MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

1989

Manufacturer	Chevrolet Motor Division General Motors Corporation	Vehicle Line	
Mailing Address	Chevrolet-Pontiac-Canada Group Engineering Center General Motors Corporation 30003 Van Dyke Warren, MI 48090-9060	CAMARO	
		Issued June, 1988	Revised September, 1988

Direct questions concerning these specifications to the manufacturer listed above.

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

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

mvma
Motor Vehicle Manufacturers Association
of the United States, Inc.

Blank Forms Provided by Technical Affairs Division

MVMA-C-89

MVMA Specifications Form

METRIC (U.S. Customary)

Table of Contents

Ø Indicates Format Change From Previous Year

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.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

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

SERIES AVAILABILITY	ENGINE						Exhaust S/D*	TRANSMISSION/ TRANSAXLE	AXLE RATIO (std. first)
	Code	Displ. Liters (in^3)	Induction (FI, CARB/ BBL, etc.)	Compr. Ratio	SAE Net at RPM: Power kW (bhp)	SAE Net at RPM: Torque N•m (lb. ft.)			
Base - All Except IROC-Z	LB8	V6 2.8 (173)	MFI **	8.9:1	101 (135) @ 4900	217 (160) @ 3900	S	Man. 5-Spd. (MB1) Base	3.42
								Auto '700-R4 (MD8) Avail	3.42
Avail - All Except IROC-Z	L03	V8 5.0 (305)	EFI ***	9.3:1	127 (170) @ 4400	346 (255) @ 2400	S	Man. 5-Spd. (M39) Base	3.08
Base - IROC-Z								Auto '700-R4' (MD8) Avail	2.73
Avail - IROC-Z	LB9	V8 5.0 (305)	TPI @	9.3:1	164 (220) @ 4400	393 (290) @ 3200	S	Man.5-Spd. (M39) Base	3.08
					145 (195) @ 4000	400 (295) @ 2800	S	Auto '700-R4' (MD8) Avail	2.73
					172 (230) @ 4600	407 (300) @ 3200	D	Man. 5-Spd. (MK6) Avail	3.45
Avail - IROC-Z	L98	V8 5.7 (350)	TPI @	9.3:1	172 (230) @ 4400	447 (330) @ 3200	S	Auto '700-R4' (MD8) Base	2.77
					179 (240) @ 4400	468 (345) @ 3200	D	Auto '700-R4' (MD8) Avail	3.27

** - Multi-Port Fuel Injection
*** - Electronic Fuel Injection
@ - Tuned Port Fuel Injection

* Single / Dual

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

∅ Vehicle Origin

Design & development (company)	Chevrolet-Pontiac-GM of Canada Engineering
Where built (country)	U.S.A.
Authorized U.S. sales marketing representative	Chevrolet Motor Division

∅ Vehicle Models

Model Description & Drive (FWD/RWD/AWD/4WD)*	Introduction Date	Make, Vehicle Models, Series, Body Type (Mfgr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk/Cargo Load–Kilograms (Pounds)
RALLY SPORT				
2-Door Coupe (RWD)		1FP87	4 (2/2)	45.4 (100.1)
RALLY SPORT				
2-Door Convertible (RWD)		1FP67	4 (2/2)	N/A

N/A = Not Available

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb.	2.8 Liter V6 (173 CID)
Engine Code	(2.8 Multi Port FI) RPO LB8

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		60°V - Front - Longitudinal
Manufacturer		Chevrolet
No. of cylinders		6
Bore		89.0 (3.50)
Stroke		76.0 (2.99)
Bore spacing (C / L to C / L)		111.8 (4.40)
Cylinder block material & mass kg (lbs.) (machined)		Cast iron 41.731 (91.9)
Cylinder block deck height		224 (8.82)
Cylinder block length		435.5 (17.1)
Deck clearance (minimum) (above or below block)		0.12 (.0047) Below
Cylinder head material & mass kg (lbs.)		Cast iron 11.227 (24.8)
Cylinder head volume (cm^3)		--
Cylinder liner material		Not Applicable
Head gasket thickness (compressed)		.838 (.033)
Minimum combustion chamber total volume (cm^3)		51.546 (2.029)@
Cyl. no. system (front to rear)*	L. Bank	1-3-5
	R. Bank	2-4-6
Firing order		1-2-3-4-5-6
Intake manifold material & mass [kg (lbs.)]**		Cast aluminum/2.370 (5.1) ctr, 3.810 (8.4) lwr
Exhaust manifold material & mass [kg (lbs.)]**		Cast Iron/3.610 (8.0) RH, 2.425 (5.3) LH
Fuel required unleaded, diesel, etc.		Unleaded
Fuel antiknock index (R + M) ÷ 2		87
Engine mounts	Number	
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.	
	Added isolation (sub-frame, crossmember, etc.)	
Total dressed engine mass (wt) dry***		195.7 (431.4) Auto, 206.9 (456.1) Man.

