum 5.300 (11.7)
Cylinder head volume (cm^3)		43.3	28.0
Cylinder liner material		Not Available	
Head gasket thickness (compressed)		1.1 (.043)	1.50 (.059)
Minimum combustion chamber total volume (cm^3)		59.988 (3.66)@	59.8481 (3.6515)@
Cyl. no. system (front to rear)*	L. Bank	1-2-3-4	2-4-6
	R. Bank	--	1-3-5
Firing order		1-3-4-2	1-2-3-4-5-6 /2.675 (5.9) Ctr
Intake manifold material & mass [kg (lbs.)]**		Aluminum Cast/3.870 (8.5)	Aluminum Cast/3.810 (8.4) Lwr
Exhaust manifold material & mass [kg (lbs.)]**		Stamped Steel/2.585 (5.7)	Steel/2.200 (4.9) L.H. 2.615 (5.8) R.H.
Recommended fuel (leaded, unleaded, diesel)		Unleaded	
Fuel antiknock index (R + M) / 2		87	
Total dressed engine mass (wt) dry***		146.8 (323.6) Auto 162.4 (358.0) Man	199.7 (440.3) Auto 215.0 (474.0) Man

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum Alloy 350 (12.3)	Aluminum Alloy, .474 (16.7)

Engine – Camshaft

Location		In cylinder block, right side	In block above crankshaft
Material & mass kg (weight, lbs.)		Cast Iron 3.065 (6.8)	Cast Iron/3.098 (6.83)
Drive type	Chain / belt	Chain	Chain
	Width / pitch	19.3 (0.76)/9.53 (0.38)	15.47 (.625)/9.53 (.375)

* 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.

@ - Piston at TDC, spark plug and valves in place, and cylinder head torqued to specifications.

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Engine – Valve System

Hydraulic lifters (std., opt., NA)		Standard	
Valves	Number intake / exhaust	4/4	6/6
	Head O.D. intake / exhaust	43.00 (1.69)/37.00 (1.46)	43.64 (1.72/36.20 (1.43)

Engine – Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Cast Steel, .373 (.820)	Cast Steel, .399 (0.880)

Engine – Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular Cast Iron/13.360(29.5)	Nodular Cast Iron/14.170(31.2)
End thrust taken by bearing (no.)		5	3
Number of main bearings		5	4
Seal (material, one, two piece design, etc.)	Front	Silicon, one	Viton/one piece
	Rear	Silicon, one	Viton/one piece

Engine – Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	435-530 (63-77) @ 1200	345-450 (50-65) @ 1200
Type oil intake (floating, stationary)	Stationary	
Oil filter system (full flow, part, other)	Full Flow	
Capacity of c/case, less filter-refill-L (qt.)	3.8 (4.0)	3.8 (4.0)

Engine – Diesel Information

Diesel engine manufacturer		
Glow plug, current drain at 0°F		Not
Injector nozzle	Type	Applicable
	Opening pressure [kPa (psi)]	
Pre-chamber design		
Fuel injection pump	Manufacturer	
	Type	
Fuel injection pump drive (belt, chain, gear)		
Supplementary vacuum source (type)		
Fuel heater (yes/no)		
Water separator, description (std., opt.)		
Turbo manufacturer		
Oil cooler-type (oil to engine coolant; oil to ambient air)		
Oil filter		

Engine – Intake System

Turbo charger - manufacturer	Not
Super charger - manufacturer	Applicable
Charge cooler	

*Finished State

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Engine Description/Carb. Engine Code

2.0 Liter L4 (121 CID)
Electronic Fuel Injection
RPO LL8

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, with aluminum die cast body
	GPM 1000 pump rpm	7.3 @ 1000 pump RPM
	Number of pumps	One
	Drive (V-belt, other)	V-belt
	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.)	8.19 (8.6) Auto, 8.29 (8.8) Man
	With air cond.–L(qt.)	8.23 (8.7) Auto, 8.33 (8.8) Man
	Opt. equipment [specify–L(qt.)]	8.37 (8.8) Auto, 8.37 (8.8) Man
Water jackets full length of cyl. (yes, no)		Yes
Water all around cylinder (yes, no)		Yes
Water jackets open at head face (yes, no)		No

	Std., A/C, HD	Auto	Std.	Auto A/C	Auto HD	Auto AC&HD	Man Std	Man A/C	Man HD	Man AC&HD
Radiator core	Type (cross-flow, etc.)		Cross-flow							
	Construction (fin & tube mechanical, braze, etc.)		High Efficiency Radiator							
	Material, mass [kg (wgt, lbs.)]		Copper-brass, high efficiency radiator							
	Width	500.0	600.0	500.0	600.0	500.0	600.0	600.0	600.0
	Height	387.5	387.5	387.5	387.5	387.5	387.5	387.5	387.5
	Thickness	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Fins per inch	3.5*	3.5*	3.5*	3.5*	3.5*	3.5*	3.5*	3.5*
Radiator end tank material			Copper							
Fan	Std., elec., opt.		Electric							
	Number of blades & type (flex, solid, material)		Std. - 4, flex, plastic (opt. - 5, flex, plastic)							
	Diameter & projected width		Std. - 291.0 (opt. - 354.0)							
	Ratio (fan to crankshaft rev.)		Not Applicable							
	Fan cutout type		ECM controlled							
	Drive type (direct, remote)		Direct							
	RPM at idle (elec.)		2200-2400 (constant)							
	Motor rating (wattage) (elec.)		96							
	Motor switch (type & location) (elec.)		Coolant switch, engine cylinder head							
	Switch point (temp., pressure) (elec.)		110°F							
	Fan shroud (material)		Plastic							

* - Distance between top of fins.

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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)	91 (195°)			
Water pump	Type (centrifugal, other)	Centrifugal, with aluminum die cast body			
	GPM 1000 pump rpm	--			
	Number of pumps	One			
	Drive (V-belt, other)	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.)	10.71 (11.3) Auto, 10.75 (11.4) Man			
	With air cond.–L(qt.)	10.67 (11.3) Auto, 10.71 (11.3) Man			
	Opt. equipment [specify–L(qt.)]	10.71 (11.3) Auto, 10.71 (11.3) Man			
Water jackets full length of cyl. (yes, no)		Yes			
Water all around cylinder (yes, no)		Yes			
Water jackets open at head face (yes, no)					
Radiator core	Std., A/C, HD	Auto Std.	Auto A/C	Man. Std.	Man. A/C
	Type (cross-flow, etc.)	Cross-flow			
	Construction (fin & tube mechanical, braze, etc.)	High Efficiency Radiator			
	Material, mass [kg (wgt, lbs.)]	Aluminum, high efficiency radiator			
	Width	599.5			
	Height	360.4			
	Thickness	34.0			
	Fins per inch	4.0*	3.5*	4.0*	4.0*
Radiator end tank material		Plastic			
Fan	Std., elec., opt.	Electric			
	Number of blades & type (flex, solid, material)	Std. - 7, flex, plastic (opt. same - 7, flex, plastic)			
	Diameter & projected width	Std. and opt. same - 352.5 (13.86)			
	Ratio (fan to crankshaft rev.)	Not Applicable			
	Fan cutout type	ECM controlled			
	Drive type (direct, remote)	Direct			
	RPM at idle (elec.)	--			
	Motor rating (wattage) (elec.)	--			
	Motor switch (type & location) (elec.)	--			
	Switch point (temp., pressure) (elec.)	--			
	Fan shroud (material)	Plastic			

* - Distance between top of fins.

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Engine Description/Carb. Engine Code	2.0 Liter L-4 (121 CID) Electronic Fuel Injection RPO LL8

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

Induction type: carburetor, fuel injection system, etc.			Fuel Injection CCC controlled
Manufacturer			None
Carburetor	Choke (type)		None
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	Not Applicable
			Not Applicable
		Automatic	Not Applicable
			Not Applicable
Idle A/F mix.			Preset - no adjustment provided
Fuel injection	Point of injection (no.)		Throttle body
	Constant, pulse, flow		Pulse
	Control (electronic, mech.)		Electronic
	System pressure [kPa (psi)]		68.95-82.74 (10-12)
Intake manifold heat control (exhaust or water thermostatic or fixed)			Water
Air cleaner type	Standard		Replaceable paper element single snorkel
	Optional		None
Fuel pump	Type (elec. or mech.)		Electric
	Location (eng., tank)		Tank
	Pressure range [kPa (psi)]		Not Applicable

Fuel Tank

Capacity [refill L (gallons)]		51.5 (13.6)
Location (describe)		Underbody - rear center
Attachment		Underbody strap
Material & Mass [kg (weight lbs)]		Steel 8.732 (19.3)
Filler pipe	Location & material	R.H. rear quarter
	Connection to tank	Solid solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	"
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Selector switch or valve	"
	Separate fill	"

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Engine Description/Carb. **Engine Code**	2.8 Liter V6 (173 CID) (2.8 Multi-Port FI) RPO LB6

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

Induction type: carburetor, fuel injection system, etc.			Multi-Port Fuel Injection
Manufacturer			None
Carburetor	Choke (type)		None
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	Not Applicable
			Not Applicable
		Automatic	Not Applicable
			Not Applicable
Idle A/F mix.			Preset - no adjustment provided
Fuel injection	Point of injection (no.)		Fuel Injectors at inlet ports
	Constant, pulse, flow		Pulse
	Control (electronic, mech.)		Electronic
	System pressure [kPa (psi)]		Not Available
Intake manifold heat control (exhaust or water thermostatic or fixed)			Water
Air cleaner type	Standard		Replaceable paper element single snorkel
	Optional		None
Fuel pump	Type (elec. or mech.)		Electric
	Location (eng., tank)		Tank
	Pressure range [kPa (psi)]		Not Applicable

Fuel Tank

Capacity [refill L (gallons)]		51.5 (13.6)
Location (describe)		Underbody - rear center
Attachment		Underbody strap
Material & Mass [kg (weight lbs)]		Steel 8.732 (19.3)
Filler pipe	Location & material	R.H. rear quarter
	Connection to tank	Solid solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	"
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Selector switch or valve	"
	Separate fill	"

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Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		CCC control with fuel injection		
	Air Injection	Pump or pulse	None	None	
		Driven by		None	
		Air distribution (head, manifold, etc.)		None	
		Point of entry		None	
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled flow	Not available	
		Exhaust source	Exhaust manifold	Not available	
		Point of exhaust injection (spacer, carburetor, manifold, other)	Inlet manifold	Not available	
	Catalytic Converter	Type	Single bed, oxidizing & reducing		
		Number of	One		
		Location(s)	Mounted to center underbody		
		Volume [L (in^3)]	2.78 (170)		
		Substrate type	Monolith		
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Induction system		
	Energy source (manifold vacuum, carburetor, other)		Manifold vacuum		
	Discharges (to intake manifold, other)		Intake manifold		
	Air inlet (breather cap, other)		Air cleaner		
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister		
		Carburetor	--		
	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 (with dual tailpipes 2-doors only)	
**	Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs)]		One, reverse flow	
Resonator no. & type			None	
**	Exhaust pipe	Branch o.d., wall thickness	--	
		Main o.d., wall thickness	50.8 x 0.94 (2.0 x .037)*	50.8 x 0.94 (2.0 x .037)
		Material & Mass [kg (weight lbs)]	*	
**	Intermediate pipe	o.d. & wall thickness	50.8 x 1.09 (2.0 x .043)	
		Material & Mass [kg (weight lbs)]	Aluminum coated steel	
**	Tail pipe	o.d. & wall thickness	50.8 x 1.09 (2.0 x .043	50.8 x 1.09 (2.0 x .043)
		Material & Mass [kg (weight lbs)]	Aluminum coated steel	

