

ORIGINAL

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1988

Manufacturer Chevrolet Motor Division General Motors Corporation	Vehicle Line Cavalier	
Mailing Address Chevrolet-Pontiac-Canada Group Engineering Center General Motors Corporation 30003 Van Dyke Warren, Michigan 48090-9060	Issued June, 1987	Revised September, 1987

Direct questions concerning these specifications to the manufacturer listed above.

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



Motor Vehicle Manufacturers Association
of the United States, Inc.

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MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line Cavalier
Model Year 1988 Issued _____ Revised (e) _____

Vehicle Models

Model Description & Drive (FWD/RWD)	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk Cargo Load—Kilograms (Pounds)
Front Wheel Drive Station Wagon		1JC35	2/3	40 (88)
Front Wheel Drive Notchback Coupe		1JC37	2/3	60 (132)
Front Wheel Drive Notchback Sedan		1JC69	2/3	60 (132)
Front Wheel Drive RS Notchback Coupe		1JE37	2/3	60 (132)
Front Wheel Drive RS Notchback Sedan		1JE69	2/3	60 (132)
Front Wheel Drive Z24 Notchback Coupe		1JF37	2/3	60 (132)
Front Wheel Drive Z24 Convertible Coupe		1JF67	2/2	60 (132)

MVMA Specifications Form

Vehicle Line Cavalier

Model Year 1988 Issued _____ Revised (e) _____

METRIC (U.S. Customary)

Power Teams (Indicate whether standard or optional)

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

SERIES AVAILABILITY	ENGINE					E x h a u s t S/D	TRANSMISSION/ TRANSAXLE	AXLE RATIO (std. first)
	Displ. Liters (in ³)	Carb. (Barrels, FI, etc.)	Compr. Ratio	SAE Net at RPM				
				Power kW (bhp)	Torque N·m (lb. ft.)			
1JA (Std.)	L-4 2.0L (121) LL8	EFI	9.0:1	67 (90) @ 5600	146 (108) @ 3200	S	(Std.) 5-Speed Manual (Opt.) 3-Speed Auto	3.45 3.18
1JC35 & JF (Opt.)	2.8L (173) V6 LB6	MFI	8.9:1	93 (125) @ 4500	217 (160) @ 3600	S	(Std.) 5-Speed Manual (Opt.) 3-Speed Auto	3.61 3.18

MVMA Specifications Form

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 Model Year 1988 Issued _____ Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.0 L-4 (121 CID)
 RPO LL8

ENGINE - GENERAL

Type & description (inline, V, angle, fiat, 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
Bore	89 (3.50)
Stroke	80 (3.15)
Bore spacing (C/L to C/L)	99 (3.90)
Cylinder block material & mass kg (lbs.) (machined)	Cast Iron/32.050 (70.7)
Cylinder block deck height	215.55 (8.49)
Cylinder block length	443 (17.4)
Deck clearance (minimum) (above or below block)	0.15 (.006) below
Cylinder head material & mass kg (lbs.)	Aluminum 9.740 (21.5)
Cylinder head volume (cm ³)	43.3
Cylinder liner material	Not Available
Head gasket thickness (compressed)	1.1 (.043)
Minimum combustion chamber total volume (cm ³)	59.988 (3.66) @
Cyl. no. system (front to rear)*	L. Bank
	R. Bank
Firing order	1-2-3-4 - -
Intake manifold material & mass (kg (lbs.))**	1-3-4-2
Exhaust manifold material & mass (kg (lbs.))**	Aluminum Cast/3.870 (8.5)
Recommended fuel (leaded, unleaded, diesel)	Stamped Steel/2.585 (5.7)
Fuel antiknock index (R + M)	Unleaded
2	87
Total dressed engine mass (wt) dry***	146.8 (323.6) Auto
Engine - Pistons	162.4 (358.0) Manual
Material & mass, g (weight, oz.) - piston only	Aluminum Alloy 350 (12.3)
Engine - Camshaft	
Location	In cylinder block, right side in block above crankshaft
Material & mass kg (weight, lbs.)	Cast Iron 3.065 (6.8)
Drive type	Chain / belt
	Width / pitch
	Chain 19.3 (0.76)/9.53 (0.38)

* 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.

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (e) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.8L
 (173) V6
 L36

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	6	
Bore	89 (3.50)	
Stroke	76 (2.99)	
Bore spacing (C/L to C/L)	111.8 (4.40)	
Cylinder block material & mass kg (lbs.) (machined)	Cast Iron/ 48.2 (106.3)	
Cylinder block deck height	224 (8.819)	
Cylinder block length	435.5 (17.1)	
Deck clearance (minimum) (above or below block)	0.15 (.006) above	
Cylinder head material & mass kg (lbs.)	Aluminum 5.300 (11.7)	
Cylinder head volume (cm ³)	28.0	
Cylinder liner material		
Head gasket thickness (compressed)	1.50 (.059)	
Minimum combustion chamber total volume (cm ³)	59.8481 (3.6515) @	
Cyl. no. system (front to rear)*	L. Bank	2-4-6
	R. Bank	1-3-5
Firing order	1-2-3-4-5-6	
Intake manifold material & mass (kg (lbs.))**	Aluminum Cast/3.810 (8.4) Lwr	
Exhaust manifold material & mass (kg (lbs.))**	Steel/2.200 (4.9) L.H.	
Recommended fuel (leaded, unleaded, diesel)	2.615 (5.8) R.H. Unleaded	
Fuel antiknock index (R + M) 2	87	
Total dressed engine mass (wt) dry***	199.7 (440.3) Auto 215.0 (474.0) Man	
Engine - Pistons		
Material & mass, g (weight, oz.) - piston only	Aluminum Alloy	
Engine - Camshaft		
Location	In cylinder block, right side in block above crankshaft	
Material & mass kg (weight, lbs.)	Cast Iron/3.098 (6.83)	
Drive type	Chain / belt	Chain
	Width / pitch	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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METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.0L
 (121) L4
 LL8

Engine - Valve System

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

Engine - Connecting Rods

Material & mass (kg., (weight, lbs.))*	Cast Steel, .373 (.820)
--	-------------------------

Engine - Crankshaft

Material & mass (kg., (weight, lbs.))*	Nod. Cast Iron/13.360 (29.5)
End thrust taken by bearing (no.)	5
Length & number of main bearings	5
Seal (material, one, two piece design, etc.)	Front
	Silicon, one
	Rear
	Silicon, one

Engine - Lubrication System

Normal oil pressure (kPa (psi) at engine rpm)	435-530 (63-77) @ 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)

Engine - Diesel Information

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

Engine - Intake System

Turbo charger - manufacturer	X
Super charger - manufacturer	
Charge cooler	

*Finished State

Ø 1988 Format Change

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METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.8L
 (173) V6
 LB6

Engine - Valve System

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

6/6
 43.64 (1.72)/36.20 (1.43)

Engine - Connecting Rods

Material & mass (kg., (weight, lbs.))*	Cast Steel, .399 (0.880)
--	--------------------------

Engine - Crankshaft

Material & mass (kg., (weight, lbs.))*	Nod. Cast Iron/14.170 (31.2)
End thrust taken by bearing (no.)	3
Length & number of main bearings	4
Seal (material, one, two piece design, etc.)	Front
	Rear

Viton/one piece
 Viton/one piece

Engine - Lubrication System

Normal oil pressure (kPa (psi) at engine rpm)	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)

Engine - Diesel Information

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

Engine - Intake System

Turbo charger - manufacturer	X
Super charger - manufacturer	
Charge cooler	

*Finished State

Ø 1988 Format Change

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.0L
 (121) L4
 LL8

Engine - Cooling System

Coolant recovery system (std., opt., n.a.)	Std.		
Coolant fill location (rad., bottle)	Bottle		
Radiator cap relief valve pressure [kPa (psi)]	103.4 (15 PSI)		
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open at °C (°F)	91°C (195°F)	
Water pump	Type (centrifugal, other)	Centrifugal	
	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.)]	External - Thru Intake Manifold Internal		
Cooling system capacity	With heater-L.(qt.)	7.4 (7.8)	
	With air cond.-L.(qt.)	7.5 (7.9)	
	Opt. equipment [specify-L.(qt.)]		
Water jackets full length of cyl. (yes, no)	Yes		
Water all around cylinder (yes, no)	Yes		
Water jackets open at head face (yes, no)	No		
Radiator core	Std., A/C, HD	Std. A/C	
	Type (cross-flow, etc.)	Cross Flow	
	Construction (fin & tube mechanical, braze, etc.)	Tube and Fin; Soldered	
	Material, mass [kg (wgt. lbs.)]	Copper/Brass	
	Width	430 (16.9)	500.0 (19.7)
	Height	387.5 (15.25)	387.5 (15.25)
	Thickness	25.0 (.98)	25 (.98)
	Fins per inch	14.5	17.0
Radiator end tank material	Brass		
Fan	Std., elec., opt.	Electric	
	Number of blades & type (flex, solid, material)	Std. -5 A/C -7/Solid *	
	Diameter & projected width	Std. -290 (11.4) A/C -373 (14.7)	
	Ratio (fan to crankshaft rev.)	Not Applicable	
	Fan cutout type	ECM Controlled	
	Drive type (direct, remote)	Direct - Electric Motor	
	RPM at idle (elec.)	1800	
	Motor rating (wattage) (elec.)	100	
	Motor switch (type & location) (elec.)	Engine Block	
	Switch point (temp., pressure) (elec.)	110°C	
Fan shroud (material)	*		

* Mineral/Glass Filled Nylon.