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum alloy/.467 (1.0)

Engine – Camshaft

Location		In block above crankshaft
Material & mass kg (weight, lbs.)		Cast iron/3.098 (6.83)
Drive type	Chain / belt	Chain
	Width / pitch	19.4/60.9

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

** Finished state.

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

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

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code: 5.0 Liter V8 (305 CID) (Electronic Fuel Injection) RPO L03

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		90°V Front Longitudinal
Manufacturer		Chevrolet
No. of cylinders		8
Bore		94.89 (3.74)
Stroke		88.39 (3.48)
Bore spacing (C / L to C / L)		111.8 (4.40)
Cylinder block material & mass kg (lbs.) (machined)		Cast alloy iron 68.674 (151.4)
Cylinder block deck height		229.4 (9.025)
Cylinder block length		512.8 (20.19)
Deck clearance (minimum) (above or below block)		.635 (.025) below
Cylinder head material & mass kg (lbs.)		Cast alloy iron 19.800 (43.7)
Cylinder head volume (cm^3)		--
Cylinder liner material		Not Applicable
Head gasket thickness (compressed)		.533 (.021)
Minimum combustion chamber total volume (cm^3)		55.2 (+/- 2.2)
Cyl. no. system (front to rear)*	L. Bank	1-3-5-7
	R. Bank	2-4-6-8
Firing order		1-8-4-3-6-5-7-2
Intake manifold material & mass [kg (lbs.)]**		Cast aluminum/6.900 (15.2)
Exhaust manifold material & mass [kg (lbs.)]**		Cast iron 4.345 (9.6) L.H., 3.800 (8.4) R.H.
Fuel required unleaded, diesel, etc.		Unleaded
Fuel antiknock index (R + M) + 2		87
Engine mounts	Number	
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.	
	Added isolation (sub-frame, crossmember, etc.)	
Total dressed engine mass (wt) dry***		275.1 (606.5) Auto. 290.8 (641.1) Man.

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum .645 (1.4)

Engine – Camshaft

Location		In block above crankshaft
Material & mass kg (weight, lbs.)		Steel 4.124 (9.1)
Drive type	Chain / belt	Chain
	Width / pitch	15.976 (6.25)/.5

* 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.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Tuned Port Fuel Injection) RPO LB9

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		90°V Front Longitudinal
Manufacturer		Chevrolet
No. of cylinders		8
Bore		94.89 (3.74)
Stroke		88.39 (3.48)
Bore spacing (C / L to C / L)		111.8 (4.40)
Cylinder block material & mass kg (lbs.) (machined)		Cast Iron/68.674 (151.4)
Cylinder block deck height		229 (9.025)
Cylinder block length		512.8 (20.19)
Deck clearance (minimum) (above or below block)		.635 (.025) below
Cylinder head material & mass kg (lbs.)		Cast Iron/19.800 (43.7)
Cylinder head volume (cm^3)		--
Cylinder liner material		Not Applicable
Head gasket thickness (compressed)		.533 (.021)
Minimum combustion chamber total volume (cm^3)		55.2 (+/- 2.2)
Cyl. no. system (front to rear)*	L. Bank	1-3-5-7
	R. Bank	2-4-6-8
Firing order		1-8-4-3-6-5-7-2
Intake manifold material & mass [kg (lbs.)]**		Cast Aluminum/6.117 (13.5)
Exhaust manifold material & mass [kg (lbs.)]**		Cast Iron/L.H. 4.460 (9.8), R.H. 3.800 (8.4)
Fuel required unleaded, diesel, etc.		Unleaded
Fuel antiknock index (R + M) + 2		91
Engine mounts	Number	
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.	
	Added isolation (sub-frame, crossmember, etc.)	
Total dressed engine mass (wt) dry***		282.4 (622.6) Auto. 297.9 (656.7) Man.

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	Aluminum/.645 (1.4)

Engine – Camshaft

Location		In block above crankshaft
Material & mass kg (weight, lbs.)		Steel 4.200 (9.3)
Drive type	Chain / belt	Chain
	Width / pitch	15.976 (.625)/.5

* 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 engine a complete ready-to-run unit.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

5.7 Liter V8 (350 CID)
Tuned Port Fuel Injection (TPI) RPO L98

ENGINE – GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)		90°V Front Longitudinal
Manufacturer		Chevrolet
No. of cylinders		8
Bore		101.6 (4.00)
Stroke		88.4 (3.48)
Bore spacing (C / L to C / L)		111.8 (4.40)
Cylinder block material & mass kg (lbs.) (machined)		Cast Iron/68.674 (151.5)
Cylinder block deck height		229.2 (9.025)
Cylinder block length		506.2 (19.93)
Deck clearance (minimum) (above or below block)		.025 below
Cylinder head material & mass kg (lbs.)		Cast Iron/19.800 (43.7)
Cylinder head volume (cm^3)		--
Cylinder liner material		Not Applicable
Head gasket thickness (compressed)		.021
Minimum combustion chamber total volume (cm^3)		75.47 Combustion chamber with piston at top dead center and all components in place torqued to specifications.
Cyl. no. system (front to rear)*	L. Bank	1-3-5-7
	R. Bank	2-4-6-8
Firing order		1-8-4-3-6-5-7-2
Intake manifold material & mass [kg (lbs.)]**		Cast Aluminum/6.117 (13.5)
Exhaust manifold material & mass [kg (lbs.)]**		Iron 4.460 (9.8) L.H., 3.800 (8.4) R.H.
Fuel required unleaded, diesel, etc.		Unleaded
Fuel antiknock index (R + M) + 2		91
Engine mounts	Number	
	Material and type (elastomeric, hydroelastic, hydraulic damper, etc.	
	Added isolation (sub-frame, crossmember, etc.)	
Total dressed engine mass (wt) dry***		284.5 (627.3) auto.