* - Laminated tubing - steel inner, stainless steel outer.
** - Purchased as unit: 9.000 (19.8)

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Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.) (mfr.)	Not Available
Manual 4-speed (std., opt., n.a.) (mfr.)	Standard
Manual 5-speed (std., opt., n.a.) (mfr.)	Optional
Manual overdrive (std., opt., n.a.) (mfr.)	Not Available
Automatic (std., opt., n.a.) (mfr.)	Optional
Automatic overdrive (std., opt., n.a.) (mfr.)	Not Available

Manual Transmission/Transaxle

Number of forward speeds			4	5
Transmission ratios	In first		3.53	3.73
	In second		1.95	2.15
	In third		1.24	1.33
	In fourth		0.81	0.92
	In fifth		--	0.74
	In overdrive		--	--
	In reverse		3.42	3.50
Synchronous meshing (specify gears)			All forward gears	
Shift lever location			Floor	
Lubricant	Capacity [L (pt.)]		4-Speed 2.8L (5.9 pts.), 5-Speed 2.55L (5.36 pts.)	
	Type recommended		4-Speed & 5-Speed SAE 5W-30 Engine Oil SF, SF/CC or SF/CD	
	SAE viscosity number	Summer	4-Speed & 5-Speed SAE 5W-30 Engine Oil SF, SF/CC or SF/CD	
		Winter	4-Speed & 5-Speed SAE 5W-30 Engine Oil SF, SF/CC or SF/CD	
		Extreme cold	4-Speed & 5-Speed SAE 5W-30 Engine Oil SF, SF/CC or SF/CD	

Clutch (Manual Transmission)

		Manual 4-Speed	Manual 5-Speed
Make, type, engagement (describe) - (hydraulic, cable, rod)		Borg & Beck, dry disc	Isuzu, dry disc
Assist (yes, no / percent)		No	
Type pressure plate springs		Diaphragm	Diaphragm
Total spring load [N (lb.)]		5516 (1240)	5391 (1212)
No. of clutch driven discs		One	One
Clutch facing	Material	Non-asbestos	Non-asbestos
	Manufacturer	Valeo	Isuzu
	Part number	F202	94167716
	Rivets plate	36	16
	Rivet size	3.6 x 5.4 (.143 x .213)	Not Available
	Outside & inside dia.	203.2 x 152.4 (8.0 x 6.0)	215.0 x 154.0 (8.46 x 6.06)
	Total eff. area [cm^2 ($in.^2$)]	232 (35.94)	176.6 (23.37)
	Thickness	6.86-7.37 (.270-.290)	7.8 (.307)
	Engagement cushion method	Driven plate, cushion springs	Driven plate, wave spoke springs
Release bearing	Type & method of lubrication	Ball thrust - prepacked and sealed	(a)
Torsional damping	Method: springs, friction material	Coil springs and metal-to-metal friction	(b)

(a) Self centering, angular contact ball bearing pre-packed and sealed.
(b) Coil springs with non-metal friction control.

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Engine Description/Carb. Engine Code	2.8 Liter V6 (173 CID) (2.8 Multi-Port FI) RPO LB6

Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.) (mfr.)	Not Available
Manual 4-speed (std., opt., n.a.) (mfr.)	Standard
Manual 5-speed (std., opt., n.a.) (mfr.)	Not Available
Manual overdrive (std., opt., n.a.) (mfr.)	Not Available
Automatic (std., opt., n.a.) (mfr.)	Optional
Automatic overdrive (std., opt., n.a.) (mfr.)	Not Available

Manual Transmission/Transaxle

Number of forward speeds			5
Transmission ratios	In first		3.50
	In second		2.05
	In third		1.38
	In fourth		0.94
	In fifth		0.72
	In overdrive		
	In reverse		3.41
Synchronous meshing (specify gears)			All forward gears
Shift lever location			Floor
Lubricant	Capacity [L (pt.)]		2.55L (5.36 pts.)
	Type recommended		SAE 5W-30 Engine Oil SF, SF/CC or SF/CD
	SAE viscosity number	Summer	SAE 5W-30 Engine Oil SF, SF/CC or SF/CD
		Winter	"
		Extreme cold	"

Clutch (Manual Transmission)

Make, type, engagement (describe) – (hydraulic, cable, rod)		LUK, dry single disc
Assist (yes, no / percent)		No
Type pressure plate springs		Diaphragm
Total spring load [N (lb.)]		5698 (1281)
No. of clutch driven discs		One
Clutch facing	Material	Non-asbestos
	Manufacturer	LUK
	Part number	14073764
	Rivets/plate	32
	Rivet size	5.41 x 3.63 (0.213 x 0.143)
	Outside & inside dia.	232 x 155 (9.12 x 6.12)
	Total eff. area [cm^2 ($in.^2$)]	232 (35.96)
	Thickness	7.50-8.00 (.295-.315)
	Engagement cushion method	Driven plate wave spoke springs
Release bearing	Type & method of lubrication	(a)
Torsional damping	Method: springs, friction material	(b)

(a) Self centering, angular contact ball bearing pre-packed and sealed.
(b) Coil springs with non-metal friction control.

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) 9-86

Engine Description/Carb. **Engine Code**	2.0 Liter L-4 (121 CID) Electronic Fuel Injection RPO LL8	2.8 Liter V6 (173 CID) 2.8 Multi-Port FI RPO LB6

Automatic Transmission/Transaxle

Trade name		3-Speed Automatic	
Type and special features (describe)		Torque converter with clutch 125C	
Selector	Location	Floor	
	Ltr./No. designation	P-R-N-D-2-1	
Gear ratios	1st	2.84	
	2nd	1.60	
	3rd	1.00*	
	4th	Not Applicable	
	Reverse	2.07	
Max. upshift speed - drive range [km/h (mph)]		1-2=63(39), 2-3=111(69)	1-2=66(41), 2-3=117(73)
Max. kickdown speed - drive range [km/h (mph)]		3-2=100(62), 2-1=58(36)	3-2=111(69), 2-1=58(36)
Min. overdrive speed [km/h (mph)]		Not Available	
Torque converter	Number of elements	3	
	Max. ratio at stall	2.7	2.35
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	245 (9.65)	
Lubricant	Capacity [refill L (pt.)]	5.5L	
	Type Recommended	Dexron II	
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard, integral part of radiator	

* - Converter clutch engagement

Axle or Front Wheel Drive Unit

Type (front, rear)		Front	
Description		Front differential with helical gears and tapered roller bearings	
Limited slip differential (type)		Not Available	
Drive pinion offset		Not Available	
Drive pinion (type)		Not Available	
No. of differential pinions		2	
Pinion / differential adjustment (shim, other)		None	
Pinion / differential bearing adjustment (shim, other)		Shim	
Driving wheel bearing (type)		Sealed ball bearings	
Lubricant	Capacity [L (pt.)]	Part of auto. trans. lub.	
	Type recommended	Transmission lub.	
	SAE viscosity number — Summer	Transmission lub.	
	SAE viscosity number — Winter	Transmission lub.	
	SAE viscosity number — Extreme cold	Transmission lub.	

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

Axle ratio (or overall top gear ratio)		3.18	3.61	3.43	3.65	3.83
No. of teeth	Pinion or drive gr.			33	23	
	Ring gear or gear driven gr.			37	84	
Ring gear o.d. or driven gr. o.d.		195.2				
Transaxle	Transfer gear ratio	--				
	Final drive ratio	--				

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Engine Description/Carb. Engine Code	2.0 Liter L-4 (121 CID) Electronic Fuel Injection RPO LL8	2.8 Liter V6 (173 CID) 2.8 Multi-Port FI RPO LB6

Axle Shafts – Front Wheel Drive

Manufacturer and number used			Two		
Type (straight, solid bar, tubular, etc.)		Left	Straight solid bar		
		Right	Straight solid bar (a)		
Outer diam. x length* x wall thickness	Manual transmission	Left	23.91 x 355.40 (Base), 27.05 x 359.70 (Heavy Duty) (b)*		
		Right	23.91 x 698.40 (Base), 27.05 x 714.70 (Heavy Duty) (b)**		
	Automatic transmission	Left	23.91 x 346.40	23.56 x 311 (b)	
		Right	23.91 x 398.40	23.56 x 364.3 (b)	
	Optional transmission	Left	None		
		Right	None		
Slip yoke	Type		None		
	Number of teeth		None		
	Spline o.d.		None		
Universal joints	Make and mfg. no.	Inner	Saginaw		
		Outer	Saginaw		
	Number used		Two on each drive shaft		
	Type, size, plunge	Inner	TRI-POT (c)	TRI-POT (d)	
		Outer	Rzeppa - fixed		
	Attach (u-bolt, clamp, etc.)		Splined		
	Bearing – Type (plain, anti-friction)		Anti-fraction		
	Bearing – 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.