MVMA Specifications Form

Vehicle Line Cavalier
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METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.8L
 (173) V6
 LB6

Engine - Cooling System

Coolant recovery system (std., opt., n.a.)	Standard	
Coolant fill location (rad., bottle)	Bottle	
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	6
	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.)	10.39 (11.0) Auto, 10.49 (11.1) Man.
	With air cond.-L(qt.)	10.55 (11.2) Auto, and Man.
	Opt. equipment (specify-L(qt.))	
Water jackets full length of cyl. (yes, no)	Yes	
Water all around cylinder (yes, no)	Yes	
Water jackets open at head face (yes, no)		
Radiator core	Std., A/C, HD	All
	Type (cross-flow, etc.)	Cross-Flow
	Construction (fin & tube mechanical, braze, etc.)	Tube and Fin; Brazed
	Material, mass (kg (wgt. lbs.))	Aluminum
	Width	600 (23.6)
	Height	360 (14.2)
	Thickness	34 (1.3)
	Fins per inch	14.5
Radiator end tank material	Plastic	
	Std., elec., opt.	Electric
Fan	Number of blades & type (flex, solid, material)	7 (Solid) *
	Diameter & projected width	373 (14.7)
	Ratio (fan to crankshaft rev.)	Not Applicable
	Fan cutout type	ECM Controlled
	Drive type (direct, remote)	Direct - Electric Motor
	RPM at idle (elec.)	2200
	Motor rating (wattage) (elec.)	150
	Motor switch (type & location) (elec.)	Engine Block
	Switch point (temp., pressure) (elec.)	110°C
	Fan shroud (material)	*

* Mineral/Glass Filled Nylon

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METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.0L
 (121) L4
 118

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
		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)		Rear Center Underside, R.H. Rear Quarter Panel
Attachment		Underbody Strap
Material & Mass (kg (weight lbs))		Steel
Filler pipe	Location & material	Right Rear Quarter Panel - Steel
	Connection to tank	Hoses
Fuel line (material)		Steel GM124M
Fuel hose (material)		Rubber GM6163M
Return line (material)		Steel GM124M
Vapor line (material)		Steel GM124M
Extended range tank	Opt., n.a.	NA
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
Auxiliary tank	Opt., n.a.	NA
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
	Selector switch or valve	
	Separate fill	

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Vehicle Line Cavalier

Model Year 1988

Issued _____

Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

2.8L
(173) V6
1B6

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		Rochester	
Carburetor	Choke (type)	None	
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	Not Applicable
			Not Applicable
		Automatic	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 SEE PAGE 6

Capacity (refill L (gallons))		X
Location (describe)		
Attachment		
Material & Mass (kg (weight lbs))		
Filler pipe	Location & material	
	Connection to tank	
Fuel line (material)		
Fuel hose (material)		
Return line (material)		
Vapor line (material)		
Extended range tank	Opt., n.a.	
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
Auxiliary tank	Opt., n.a.	
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
	Selector switch or valve	
Separate fill		

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NOTE:

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



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MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

Engine Description/Carb.
 Engine Code

2.0L
 (121) L4
 118

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		CCC control with fuel injection
	Air Injection	Pump or pulse	None
		Driven by	
		Air distribution (head, manifold, etc.)	
		Point of entry	
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled flow
		Exhaust source	Exhaust manifold
		Point of exhaust injection (spacer, carburetor, manifold, other)	Inlet manifold
	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	-
Electronic system	Vapor storage provision		Canister
	Closed loop (yes/no)		Yes
	Open loop (yes/no)		No

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Tri-Flow with Dual Tail Pipes
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass (kg (weight lbs))		One Reverse
Resonator no. & type		None
Exhaust pipe	Branch o.d., wall thickness	Not Applicable
	Main o.d., wall thickness	50.8 O.D. x 1.37 (2 O.D. x .054)
	Material & Mass (kg (weight lbs))	Stainless Steel GM 6125-M
Inter-mediate pipe	o.d. & wall thickness	50.8 O.D. x 1.37 (2 O.D. x .054)
	Material & Mass (kg (weight lbs))	Aluminized Steel Tubing GM 6178-M
Tail pipe	o.d. & wall thickness	50.8 O.D. x 1.09 (2 O.D. x .043)
	Material & Mass (kg (weight lbs))	Aluminum Coated Steel Tubing

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METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.8L
 (173) V6
 LB6

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		CCC control with fuel injection
	Air Injection	Pump or pulse	None
		Driven by	None
		Air distribution (head, manifold, etc.)	None
		Point of entry	None
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Not Available
		Exhaust source	Not Available
		Point of exhaust injection (spacer, carburetor, manifold, other)	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)		Tri-Flow Single with Cross-Over
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 O.D. x 1.37 (2 O.D. x .054)
	Material & Mass [kg (weight lbs)]	Stainless Steel GM 6125-M
Inter-mediate pipe	o.d. & wall thickness	50.8 O.D. x 1.37 (2 O.D. x .054)
	Material & Mass [kg (weight lbs)]	Aluminized Steel Tubing GM 6178-M
Tail pipe	o.d. & wall thickness	50.8 O.D. x 1.37 (2 O.D. x .054)
	Material & Mass [kg (weight lbs)]	Aluminum Coated Steel Tubing

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 Model Year 1988 Issued _____ Revised (#) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.0L
 (121) L4
 L18

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

Manual 3-speed (manufacturer/country)	Not Available
Manual 4-speed (manufacturer/country)	" "
Manual 5-speed (manufacturer/country)	Standard
Automatic (manufacturer/country)	Optional
Automatic overdrive (manufacturer/country)	Not Available

Manual Transmission/Transaxle

Number of forward speeds	5	
Gear ratios	1st	3.73
	2nd	2.15
	3rd	1.33
	4th	0.92
	5th	0.74
	Reverse	3.50
Synchronous meshing (specify gears)	All forward gears	
Shift lever location	Floor	
Trans. case mat'l. & mass kg (lbs)*	Aluminum	
Lubricant	Capacity [L (pt.)]	5-speed 2.55L (5.36 pts.)
	Type recommended	SAE 5W-30 Engine oil SF, SE/CC or SE/CD

Clutch (Manual Transmission)

Clutch manufacturer	ISUZU	
Clutch type (dry, wet; single, multiple disc)	Dry disc	
Linkage (hydraulic, cable, rod, lever, other)	Hydraulic	
Max. pedal effort (nom. spring load, new) N (lbs)	Depressed	133.4 (30.0)
	Released	115.6 (26.0)
Assist (spring, power/percent, nominal)	Not Available	
Type pressure plate springs	Diaphragm	
Total spring load (nominal, new) N (lbs)	5391 (1212)	
Clutch facing	Facing mfr. & material coding	ISUZU
	Facing material & construction	Non-ashestos
	Rivets per facing	16
	Outside x inside dia. (nominal)	215.0 x 154.0 (8.46 x 6.06)
	Total eff. area [cm ² (in. ²)]	176.6 (23.37)
	Thickness (pressure plate side/fly wheel side)	7.8 (.307)
	Rivet depth (pressure plate side/fly wheel side)	1.3 mm (0.05 in)/1.2 mm (0.05 in)
	Engagement cushion method	Driven plate, wave spoke springs
Release bearing type & method lub.	Self centering, angular contact ball bearing prepacked and sealed	
Torsional damping method, springs, hysteresis	Coil springs with non-metal friction control	

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

1988 Format Change

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.8L (173) V6 LB6
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Transmissions/Transaxle (Std., Opt., N.A.)

Manual 3-speed (manufacturer/country)	Not Available
Manual 4-speed (manufacturer/country)	" "
Manual 5-speed (manufacturer/country)	Standard
Automatic (manufacturer/country)	Optional
Automatic overdrive (manufacturer/country)	Not Available

Manual Transmission/Transaxle

Number of forward speeds	5	
Gear ratios	1st	3.50
	2nd	2.05
	3rd	1.38
	4th	0.94
	5th	0.72
	Reverse	3.41
Synchronous meshing (specify gears)	All forward gears	
Shift lever location	Floor	
Trans. case mat'l. & mass kg (lbs)*	Aluminum	
Lubricant	Capacity [L (pt.)]	2.55L (5.36 pts.)
	Type recommended	SAE 5W-30 Engine oil SE, SE/CC or SE/CD

Clutch (Manual Transmission)

Clutch manufacturer	LUK	
Clutch type (dry, wet; single, multiple disc)	Dry single disc	
Linkage (hydraulic, cable, rod, lever, other)	Hydraulic	
Max. pedal effort (nom. spring load, new) N (lbs)	Depressed	133.4 (30.0)
	Released	133.4 (33.0)
Assist (spring, power percent, nominal)	Not Available	
Type pressure plate springs	Diaphragm	
Total spring load (nominal, new) N (lbs)	5698 (1281)	
Clutch facing	Facing mfg. & material coding	LUK
	Facing material & construction	Non-asbestos
	Rivets per facing	32
	Outside x inside dia. (nominal)	232 x 155 (9.12 x 6.12)
	Total eff. area (cm ² (in. ²))	232 (35.96)
	Thickness (pressure plate side/fly wheel side)	7.50 - 8.00 (.295 - .315)
	Rivet depth (pressure plate side/fly wheel side)	1.4 mm (0.06 in)/1.4 mm (0.06 in)
	Engagement cushion method	Driven plate, wave spoke springs
Release bearing type & method lub.	Self centering, angular contact ball bearing prepacked & sealed.	
Torsional damping method, springs, hysteresis	Coil springs with non-metal friction control.	