Engine – Pistons

Material & mass, g (weight, oz.) - piston only	Impacted cast aluminum, .645 (1.4)

Engine – Camshaft

Location		In cylinder block "V" above crankshaft
Material & mass kg (weight, lbs.)		Steel 4.200 (9.3)
Drive type	Chain / belt	Chain
	Width / pitch	15.976 (.625)/.5

* 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 engine a complete ready-to-run unit.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.8 Liter V6 (173 CID) (2.8 Multi-Port FI) RPO LB8

Engine – Valve System

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

Engine – Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Steel .399 (0.9)
∅ Length (axes℄ to℄) mm	144.78

Engine – Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular cast iron 14.170 (31.24)
End thrust taken by bearing (no.)		3
Length & number of main bearings		4
Seal (material, one, two piece design, etc.)	Front	Fluoroelastomer, one-piece, lip seal
	Rear	Fluoroelastomer, one-piece, lip seal

Engine – Lubrication System

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

Engine – Diesel Information

Diesel engine manufacturer		Not
Glow plug, current drain at 0°F		Applicable
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	Not
Super charger - manufacturer	Applicable
Intercooler	

*Finished State

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Electronic Fuel Injection) RPO L03

Engine – Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake / exhaust	8/8
	Head O.D. intake / exhaust	46.74 (1.84)/38.10 (1.50)

Engine – Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Steel/.388 (0.85)
Ø Length (axes ℄ to ℄) mm	144.78

Engine – Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular cast iron/23.360 (51.50)
End thrust taken by bearing (no.)		5
Length & number of main bearings		5
Seal (material, one, two piece design, etc.)	Front	Fluoroelastomer, one-piece, lip seal
	Rear	Fluoroelastomer, one-piece, lip seal

Engine – Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	345-448 (50-65) @ 2000
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full-flow
Capacity of c/case, less filter-refill-L (qt.)	4.5 (5.0)

Engine – Diesel Information

Diesel engine manufacturer		Not
Glow plug, current drain at 0°F		Applicable
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	Not
Super charger - manufacturer	Applicable
Intercooler	

*Finished State

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Tuned Port Fuel Injection) RPO LB9

Engine – Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake / exhaust	8/8
	Head O.D. intake / exhaust	46.74 (1.84), 38.10 (1.50)

Engine – Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Steel/.388 (0.85)
∅ Length (axes ℄ to ℄) mm	144.78

Engine – Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular Cast Iron/23.360 (51.50)
End thrust taken by bearing (no.)		5
Length & number of main bearings		5
Seal (material, one, two piece design, etc.)	Front	Fluoroelastomer, one-piece, lip seal
	Rear	Fluoroelastomer, one-piece, lip seal

Engine – Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	345-450 (50-65) @ 2000 with Auto. Trans., *
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full-flow
Capacity of c/case, less filter-refill-L (qt.)	4.5 (5.0)

Engine – Diesel Information

Diesel engine manufacturer		Not
Glow plug, current drain at 0°F		Applicable
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	Not
Super charger - manufacturer	Applicable
Intercooler	

*Finished State

* 485-585 (70-85) @ 2000 with Manual Transmission

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (●) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.7 Liter V8 (350 CID) Tuned Port Fuel Injection (TPI) RPO L98

Engine – Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake / exhaust	8/8
	Head O.D. intake / exhaust	49.28 (1.94)/38.10 (1.50)

Engine – Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Steel - .388 (0.85)
∅ Length (axes℄ to℄) mm	144.78

Engine – Crankshaft

Material & mass [kg., (weight, lbs.)]*		Nodular Cast Iron - 23.360 (51.5)
End thrust taken by bearing (no.)		5
Length & number of main bearings		5
Seal (material, one, two piece design, etc.)	Front	Fluoroelastomer, one-piece, lip seal
	Rear	Fluoroelastomer, one-piece, lip seal

Engine – Lubrication System

Normal oil pressure [kPa (psi) at engine rpm]	485-585 (70-85) @ 2000
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full-flow (including engine oil cooler)
Capacity of c/case, less filter-refill-L (qt.)	4.5 (5.0)

Engine – Diesel Information

Diesel engine manufacturer		Not
Glow plug, current drain at 0°F		Applicable
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	Not
Super charger - manufacturer	Applicable
Intercooler	

*Finished State

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.8 Liter V6 (173 CID) (2.8 Multi-Port FI) RPO LB8

Engine – Cooling System

Coolant recovery system (std., opt., n.a.)		Standard
Coolant fill location (rad., bottle)		Bottle, coolant recovery
Radiator cap relief valve pressure [kPa (psi)]		103.4 (15)
Circulation thermostat	Type (choke, bypass)	Bypass
	Starts to open at °C (°F)	91°C (195°F)
Water pump	Type (centrifugal, other)	Centrifugal
	GPM 1000 pump rpm	15.5
	Number of pumps	One
	Drive (V-belt, other)	Single belt poly'V' accessory drive (serpentine)
	Bearing type	Sealed ball-roller
	Impeller material	Cast Iron
	Housing material	Aluminum
By-pass recirculation [type (inter,. ext.)]		Internal
Cooling system capacity	With heater–L(qt.)	12.18 (12.87) Auto, 12.28 (12.98) Man.
	With air cond.–L(qt.)	12.20 (12.89) Auto, 12.10 (12.79) 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)		No
Radiator core	Std., A/C, HD Aut	Std. A/C
	Type (cross-flow, etc.)	Cross-flow
	Construction (fin & tube mechanical, braze, etc.)	Fin & Tube
	Material, mass [kg (wgt, lbs.)]	Aluminum, high efficiency radiator
	Width	599.5 599.5
	Height	437.8 437.8
	Thickness	23.5 23.5
	Fins per inch @	4.0 3.0
Radiator end tank material		Plastic
Fan	Std., elec., opt.	Standard, Electric
	Number of blades & type (flex, solid, material)	5, Plastic solid
	Diameter & projected width	423.0 (16.7)
	Ratio (fan to crankshaft rev.)	Not available
	Fan cutout type	ECM controlled
	Drive type (direct, remote)	--
	RPM at idle (elec.)	--
	Motor rating (wattage) (elec.)	150
	Motor switch (type & location) (elec.)	Part ECM
	Switch point (temp., pressure) (elec.)	1900-2100
	Fan shroud (material)	Plastic