(a) - Tubular R.H. shaft with manual transmission (46.5 mm x 698.40 mm)
(b) - Shaft Capacity = Base - 2300 N.m.
Heavy Duty - 2700 N.m.
(c) - Plunge = Manual, Left (Base) - 24.84
Manual, Right (Base) - 33.29
Manual, Left (Heavy Duty) - 28.78
Manual, Right (Heavy Duty) - 25.23
Auto, Left - 24.51
Auto, Right - 23.36

* 27.05 x 313 (Heavy Duty) (b)
** 27.05 x 665 (Heavy Duty) (b)

(d) Plunge (max)
Manual, left (H.D.) = 66.0 mm
Manual, right (H.D.) = 66.0 mm
Automatic, left (Base) = 61.0 mm
Automatic, right (Base) = 61.0 mm

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METRIC (U.S. Customary)

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•)

Body Type And/Or Engine Displacement	NOTCHBACK COUPE	HATCHBACK COUPE	CONVERTIBLE COUPE	NOTCHBACK SEDANS	LIFTGATE WAGONS

Suspension – General

Car leveling	Std./opt./n.a.	Not Available
	Type (air, hyd., etc.)	"
	Manual/auto. controlled	"
Provision for brake dip control		Front suspension geometry
Provision for accl. squat control		Rear suspension geometry
Provisions for car jacking		Body pickup at rocker panels
Shock absorber (front & rear)	Type	MacPherson strut - front; double acting hydraulic - rear
	Make	Delco
	Piston diameter	32.0 (1.26) Front, 25.0 (.98) Rear
	Rod diameter	25.0 (.98) Front, 12.4 (.49) Rear

Suspension – Front

Type and description		MacPherson with coil springs, stamped lower control arms and nodular iron steering knuckles.
Travel	Full jounce	89.0 mm (3.5 in)
	Full rebound	84.0 mm (3.3 in)
Spring	Type (coil, leaf, other) & material	Coil, steel
	Insulators (type & material)	--
	Size (coil design height & i.d., bar length x dia.)	406.6 (16.0) x 139.0 (5.47 x 2932 (115.4) x 12.9 (.5)
	Spring rate [N/mm (lb./in.)]	16.0 (91.0) Base, 24.0 (137.0) F40 & F41, 20.0 (114.3) LB6 (%)
	Rate at wheel [N/mm (lb./in.)]	17.2 (98.0) Base, 19.9 (114.0) F40 & F41, 16.6 (94.9) LB6
Stabilizer	Type (link, linkless, frameless)	Link
	Material & bar diameter	Steel, 24.0 (.94), 30.0 (1.18) w/215 Tires | 28.0 (1.1)

Suspension – Rear

Type and description			Trailing arm with stamped control arms and open section transverse beam.
Travel	Full jounce		99.0 (3.9)
	Full rebound		103.0 (4.5)
Spring	Type (coil, leaf, other) & material		Progressive rate coil, HR steel
	Size (length x width, coil design height & i.d., bar length & dia.)		290 (11.42) x 105 (4.13) x 2626 (103.4) x 13.6 (.54)
	Spring rate [N/mm (lb./in.)]		23(131)Base,F40&F41-28(160)Sedans&Coupes 31.0(177)Base Wag (#)
	Rate at wheel [N/mm (lb./in.)]		14.6(83)Base,F40&F41-16.7(95)Sedans&Cpes 17.9(102)Base Wag
	Insulators (type & material)		Rubber - top & bottom
	If leaf	No. of leaves	--
		Shackle (comp. or tens.)	--
Stabilizer	Type (link, linkless, frameless)		Linkless function performance by axle beam
	Material & bar diameter		Steel, 13mm (.51) w/V6, 15mm (.59) w/F41 w/13" wheel
Track bar (type)			Not Available

* 21mm (.82) w/F41 & 14" wheel (%) 27.0 (154.0) Z24
(#) 31.0 (177.0) Z24

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METRIC (U.S. Customary)

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) _____

Body Type And/Or Engine Displacement	NOTCHBACK COUPES	HATCHBACK COUPES	CONVERTIBLE COUPE	NOTCHBACK SEDANS	LIFTGATE WAGONS

Brakes - Service

Description				Single caliper disc front, duo-servo drum rear
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)			Disc
	Rear (disc or drum)			Drum
Self-adjusting (std., opt., n.a.)				Standard
Special valving	Type (proportion, delay, metering, other)			Proportioning. Diagonal split circuit.
Power brake (std., opt., n.a.)				Standard
Booster type (remote, integral, vac., hyd., etc.)				Tandem vacuum
Vacuum source (inline, pump, etc.)				Inline (intake manifold)
Vacuum reservoir (volume in.^{3})				None
Vacuum pump-type (elec. gear driven, belt driven, if other so state)				"
Anti-lock device type (std., opt., n.a.) (F/R)				Not Available
Effective area [cm^2(in.^{2})]*				309 (47.9)
Gross lining area [cm^2(in.^{2})]**(F/R)				381 (59.1)
Swept area [cm^2(in.^{2})]***(F/R)				1624 (251.8)
Rotor	Outerworking diameter	F/R		247 (9.72) / --
	Inner working diameter	F/R		-- / --
	Thickness	F/R		22.4 (0.88) / --
	Material & type (vented/solid)	F/R		Cast iron, vented / --
Drum	Diameter & width	F/R		-- / 200 x 45 (7.87 x 1.77)
	Type and material	F/R		-- / Cast iron, non-finned
Wheel cylinder bore				57 (2.24) / 16 (.63) All exc. wagon, 17.5 (.69) wagon
Master cylinder	Bore/stroke	F/R		24 (.94)/35.59 (1.40)
Pedal arc ratio				3.7:1
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]				Not Available
Lining clearance		F/R		Self adjusting
Brake lining — Front wheel	Bonded or riveted (rivets/seg.)			In-board, outboard-integrally molded
	Rivet size			Not Applicable
	Manufacturer			Delco Moraine
	Lining code*****			Not Available
	Material			Semi-metallic
	**** Primary or out-board			116.7 x 54.7 x 10.92 (4.594 x 2.157 x .430)
	Size Secondary or in-board			125 x 59 x 10.2 (4.92 x 2.32 x 0.4)
	Shoe thickness (no lining)			4.72 IB, 3.14 OB (.186 IB, 0.123 OB)
Rear wheel	Bonded or riveted (rivets/seg.)			Riveted. (8)
	Manufacturer			Inland Division
	Lining Code***** *****			235 FE
	Material			Organic
	**** Primary or out-board			168.3 x 43.9 x 3.8 (6.62 x 1.73 x .15)
	Size Secondary or in-board			199.8 x 43.9 x 4.8 (7.86 x 1.73 x .19)
	Shoe thickness (no lining)			1.98 (.07)

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

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Car Line CAVALIER
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Body Type And/Or Engine Displacement			Notchback Coupe	Hatchback Coupe	Convertible Coupe	Notchback Sedans	Liftback Wagons
			1JC, 1JD00		1JE00	1JF00	
Tires And Wheels (Standard)							
Tires	Size (load range, ply)		P175/80R-13 BW		P195/70R-13BW	P215/60R14 BW	
	Type (bias, radial, 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)		540				
Wheels	Type & material		Steel				
	Rim (size & flange type)		13x5.5			14 x 6	
	Wheel offset		49.0 (1.93)				
	Attachment	Type (bolt or stud)	Stud				
		Circle diameter	100.0 (3.94)				
		Number & size	5-M12 x 1.5 - 6H, THD. (metric)				
Spare	Tire and wheel (same, if other describe)		T115/70D-14, wheel dia. 14-width x 4. Inflation 415 (60)				
	Storage position & location (describe)		Flat under rear load floor				
Tires And Wheels (Optional)			1JC, 1JD00			1JE67, 1JF00	
Size (load range, ply)			P175/80R-13 W.S.			P215/60R14 WL	
Type (bias, radial, etc.)			Steel Belted Radial				
Wheel (type & material)			Steel			Not Available	
Rim (size, flange type and offset)			13 x 5.5			"	
Size (load range, ply)		(+)	P195/70R-13 BW, WS, WL			WL - Available on 1JE00	
Type (bias, radial, etc.)			Steel Belted Radial				
Wheel (type & material)			Steel				
Rim (size, flange type and offset)			13 x 5.5			Available on 1JE00	
Size (load range, ply)			--				
Type (bias, radial, etc.)			--				
Wheel (type & material)			Aluminum				
Rim (size, flange type and offset)			13 x 5.5			14 x 6.0	
Size (load range, ply)							
Type (bias, radial, etc.)							
Wheel (type & material)							
Rim (size, flange type and offset)							
Spare tire and wheel (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position			T125/70D-15, wheel dia. 14-width x 4. inflates 415 (60) Flat under rear load floor.				
Brakes – Parking			(+) Required with sport suspension, RPO F41.				
Type of control			Grip handle				
Location of control			In console between front seats				
Operates on			Rear service brakes				
If separate from service brakes	Type (internal or external)		--				
	Drum diameter		--				
	Lining size (length x width x thickness)		--				

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METRIC (U.S. Customary)

Car Line CAVALIER
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Body Type And/Or Engine Displacement	NOTCHBACK COUPES	HATCHBACK COUPES	CONVERTIBLE COUPE	NOTCHBACK SEDANS	LIFTGATE WAGONS

Steering

Manual (std., opt., n.a.)				Standard (1JC, 1JD00)
Power (std., opt., n.a.)				Standard (1JE, 1JF00, Optional 1JC, 1JD00, Required w/V-6 eng
Adjustable steering wheel/column (tilt, telescope, other)		Type		Tilt
		Manufacturer		
		(Std., opt., n.a.)		Optional
Wheel diameter** (W9) SAE J1100		Manual		@363.5 (14.3 in.) 1JD00, 368mm (14.5 in.) (1JE, 1JF00)
		Power		Same as manual
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)		--
		Curb to curb (l. & r.)		10.59 mm (34.74 ft.)
	Inside rear	Wall to wall (l. & r.)		Not Available
		Curb to curb (l. & r.)		"
Scrub Radius*				"
Manual	Gear	Type		Rack and pinion w/center take-off tie rods - integral
		Manufacturer		Saginaw Steering Gear Div. G.M.C.
		Ratios	Gear	Not Applicable
			Overall	22.16:1 (on center)
	No. wheel turns (stop to stop)			3.96
Power	Type (coaxial, linkage, etc.)			Rack and pinion w/center take-off tie rods - integral
	Manufacturer			Saginaw Steering Gear Div. G.M.C.
	Gear	Type		Rack and pinion w/center take-off tie rods - integral
		Ratios	Gear	Not Applicable
			Overall	2.88, F41 2.50
	Pump (drive)			Belt off crankshaft pulley
	No. wheel turns (stop to stop)			2.88
Linkage	Type			Center take-off tie rods, rack and pinion
	Location (front or rear of wheels, other)			Rear
	Tie rods (one or two)			Two
Steering axis	Inclination at camber (deg.)			13.5°
	Bearings (type)	Upper		Ball bearing
		Lower		Ball joint
		Thrust		Not Available
Steering spindle & joint type				"
Wheel spindle/hub	Diameter	Inner bearing		"
		Outer bearing		"
	Thread (size)			M20 x 1.5
	Bearing (type)			Integral double row ball, permanently lubricated

*The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.
**See Page 21.