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

1988 Format Change

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (*) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.0L
 (121) L4
 118

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)
Max. kickdown speed - drive range (km/h (mph))		3-2=100 (62), 2-1=58 (36)
Min. overdrive speed (km/h (mph))		Not Available
Torque converter	Number of elements	3
	Max. ratio at stall	2.7
	Type of cooling (air, liquid)	liquid
	Nominal diameter	245 (9.65)
Lubricant	Capacity (refill L (pt.))	5.51 (10.4)
	Type Recommended	Dexron II
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard, integral part of radiator
Transmission case material & mass kg (lbs)*		Aluminum

* - 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		" "	
Drive pinion (type)		" "	
No. of differential pinions		2	
Pinion / differential (shim, other)		None	
Pinion / differential (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.
		Winter	Transmission lub.
		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
No. of teeth	Pinion	
	Ring gear or gear	
Ring gear o.d.		195.2
Transaxle	Transfer gear ratio	-- --
	Final drive ratio	-- --

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

1988 Format Change

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.8L
 (173) V6
 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=66 (41), 2-3=117 (73)
Max. kickdown speed - drive range [km/h (mph)]		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	2.35
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	245 (9.65)
Lubricant	Capacity [reht L (pt.)]	5.5L (10.4)
	Type Recommended	Dexron II
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard, integral part of radiator
Transmission case material & mass kg (lbs)*		Aluminum

Axle or Front Wheel Drive Unit

* - Converter clutch engagement

Type (front, rear)		Front	
Description		Front differential with helical gears and tapered roller bearings	
Limited slip differential (type)		Not Available	
Drive pinion offset		" "	
Drive pinion (type)		" "	
No. of differential pinions		2	
Pinion / differential (shim, other)		None	
Pinion / differential (shim, other)		Shim	
Driving wheel bearing (type)		Sealed ball bearings	
Lubricant	Capacity [L (pt.)]		
	Type recommended		
	SAE viscosity number	Summer	Transmission lub.
		Winter	Transmission lub.
		Extreme cold	Transmission lub.
Part of auto. trans. lub.			
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
No. of teeth	Pinion	
	Ring gear or gear	
Ring gear o.d.		195.2
Transaxle	Transfer gear ratio	- -
	Final drive ratio	- -

* Includes shift linkage, lubricant, & clutch housing, if other specify.

⊗ 1988 Format Change

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

	2.0L (121) L4 118
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Axle Shafts – Front Wheel Drive

Manufacturer and number used		Saginaw, Two		
Type (straight, solid bar, tubular, etc.)	Left	Straight Solid Bar		
	Right	Straight Solid Bar		
Outer diam. x length* x wall thickness	Manual transmission	Left	23.9 x 320.0 (.94 x 12.59)	
		Right	23.9 x 663.0 (.94 x 26.22)	
	Automatic transmission	Left	23.9 x 311.0 (.94 x 12.24)	
		Right	23.9 x 364.3 (.94 x 14.34)	
	Optional transmission	Left	-	
		Right	-	
Slip yoke	Type	None		
	Number of teeth	None		
	Spline o.d.	None		
Universal joints	Make and mtg. no.	Inner	Saginaw	
		Outer	Saginaw	
	Number used	Two on Each Drive Shaft		
	Type, size, plunge	Inner	Tripot, 61.0, Plunge	
		Outer	R7EPPA - Fixed	
	Attach (u-bolt, clamp, etc.)	Retaining Ring		
	Bearing	Type (plain, anti-friction)	Ball and Roller (Inner) Ball (Outer)	
		Lubrication (fitting, prepack)	Prepack	
Drive taken through (torque tube, arms or springs)		Wishbone Lower Control Arm, Upper McPherson Strut		
Torque taken through (torque tube, arms or springs)		Engine Mounting System		

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

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.8
 (173) V6 LB6

Axle Shafts – Front Wheel Drive

Manufacturer and number used		Saginaw, Two		
Type (straight, solid bar, tubular, etc.)	Left	Straight Solid Bar		
	Right	Straight Solid Bar		
Outer diam. x length* x wall thickness	Manual transmission	Left	27.2 x 313.0 (1.07 x 12.32)	
		Right	27.2 x 313.0 (1.07 x 12.32)	
	Automatic transmission	Left	23.9 x 311.0 (.94 x 12.24)	
		Right	23.9 x 364.3 (.94 x 14.34)	
	Optional transmission	Left	-	
		Right	-	
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	Tripot 66.0, 61.0, Plunge	
		Outer	RZEPPA- Fixed	
	Attach (u-bolt, clamp, etc.)	Retaining Ring		
Bearing	Type (plain, anti-friction)	Ball and Roller (Inner) Ball (Outer)		
	Lubrication (fitting, prepack)	Prepacked		
Drive taken through (torque tube, arms or springs)		Wishbone Lower Control Arm, Upper McPherson Strut		
Torque taken through (torque tube, arms or springs)		Engine Mounting System		

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

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (*) _____

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

ALL

Suspension - General

Car leveling	Std./opt./n.a.	NA
	Type (air, hyd., etc.)	NA
	Manual/auto. controlled	NA
Provision for brake dip control		Front Suspension Geometry
Provision for accl. squat control		Rear Suspension Geometry
Provisions for car jacking		Body Jack & Pads onRocker
Shock absorber (front & rear)	Type	Front: MacPherson Strut Rear: Telescopic (Double-Acting)
	Make	Delco Products
	Piston diameter	Front: 32 (1.26) Rear: 25 (.98)
	Rod diameter	Front: 22 (.87) Rear: 13 (.51)

Suspension - Front

Type and description		MacPherson Strut with Coil Spring
Travel	Full jounce	89 (3.50) (From Design)
	Full rebound	84 (3.31) (From Design)
Spring	Type (coil, leaf, other) & material	Coil - Steel
	Insulators (type & material)	Top & Bottom - Rubber
	Size (coil design height & i.d., bar length x dia.)	Spring Computer Selected - Varies with Option Content
	Spring rate (N/mm (lb./in.))	20 N/mm (Base Car)
	Rate at wheel (N/mm (lb./in.))	17.5 N/mm (Base Car)
Stabilizer	Type (link, linkless, frameless)	Link
	Material & bar diameter	Steel: 22 (.87) (Base Car)

Suspension - Rear

Type and description		Trailing Crank Arm with Twist Beam
Travel	Full jounce	93 (3.7) (Base Car From Design)
	Full rebound	99 (3.9) (Base Car From Design)
Spring	Type (coil, leaf, other) & material	Coil - Steel
	Size (length x width, coil design height & i.d., bar length & dia.)	Spring Computer Selected - Varies with Option Content
	Spring rate (N/mm (lb./in.))	23 N/mm @ Curb - Variable (Base Car)
	Rate at wheel (N/mm (lb./in.))	11.1 N/mm @ Curb - Variable (Base Car)
	Insulators (type & material)	Top & Bottom - Rubber
	# leaf	No. of leaves
	Shackle (comp. or tens.)	NA
Stabilizer	Type (link, linkless, frameless)	NA (Base Car)
	Material & bar diameter	NA (Base Car)
Shock bar (type)		NA

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

ALL

Brakes - Service

Description		Power Assisted Hydraulic Brakes			
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)	Std. - Disc			
	Rear (disc or drum)	Std. - Drum			
Self-adjusting (std., opt., n.a.)		Std.			
Special valving	Type (proportion, delay, metering, other)	Proportioning, Diagonal Split Circuit			
Power brake (std., opt., n.a.)		Std.			
Booster type (remote, integral, vac., hyd., etc.)		Tandem Vacuum			
Vacuum source (inline, pump, etc.)		Inline			
Vacuum reservoir (volume in. ³)		None			
Vacuum pump-type (elec. gear driven, belt driven, if other so state)		NA			
Anti-lock device type (std., opt., n.a.) (F/R)		NA			
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	Frt. - 247 (9.72)		
	Inner working diameter	F/R			
	Thickness	F/R	Frt. - 22.4 (.88)		
	Material & type (vented solid)	F/R	Frt. - Vented Cast Iron		
Drum	Diameter & width	F/R	Frt. - 200 x 45 (7.87 x 1.77)		
	Type and material	F/R	Cast Iron		
Wheel cylinder bore		Frt. - 57 (2.24) RR - 16 (.63)			
Master cylinder	Bore stroke	F/R	Bore - 24 (.945) Stroke 35.7 (1.41)		
Pedal arc ratio		3.7:1			
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]		10,900			
Lining clearance		F/R	Both - Self Adjusting		
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Inboard Integrally Molded - Inboard and Outboard	
		Rivet size		NA	
		Manufacturer		Delco Moraine	
		Lining code*****		128 FE	
		Material		Semi-Metallic	
		****	Primary or out-board	116.7 x 47 x 10.92	
		Size	Secondary or in-board	125 x 47 x 10.2	
	Shoe thickness (no lining)		4.72 IB (.186), 3.14 OB (1.23)		
	Rear wheel	Bonded or riveted (rivets/seg.)		Riveted	
		Manufacturer		Inland Division	
		Lining Code*****		235 FE	
		Material		Organic	
		****	Primary or out-board	167.7 x 43.9 x 6 mm	
		Size	Secondary or in-board	194 x 43.9 x 7 mm	
Shoe thickness (no lining)		2.75 (.11)			

*Excludes rivet holes, grooves, chamfers, etc.

**Includes rivet holes, grooves, chamfers, etc.

***Total swept area for four brakes. (Drum brake: Widest lining contact width for each brake x its contact circumference.) (Disc brake: Square of Outer Working Dia. minus Square of inner Working Dia. multiplied by Pi/2 for each brake.)