@ - Distance between top of fins.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

5.0 Liter V8 (305 CID)
(Electronic Fuel Injection) RPO L03

Engine – Cooling System

Coolant recovery system (std., opt., n.a.)		Standard
Coolant fill location (rad., bottle)		Bottle, coolant recovery
Radiator cap relief valve pressure [kPa (psi)]		103.4 (15)
Circulation thermostat	Type (choke, bypass)	Choke
	Starts to open at °C (°F)	90.6°C (195°F)
Water pump	Type (centrifugal, other)	Centrifugal
	GPM 1000 pump rpm	14 (total cooling system flow)
	Number of pumps	One
	Drive (V-belt, other)	Single belt poly 'V' accessory drive (serpentine)
	Bearing type	Sealed double row ball
	Impeller material	Steel
	Housing material	Cast Iron
By-pass recirculation [type (inter,. ext.)]		Internal
Cooling system capacity	With heater–L(qt.)	15.52 (16.40)
	With air cond.–L(qt.)	15.90 (16.80)
	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 or HD AC & HD
	Type (cross-flow, etc.)	Cross flow
	Construction (fin & tube mechanical, braze, etc.)	Fin & Tube
	Material, mass [kg (wgt, lbs.)]	Aluminum, high efficiency radiator
	Width	667.5 667.5
	Height	437.8 437.8
	Thickness	23.5 23.5
	Fins per inch @	* 2.5
Radiator end tank material		Plastic
Fan	Std., elec., opt.	Std. Opt.
	Number of blades & type (flex, solid, material)	5, Plastic, solid 5, Plastic, solid
	Diameter & projected width	423.0 (16.7) 423.0 (16.7)
	Ratio (fan to crankshaft rev.)	Not Applicable
	Fan cutout type	ECM controlled
	Drive type (direct, remote)	--
	RPM at idle (elec.)	--
	Motor rating (wattage) (elec.)	150
	Motor switch (type & location) (elec.)	Temp switch engine cylinder head
	Switch point (temp., pressure) (elec.)	1900-2100
	Fan shroud (material)	Plastic

@ - Distance between top of fins.
* - 4.0 with manual trans.
3.5 with auto. trans.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 LTR V8(305 CID) RPO LB9 Tuned Port Fuel Injection	5.7 LTR V8(350 CID) RPOL98 Tuned Port Fuel Injection

Engine – Cooling System

Coolant recovery system (std., opt., n.a.)		Standard
Coolant fill location (rad., bottle)		Bottle, coolant recovery
Radiator cap relief valve pressure [kPa (psi)]		103.4 (15)
Circulation thermostat	Type (choke, bypass)	Choke
	Starts to open at °C (°F)	90.6°C (195°F)
Water pump	Type (centrifugal, other)	Centrifugal
	GPM 1000 pump rpm	12 (Total cooling system flow)
	Number of pumps	One
	Drive (V-belt, other)	Single belt poly 'V' accessory drive (serpentine)*
	Bearing type	Sealed double row ball
	Impeller material	Steel
	Housing material	Cast Iron
By-pass recirculation [type (inter,. ext.)]		Internal
Cooling system capacity	With heater–L(qt.)	16.78 (17.7)
	With air cond.–L(qt.)	16.28 (17.2)
	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	Standard
	Type (cross-flow, etc.)	Cross flow
	Construction (fin & tube mechanical, braze, etc.)	Fin & Tube
	Material, mass [kg (wgt. lbs.)]	Aluminum, high efficiency radiator
	Width	667.5
	Height	437.8
	Thickness	34.0
	Fins per inch @	2.5
Radiator end tank material		Plastic
Fan	Std., elec., opt.	Standard A/C
	Number of blades & type (flex, solid, material)	5, plastic, solid
	Diameter & projected width	423.0 (16.7) - 2 fans 318.0 (12.5) - 2 fans
	Ratio (fan to crankshaft rev.)	Not Applicable
	Fan cutout type	ECM controlled
	Drive type (direct, remote)	--
	RPM at idle (elec.)	--
	Motor rating (wattage) (elec.)	150 RT & LT
	Motor switch (type & location) (elec.)	Temp. switch engine cylinder head
	Switch point (temp., pressure) (elec.)	2100-2200 RT & LT
	Fan shroud (material)	Plastic Plastic

@ - Distance between top of fins.
* - 21.36mm (0.84") wide, 5.20mm (0.20") thick with uniform dynamic tensioner.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.8 Liter V6 (173 CID) (2.8 Multi-Port FI) RPO LB8

Engine – Fuel System

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

Induction type: carburetor, fuel injection system, etc.		Fuel Injection
Manufacturer		Rochester Products
∅ Carburetor no. of barrels		None
Idle A/F mix.		Preset - No adjustment provided
Fuel injection	Point of injection (no.)	Fuel injection at inlet ports
	Constant, pulse, flow	Pulse
	Control (electronic, mech.)	ECM
	System pressure [kPa (psi)]	300 (45)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	--
	Automatic	
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water
Air cleaner type		Dual Elements
Fuel filter (type/location)		--
∅ Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Fuel Tank
	Pressure range [kPa (psi)]	350 (50.8)
∅	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	

Fuel Tank

Capacity [refill L (gallons)]		58.7 (15.5)
Location (describe)		Rear center
Attachment		Underbody strap
Material & Mass [kg (weight lbs)]		Steel 8.579 (18.9)
Filler pipe	Location & material	Left rear quarter
	Connection to tank	Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Selector switch or valve	"
	Separate fill	"