@- 1JC00 models, oval wheel
Vert. 362mm (14.25 in)
Horiz. 374mm (14.7 in)

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Body Type And/Or Engine Displacement	NOTCHBACK COUPES	HATCHBACK COUPES	CONVERTIBLE COUPE	NOTCHBACK SEDANS	LIFTGATE WAGONS

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	Not adjustable
		Camber (deg.)	+.85° +/- .65°
		Toe-in [outside track-mm (in.)]	0° +/- .10° %
	Service reset*	Caster	Not adjustable
		Camber	+.85° +/- .65°
		Toe-in	0° +/- .10° %
	Periodic M.V. inspection	Caster	Not adjustable
		Camber	--
		Toe-in	--
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	Not Applicable
		Toe-in [outside track-mm (in.)]	"
	Service reset*	Camber	"
		Toe-in	"
	Periodic M.V. inspection	Camber	"
		Toe-in	"

* Indicates pre-set, adjustable, trend set or other. % - Z24 or convertible with V-6 engine, .06° toe-out +/- .10°

Electrical – Instruments and Equipment

		1JC, 1JD, 1JE00	1JF00
Speedometer	Type (analog, digital, std., opt.)	Circular dial with pointer	Digital
	Trip odometer (std., opt., n.a.)	Optional	Standard
EGR maintenance indicator		Not Available	Not Available
Charge indicator	Type	Tell-Tale Warning Light	Gauge
	Warning device (light, audible)	Not Available	Not Available
Temperature indicator	Type	Tell-Tale Warning Light	Gauge
	Warning device (light, audible)	Not Available	Not Available
Oil pressure indicator	Type	Tell-Tale Warning Light	Gauge
	Warning device (light, audible)	Not Available	Not Available
Fuel indicator	Type	Electric gauge with pointer	
	Warning device (light, audible)	Not Available	
Windshield wiper	Type (standard)	Electric 2-speed	
	Type (optional)	Intermittent windshield wiper system	
	Blade length	430 (16.0)	
	Swept area [cm²(in.²)]	Coupes 4900 (759.7), sedan & wagon 4937 (765.4)	
Windshield washer	Type (standard)	Sliding switch on RH instrument cluster pod (1JE, 1JF00)*	
	Type (optional)	Not Available	
	Fluid level indicator (light, audible)	"	
Rear window wiper, wiper/washer (std., opt., n.a.)			
Horn	Type	Vibrator	
	Number used	One	
Other		Parking brake warning light & brake failure warning light. Restraint system warning light and buzzer, Odometer flag for converter service, "choke" malfunction tell-tale warning light - (California only) 'Service Engine Soon' light, low coolant warning light, manual trans. - upshift light.	

*Paddle on turn signal lever (1JC, 1JD00)

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Engine Description/Carb. Engine Code	2.0 Liter L4 (121 CID) Electronic Fuel Injection RPO LL8	2.8 Liter V 6 (173 CID) (2.8 Multi-Port FI) RPO LB6

Electrical – Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	75-525, 75-630 H.D.
	Voltage	12 Volt
	Amps at 0°F cold crank	525, 630 H.D.
	Minutes-reserve capacity	75 minutes base, 90 minutes H.D.
	Amp/hrs. - 20 hr. rate	--
	Location	Engine compartment
Alternator	Manufacturer	Delco Remy
	Rating	Diode rectified, 42 amps
	Ratio (alt. crank/rev.)	2.3:1
	Optional (type & rating)	None
Regulator	Type	Integral with alternator

Electrical – Starting System

Start, motor	Current drain at 0°F -20°F	305 @ -20°F
Motor drive	Engagement type	Selenoid
	Pinion engages from (front, rear)	Front

Electrical – Ignition System

Type	Electronic (std., opt., n.a.)		--	
	Other (specify)		Computer controlled - coil ignition (C^3I)	
Coil	Make		Delco Remy	
	Model		1115461	
	Current	Engine stopped – A	Not Available	
		Engine idling – A	" "	
Spark plug	Make		AC spark plug	
	Model		FR3LM	R43CTLSE
	Thread (mm)		M14x1.25	
	Tightening torque [N•m (lb, ft)]		9-20 (7-15)	
	Gap		0.89 (.035)	1.14 (.045)
	Number per cylinder		One	
Distributor	Make		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 compression diode, with radio provisions; hood grounding clip, engine to dash panel ground strap, fuse block capacitor and on "heater only" blower motors and coax capacitor.

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METRIC (U.S. Customary)

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Body Type	NOTCHBACK COUPES	CONVERTIBLE COUPE	HATCHBACK COUPES

Body

Structure	Unitized body construction including front end structure with bolted-on fenders and hood
Bumper system front - rear	Bumper fascias are attached to steel impact bar and dual enersorbers for collision energy absorption. (Meets GM 5 mph impact standard).
Anti-corrosion treatment	Special anticorrosion materials are used on interior and exterior metal panel surfaces. Materials include one and two-sided galvanized, zincrometal and zinc-iron alloy steels. Special metal conditioners, primers, protective waxes and sealers are used on interior surfaces. Chip resistant plastisol material is applied to exterior lower body.

Body -- Miscellaneous Information

Type of finish (lacquer, enamel, other)		Acrylic lacquer or water base acrylic enamel	
Hood	Hinge location (front, rear)	Rear	
	Type (counterbalance, prop)	Prop rod	
	Release control (internal, external)	Internal	
Trunk lid	Type (counterbalance, other)	Torsion rods	--
	Internal release control (elec., mech., n.a.)	Electrical-Optional	--
Hatch-back lid	Type (counterbalance, other)	--	(A)
	Internal release control (elec., mech., n.a.)	--	Electrical-Opt.
Station wagon			
Vent window control (crank, friction, pivot, power)	Front	None	
	Rear	"	
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Bucket @, polyurethane padding	
	Rear	Bench @, polyurethane padding	
	3rd seat	--	
Seat back type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Reclining bucket w/E-Z entry feature @, polyurethane padding	
	Rear	Bench @,(full folding on hatchbacks-split opt.)poly. padding	
	3rd seat	--	

(A) - Two-telescoping gas struts.
@ - Up-level design on convertible.

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•)

Body Type	NOTCHBACK SEDANS	LIFTGATE STATION WAGONS

Body

Structure	Unitized body construction including front end structure with bolted-on fenders and hood.
Bumper system front - rear	Bumper fascias are attached to steel impact bar and dual enersorbers for collision energy absorption. (Meets G.M. 5 mph impact standard).
Anti-corrosion treatment	Special anticorrosion materials are used on interior and exterior metal panel surfaces. Materials include one and two-sided galvanized, zincrometal and zinc-iron alloy steel special metal conditioners, primers, protective waxes and sealers are used on interior surfaces. Chip resistant plastisol material is applied to exterior lower body.

Body – Miscellaneous Information

Type of finish (lacquer, enamel, other)			Acrylic lacquer or water base acrylic enamel
Hood	Hinge location (front, rear)		Rear
	Type (counterbalance, prop)		Prop rod
	Release control (internal, external)		Internal
Trunk lid	Type (counterbalance, other)		Torsion rods (A)
	Internal release control (elec., mech., n.a.)		Electrical-Optional
Hatch-back lid	Type (counterbalance, other)		--
	Internal release control (elec., mech., n.a.)		--
Station wagon			
Vent window control (crank, friction, pivot, power)		Front	None
		Rear	None
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam etc.)		Front	Bucket, polyurethane padding
		Rear	Bench polyurethane padding
		3rd seat	None
Seat back type (e.g., 60/40, bucket, bench, wire, foam etc.)		Front	Reclining bucket, polyurethane padding
		Rear	Bench (full folding on station wagons-split opt)poly. padding
		3rd seat	None

(A) - Lift gate, two-telescoping gas struts.

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

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) _____

Body Type	NOTCHBACK COUPE	CONVERTIBLE COUPE	HATCHBACK COUPES

Restraint System

Active restraint system	Standard/optional	Standard
	Type and description	Front-Seat belt and shoulder belt system with retractor (2) Rear-Seat belt and shoulder belt system at outer positions (2) *
	Location	Front-Belt and shoulder belt attached to lock pillar with inertia reel in lower lock pillar. Frt buckle attached to underbody. **
Passive seat belts	Standard/optional	Not Available
	Power/manual	"
	2 or 3 point	"
	Knee bar/lap belt	"

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Body-frame integral with bolt-on power train cradle

Glass	SAE Ref. No.			
Windshield glass exposed surface area [cm^2 ($in.^2$)]	S1	7487 (1160.5)		
Side glass exposed surface area [cm^2 ($in.^2$)] - total 2-sides	S2	10912 (1691.4)		11478 (1779.1)
Backlight glass exposed surface area [cm^2 ($in.^2$)]	S3	5154 (798.9)	3393 (525.9)	8685 (1346.2)
Total glass exposed surface area [cm^2 ($in.^2$)]	S4	23553 (3650.7)	21792 (337.8)	27650 (4285.8)
Windshield glass (type)		Curved - Laminated Plate		
Side glass (type)		Curved - Tempered Plate		
Backlight glass (type)		Curved - Tempered Plate		

* Rear seat belt system at center position (1) (exc. convertible, convertible - TBD).
** Rear belts attached to underbody and rear package shelf (exc. convertible).

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

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•)

Body Type	NOTCHBACK SEDANS	LIFTGATE STATION WAGON

Restraint System

Active restraint system	Standard/optional	Standard
	Type and description	Front-Seat belt and shoulder belt system with retractor (2). Rear-Seat belt and shoulder belt system at outer positions (2). *
	Location	Front-Belt and shoulder belt attached to lock pillar with inertia reel in lower lock pillar. Frt buckle attached to underbody. **
Passive seat belts	Standard/optional	Not Available
	Power/manual	"
	2 or 3 point	"
	Knee bar/lap belt	"

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Body-frame integral with bolt-on power train cradle

Glass	SAE Ref. No.		
Windshield glass exposed surface area [cm^2($in.^2$)]	S1	7487 (1160.5)	
Side glass exposed surface area [cm^2($in.^2$)] - total 2-sides	S2	11532 (1787.5)	16954 (2627.9)
Backlight glass exposed surface area [cm^2($in.^2$)]	S3	5691 (882.1)	4892 (758.3)
Total glass exposed surface area [cm^2($in.^2$)]	S4	24710 (3830.0)	29333 (4546.6)
Windshield glass (type)		Curved - Laminated Plate	
Side glass (type)		Curved - Tempered Plate	
Backlight glass (type)		Curved - Tempered Plate	

* Rear seat belt system at center position (1).
** Rear belts attached to underbody and rear package shelf.

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

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) _____

Body Type	NOTCHBACK COUPES	HATCHBACK COUPES	CONVERTIBLE COUPE	NOTCHBACK SEDANS	LIFTBACK STATION WGNS.