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

*****Manufacturer I.D., catalog or formulation designation and coefficient of friction classification.

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised(*) 7/21/87

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

ALL

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P185/80R13
	Type (bias, radial, steel, nylon, etc.)		Steel Belted Radial
	Inflation pressure (cold) for recommended max. vehicle load	Front (kPa (psi))	240 (35)
		Rear (kPa (psi))	240 (35)
	Rev./mile-at 70 km/h (45 mph)		526 (847)
Wheels	Type & material		Stamped/Steel
	Rim (size & flange type)		13 x 5.5 JB
	Wheel offset		48.0 (1.9)
	Attachment	Type (bolt or stud)	Stud
		Circle diameter	100.0 (3.94)
Number & size		5 - 12	
Spare	Tire and wheel (same size, if other describe)		T115/70D - 14, Wheel Diameter 14 x 4, Inflation 45 (60)
	Storage position & location (describe)		Under Deck of Luggage Compartment

Tires And Wheels (Optional)

Tire size (load range, ply)		P205/70R13
Type (bias, radial, steel, nylon, etc.)		Steel Belted Radial
Wheel (type & material)		Aluminum
Rim (size, flange type and offset)		13 x 5.5
Tire size (load range, ply)		P215/60R14
Type (bias, radial, steel, nylon, etc.)		Radial
Wheel (type & material)		Hi Tech, Aluminum
Rim (size, flange type and offset)		14 x 6 JJ (47mm offset)
Tire size (load range, ply)		
Type (bias, radial, steel, nylon, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
Tire size (load range, ply)		
Type (bias, radial, steel, nylon, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
Spare tire and wheel (size)		T125/70D-15, Wheel Dia. 14-Width x 4. Inflates 415 (60)
(if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)		Under Deck of Luggage Compartment

Brakes - Parking

Type of control		Grip Handle
Location of control		Between Front Seats
Operates on		Rear Service Brakes
Spare drum service brakes	Type (internal or external)	
	Drum diameter	
	Lining size (length x width x thickness)	

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

Body Type And/Or
 Engine Displacement

ALL

Steering

Manual (std., opt., n.a.)		Std.					
Power (std., opt., n.a.)		Opt.					
Adjustable steering wheel/column (tilt, telescope, other)	Type	Tilt					
	Manufacturer	Saginaw Division					
	(Std., opt., n.a.)	Opt.					
Wheel diameter** (W9) SAE J1100	Manual	368 (14.5)					
	Power	368 (14.5)					
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)	11.3 (37.2)				
		Curb to curb (l. & r.)	10.5 (34.3)				
	Inside rear	Wall to wall (l. & r.)	5.8 (19.2)				
		Curb to curb (l. & r.)	5.9 (19.4)				
Scrub Radius*							
Manual	Gear	Type	Rack & Pinion				
		Manufacturer	Saginaw Division				
		Ratios	<table border="1"> <tr> <td>Gear</td> <td>-</td> </tr> <tr> <td>Overall</td> <td>22.0:1</td> </tr> </table>	Gear	-	Overall	22.0:1
	Gear	-					
Overall	22.0:1						
No. wheel turns (stop to stop)	3.96						
Power	Type (coaxial, linkage, etc.)		Rack & Pinion w/Integral Unit				
	Manufacturer		Saginaw Division				
	Gear	Type	Rack & Pinion				
		Ratios	<table border="1"> <tr> <td>Gear</td> <td>-</td> </tr> <tr> <td>Overall</td> <td>16.0:1</td> </tr> </table>	Gear	-	Overall	16.0:1
		Gear	-				
	Overall	16.0:1					
Pump (drive)	Belt Off Crankshaft Pulley						
No. wheel turns (stop to stop)	2.88						
Linkage	Type		Center Take-off Tie Rods, Rack & 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 Bearings				
		Lower	Ball Joint				
		Thrust	Incorporated in Upper Bearing				
Steering spindle & joint type		McPherson Strut					
Wheel spindle/hub	Diameter	Inner bearing	N/A				
		Outer bearing	N/A				
	Thread (size)		M20 x 1.5				
	Bearing (type)		Integral Double Row Ball, Permanently Lubed				

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

**See Page 21.

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (#) _____

METRIC (U.S. Customary)

Body Type And/Or
 Engine Displacement

ALL

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	-0.8° to 4.2° Cross Car Must be Within 0.75°
		Camber (deg.)	-0.2° to 1.8° (Cross Car Must be Within 1.0°)
		Toe-in (outside track-mm (in.))	-.3° to +.3° Sum Toe
	Service reset*	Caster	-0.8° to 4.2° Cross Car Must be Within 0.75°
		Camber	-0.2° to 1.8° (Cross Car Must be Within 1.0°)
		Toe-in	-.1° to +.1° (Degrees Per Wheel)
Periodic M.V. inspection	Caster	Not Applicable	
	Camber	Not Applicable	
	Toe-in	Not Applicable	
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	Not Applicable
		Toe-in (outside track-mm (in.))	Not Applicable
	Service reset*	Camber	Not Applicable
		Toe-in	Not Applicable
	Periodic M.V. inspection	Camber	Not Applicable
		Toe-in	Not Applicable

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

Electrical - Instruments and Equipment

Speed-meter	Type (analog, digital, std., opt.)	Dial with Pointer
	Trip odometer (std., opt., n.a.)	Optional
EGR maintenance indicator		Not Available
Charge indicator	Type	Telltale
	Warning device (light, audible)	Light
Temperature indicator	Type	Telltale
	Warning device (light, audible)	Light
Oil pressure indicator	Type	Telltale
	Warning device (light, audible)	Light
Fuel indicator	Type	Electric Gage
	Warning device (light, audible)	Not Available
Windshield wiper	Type (standard)	Electric 2-Speed
	Type (optional)	Pulse Wiper
	Blade length	430 (16)
	Swept area (cm ² (in. ²))	5074.2 (787) Coupe, 5085 (788) Sedan & Wagon
Windshield washer	Type (standard)	Electric Pump Mounted on Reservoir Bottle
	Type (optional)	None
	Fluid level indicator (light, audible)	None
Rear window wiper, wiper/washer (std., opt., n.a.)		Not Available
Horn	Type	Electric Vibrator
	Number used	One
Other	Indicator lamps for parking brake and brake failure, fasten belt, upshift, check engine, low coolant, high beam, left and right turn and gate ajar.	

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (e) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.0L (121) L4 118
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Electrical - Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	1981730 (1981601)
	Voltage	12 Volt
	Amps at 0°F cold crank	525 CCA (630 CCA)
	Minutes-reserve capacity	90
	Amp/hrs. - 20 hr. rate	54
	Location	Underhood Front
Alternator	Manufacturer	Delco Remy
	Rating (idle/max. rpm)	28/74 1105697
	Ratio (alt. crank/rev.)	2.44:1
	Output at idle (rpm, park)	48 Amps at 27°C (81°F) 875 RPM
Regulator	Optional (type & rating)	30/85 1105701 Canada Only
Regulator	Type	Internal to Alternator

Electrical - Starting System

Start, motor	Current drain at -20°F	363 Amps 1998528
Motor drive	Engagement type	Solenoid with/Positive Shift
	Pinion engages from (front, rear)	Front

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)		
	Other (specify)	Computer Controlled - Coil Ignition (C ³ I)	
Coil	Make	Delco Remy	
	Model	1115461	
	Current	Engine stopped - A	
		Engine idling - A	
Spark plug	Make	AC Spark Plug	
	Model	FR3LM	
	Thread (mm)	14 x 1.25	
	Tightening torque (N-m (lb, ft))	9-20 (7-15)	
	Gap	0.89 (.035)	
Distributor	Number per cylinder	One	
	Make	Not Applicable	
	Model	Not Applicable	

Electrical - Suppression

Locations & type	
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Ø 1988 Format Change

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb.
 Engine Code

2.8L
 (173) V6
 LB6

Electrical - Supply System

Battery	Manufacturer	Delco Remy	
	Model, std., (opt.)	1981730 (1981601)	
	Voltage	12V	
	Amps at 0°F cold crank	525 CCA (630 CCA)	
	Minutes-reserve capacity	90	
	Amp/hrs. - 20 hr. rate	54	
Location		Underhood Front	
Alternator	Manufacturer	Delco Remy	
	Rating (idle/max. rpm) *	28/74 1101319, (36/100 1105694)	
	Ratio (alt. crank/rev.)	2.65:1	
	Output at idle (rpm, park)	51 Amps at 27°C, 66 Amps at 27°C 850 RPM	
Regulator	Optional (type & rating)	36/100 1105694 Canada Heater Cars	
Regulator	Type	Internal to Alternator	

Electrical - Starting System

Start, motor	Current drain at -20°F	1998523 315 CCA
Motor drive	Engagement type	Solenoid with Positive Shift
	Pinion engages from (front, rear)	Front

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)		
	Other (specify)	Computer Controlled - Coil Ignition (C ³ I)	
Coil	Make	Delco Remy	
	Model	1115461	
	Current	Engine stopped - A	
		Engine idling - A	
Spark plug	Make	AC Spark Plug	
	Model	R43CT15F	
	Thread (mm)	14 x 1.25	
	Tightening torque (N·m (lb. ft))	9-20 (7-15)	
	Gap	1.14 (.045)	
	Number per cylinder	One	
Distributor	Make	Not Applicable	
	Model	Not Applicable	

Electrical - Suppression

Locations & type	
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⊙ 1988 Format Change

* First Model # Listed is for Heater Only, 2nd is for A/C.