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Electronic Fuel Injection) RPO L03

Engine – Fuel System

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

Induction type: carburetor, fuel injection system, etc.		Fuel Injection
Manufacturer		Rochester Products
∅ Carburetor no. of barrels		None
Idle A/F mix.		Preset - no adjustment provided
Fuel injection	Point of injection (no.)	Fuel injection at inlet ports
	Constant, pulse, flow	Pulse
	Control (electronic, mech.)	ECM
	System pressure [kPa (psi)]	
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	--
	Automatic	--
Intake manifold heat control (exhaust or water thermostatic or fixed)		
Air cleaner type		Replaceable element, single snorkel
Fuel filter (type/location)		
∅ Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Fuel tank
	Pressure range [kPa (psi)]	14.5-31.0 (2.1-4.5)
∅	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	

Fuel Tank

Capacity [refill L (gallons)]		58.7 (15.5)
Location (describe)		Rear center
Attachment		Underbody strap
Material & Mass [kg (weight lbs)]		Steel 8.765 (19.3)
Filler pipe	Location & material	Left rear quarter
	Connection to tank	Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	"
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Selector switch or valve	"
	Separate fill	"

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Tuned Port Fuel Injection) RPO LB9

Engine – Fuel System

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

Induction type: carburetor, fuel injection system, etc.		Fuel Injection
Manufacturer		Bosch
∅ Carburetor no. of barrels		None
Idle A/F mix.		Preset - no adjustment provided
Fuel injection	Point of injection (no.)	Fuel injection at inlet ports
	Constant, pulse, flow	Pulse
	Control (electronic, mech.)	ECM
	System pressure [kPa (psi)]	300 (44)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	--
	Automatic	--
Intake manifold heat control (exhaust or water thermostatic or fixed)		
Air cleaner type		Replaceable dual elements
Fuel filter (type / location)		
∅ Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Fuel Tank
	Pressure range [kPa (psi)]	350 (50.8)
∅	Flow rate at regulated pressure (L (gal) / hr @ kPa (psi))	

Fuel Tank

Capacity [refill L (gallons)]		58.7 (15.5)
Location (describe)		Rear center
Attachment		Underbody strap
Material & Mass [kg (weight lbs)]		Steel 8.579 (18.9)
Filler pipe	Location & material	Left rear quarter
	Connection to tank	Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	"
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Selector switch or valve	"
	Separate fill	"

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (●)

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code: 5.7 Liter V8 (350 CID) Tuned Port Fuel Injection (TPI) RPO L98

Engine – Fuel System

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

Induction type: carburetor, fuel injection system, etc.		TPI - Tuned Port Fuel Injection
Manufacturer		Bosch
∅ Carburetor no. of barrels		None
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 - on board computer
	System pressure [kPa (psi)]	255 (37)
Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual	--
	Automatic	--
Intake manifold heat control (exhaust or water thermostatic or fixed)		Water, thermostat
Air cleaner type		Replaceable paper dual element
Fuel filter (type/location)		
∅ Fuel pump	Type (elec. or mech.)	Electric
	Location (eng., tank)	Fuel tank
	Pressure range [kPa (psi)]	350 (50.8)
∅	Flow rate at regulated pressure (L (gal)/hr @ kPa (psi))	

Fuel Tank

Capacity [refill L (gallons)]		58.7 (15.5)
Location (describe)		Rear center
Attachment		Underbody strap
Material & Mass [kg (weight lbs)]		Steel 8.579 (18.9)
Filler pipe	Location & material	Left rear quarter
	Connection to tank	Solder
Fuel line (material)		Steel
Fuel hose (material)		Rubber
Return line (material)		Steel
Vapor line (material)		Steel
Extended range tank	Opt., n.a.	Not Available
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
Auxiliary tank	Opt., n.a.	"
	Capacity [L (gallons)]	"
	Location & material	"
	Attachment	"
	Selector switch or valve	"
	Separate fill	"

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

METRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

2.8 Liter V6 (173 CID)
(2.8 Multi Port FI) RPO LB8

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Computer Command Control
	Air Injection	Pump or pulse	Pump - manual transmission only
		Driven by	Belt
		Air distribution (head, manifold, etc.)	Exhaust Manifold
		Point of entry	Exhaust Manifold
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back Pressure Modulated Controlled Flow
		Exhaust source	Manifold Exhaust Crossover
		Point of exhaust injection (spacer, carburetor, manifold, other)	Inlet Manifold
	Catalytic Converter	Type	Single Bed, Oxidizing & Reducing
		Number of	One
		Location(s)	Beneath RF underbody
		Volume [L (in³)]	2.78 (170)
		Substrate type	Monolith
∅		Noble metal type	Platinum/Rhodium
		Noble metal concentration (g/cm³)	0.000838
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)		Inlet manifold
	Air inlet (breather cap, other)		Air Inlet Duct
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister
		Carburetor	--
	Vapor storage provision		Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		No

Engine – Exhaust System

Type (single, single with cross-over, dual, other)		Single with dual tailpipes
** Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs)]		One, Reverse flow
Resonator no. & type		*(See below)
Exhaust pipe **	Branch o.d., wall thickness	@(See below)
	Main o.d., wall thickness	Stainless Steel
	Material & Mass [kg (weight lbs)]	63.5 X 1.58 (2.5 X 0.06)
Intermediate pipe	o.d. & wall thickness	Aluminum coated steel
	Material & Mass [kg (weight lbs)]	57.15 x 1.09 (2.25 x 0.04)
* Tail pipe	o.d. & wall thickness	Aluminum coated steel
	Material & Mass [kg (weight lbs)]	Aluminum coated steel 3.231 (7.1)