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

Air conditioning (manual, auto. temp control)		Optional (manual control)
Clock (digital, analog)		Digital (integ. w/stereo radio)
Compass / thermometer		Not Available
Console (floor, overhead)		Standard, floor (full, 1JC, 1JD00 and cockpit 1JE, 1JF00)
Defroster, elec. backlight		Optional, except convertible
Electronic	Diagnostic monitor (integrated, individual)	Not Available
	Instrument cluster (list instruments)	Fuel, temp., oil pres., battery charge, digital speedo **
	Keyless entry	Not Available
	Tripminder (avg. spd., fuel)	"
	Voice alert (list items)	"
	Other	"
	Headlamp on warning	Standard (chimes)
Fuel door lock (remote, key, electric)		Not Available
Lamps	Auto head on / off delay, dimming	"
	Cornering	"
	Courtesy (map, reading)	* (Standard on Convertible)
	Door lock ignition	Not Available
	Engine compartment	*
	Fog	Not Available
	Glove compartment	*
	Trunk	*
	Other Ash Tray	Standard
Mirrors	Day/night (auto. man.)	Standard (manual)
	L.H. (remote, power, heated)	Optional (remote)
	R. H. (convex, remote, power, heated)	Opt., manual(convex) 1JC, 1JD, 1JE27, 35, 69, 77. Std. 1JE67, 1JF00
	Visor vanity (RH / LH, illuminated)	Not Available
Parking brake-auto release (warning light)		Standard (manual release) lower area of speedometer
Power equipment	Door locks / deck lid - specify	Optional - both
	Seat (2-4-6 way) heated (driver, pass, other) lumbar, hip, thigh support (power, manual) reclining (driver, pass) memory (1-2 preset, recline)	Optional, 6-way power seat
	Side windows	Optional all except convertible, standard on convertible
	Vent windows	Not Available
	Rear window	"
Radio systems	Antenna (location, whip, w/shield, power)	Front fender-R.H., fixed mast standard (exc. 1JC00)
	AM, FM, stero, tape, CB	AM standard (exc. 1JC00) Stereo optional
	Speaker (number, location) Premium sound	2-Standard, I.P. (exc. 1JC00), dual rear included w/stereo
Roof open air/fixed (flip-up, sliding, "T")		Optional (removable) (27, 77, 69)
Speed control device		Optional
Speed warning device (light, buzzer, etc.)		Not Available
Tachometer (rpm)		Optional (1JC, 1JD, 1JE00) Standard (1JF00)
Telephone system - mobile		

Theft protection-type: Auto. Trans.-Lock mounted on steering column; locks steering wheel, Auto. Trans. shift lever and ignition. Manual Trans.-Lock mounted on strg. column; locks steering wheel and ignition. Plus: Anti-theft design door lock buttons.

*-Avail in optional lighting package only.
**-Optional 1JE00, Standard 1JF00

MVMA Specifications Form
Passenger Car

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•)

METRIC (U.S. Customary)
Car and Body 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 car line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	NOTCHBACK COUPE	CONVERTIBLE COUPE	HATCHBACK COUPE
Width				
Tread (front)	W101	1406 (55.4)		
Trear (rear)	W102	1401 (55.2)		
Vehicle width	W103	1677 (66.0)		
Body width at Sg RP (front)	W117	1652 (65.0)		
Vehicle width (front doors open)	W120	3684 (145.0)		
Vehicle width (rear doors open)	W121	--		
Front fender overall width	W106	1652 (65.0)		
Rear fender overall width	W107	1677 (66.0)		
Tumble-home (deg.)	W122	21.5°		
Length				
Wheelbase	L101	2571 (101.2)		
Vehicle length	L103	4378.5 (172.4)		
Overhang (front)	L104	896.5 (35.3)		
Overhang (rear)	L105	911.0 (35.9)		
Upper structure length	L123	2335 (91.9)	2340 (92.1)	2800 (110.2)
Rear wheel C/L "X" coordinate	L127	2354 (92.7)		
Cowl point "X" coordinate	L125	247 (9.7)		
Front end length at centerline	L126	1291 (50.8)		1361 (53.6)
Rear end length at centerline	L129	570 (22.4)	590 (23.2)	117 (4.6)
Height **				
Passenger distribution (front/rear)	PD1,2,3	**		
Trunk/cargo load		**		
Vehicle height	H101	1275 (50.2)	1339 (52.7)	1274 (50.2)
Cowl point to ground	H114	898 (35.4)		
Deck point to ground	H138			
Rocker panel-front to ground	H112	196 (7.7)		
Bottom of door closed-front to grd.	H133	247 (9.7)		
Rocker panel-rear to ground	H111	161 (6.3)		
Bottom of door closed-rear to grd.	H135	--		
Windshield slope angle	H122	58.5°	58.8°	58.7°
Backlight slope angle	H121	51.0°	54.5°	69.0°
Ground Clearance **				
Front bumper to ground	H102	370 (14.6)		365 (14.4)
Rear bumper to ground	H104	266 (10.5)		
Bumper to ground [front at curb mass (wt.)]	H103	381 (15.0)		376 (14.8)
Bumper to ground [rear at curb mass (wt.)]	H105	369 (14.5)		368 (14.5)
Angle of approach (degrees)	H106	26.5°		
Angle of departure (degrees)	H107	13.1°		
Ramp breakover angle (degrees)	H147	12.9°		
Axle differential to ground (front / rear)	H153	--		
Min. running ground clearance	H156	115 (4.5)		
Location of min. run. grd. clear.		Rear stabilizer bracket		

***All Vehicle Height And Ground Clearances 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.

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

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•)

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 car line.
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	NOTCHBACK SEDANS	LIFTGATE STATION WAGONS
Width			
Tread (front)	W101	1406 (55.4)	
Trear (rear)	W102	1401 (55.2)	
Vehicle width	W103	1685 (66.3)	
Body width at Sg RP (front)	W117	1652 (65.0)	
Vehicle width (front doors open)	W120	3218 (126.7)	
Vehicle width (rear doors open)	W121	2832 (111.5)	
Front fender overall width	W106	1652 (65.0)	
Rear fender overall width	W107	1685 (66.3)	
Tumble-home (deg.)	W122	21.5°	22.0°
Length			
Wheelbase	L101	2571 (101.2)	
Vehicle length	L103	4428.0 (174.3)	4433.5 (174.5)
Overhang (front)	L104	896.5 (35.3)	
Overhang (rear)	L105	960.5 (37.8)	966.0 (38.0)
Upper structure length	L123	2363 (93.0)	2924 (115.1)
Rear wheel C/L "X" coordinate	L127	2354 (92.7)	
Cowl point "X" coordinate	L125	245 (9.6)	246 (9.7)
Front end length at centerline	L126	1291 (50.8)	
Rear end length at centerline	L129	595 (23.4)	34 (1.3)
Height **			
Passenger distribution (front/rear)	PD1,2,3	**	
Trunk/cargo load		**	
Vehicle height	H101	1323 (52.1)	1342 (52.8)
Cowl point to ground	H114	898 (35.4)	905 (35.6)
Deck point to ground	H138		
Rocker panel-front to ground	H112	196 (7.7)	205 (8.1)
Bottom of door closed-front to grd.	H133	247 (9.7)	265 (10.4)
Rocker panel-rear to ground	H111	261 (10.3)	184 (7.2)
Bottom of door closed-rear to grd.	H135	283 (11.1)	259 (10.2)
Windshield slope angle	H122	55.0	
Backlight slope angle	H121	49.0	35.5
Ground Clearance **			
Front bumper to ground	H102	370 (14.6)	367 (14.4)
Rear bumper to ground	H104	265 (10.4)	273 (10.7)
Bumper to ground (front at curb mass (wt.))	H103	381 (15.0)	382 (15.0)
Bumper to ground (rear at curb mass (wt.))	H105	368 (14.5)	359 (14.1)
Angle of approach (degrees)	H106	26.5°	26.3°
Angle of departure (degrees)	H107	13.9°	14.4°
Ramp breakover angle (degrees)	H147	12.9°	14.3°
Axle differential to ground (front / rear)	H153	--	
Min. running ground clearance	H156	115 (4.5)	132 (5.2)
Location of min. run. grd. clear.		Rear stabilizer bracket	

***All Vehicle Height And Ground Clearances 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.

MVMA Specifications Form
Passenger Car

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) _____

METRIC (U.S. Customary)
Car and Body Dimensions See Key Sheets for definitions

		SAE Ref. No.	NOTCHBACK COUPE	CONVERTIBLE COUPE	HATCHBACK COUPE
	Body Type				
	Front Compartment				
	Sg RP front, "X" coordinate	L31	1113 (43.8)	1128 (44.4)	
	Effective head room	H61	958 (37.7)	992 (39.1)	955 (37.6)
	Max. eff. leg room (accelerator)	L34	1071 (42.2)	1090 (42.9)	1071 (42.2)
	SgRP to heel point	H30	233 (9.2)	230 (9.1)	233 (9.2)
	SgRP to heel point	L53	872 (34.3)	897 (35.3)	872 (34.3)
	Back angle	L40	25.0		
	Hip angle	L42	96.0	99.0	96.0
	Knee angle	L44	126.5	133.0	126.5
	Foot angle	L46	87.0		
	Design H-point front travel	L17	192 (7.6)		
	Normal driving & riding seat track trvl.	L23	171 (6.7)		
	Shoulder room	W3	1364 (53.7)		
	Hip room	W5	1248 (49.1)	1230 (48.4)	1248 (49.1)
**	Upper body opening to ground	H50	1202 (47.3)		
	Steering wheel maximum diameter	W9	375 (14.8)	368 (14.5)	375 (14.8)
	Steering wheel angle	H18	20.0	18.5	20.0
	Accel. heel pt. to steer. whl. cntr	L11	Not Available		
	Accel. heel pt. to steer. whl. cntr	H17	"		
	Steering wheel to C / L of thigh	H13	97 (3.8)	108 (4.3)	97 (3.8)
	Steering wheel torso clearance	L7	388 (15.3)	380 (15.0)	388 (15.3)
	Headlining to roof panel (front)	H37	10 (0.4)		
	Undepressed floor covering thickness	H67	16 (0.6)	17 (0.7)	16 (0.6)
	Rear Compartment		All Interior Dimensions Are Measured With The Seating Reference Point (SgRP)_____mm (1 Seat Adjuster Notch) Forward Of Rearmost Seat Position.		
	Sg RP Point couple distance	L50	720 (28.3)	705 (27.8)	715 (28.1)
	Effective head room	H63	931 (36.7)	949 (37.4)	925 (36.4)
	Min. effective leg room	L51	807 (31.8)	791 (31.1)	803 (31.6)
	Sg RP (second to heel)	H31	259 (10.2)		252 (9.9)
	Knee clearance	L48	-21 (-0.8)	-36 (-1.4)	-27 (-1.1)
	Compartment room	L3	635 (25.0)	593 (23.3)	643 (25.3)
	Shoulder room	W4	1335 (52.6	964 (38.0)	1322 (52.0)
	Hip room	W6	1265 (49.8)	964 (38.0)	1234 (48.6)
**	Upper body opening to ground	H51	--		
	Back angle	L41	25.0	19.0	25.0
	Hip angle	L43	78.0	73.0	78.0
	Knee angle	L45	78.5	79.5	81.0
	Foot angle	L47	115.5		116.5
	Headlining to roof panel (second)	H38	9 (0.4)	--	10 (0.4)
	Depressed floor covering thickness	H73	18 (0.7)	19 (0.7)	18 (0.7)
	Luggage Compartment				
	Usable luggage capacity [L (cu. ft.)]	V1	374 (13.2)	294 (10.4)	--
**	Liftover height	H195	750 (29.5)		755 (29.7)
	Interior Volumes (EPA Classification)				
	Vehicle class (subcompact, compact, etc.)		Compact		
	Interior volume index (cu. ft.)		85.0	77.6	84.0
	Trunk/cargo index (cu. ft.)		13.2	10.3	14.7