MVMA Specifications Form
METRIC (U.S. Customary)

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (e) _____

Body Type

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 energy absorbers for collision energy absorption. (Meets G.M. 5 MPH impact standard).
Anti-corrosion treatment	Special anticorrosion materials are used on interior A. 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 Base Coat/Clear Coat Enamel	
Hood	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Prop Rod - Single Pivot Hinge
	Release control (internal, external)	Internal
Trunk lid	Type (counterbalance, other)	Torque Rods on Coupe and Sedan
	Internal release control (elec., mech., n.a.)	Electrical (Opt.)
Hatch-back lid	Type (counterbalance, other)	
	Internal release control (elec., mech., n.a.)	
Tailgate	Type (drop, lift, door)	Gas Rods
	Internal release control (elec., mech., n.a.)	Electrical Solenoid (Opt.)
Vent window control (crank, friction, pivot, power)	Front	N/A
	Rear	N/A
Seat cushion type (e.g., 60 40, bucket, bench, wire, foam etc.)	Front	Foam
	Rear	Foam
	3rd seat	N/A
Seat back type (e.g., 60 40, bucket, bench, wire, foam etc.)	Front	Foam
	Rear	Foam
	3rd seat	N/A
Vin Location	Left Topside of I/P	

1988 Format Change

MVMA Specifications Form
METRIC (U.S. Customary)

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

Body Type

69	35
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Restraint System

Active restraint system	Standard/optional	Standard
	Type and description	Front: Lap/Shoulder Belt Combination Rear: Lap Belts
	Location	Front: Right/Left Outboard Rear: Right/Center/Left
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)	
---	--

Glass	SAE Ref. No.		
Windshield glass exposed surface area [cm ² (in. ²)]	S1	7487 (1161)	7487 (1161)
Side glass exposed surface area [cm ² (in. ²)] - total 2-sides	S2	10678 (1655)	16274 (2522)
Backlight glass exposed surface area [cm ² (in. ²)]	S3	5691 (882)	5399 (837)
Total glass exposed surface area [cm ² (in. ²)]	S4	23856 (3698)	29160 (4520)
Windshield glass (type)		Curved - Laminated Float	
Side glass (type)		Curved - Tempered Float	
Backlight glass (type)		Curved - Tempered Float	

MVMA Specifications Form
METRIC (U.S. Customary)

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

Body Type

37*	67**
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Restraint System

Active restraint system	Standard/optional	Standard
	Type and description	Front: Lap/Shoulder Belt Combination; Rear: Lap Belts
	Location	Front: Right/Left Outboard; Rear: Right/Center/Left
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)	
---	--

Glass	SAE Ref. No.		
Windshield glass exposed surface area (cm ² (in. ²))	S1	7487 (1161)	7487 (1161)
Side glass exposed surface area (cm ² (in. ²)) - total 2-sides	S2	9050 (1403)	7794 (1208)
Backlight glass exposed surface area (cm ² (in. ²))	S3	5154 (799)	4671 (724)
Total glass exposed surface area (cm ² (in. ²))	S4	21691 (3363)	19952 (3093)
Windshield glass (type)		Curved Laminated Float	
Side glass (type)		Curved Tempered Float	
Backlight glass (type)		*Curved Tempered Float **Super Ultralight Plastic	

MVMA Specifications Form
METRIC (U.S. Customary)

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

Body Type

ALL

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

Air conditioning (manual, auto, temp control)	(C60) Opt. Manual	
Clock (digital, analog)		
Compass / thermometer	Not Available	
Console (floor, overhead)	Std. Floor (Full JC & JE) (Cockpit JE) (D06) *	
Defroster, elec. backlight	(C49) Opt. Except Convertible	
Electronic	Diagnostic monitor (integrated, individual)	
	Instrument cluster (list instruments)	
	Keyless entry	
	Tripminder (avg. spd., fuel)	
	Voice alert (list items)	
	Other	
Fuel door lock (remote, key, electric)		
Lamps	Auto head on / off delay, dimming	
	Cornering	
	Courtesy (map, reading)	(C95) Opt. Except JF 67 **
	Door lock, ignition	
	Engine compartment	(U26) Opt. **
	Fog	
	Glove compartment	
	Trunk	
Mirrors	Day/night (auto, man.)	
	L.H. (remote, power, heated)	(D51) Std. Direct (D35) Opt. Remote
	R. H. (convex, remote, power, heated)	(D35) Opt. Direct
	Visor vanity (RH / LH, illuminated)	
Parking brake-auto release (warning light)		
Power equipment	Door locks / deck lid - specify	(AU3) Opt. Door (AU6) Tailgate JC35 (A90) Decklid JE & J
	Seat (2-4-6 way) heated (driver, pass, other) lumbar, hip, thigh support (power, manual) reclining (driver, pass) memory (1-2 preset, recline)	(AR9) Std. Reclining Pass & Driver Front Bucket
	Side windows	(A31) Opt. Except Convertible Std. on Convertible
	Vent windows	
	Rear window	
Radio systems	Antenna (location, whip, w/shield, power)	(U56) Opt. R.H. Frt. Fender Std. JE & JF
	AM, FM, stereo, tape, CB	
	Speaker (number, location) Premium sound	(U66) Std. 4 Dual Front & Dual Rear
Roof open air (fixed, flip-up, sliding, "T")	(AD3) Opt. Hinged JE37 & 69/JF37	
Speed control device	(K34) Opt.	
Speed warning device (light, buzzer, etc.)		
Tachometer (rpm)	(U21) Opt. JE Std. JF	
Telephone system - mobile		
Theft protection-type		

** Available in optional lighting package only.
 * Opt. JE with Armrest

MVMA Specifications Form

 Vehicle Line Cavalier

 Model Year 1988

Issued _____

 Revised (e) July 27, 1987

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

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

Body Type	SAE Ref. No.	COUPE & ALL	CONVERTIBLE	SEDANS	WAGON
	Width				
Tread (front)	W101	1412 (55.6)		1412 (55.6)	
Tread (rear)	W102	1402 (55.2)		1402 (55.2)	
Vehicle width	W103	1677 (66.0)		1685 (66.3)	
Body width at Sg RP (front)	W117	1652 (65.0)		1652 (65.0)	
Vehicle width (front doors open)	W120	3684 (145.0)		3218 (126.7)	
Vehicle width (rear doors open)	W121	Not Applicable		2832 (111.5)	
Front fender overall width	W106	1648 (64.9)		1648 (64.9)	
Rear fender overall width	W107	1677 (66.0)		1685 (66.3)	
Tumble-home (deg.)	W122	21.5°		21.5°	22.0

Length

Wheelbase	L101	2571 (101.2)		2571 (101.2)	
Vehicle length	L103	4433 (174.5)	4540 (178.7)	4433 (174.5)	4518 (177.9)
Overhang (front)	L104	981 (38.6)		981 (38.6)	
Overhang (rear)	L105	881 (34.7)	988 (38.9)	881 (34.7)	966 (38.0)
Upper structure length	L123	2335 (91.9)		2363 (93.0)	2924 (115.1)
Rear wheel C/L "X" coordinate	L127	2354 (92.7)		2354 (92.7)	
Cowl point "X" coordinate	L125	247 (9.7)		245 (9.6)	246 (9.7)
Front end length at centerline	L126	1338 (52.7)	1339 (52.7)	1336 (52.6)	1337 (52.6)
Rear end length at centerline	L129	570 (22.4)	590 (23.2)	595 (23.4)	34 (1.3)

Height*

Passenger distribution (front/rear)	PD1.2.3	2/0			
Trunk/cargo load		0			
Vehicle height	H101	1322 (52.0)	1338 (52.7)	1361 (53.6)	1377 (54.2)
Cowl point to ground	H114	940 (37.0)	944 (37.2)	940 (37.0)	948 (37.3)
Deck point to ground	H138	1296 (51.0)	1301 (51.2)	1339 (52.7)	Not Applicable
Rocker panel-front to ground	H112	225 (8.9)	187 (7.4)	207 (8.1)	206 (8.1)
Bottom of door closed-front to grd.	H133	284 (11.2)	288 (11.3)	283 (11.1)	298 (11.7)
Rocker panel-rear to ground	H111	206 (8.1)	211 (8.3)	205 (8.1)	202 (8.0)
Bottom of door closed-rear to grd.	H135	Not Applicable		282 (11.1)	300 (11.8)
Windshield slope angle	H122	58.5°	58.75°	55.0°	
Backlight slope angle	H121	51.0°	54.5°	49.0°	35.5°

Ground Clearance*

Front bumper to ground	H102	229 (9.0)	232 (9.1)	229 (9.0)	232 (9.1)
Rear bumper to ground	H104	266 (10.5)	223 (8.8)	266 (10.5)	320 (12.6)
Bumper to ground (front at curb mass (wt.))	H103	244 (9.6)			247 (9.7)
Bumper to ground (rear at curb mass (wt.))	H105	296 (11.7)	247 (9.7)	296 (11.7)	345 (13.6)
Angle of approach (degrees)	H106	17°			
Angle of departure (degrees)	H107	17°	18°	19°	
Ramp breakover angle (degrees)	H147	15°			16°
Axle differential to ground (front / rear)	H153	163 (6.4)	167 (6.6)	163 (6.4)	168 (6.6)
Min. running ground clearance	H156	141 (5.6)	145 (5.7)	141 (5.6)	146 (5.7)
Location of min. run. grd. clear.		Front Suspension			

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

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Vehicle Line Cavalier

Model Year 1988

Issued _____

Revised (e) July 27, 1987

Body Type

SAE
Ref.
No.

COUPE

Front Compartment

Sg RP front, "X" coordinate	L31	1128	(44.4)
Effective head room	H61	961	(37.8)
Max. eff. leg room (accelerator)	L34	1090	(42.9)
SgRP to heel point	H30	230	(9.1)
SgRP to heel point	L53	897	(35.3)
Back angle	* L40	25°	
Hip angle	L42	99°	
Knee angle	L44	133°	
Foot angle	* L46	87°	
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)
** Upper body opening to ground	H50	1196	(47.1)
Steering wheel maximum diameter*	W9	368	(14.5)
Steering wheel angle	H18	18.5°	
Accel. heel pt. to steer. whl. cntr	L11		
Accel. heel pt. to steer. whl. cntr	H17		
Steering wheel to C/L of thigh	H13	108	(4.3)
Steering wheel torso clearance	L7	380	(15.0)
Headlining to roof panel (front)	H37	10	(.4)
Undepressed floor covering thickness	H67	16	(.6)

Front Compartment Interior Dimensions Are Measured With The Seating Reference Point (SgRP) 21 mm (1 Seat Adjuster Notch) Forward Of Rearmost Seat Position.