* Outer Pipe 57.15X1.02 (2.25 x 0.04), Inner Pipe 50.08x0.086 (2.0x.003)* (2.5 (0.1) air gap between pipes).
@ Outer Pipe 63.5x1.02 (2.5x0.04), Inner Pipe 57.15x0.086 (2.25x0.003) (2.15 (0.08) air gap between pipes.
** Muffler & Tail Pipe Unit 7.620 (16.8)

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 2-6-88 Revised (e) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code: 5.0 Liter V8 (305 CID) (Electronic Fuel Injection) RPO L03

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Air injection with Computer Command Control
	Air Injection	Pump or pulse	Vane Pump
		Driven by	V-Belt
		Air distribution (head, manifold, etc.)	Exhaust manifold and catalytic converter
		Point of entry	Exhaust manifold
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back Pressure Modulated
		Exhaust source	Manifold Exhaust Crossover
		Point of exhaust injection (spacer, carburetor, manifold, other)	Inlet Manifold
	Catalytic Converter	Type	Dual Bed, Oxidizing & Reducing
		Number of	One
		Location(s)	Beneath RF underbody
		Volume [L (in^3)]	2.78 (170)
		Substrate type	Monolith
∅		Noble metal type	Platinum/Palladium/Rhodium
		Noble metal concentration (g/cm^3)	0.001096
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)		Throttle body
	Air inlet (breather cap, other)		Air Cleaner
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister
		Carburetor	Canister
	Vapor storage provision		Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		No

Engine – Exhaust System

Type (single, single with cross-over, dual, other)		Single with dual tailpipes
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	(a)
	Main o.d., wall thickness	(b)
	Material & Mass [kg (weight lbs)]	(See Notes) 5.069 (11.2)
*Intermediate pipe	o.d. & wall thickness	57.15 x 1.14 (2.25) x .045)
	Material & Mass [kg (weight lbs)]	Aluminum coated steel
*Tail pipe	o.d. & wall thickness	63.5 x 1.07 (2.5 x 0.042)
	Material & Mass [kg (weight lbs)]	Aluminum coated steel

SEE ATTACHED NOTES

NOTES:

(a) Left hand branch - Stainless steel; outer 57.15 x 1.02 (2.25 x 0.04), inner 50.8 x 0.86 (2.0 x 0.003) with 2.155 (0.085) air gap between pipes. Right hand branch - Laminated; stainless steel outer tube, 50.8 x 0.86 (2.0 x 0.003), with steel inner tube.
(b) Stainless steel; outer 63.5 x 1.02 (2.5 x 0.04), inner 57.15 x 0.86 (2.25 x 0.003) with 2.155 (0.085 air gap between pipes).
* Muffler & tail pipe unit 8.732 (19.3)

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 LTR V8(305 CID) RPO LB9 (Tuned Port Fuel Injection)	5.7 LTR V8(350 CID) RPO L98 (Tuned Port Fuel Injection)

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		Air injection w/computer command control
	Air Injection	Pump or pulse	Air pump
		Driven by	Belt
		Air distribution (head, manifold, etc.)	Exhaust manifold and catalytic converter
		Point of entry	Exhaust manifold
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Back Pressure Modulated Controlled Flow
		Exhaust source	Manifold
		Point of exhaust injection (spacer, carburetor, manifold, other)	Inlet Manifold
	Catalytic Converter	Type	Dual bed, Oxidizing & Reducing
		Number of	One
		Location(s)	Beneath RF underbody
		Volume [L (in³)]	2.78 (170)
		Substrate type	Monolith
		Noble metal type	Platinum/Palladium/Rhodium
		Noble metal concentration (g/cm³)	0.001096
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)		Throttle Body
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister
		Carburetor	--
	Vapor storage provision		Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		No

Engine – Exhaust System

Type (single, single with cross-over, dual, other)		Single with dual tailpipes
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	(a)
	Main o.d., wall thickness	(b)
	Material & Mass [kg (weight lbs)]	(See Notes) 6.124 (13.5)
*Intermediate pipe	o.d. & wall thickness	69.85 x 1.40 (2.75 x 0.05)
	Material & Mass [kg (weight lbs)]	Aluminum coated steel
*Tail pipe	o.d. & wall thickness	63.5 x 1.07 (2.25 x .04)
	Material & Mass [kg (weight lbs)]	Aluminum coated steel

(a) Laminated - Stainless steel outer pipe, 63.5 x 1.016 (2.5 x 0.04), steel inner pipe.
(b) Laminated - Stainless steel outer pipe, 76.2 x 1.016 (3.0 x 0.04), steel inner pipe.
* Muffler & tail pipe unit 8.845 (19.5).