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

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

See Key Sheets for definitions

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) _____

Body Type	SAE Ref. No.	NOTCHBACK SEDANS 1JC-1JD69	1JE69	LIFTGATE STATION WAGONS 1JC-1JD35	1JE35
Front Compartment					
Sg RP front, "X" coordinate	L31	1113 (43.8)	1128 (44.4)	1113 (43.8)	1128 (44.4)
Effective head room	H61	980 (38.6)	1008 (39.7)	973 (38.3)	910 (35.8)
Max. eff. leg room (accelerator)	L34	1072 (42.2)	1090 (42.9)	1072 (42.2)	1089 (42.9)
SgRP to heel point	H30	257 (10.1)	230 (9.1)	256 (10.1)	230 (9.1)
SgRP to heel point	L53	866 (34.1)	897 (35.3)	866 (34.1)	897 (35.3)
Back angle	L40	25.0			
Hip angle	L42	98.0	99.0	98.5	99.0
Knee angle	L44	127.0	132.0	127.5	132.0
Foot angle	L46	87.0			
Design H-point front travel	L17	192 (7.6)			
Normal driving & riding seat track trvl.	L23	171 (6.7)		170 (6.7)	
Shoulder room	W3	1363 (53.7)			
Hip room	W5	1240 (48.8)		1241 (48.9)	
** Upper body opening to ground	H50	1202 (47.3)		1219 (48.0)	
Steering wheel maximum diameter	W9	375 (14.8)	368 (14.5)	375 (14.8)	368 (14.5)
Steering wheel angle	H18	20.0	18.5	20.0	18.5
Accel. heel pt. to steer. whl. cntr	L11	Not Available			
Accel. heel pt. to steer. whl. cntr	H17	Not Available			
Steering wheel to C/L of thigh	H13	86 (3.4)	108 (4.3)	88 (3.5)	108 (4.3)
Steering wheel torso clearance	L7	377 (14.8)	380 (15.0)	377 (14.8)	380 (15.0)
Headlining to roof panel (front)	H37	10 (0.4)		13 (0.5)	
Undepressed floor covering thickness	H67	16 (0.6)			
Rear Compartment		All Interior Dimensions Are Measured With The Seating Reference Point (SgRP) _____ mm (1 Seat Adjuster Notch) Forward Of Rearmost Seat Position.			
Sg RP Point couple distance	L50	758 (29.8)	743 (29.3)	741 (29.2)	
Effective head room	H63	964 (38.0)		986 (38.8)	
Min. effective leg room	L51	871 (34.3)	818 (32.2)	857 (33.7)	802 (31.6)
Sg RP (second to heel)	H31	272 (10.7)		259 (10.2)	
Knee clearance	L48	9 (0.4)	-16 (-0.6)	2 (0.1)	-25 (-1.0)
Compartment room	L3	657 (25.9)	622 (24.5)	660 (26.0)	
Shoulder room	W4	1364 (53.7)			
Hip room	W6	1241 (48.9)		1244 (49.0)	
** Upper body opening to ground	H51	1254 (49.4)		1254 (49.4)	
Back angle	L41	26.0		25.0	
Hip angle	L43	83.0		81.0	79.0
Knee angle	L45	85.0	80.0	86.0	81.0
Foot angle	L47	118.0	116.5	121.0	117.0
Headlining to roof panel (second)	H38	8 (0.3)		13 (0.5)	
Depressed floor covering thickness	H73	18 (0.7)		20 (0.8)	
Luggage Compartment					
Usable luggage capacity [L (cu. ft.)]	V1	386 (13.6)		--	
** Liftover height	H195	755 (29.7)		490 (19.3)	
Interior Volumes (EPA Classification)					
Vehicle class (subcompact, compact, etc.)		Compact			
Interior volume index (cu. ft.)		91.1		90.9	
Trunk/cargo index (cu. ft.)		13.6		34.1	

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

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

See Key Sheets for definitions

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) 10-86

Body Type	SAE Ref. No.	HATCHBACK COUPE	LIFTBACK WAGONS

Station Wagon – Third Seat

Sg RP couple distance	L85	Not
Shoulder room	W85	Applicable
Hip room	W86	
Effective leg room	L86	
Effective head room	H86	
Sg RP to heel point	H87	
Knee clearance	L87	
Seat facing direction	SD1	
Back angle	L88	
Hip angle	L89	
Knee angle	L90	
Foot angle	L91	

Station Wagon – Cargo Space

Cargo length (open front)	L200		--
Cargo length (open second)	L201		--
Cargo length (closed front)	L202		1709 (67.3)
Cargo length (closed second)	L203	Not	980 (38.6)
Cargo length at belt (front)	L204	Applicable	1581 (62.2)
Cargo length at belt (second)	L205		837 (33.0)
Cargo width (wheelhouse)	W201		944 (37.2)
Rear opening width at floor	W203		1226 (48.3)
Opening width at belt	W204		1206 (47.5)
* Max. rear opening width above belt	W205		970 (38.2)
Cargo height	H201		846 (33.3)
Rear opening height	H202		764 (30.1)
Tailgate to ground height	H250		490 (19.3)
Front seat back to load floor height	H197		--
Cargo volume index [m^3($ft.^3$)]	V2		1824L (64.4 cu. ft.)
Hidden cargo volume [m^3($ft.^3$)]	V4		--
Cargo volume. index-rear of 2-seat	V10		966 (34.1)

Hatchback – Cargo Space

Cargo length at front seatback height	L208	1106 (43.5)	Not
Cargo length at floor (front)	L209	1622 (63.9)	Applicable
Cargo length at second seatback height	L210	745 (29.3)	
Cargo length at floor (second)	L211	906 (35.7)	
Front seatback to load floor height	H197	602 (23.7)	
Second seatback to load floor height	H198	384 (15.1)	
Cargo volume index [m^3($ft.^3$)]	V3	1085 (38.3)	
Hidden cargo volume [m^3($ft.^3$)]	V4	--	
Cargo volume index-rear of 2-seat	V11	419 (14.8)	

Aerodynamics*

		N/B Coupe	Convertible	H/B Coupe	Sedan	Wagon
Wheel lip to ground, front	H172	644 (25.4)				648 (25.5)
Wheel lip to ground, rear	H173	628 (24.7)			616 (24.3)	637 (25.1)
Frontal area [m^2(ft^2)]	FA	1.84(19.8)			1.90(20.4)	1.94(20.9)
Drag coefficient (Cd)						

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

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

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•)

Body Type	NOTCHBACK COUPE	CONVERTIBLE COUPE	HATCHBACK COUPE	NOTCHBACK SEDANS	LIFTBACK STATION WGNS.

Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location
Front	X - Fiducial mark to vertical base grid line - front measured horizontally, from the base 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 base grid line - front, measured vertically from base grid line to front fiducial mark located on top of the front seat adjuster mounting bolt.
Rear	X - Fiducial mark to vertical base grid line - rear, measured horizontally from the base 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 base grid line - rear, measured vertically from the base grid line to rear fiducial mark located on the rail (compartment pan - longitudinal).

	Fiducial Mark Number				
Front	W21	504 (19.8)			
	L54	(*) 746 (29.4)			
	H81	(#) -54 (-2.1)	-36 (-1.4)	-54 (-2.1)	
	H161	Curb 293 (11.5)			300 (11.8)
**	H163	269 (10.6)			278 (10.9)
Rear	W22	440 (17.3)			
	L55	(*)2900 (114.2)		(*)2951 (116.2)	
	H82	(#) 62 (2.4)			
	H162	Curb 413 (16.3)			429 (16.9)
**	H164	381 (15.0)			401 (15.8)

(*) Base Grid is 2000mm Line
(#) Base Grid is 300mm Line

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

All linear dimensions are in millimeters (inches).

** EPA Loaded Vehicle Weight, Loading Conditions

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

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•)

Body Type	NOTCHBACK COUPE	CONVERTIBLE COUPE	HATCHBACK COUPE	NOTCHBACK SEDANS	LIFTBACK STATION WAGONS

Lamps and Headlamp Shape*

Height above ground to center of bulb or marker	Headlamp (SAE - H127)	Highest**	646(25.4)			647(25.5)
		Lowest	646(25.4)			647(25.5)
	Taillamp (SAE - H128)	Highest**	748(29.4)	676(26.6)	748(29.4)	589(23.2)
		Lowest	--			
	Sidemarker	Front	501(19.7)			503(19.8)
		Rear	526(20.7)			757(29.8)
Distance from C/L of car to center of bulb	Headlamp	Inside	424.5(16.7)			
		Outside**	600.0(23.6)			
	Taillamp	Inside	--			
		Outside**	591.0(23.3)	678.0(26.7)	591.0(23.3)	714.5(28.1)
	Directional	Front	569.0(22.4)			
		Rear	591.0(23.3)	678.0(26.7)	591.0(23.3)	714.5(28.1)
Halogen headlamp (std., opt., n.a.)	Lo beam		Optional			
	Hi beam		Optional			
	Replaceable bulb		Sealed beam entire unit replaced			
	Shape		Rectangular			
Headlamp other than above	Lo beam		Not available			
	Hi beam		" "			
	Replaceable		" "			
	Shape		" "			
	Type		" "			

* Measured at curb mass (weight).
** If single lamps are used enter here.
All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) 9-86

Model	Vehicle Mass (weight)							
	CURB MASS, kg. (weight, lb.)*			% PASS. MASS DISTRIBUTION				SHIPPING MASS, kg. (weight, lb.)**
				Pass In Front		Pass In Rear		
	Front	Rear	Total	Front	Rear	Front	Rear	
Cavalier								
2-Door Notchback	672.6	371.1	1043.7					1012.7
Coupe 1JC27	(1483)	(818)	(2301)					(2233)
4-Door Notchback	678.8	385.3	1064.1					1033.1
Sedan 1JC69	(1496)	(849)	(2345)					(2278)
4-Door Station	669.9	419.6	1089.5					1058.5
Wagon 1JC35	(1477)	(925)	(2402)					(2333)
Cavalier 'CS'								
2-Door Hatchback	676.8	393.9	1070.7					1039.7
Coupe 1JD77	(1492)	(868)	(2360)					(2292)
4-Door Notchback	681.8	386.9	1068.7					1037.7
Sedan 1JD69	(1503)	(853)	(2356)					(2288)
4-Door Station	672.8	421.3	1094.1					1063.1
Wagon 1JD35	(1483)	(929)	(2412)					(2344)
Cavalier 'RS'								
2-Door Notchback	690.7	380.6	1071.3					1040.3
Coupe 1JE27	(1523)	(839)	(2362)					(2293)
2-Door Hatchback	691.2	401.8	1093.0					1062.0
Coupe 1JE77	(1524)	(886)	(2409)					(2341)
4-Door Notchback	694.0	393.6	1087.6					1056.6
Sedan 1JE69	(1530)	(868)	(2398)					(2329)
4-Door Station	686.6	429.7	1116.3					1085.3
Wagon 1JE35	(1514)	(947)	(2461)					(2393)
2-Door Convertible	718.9	424.0	1142.9					1111.9
Coupe 1JE67	(1585)	(935)	(2520)					(2451)
Cavalier Z24								
2-Door Notchback	752.0	387.2	1139.2					1108.2
Coupe 1JF27	(1658)	(854)	(2512)					(2443)
2-Door Hatchback	753.5	408.2	1161.7					1130.7
Coupe 1JF77	(1661)	(900)	(2561)					(2493)