Rear Compartment

Sg RP Point couple distance	L50	705	(27.8)
Effective head room	H63	931	(36.7)
Min. effective leg room	L51	774	(30.5)
Sg RP (second to heel)	H31	259	(10.2)
Knee clearance	L48	-41	(-1.6)
Compartment room	L3	609	(24.0)
Shoulder room	W4	1335	(52.6)
Hip room	W6	1265	(49.8)
** Upper body opening to ground	H51	Not Applicable	
Back angle	L41	25°	
Hip angle	L43	78°	
Knee angle	L45	76.5°	
Foot angle	L47	114.5°	
Headlining to roof panel (second)	H38	9	(.4)
Depressed floor covering thickness	H73	18	(.7)

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	374	(13.2)
** Liftover height	H195	667	(26.3)

Interior Volumes (EPA Classification)

Vehicle class (subcompact, compact, etc.)		Compact
Interior volume index (cu. ft.)		101.2
Trunk/cargo index (cu. ft.)		13.2

All linear dimensions are in millimeters (inches).

** EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Vehicle Line Cavalier

Model Year 1988

Issued _____

Revised (e) July 27, 1988

Body Type

SAE Ref. No.	NOTCHBACK SEDANS LJC-64	1JE-69
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Front Compartment

Sg RP front. "X" coordinate	L31	1113 (43.8)	1128 (44.4)
Effective head room	H61	980 (38.6)	1008 (39.7)
Max. eff. leg room (accelerator)	L34	1072 (42.2)	1090 (42.9)
SgRP to heel point	H30	257 (10.1)	230 (9.1)
SgRP to heel point	L53	866 (34.1)	897 (35.3)
Back angle	L40	25°	
Hip angle	L42	98°	99°
Knee angle	L44	127°	132°
Foot angle	L46	87°	
Design H-point front travel	L17	192 (7.6)	
Normal driving & riding seat track trvl.	L23	171 (6.7)	
Shoulder room	W3	1363 (53.7)	
Hip room	W5	1240 (48.8)	
** Upper body opening to ground	H50	1236 (48.7)	
Steering wheel maximum diameter*	W9	375 (14.8)	368 (14.5)
Steering wheel angle	H18	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)
Steering wheel torso clearance	L7	377 (14.8)	380 (15)
Headlining to roof panel (front)	H37	10 (0.4)	
Undepressed floor covering thickness	H67	16 (0.6)	

Front Compartment Interior Dimensions Are Measured With The Seating Reference Point (SgRP) 21 mm (1 Seat Adjuster Notch) Forward Of Rearmost Seat Position.

Rear Compartment

Sg RP Point couple distance	L50	758 (29.8)	743 (29.3)
Effective head room	H63	964 (38.0)	
Min. effective leg room	L51	871 (34.3)	818 (32.2)
Sg RP (second to heel)	H31	272 (10.7)	
Knee clearance	L48	9 (0.4)	-16 (-0.6)
Compartment room	L3	657 (25.9)	622 (24.5)
Shoulder room	W4	1364 (53.7)	
Hip room	W6	1241 (48.9)	
** Upper body opening to ground	H51	1238 (48.7)	
Back angle	L41	26°	
Hip angle	L43	83°	81°
Knee angle	L45	85°	80°
Foot angle	L47	118°	116.5°
Headlining to roof panel (second)	H38	8 (0.3)	
Depressed floor covering thickness	H73	18 (0.7)	

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	386 (13.6)
** Litter height	H195	824 (32.4)

Interior Volumes (EPA Classification)

Vehicle class (subcompact, compact, etc.)	Compact
Interior volume index (cu. ft.)	101.2
Trunk/cargo index (cu. ft.)	13.6

All linear dimensions are in millimeters (inches).

** EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Vehicle Line Cavalier

Model Year 1988

Issued _____

Revised (e) July 27, 1987

Body Type

SAE
Ref.
No.

STATION WAGONS

Front Compartment

Sg RP front, "X" coordinate	L31	1113	(43.8)
Effective head room	H61	973	(38.3)
Max. eff. leg room (accelerator)	L34	1072	(42.2)
SgRP to heel point	H30	256	(10.1)
SgRP to heel point	L53	866	(34.1)
Back angle	L40	25°	
Hip angle	L42	98.5°	
Knee angle	L44	127.5°	
Foot angle	L46	87°	
Design H-point front travel	L17	192	(7.6)
Normal driving & riding seat track trvl.	L23	170	(6.7)
Shoulder room	W3	1363	(53.7)
Hip room	W5	1241	(48.9)
** Upper body opening to ground	H50	1249	(49.2)
Steering wheel maximum diameter*	W9	375	(14.8)
Steering wheel angle	H18	20°	
Accel. heel pt. to steer. whl. cntr	L11		
Accel. heel pt. to steer. whl. cntr	H17		
Steering wheel to C/L of thigh	H13	88	(3.5)
Steering wheel torso clearance	L7	377	(14.8)
Headlining to roof panel (front)	H37	13	(0.5)
Undepressed floor covering thickness	H67	16	(.6)

Front Compartment Interior Dimensions Are Measured With The Seating Reference Point (SgRP) 21 mm
(1 Seat Adjuster Notch) Forward Of Rearmost Seat Position.

Rear Compartment

Sg RP Point couple distance	L50	741	(29.2)
Effective head room	H63	986	(38.8)
Min. effective leg room	L51	857	(33.7)
Sg RP (second to heel)	H31	259	(10.2)
Knee clearance	L48	2	(.1)
Compartment room	L3	660	(26.0)
Shoulder room	W4	1364	(53.7)
Hip room	W6	1244	(49.0)
** Upper body opening to ground	H51	1254	(49.4)
Back angle	L41	25°	
Hip angle	L43	81.0°	
Knee angle	L45	86.0°	
Foot angle	L47	121.0°	
Headlining to roof panel (second)	H38	13	(0.5)
Depressed floor covering thickness	H73	20	(0.8)

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	Not Applicable
** Lifter height	H195	Not Applicable

Interior Volumes (EPA Classification)

Vehicle class (subcompact, compact, etc.)		Small
Interior volume index (cu. ft.)		125.0
Trunk/cargo index (cu. ft.)		34.1

All linear dimensions are in millimeters (inches).

** EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) July 27, 1987

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Body Type

SAE Ref. No.	CONVERTIBLE
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Front Compartment

Sg RP front, "X" coordinate	L31	1128	(44.4)
Effective head room	H61	992	(39.1)
Max. eff. leg room (accelerator)	L34	1090	(42.9)
SgRP to heel point	H30	230	(9.1)
SgRP to heel point	L53	897	(35.3)
Back angle	L40	25°	
Hip angle	L42	99°	
Knee angle	L44	133°	
Foot angle	L46	87°	
Design H-point front travel	L17	192	(7.6)
Normal driving & riding seat track trvl.	L23		
Shoulder room	W3	1364	(53.7)
Hip room	W5	1230	(48.4)
** Upper body opening to ground	H50	1221	(48.1)
Steering wheel maximum diameter*	W9	368	(14.5)
Steering wheel angle	H18	18.5°	
Accel. heel pt. to steer. whl. cntr	L11		
Accel. heel pt. to steer. whl. cntr	H17		
Steering wheel to C / L of thigh	H13	108	(4.3)
Steering wheel torso clearance	L7	380	(15.0)
Headlining to roof panel (front)	H37		
Undepressed floor covering thickness	H67	17	(.7)

Front Compartment Interior Dimensions Are Measured With The Seating Reference Point (SgRP) 21 mm (1 Seat Adjuster Notch) Forward Of Rearmost Seat Position.

Rear Compartment

Sg RP Point couple distance	L50	705	(27.8)
Effective head room	H63	949	(37.4)
Min. effective leg room	L51	791	(31.1)
Sg RP (second to heel)	H31	259	(10.2)
Knee clearance	L48	-39	(-1.5)
Compartment room	L3	593	(23.3)
Shoulder room	W4	964	(38.0)
Hip room	W6	964	(38.0)
** Upper body opening to ground	H51	Not Applicable	
Back angle	L41	19°	
Hip angle	L43	73°	
Knee angle	L45	79.5°	
Foot angle	L47	115.5°	
Headlining to roof panel (second)	H38	Not Applicable	
Depressed floor covering thickness	H73	19	(.7)

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	294	(10.4)
** Litter height	H195	673	(26.5)

Interior Volumes (EPA Classification)

Vehicle class (subcompact, compact, etc.)		Sub-Compact
Interior volume index (cu. ft.)		87.9
Trunk/cargo index (cu. ft.)		10.3

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

MVMA Specifications Form

Vehicle Line Cavalier

Model Year 1988 Issued _____ Revised (•) July 27, 1987

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

Body Type

SAE Ref. No.	
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Station Wagon - Third Seat

Sg RP couple distance	L85	X
Shoulder room	W85	
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	Not Applicable
Cargo length (open second)	L201	Not Applicable
Cargo length (closed front)	L202	1709 (67.3)
Cargo length (closed second)	L203	980 (38.6)
Cargo length at belt (front)	L204	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 (47.3)
Min. 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	545 (21.5)
Front seat back to load floor height	H197	
Cargo volume index [m ³ (ft. ³)]	V2	1824 (64.4)
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	X
Cargo length at floor (front)	L209	
Cargo length at second seatback height	L210	
Cargo length at floor (second)	L211	
Front seatback to load floor height	H197	
Second seatback to load floor height	H198	
Cargo volume index [m ³ (ft. ³)]	V3	
Hidden cargo volume [m ³ (ft. ³)]	V4	
Cargo volume index-rear of 2-seat	V11	

Aerodynamics*

	COUPE	CONV	SEDAN	STATION WAGON
Wheel tip to ground, front	646 (25.4)	650 (25.6)	646 (25.4)	651 (25.6)
Wheel tip to ground, rear	624 (24.6)	629 (24.8)	623 (24.5)	642 (25.3)
Frontal area [m ² (ft ²)]	1.84 (19.81)		1.90 (20.45)	1.94 (20.88)
Drag coefficient (Cd)				

* EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form
METRIC (U.S. Customary)