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.8 Liter V6 (173 CID) Multi-Port FI RPO LB8

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

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

Manual Transmission/Transaxle (MBI)

Number of forward speeds		5
Gear ratios	1st	4.03
	2nd	2.37
	3rd	1.50
	4th	1.00
	5th	0.76
	Reverse	3.76
Synchronous meshing (specify gears)		All forward gears
Shift lever location		Floor
Trans. case mat'l. & mass kg (lbs)*		Aluminum
Lubricant	Capacity [L (pt.)]	3.25L (6.87 pts.)
	Type recommended	Dextron II

Clutch (Manual Transmission)

Clutch manufacturer		Belleville
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	130n
	Released	
Assist (spring, power/percent, nominal)		None
Type pressure plate springs		Diaphragm
Total spring load (nominal, new) N (lbs)		5750 (1293)
Clutch facing	Facing mfgr. & material coding	Valeo/F202
	Facing material & construction	Non-asbestos
	Rivets per facing	16
	Outside x inside dia. (nominal)	232.0 x 155.0 (9.125 x 6.125)
	Total eff. area [cm^2($in.^2$)]	234.0 (36.28)
	Thickness (pressure plate side/ fly wheel side)	3.2/3.2
	Rivet depth (pressure plate side/ fly wheel side)	1.1 mm
	Engagement cushion method	Driven plate wave spoke springs
Release bearing type & method lub.		Self centering angular contact ball bearing pre packed and sealed
Torsional damping method, springs, hysteresis		Coil springs with non-metal friction control

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Electronic Fuel Injection) RPO L03

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

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

Manual Transmission/Transaxle (M39)

Number of forward speeds		5
Gear ratios	1st	2.95
	2nd	1.94
	3rd	1.34
	4th	1.00
	5th	0.63
	Reverse	2.76
Synchronous meshing (specify gears)		All forward gears
Shift lever location		Floor
Trans. case mat'l. & mass kg (lbs)*		Aluminum
Lubricant	Capacity [L (pt.)]	3.25L (6.87 pts.)
	Type recommended	

Clutch (Manual Transmission)

Clutch manufacturer		Belleville
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	150n
	Released	
Assist (spring, power/percent, nominal)		None
Type pressure plate springs		Diaphragm
Total spring load (nominal, new) N (lbs)		7750 (1742)
Clutch facing	Facing mfgr. & material coding	Valeo/F202
	Facing material & construction	Non-asbestos
	Rivets per facing	18
	Outside x inside dia. (nominal)	254.0 x 165.0 (10.0 x 6.5)
	Total eff. area [cm^2(in.^{2})]	293.0 (45.43)
	Thickness (pressure plate side/ fly wheel side)	3.45/3.45
	Rivet depth (pressure plate side/ fly wheel side)	1.1 mm
	Engagement cushion method	Driven plate wave spoke springs
Release bearing type & method lub.		Self centering angular contact ball bearing pre-packed and sealed
Torsional damping method, springs, hysteresis		Coil springs with non-metal friction control

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (●) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Tuned Port Fuel Injection) RPO LB9

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

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

Manual Transmission/Transaxle

		(M39)	(MK6)
Number of forward speeds		5	5
Gear ratios	1st	2.95	2.95
	2nd	1.94	1.94
	3rd	1.34	1.34
	4th	1.00	1.00
	5th	0.63	0.74
	Reverse	2.76	2.76
Synchronous meshing (specify gears)		All forward gears	
Shift lever location		Floor	
Trans. case mat'l. & mass kg (lbs)*		Aluminum	
Lubricant	Capacity [L (pt.)]	3.25L (6.87 pts.)	
	Type recommended	5W-30	
∅			

Clutch (Manual Transmission)

Clutch manufacturer		Belleville
Clutch type (dry, wet; single, multiple disc)		Dry disc
Linkage (hydraulic, cable, rod, lever, other)		Hydraulic
Max. pedal effort (norm. spring load, new) N (lbs)	Depressed	150n
	Released	
Assist (spring, power/percent, nominal)		None
Type pressure plate springs		Diaphragm
Total spring load (nominal, new) N (lbs)		7750 (1742)
Clutch facing	Facing mfgr. & material coding	Valeo/F202
	Facing material & construction	Non-asbestos
	Rivets per facing	18
	Outside x inside dia. (nominal)	267.0 x 165.0 (10.5 x 6.5)
	Total eff. area [cm^2(in.^{2})]	346.0 (53.6)
	Thickness (pressure plate side/ fly wheel side)	3.45/3.45
	Rivet depth (pressure plate side/ fly wheel side)	1.1 mm
	Engagement cushion method	Driven plate wave spoke springs
Release bearing type & method lub.		Self centering angular contact ball bearing pre-packed and sealed
Torsional damping method, springs, hysteresis		Coil springs with non-metal friction control

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (e)

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.7 Liter V8 (305 CID) (Tuned Port Fuel Injection) RPO L98

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

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

Manual Transmission/Transaxle

Number of forward speeds		
Gear ratios	1st	
	2nd	
	3rd	
	4th	Not
	5th	Available
	Reverse	
Synchronous meshing (specify gears)		
Shift lever location		
Trans. case mat'l. & mass kg (lbs)*		
Lubricant	Capacity [L (pt.)]	
	Type recommended	
∅		

Clutch (Manual Transmission)

Clutch manufacturer		
Clutch type (dry, wet; single, multiple disc)		
Linkage (hydraulic, cable, rod, lever, other)		Not
Max. pedal effort (nom. spring load, new) N (lbs)	Depressed	Available
	Released	
Assist (spring, power/percent, nominal)		
Type pressure plate springs		
Total spring load (nominal, new) N (lbs)		
Clutch facing	Facing mfgr. & material coding	
	Facing material & construction	
	Rivets per facing	
	Outside x inside dia. (nominal)	
	Total eff. area [cm^2 ($in.^2$)]	
	Thickness (pressure plate side/ fly wheel side)	
	Rivet depth (pressure plate side/ fly wheel side)	
	Engagement cushion method	
Release bearing type & method lub.		
Torsional damping method, springs, hysteresis		

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.8 Liter V6 (173 CID) (2.8 Multi Port FI) RPO LB8