* Reference – SAE J1100 Motor vehicle dimensions, curb weight definition.
** Shipping mass (weight) definition –

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•)

Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (weight, lb.) Front	Rear	Total	Remarks
Removable Sun Roof	3.4	3.8	7.2	All except station wagons and
RPO AD3	(7.5)	(8.4)	(15.9)	convertible
Six Way Power Seat-Driver				
RPO AG9				
Split Folding RR Seatback	.2	1.0	1.2	Station wagons and hatchbacks
RPO AM9	(0.4)	(2.2)	(2.6)	
Power Door Lock System	.6	1.0	1.6	2-Doors
RPO AU3	(1.3)	(2.2)	(3.5)	
	1.0	1.6	2.6	4-Doors
	(2.2)	(3.5)	(5.7)	
Power Liftgate Release	-.4	1.6	1.2	Station Wagons
RPO AU6	(-0.9)	(3.5)	(2.6)	
Power Trunk Opener	-.2	.8	.6	'CS', 'RS' & 'Z24' series,
RPO A90	(-0.4)	(1.8)	(1.4)	except station wagons
Power Windows RPO A31	1.0	1.8	2.8	2-Doors, std. on convertible
	(2.2)	(4.0)	(6.2)	
	1.8	3.2	5.0	4-Doors
	(4.0)	(7.0)	(11.0)	
Floor Mats-Front Only	1.2	0	1.2	Requires RPO B35
Color keyed Carpet	(2.6)	(0)	(2.6)	
RPO B34				
Floor Mats-Rear Only	0	.8	.8	Requires RPO B34
Color keyed Carpet	(0)	(1.8)	(1.8)	
RPO B35				
Body Side Moldings	.8	1.0	1.8	'Cavalier' series
RPO B84	(1.8)	(2.2)	(4.0)	

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
Door Edge Guards	.2	0	.2	'RS' Series
(Black) RPO B91	(0.4)	(0)	(0.4)	
Door Edge Guards	0	.2	.2	'Cavalier' and 'CS' Series
(Bright) RPO B93	(0)	(0.4)	(0.4)	
Intermittent Windshield	.2	0	.2	
Wiper System RPO CD4	(0.4)	(0)	(0.4)	
Rear Window Wiper and	-.8	4.4	3.6	'RS' Station wagons and
Washer RPO C25	(1.8)	(9.7)	(7.9)	'RS' & 'Z24' hatchbacks
Electric Rear Window	0	.4	.4	All except convertible
Defogger RPO C49	(0)	(0.9)	(0.9)	
Air Conditioning	19.2	-1.4	17.8	With 4 & 5-speed Manual Trans.
RPO C60	(42.3)	(-3.1)	(39.2)	
	21.4	-1.6	19.8	With Automatic Trans
	(47.2)	(-3.5)	(43.7)	
Rear Window Louvers	-.8	8.6	7.8	'RS' and 'Z24' hatchback
RPO DE1	(1.8)	(18.9)	(17.1)	
Sport Mirrors-Left Hand	.4	0	.4	Standard convertible & 'Z24' series
Remote, RH Manual	(0.9)	(0)	(0.9)	optional balance of models
RPO D35				
Rear Compartment	-.4	2.8	2.4	Station wagons and hatchbacks
Cargo Cover RPO D42	(-0.9)	(6.2)	(5.3)	
Rear Spoiler RPO D52	-.8	3.5	2.7	"RS" and "Z24" hatchbacks
	(-1.8)	(7.7)	(5.9)	
Heavy Duty Front and	2.0	0	2.0	All except station wagons and 'Z24'
rear suspension RPO F40	(4.4)	(0)	(4.4)	series

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) _____

Optional Equipment Differential Mass (weight)*

Equipment	MASS. kg. (weight, lb.) Front	Rear	Total	Remarks
Sport Suspension	2.8	4.4	7.2	'Cavalier', 'CS' series and
RPO F41	(6.2)	(9.7)	(15.9)	convertible
Engine Block Heater	.2	0	.2	
RPO K05	(0.4)	(0)	(0.4)	
Electronic Speed Control	1.8	0	1.8	
with Resume Speed RPO K34	(4.0)	(0)	(4.0)	
2.8 Liter V6 (173 CID)	53.4	1.0	54.4	Optional convertible, standard
Engine RPO LB6	(117.7)	(2.2)	(119.9)	Z24 series
Five-Speed Manual	5.0	-.4	4.6	
Transmission RPO MM5	(11.0)	(-0.9)	(10.1)	
Automatic Transmission	27.5	0	27.5	
RPO MX1	(60.6)	(0)	(60.6)	
Comfortilt Steering	.8	.4	1.2	
Wheel RPO N33	(1.8)	(0.9)	(2.7)	
Power Steering	8.8	.4	9.2	Standard 'RS' and 'Z24' series
Required with V-6 engine	(19.4)	(0.9)	(20.3)	optional 'Cavalier' and 'CS' series
RPO N40				
Sport Wheel Covers	.8	.8	1.6	'Cavalier' and 'CS'
RPO PB2	(1.8)	(1.8)	(3.6)	
Rally Wheels 14" RPO PC4	1.6	1.6	3.2	'RS' series.
	(3.5)	(3.5)	(7.0)	
Wheel Trim Rings	.4	.4	.8	'Cavalier' and 'CS' series
RPO P06	(0.9)	(0.9)	(1.8)	
Aluminum Wheels (13")	.4	.4	.8	'RS' series
RPO PX1	(0.9)	(0.9)	(1.8)	
Heavy Duty Battery	2.8	-.4	2.4	All except L-4 engine with
(Mandatory for Canada)	(6.2)	(-0.9)	(5.3)	automatic trans, forced with
RPO UA1				L-4 and automatic trans.

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

MVMA Specifications Form
Passenger Car

METRIC (U.S. Customary)

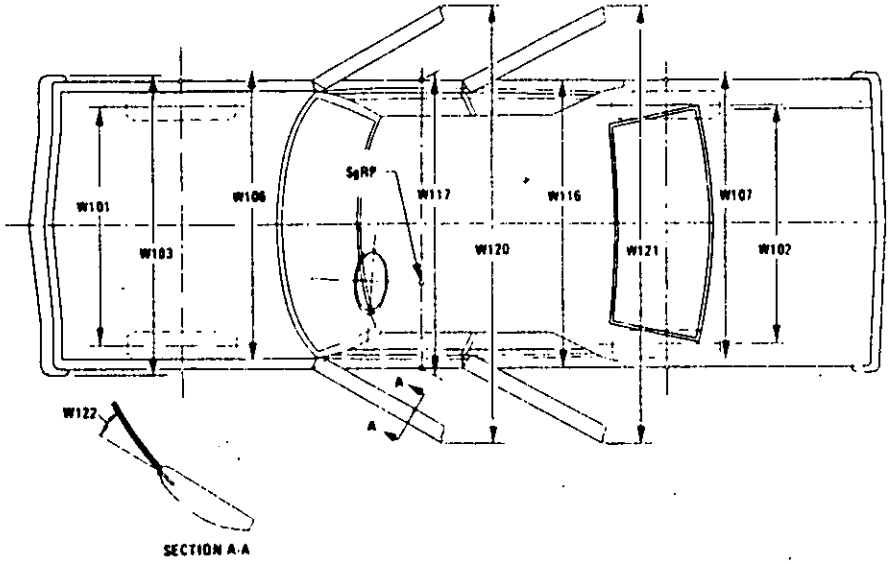
Car Line CAVALIER
Model Year 1987 Issued 6-86 Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)* MASS, kg (weight, lb.) Front	Rear	Total	Remarks
Electronically Tuned AM/	1.0	.2	1.2	All except 'Cavalier' series
FM Stereo Radio (w/seek	(2.2)	(0.4)	(2.6)	
scan and clock) RPO UM7				'Cavalier' series
AM/FM Stereo Radio,	.8	.2	1.0	All except 'Cavalier' series
Cassette Player-ETR	(1.8)	(0.4)	(2.2)	
(with seek scan, and				
clock) RPO UM6	2.2	.2	2.4	'Cavalier' series
	(4.8)	(0.4)	(5.2)	
AM/FM Stereo Radio-ETR	-.2	0	-.2	All except 'Cavalier' series
(w/seek scan w/o clock)	(-0.4)	(0)	(-0.4)	
RPO UK4				
	1.0	.2	1.2	'Cavalier' series
	(2.2)	(0.4)	(2.6)	
AM/FM Stereo Radio,	.8	.2	1.0	'RS' and 'Z24' series
Cassette Player-ETR	(1.8)	(0.4)	(2.2)	
(w/seek and scan, clock				
and graphic equalizer)				
RPO UX1				
Gage Package (includes	.2	0	.2	'Cavalier' and 'CS' series
trip odometer	(0.4)	(0)	(0.4)	
RPO U22				
AM Radio	1.0	.4	1.4	'Cavalier' series standard on
RPO U63	(2.2)	(0.9)	(3.1)	balance of models
Premium Dual Rear	1.4	1.4	2.8	'Cavalier' and 'CS' series with
Speakers RPO U66	(3.1)	(3.1)	(6.2)	stereo radios only (except UX1)
Fixed Mast Antenna	.6	0	.6	'Cavalier' series standard on
RPO U73	(1.3)	(0)	(1.3)	balance of models
Coaxial Front and	.6	1.2	1.8	'RS' and 'Z24' series with stereo
Premium Rear Speakers	(1.3)	(2.7)	(4.0)	radios only (except UX1)
RPO U79				
Roof Carrier	2.4	5.0	7.4	Station wagons
RPO V55	(5.3)	(11.0)	(16.3)	
'CL' Custom Interior	50.2	12.2	62.4	All except convertible
RPO Z12	110.7	(26.9)	137.6	

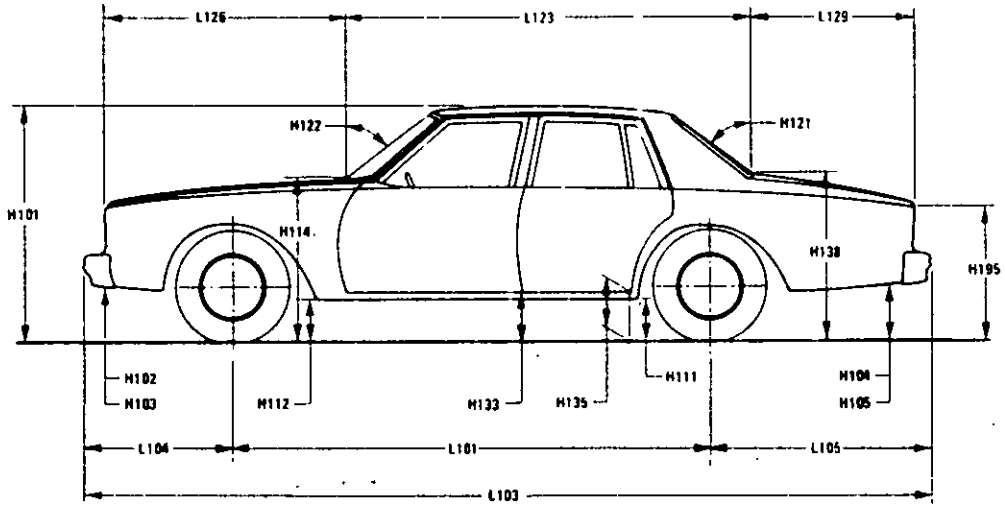
*Also see Engine - General Section for dressed engine mass (weight).