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (●) _____

Body Type

ALL

Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location				
Front	X	Fiducial mark to vertical base grid line - front, measured horizontally from 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 of car to the 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 base grid line to rear fiducial mark located on the rail (compartment pan - longitudinal).			
Front		ALL-COUPE	SEDAN	STATION WAGON	CONVERTIBLE
	W21*	504 (19.8)			505 (19.9)
	L54*	2746 (108.1)			
	H81*	246 (9.7)			
	H161*	287 (11.3)	287 (11.3)	296 (11.7)	287 (11.3)
	** H163*	266 (10.5)	266 (10.5)	277 (10.9)	270 (10.6)
	Rear	W22*	440 (17.3)		
	L55*	4900 (192.9)		4951 (194.9)	4900 (192.9)
	H82*	362 (14.3)			
	H162*	407 (16.0)	407 (16.0)	425 (16.7)	407 (16.0)
**	H164*	377 (14.8)	377 (14.8)	401 (15.8)	383 (15.1)

* Reference - SAE Recommended Practice, J182, Motor Vehicle Fiducial Marks.
 All linear dimensions are in millimeters (Inches).
 ** EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form
METRIC (U.S. Customary)

Vehicle Line Cavalier
 Model Year 1988 Issued _____ Revised (•) July 27, 1987

Body Type

COUPE CONVERTIBLE SEDANS	STATION WAGONS
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Lamps and Headlamp Shape*

Height above ground to center of bulb or marker	Headlamp (SAE - H127)	Highest**	624 (24.6)		626 (24.6)	
		Lowest	624 (24.6)		626 (24.6)	
	Taillamp (SAE - H128)	Highest**	796 (31.3)	754 (29.7)		772 (30.4)
		Lowest	--			--
	Sidemarker	Front	625 (24.6)			627 (24.7)
		Rear	523 (20.6)			541 (21.3)
	Distance from C/L of car to center of bulb	Headlamp	Inside	462 (18.18)		
			Outside**	576 (22.67)		
Taillamp		Inside	--			
		Outside**	653 (25.7)	650 (25.6)		650 (25.6)
Directional		Front	346 (13.6)			
		Rear	656 (25.8)	666 (26.2)		666 (26.2)
Halogen headlamp (std., opt., n.a.)		Lo beam	Not Available			
		Hi beam	Not Available			
	Replaceable bulb	Standard				
	Shape	Rectangular				
Headlamp other than above	Lo beam	Replaceable Bulb Headlamp				
	Hi beam	Replaceable Bulb Headlamp				
	Replaceable	Bulb - Halogen				
	Shape	Aero Design				
	Type	Four Lamp				

* Measured at curb mass (weight).
 ** If single lamps are used enter here.



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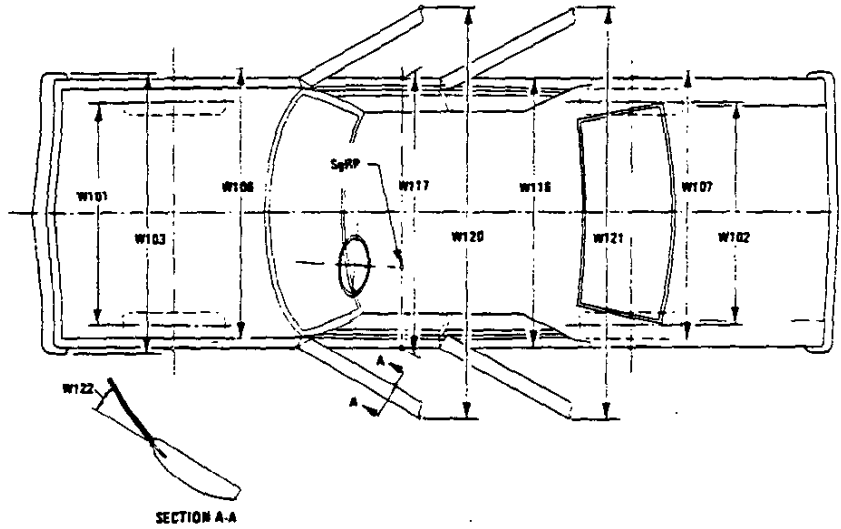


MVMA Specifications Form

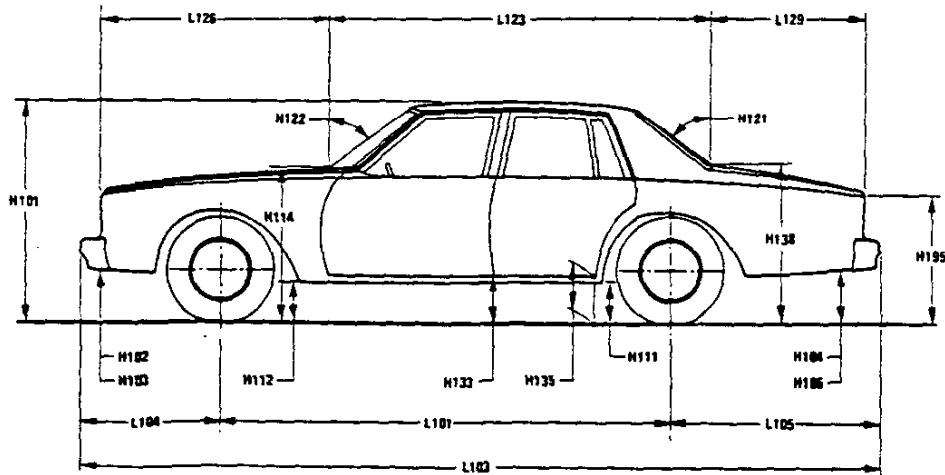
METRIC (U.S. Customary)

Exterior Vehicle And Body Dimensions - Key Sheet

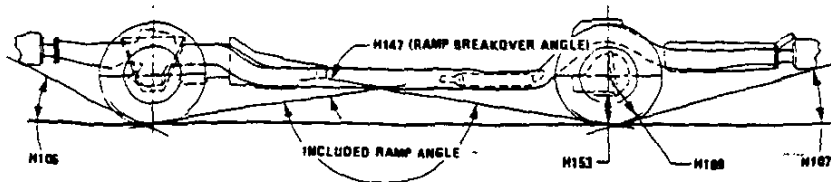
Exterior Width



Exterior Length & Height



Exterior Ground Clearance





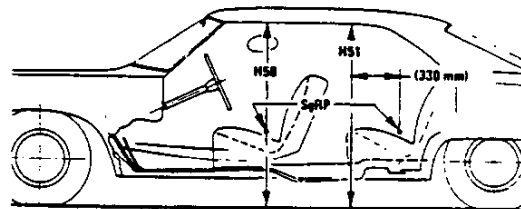
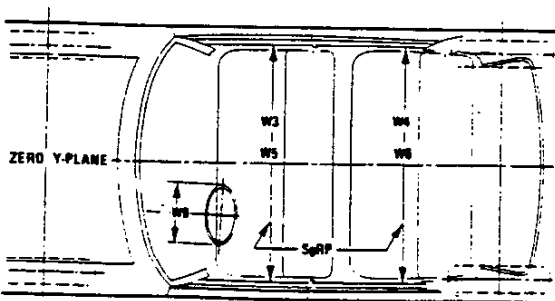
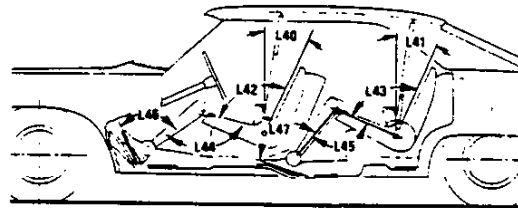
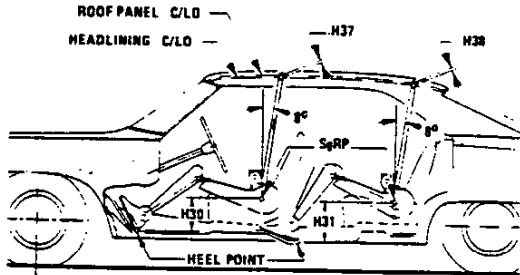
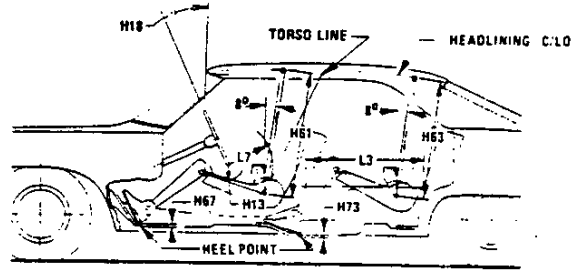
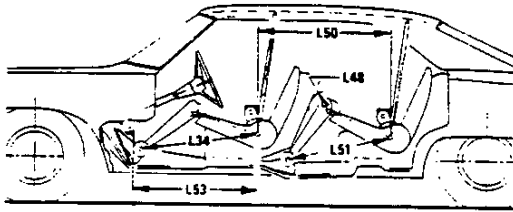
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Interior Vehicle And Body Dimensions - Key Sheet



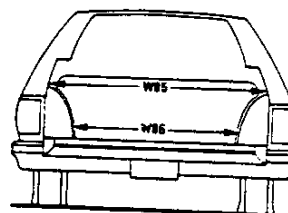
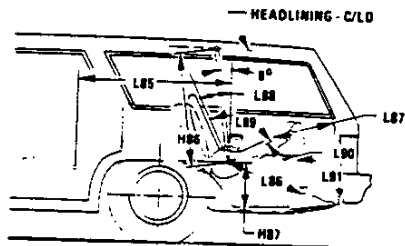