Exterior Car And Body Dimensions – Key Sheet

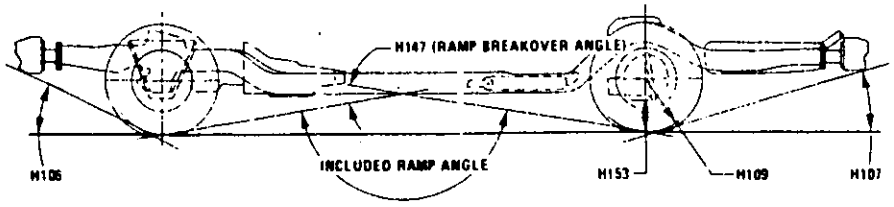
Exterior Width



Exterior Length & Height

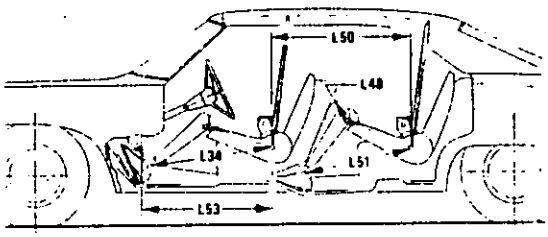


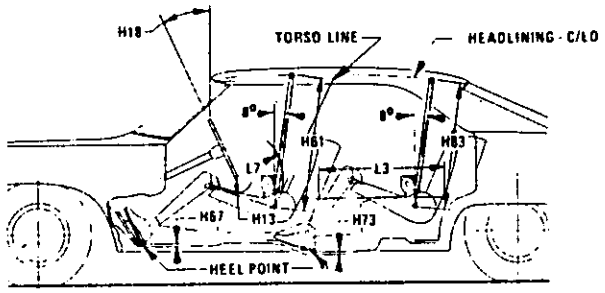
Exterior Ground Clearance

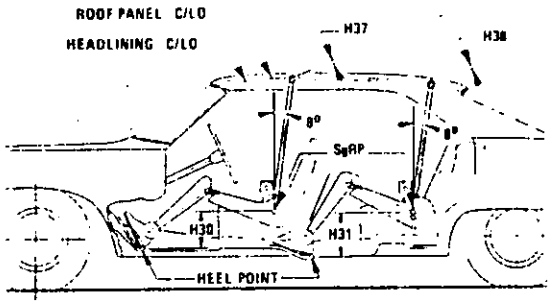


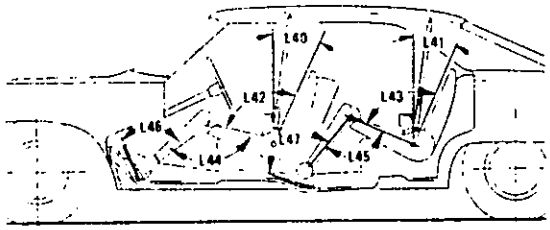
MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

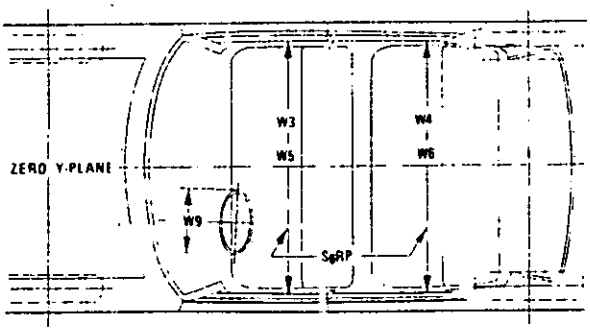
Interior Car And Body Dimensions – Key Sheet

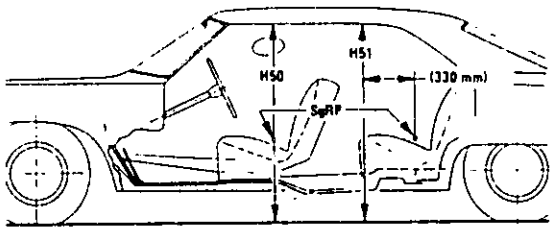






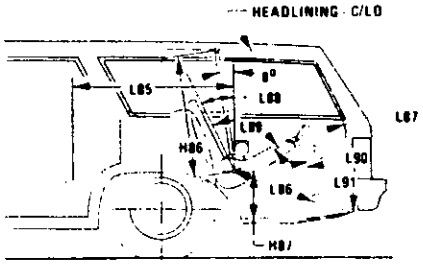


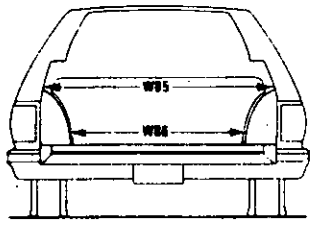




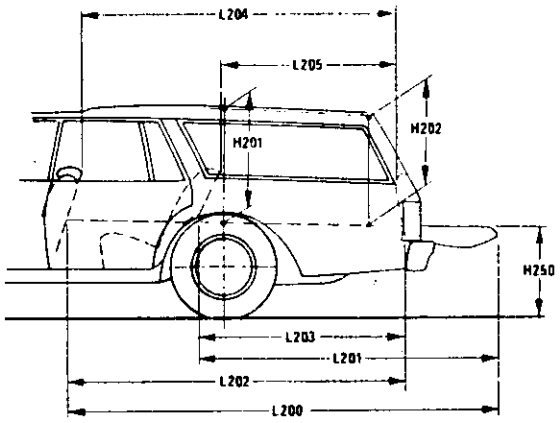
Interior Car And Body Dimensions – Key Sheet

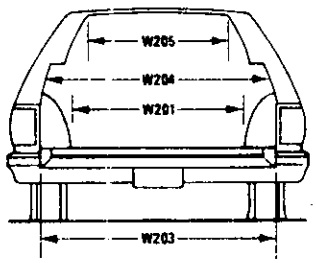
Third Seat



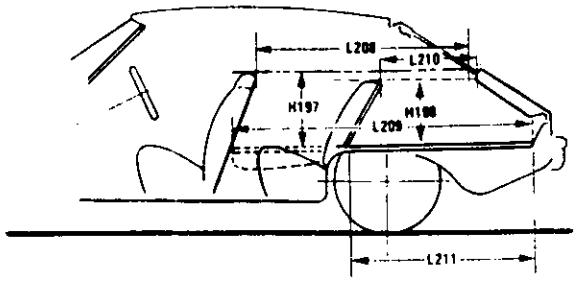


Cargo Space





Station Wagon



Hatchback

MVMA Specifications Form
Passenger Car
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Exterior Car And Body Dimensions – Key Sheet
Dimensions Definitions

Seating Reference Point

SEATING REFERENCE POINT means the manufacturer's design reference point which –

(a) Establishes the rearmost normal design driving or riding position of each designated seating position in a vehicle:

(b) Has coordinates established relative to the design vehicle structure:

(c) Simulates the position of the pivot center of the human torso and thigh: and

(d) Is the reference point employed to position the two dimensional templates described in SAE Recommended Practice J826, "Devices for Use in Defining and Measuring Vehicle Seating Accommodations."

Width Dimensions

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

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

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

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

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

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

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

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

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

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

Length Dimensions

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

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

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

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

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

L125 COWL POINT "X" COORDINATE.

L126 FRONT END LENGTH. The dimension measured longitudinally from the cowl point to the foremost point on the vehicle at the zero "Y" plane excluding ornamentation or bumpers. In cases where bumpers and/or grills are integrated with the profile, measurement is made at the foremost point of front end contour.

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

L129 REAR END LENGTH. The dimension measured longitudinally from the deck point to the rearmost visible point of the body sheet metal at the zero "Y" plane, excluding ornamentation or bumpers.

Height Dimensions

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

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

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

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

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

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

H127 HEADLAMP TO GROUND–CURB MASS (WT.). The dimension measured vertically from the centerline of the lowest headlamp lens to ground.

H128 TAILLAMP TO GROUND–CURB MASS (WT.). The dimension measured vertically from the centerline of the upper bulb to ground.

H133 BOTTOM OF DOOR CLOSED–FRONT TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.

H135 BOTTOM OF DOOR CLOSED–REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.

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

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

Ground Clearance Dimensions

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

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

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.

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

L7 STEERING WHEEL TORSO CLEARANCE. The minimum dimension measured in the side view from the rearmost edge of the steering wheel, with front wheels in the straight ahead position, to the torso line.

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

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

L23 NORMAL DRIVING AND RIDING SEAT TRACK LEVEL. 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.

L40 BACK ANGLE–FRONT. The angle measured between a vertical line through the SgRP–front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.

L42 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.

H13 STEERING WHEEL TO CENTERLINE OF THIGH. The minimum dimension measured from the bottom of steering wheel, with front wheels in the straight position, to the thigh centerline.

H17 ACCELERATOR HEEL POINT TO THE STEERING WHEEL CENTER. The dimension measured vertically from the AHP–front to the intersection of the steering column centerline to a plane tangent to the upper surface of the steering wheel rim.

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.

H37 HEADLINING TO ROOF PANEL–FRONT. The dimension measured from the intersection of the headlining and the extended effective head room line normal to the sheet metal.

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.

PD1 PASSENGER DISTRIBUTION–FRONT.

Rear Compartment Dimensions

L3 COMPARTMENT ROOM–SECOND. The dimension measured horizontally from the back of front seat to the front of the second seatback at a height tangent to the top of the second seat cushion.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PD2 PASSENGER DISTRIBUTION–SECOND.

Luggage Compartment Dimensions

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

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

Interior Volumes (EPA Classification)

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

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

Station Wagon – Third Seat Dimensions

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

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

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

L88 BACK ANGLE–THIRD. Measured in the same mannere 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.

PD3 PASSENGER DIRECTION–THIRD.

SD1 SEAT FACING DIRECTION–THIRD.

Station Wagon – Cargo Space Dimensions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

V2 STATION WAGON
Measured in inches:

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

Measured in mm:

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

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

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

$$\frac{L506 \times W500 \times H503}{1728} = ft^3$$

Measured in mm:

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

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

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

Measured in mm:

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

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

V10 STATION WAGON CARGO VOLUME INDEX.
Measured in inches:

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

Measured in mm:

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

Hatchback – Cargo Space Dimensions

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

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

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

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

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

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

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

V3 HATCHBACK.
Measured in inches:

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

Measured in mm:

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

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

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

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

Measured in mm:

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

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