MVMA Specifications Form

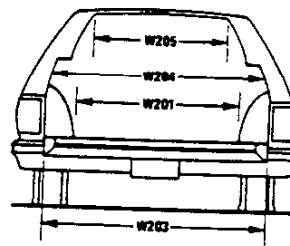
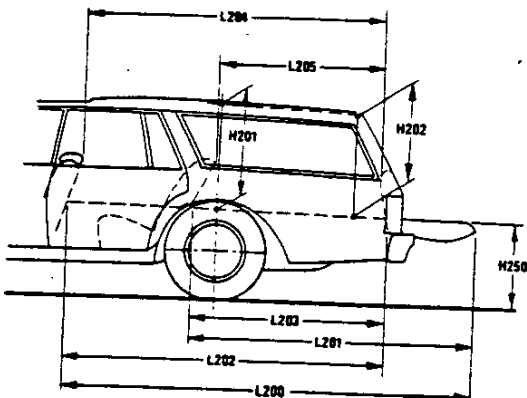
METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions - Key Sheet

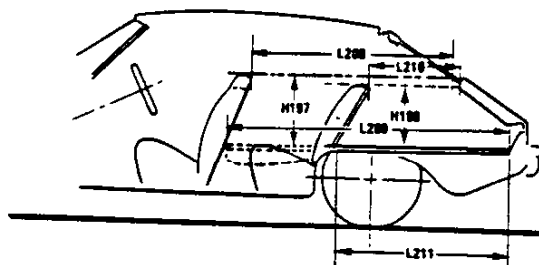
Third Seat



Cargo Space



Station Wagon



Hatchback



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MVMA Specifications Form

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Exterior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

Seating Reference Point

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

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

Width Dimensions

- W101 TREAD-FRONT. The dimension measured between the tire centerlines at the ground.
- W102 TREAD-REAR. The dimension measured between the tire centerlines at the ground. In case of dual wheels, the dimension will be measured to the centerline of tire and wheel assemblies.
- W103 VEHICLE WIDTH. The maximum dimension measured between the widest point on the vehicle, excluding exterior mirrors, flexible mud flaps, marker lamps, but including bumpers, moldings, sheet metal protrusions or dual wheels, if standard equipment.
- W106 FRONT FENDER WIDTH. The dimension measured between the widest points at the front wheel centerline, excluding moldings.
- W107 REAR FENDER WIDTH. The dimension measured between the widest points at the rear wheel centerline, excluding moldings.
- W117 BODY WIDTH AT SgRP-FRONT. The dimension measured laterally between the widest points on the body at the SgRP-front, excluding door handles, applied moldings, or appliques.
- W120 VEHICLE WIDTH-FRONT DOORS OPEN. The dimension measured between the widest point on the front doors in maximum hold-open position.
- W121 VEHICLE WIDTH-REAR DOORS OPEN. The dimension measured between the widest point on the rear doors in maximum hold-open position. For vehicles with a rear door on only one side, this dimension is to the zero "Y" plane.
- W122 TUMBLE-HOME STRAIGHT SIDE GLASS. The angle measured from a vertical to the outside surface of the front door glass at the SgRP "X" plane.
CURVED SIDE GLASS. The angle measured from a vertical to a chord extending from the upper DLO to the lower DLO at the outside surface of the front door glass at the front SgRP "X" plane.

Length Dimensions

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

of dual rear axles, the dimension shall be the midpoint of the centerlines of the rear wheels, to the rearmost point on the vehicle including rear bumpers, bumper guards, tow hooks and rub strips, if standard equipment.

- L123 UPPER STRUCTURE LENGTH. The dimension measured longitudinally from the cowl point to the deck point.
- L125 COWL POINT "X" COORDINATE.
- L126 FRONT END LENGTH. The dimension measured longitudinally from the cowl point to the foremost point on the vehicle at the zero "Y" plane excluding ornamentation or bumpers. In cases where bumpers and/or grills are integrated with the profile, measurement is made at the foremost point of front end contour.
- L127 REAR WHEEL CENTERLINE "X" COORDINATE or in the case of dual rear axles, the coordinate shall be the midpoint of the distance between the rear axle centerlines.
- L129 REAR END LENGTH. The dimension measured longitudinally from the deck point to the rearmost visible point 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.

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MVMA Specifications Form

METRIC (U.S. Customary)

Interior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

- H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.
- 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 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 the front seat to the front of the second seatback at a height tangent to the top of the second seat cushion.

MVMA Specifications Form

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Interior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

- L-41 BACK ANGLE-SECOND. The angle measured between a vertical line through the SgRP-second and the torso line.
- L43 HIP ANGLE-SECOND. The angle measured between torso line and thigh centerline.
- L45 KNEE ANGLE-SECOND. The angle measured between thigh centerline and lower leg centerline.
- L47 FOOT ANGLE-SECOND. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the three-dimensional devices bare foot flesh line (Reference J826).
- L48 KNEE CLEARANCE-SECOND. The minimum dimension measured from the knee pivot center to the back of the front seatback minus 51 mm (2.0 in.).
- L50 SgRP COUPLE DISTANCE-SECOND. The dimension measured horizontally from the driver SgRP-front to the SgRP-second.
- L51 MINIMUM EFFECTIVE LEG ROOM-SECOND. The dimension measured along a line from the ankle pivot center to the SgRP-second plus 254mm (10.0 in.).
- W4 SHOULDER ROOM-SECOND. The minimum dimension measured laterally between door or quarter trimmed surfaces on the "X" plane through the SgRP-second at height between 254-406 mm (10.0-16.0 in.) above the SgRP-second, excluding the door assist straps and attaching parts.
- W6 HIP ROOM-SECOND. Measured in the same manner as W5.
- H31 SgRP-SECOND TO HEEL. The dimension measured vertically from the SgRP-second to the two dimensional device heel point on the depressed floor covering.
- H38 HEADLINING TO ROOF PANEL-SECOND. The dimension measured from the intersection of the headlining and the extended effective head room line normally to the roof sheet metal.
- H51 UPPER BODY OPENING TO GROUND-SECOND. The dimension measured vertically from the trimmed body opening to the ground on the "X" plane 330 mm (13.0 in.) forward of the SgRP-second.
- H63 EFFECTIVE HEAD ROOM-SECOND. The dimension measured along a line 8 deg. rear of vertical from the SgRP to the headlining, plus 102 mm (4.0 in.).
- H73 FLOOR COVERING-DEPRESSED-SECOND. The dimension measured vertically from the heel point to the underbody sheet metal.
- 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 manner as L41.
- L89 HIP ANGLE-THIRD. Measured in the same manner as L43.
- L90 KNEE ANGLE-THIRD. Measured in the same manner as L45.
- L91 FOOT ANGLE-THIRD. Measured in the same manner as L47.
- W85 SHOULDER ROOM-THIRD. Measured in the same manner as W4.
- W86 HIP ROOM-THIRD. Measured in the same manner as W5.
- H86 EFFECTIVE HEAD ROOM-THIRD. The dimension, measured along a line 8 deg. from the SgRP-third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).
- H87 SgRP-THIRD TO HEEL POINT.
- PD3 PASSENGER DISTRIBUTION-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 the foremost normal surface of the closed tailgate at the height of the belt, on the zero "Y" plane.
- W201 CARGO WIDTH-WHEELHOUSE. The minimum dimension measured laterally between the trimmed wheelhouseings at floor level. For any vehicle not trimmed, measure to the sheet metal.

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Interior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

- W203 REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear opening at floor level.
- W204 REAR OPENING WIDTH AT BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening at belt height or top of pick up box.
- W205 REAR OPENING WIDTH ABOVE BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening above the belt height.
- H197 FRONT SEATBACK TO LOAD FLOOR HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.
- H201 CARGO HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the headlining at the rear wheel "X" coordinate on the zero "Y" plane.
- H202 REAR OPENING HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the upper trimmed opening on the zero "Y" plane with rear door fully open.
- H250 TAILGATE TO GROUND CURB MASS (WT.). The dimension measured vertically from the top of the undepressed floor covering on the lowered tailgate to ground on the zero "Y" plane.
- V2 STATION WAGON
Measured in inches:

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

$$\frac{W4 \times H201 \times L204}{10^9} = \text{m}^3 \text{ (cubic meter)}$$
- V4 HIDDEN LUGGAGE CAPACITY-REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.
- V5 TRUCKS AND MPV'S WITH OPEN AREA.
Measured in inches:

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

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

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

$$\frac{L204 \times W500 \times H505}{10^9} = \text{m}^3 \text{ (cubic meter)}$$
- V8 HIDDEN LUGGAGE CAPACITY-REAR OF SECOND SEAT. The total volume of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the second seat.
- V10 STATION WAGON CARGO VOLUME INDEX. Usable luggage (one (1) stand and luggage set) below floor:
Measured in inches:

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

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

Hatchback - Cargo Space Dimensions

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

- L208 CARGO LENGTH AT FRONT SEATBACK HEIGHT. The minimum horizontal dimension from the "X" plane tangent to the rearmost surface of the driver's seatback to the inside limiting interference of the hatchback door on the vehicle zero "Y" plane.
- L209 CARGO LENGTH AT FLOOR-FRONT-HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the front seatback to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.
- L210 CARGO LENGTH AT SECOND SEATBACK HEIGHT-HATCHBACK. The minimum dimension measured from the "X" plane tangent to the rearmost surface of second seatback or the load floor which is stowed at least one half of the H198 dimension height above the rear load floor, to the rearmost inside limiting interference on the zero "Y" plane.
- L211 CARGO LENGTH AT FLOOR-SECOND HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the second seatback or load floor panel to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.
- H197 FRONT SEATBACK TO LOAD HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.
- H198 SECOND SEATBACK TO LOAD FLOOR HEIGHT. The dimension measured vertically from the second seat back to the undepressed floor covering.
- V3 HATCHBACK.
Measured in inches:

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

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{10^9} = \text{m}^3 \text{ (cubic meter)}$$
- V4 HIDDEN LUGGAGE CAPACITY-REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.
- V11 HATCHBACK CARGO VOLUME INDEX. Usable luggage (one (1) stand and luggage set) below floor:
Measured in inches:

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

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

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