Automatic Transmission/Transaxle

Trade name		4-Speed Automatic
Type and special features (describe)		Torque converter with clutch 700-R4
Selector	Location	On floor console
	Ltr./No. designation	P-R-N- D -D-2-1
Gear ratios	1st	3.06
	2nd	1.63
	3rd	1.00*
	4th	0.70*
	Reverse	2.29
Max. upshift speed - drive range [km/h (mph)]		1-2=61(38), 2-3=111(69)
Max. kickdown speed - drive range [km/h (mph)]		3-2=105(65), 2-1=50(31)
Min. overdrive speed [km/h (mph)]		72 (45)
Torque converter	Number of elements	3
	Max. ratio at stall	2.35
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	245 (9.65)
∅	Capacity factor "K"*	
Lubricant	Capacity [refill L (pt.)]	4.5L (9.5 pts.)
	Type Recommended	GM Dexron II
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard, integral with radiator
∅ Transmission case material & mass kg (lbs)**		Aluminum 71.7 (158.1)

* Torque converter clutch in 3rd & 4th gears.

Axle or Front Wheel Drive Unit

Type (front, rear)		Rear
Description		Semi-floating axle, overhung hypoid drive pinion and ring gear
Limited slip differential (type)		Not Available
Drive pinion offset		1.50
Drive pinion (type)		Hypoid gear
No. of differential pinions		Two
Pinion/differential adjustment (shim, other)		Shim
Pinion/differential bearing adjustment (shim, other)		Collapsible Sleeve
Driving wheel bearing (type)		Roller bearing
Lubricant	Capacity [L (pt.)]	1.66
	Type recommended	GL-5 Gear Lubricant

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

Axle ratio (or overall top gear ratio)		3.42
No. of teeth	Pinion	41
	Ring gear or gear	12
Ring gear o.d.		194 (7.625)
Transaxle	Transfer gear ratio	Not Applicable
	Final drive ratio	" "

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

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Electronic Fuel Injection) RPO L03

Automatic Transmission/Transaxle

Trade name		4-speed Automatic
Type and special features (describe)		Torque converter with clutch 700-R4
Selector	Location	On floor console
	Ltr./No. designation	P-R-N- D -D-2-1
Gear ratios	1st	3.06
	2nd	1.63*
	3rd	1.00*
	4th	0.70*
	Reverse	2.29
Max. upshift speed - drive range [km/h (mph)]		1-2=59(37), 2-3=113(70)
Max. kickdown speed - drive range [km/h (mph)]		3-2=106(66), 2-1=42 (26)
Min. overdrive speed [km/h (mph)]		58 (36)
Torque converter	Number of elements	3
	Max. ratio at stall	1.91
	Type of cooling (air, liquid)	Liquid
	Nominal diameter	298 (11.75)
∅	Capacity factor "K"*	
Lubricant	Capacity [refill L (pt.)]	4.5L (9.5 pts.)
	Type Recommended	GM Dexron II
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard integral with radiator
∅ Transmission case material & mass kg (lbs)**		Aluminum 71.1 (158.1)

*Torque converter clutch in 2nd, 3rd & 4th gears.

Axle or Front Wheel Drive Unit

Type (front, rear)		Rear
Description		Semi-floating axle, overhung hypoid drive pinion and rear gear
Limited slip differential (type)		Not Available
Drive pinion offset		1.50
Drive pinion (type)		Hypoid gear
No. of differential pinions		Two
Pinion/differential adjustment (shim, other)		Shim
Pinion/differential bearing adjustment (shim, other)		Collapsible Spacer
Driving wheel bearing (type)		Straight roller bearing
Lubricant	Capacity [L (pt.)]	1.66
	Type recommended	GL-5 Gear Lubricant

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

		Manual Trans.	Auto. Trans.
Axle ratio (or overall top gear ratio)		3.08	2.73
No. of teeth	Pinion	40	41
	Ring gear or gear	13	15
Ring gear o.d.		194 (7.625)	194 (7.625)
Transaxle	Transfer gear ratio	Not Applicable	
	Final drive ratio	"	"

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

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 LTR V8 (305 CID) RPO LB9 (Tuned Port Fuel Injection)	5.7 LTR V8 (350 CID) RPO L98 (Tuned Port Fuel Injection)

Automatic Transmission/Transaxle

Trade name		4-speed Automatic	
Type and special features (describe)		Torque converter with clutch 700-R4	
Selector	Location	On floor console	
	Ltr./No. designation	P-R-N- D -D-2-1	
Gear ratios	1st	3.06	
	2nd	1.63*	
	3rd	1.00*	
	4th	0.70*	
	Reverse	2.29	
Max. upshift speed - drive range [km/h (mph)]		1-2=66(41), 2-3=122(76)	1-2=55(34), 2-3=105(65)
Max. kickdown speed - drive range [km/h (mph)]		3-2=116(72), 2-1=55)(34)	3-2=88(55), 2-1=32(20)
Min. overdrive speed [km/h (mph)]		66 (41)	58 (36)
Torque converter	Number of elements	3	
	Max. ratio at stall	2.15	1.91
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	298 (11.75)	
Ø	Capacity factor "K"*		
Lubricant	Capacity [refill L (pt.)]	4.5L (9.5 pts.)	
	Type Recommended	GM Dexron II	
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard integral with radiator	
Ø Transmission case material & mass kg (lbs)**		Aluminum 71.1 (158.1)	

*Torque converter clutch in 2nd, 3rd, & 4th gears.

Axle or Front Wheel Drive Unit

Type (front, rear)		Rear
Description		Semi-floating axle, overhung hypoid drive pinion and rear gear
Limited slip differential (type)		Cone clutch
Drive pinion offset		1.50
Drive pinion (type)		Hypoid gear
No. of differential pinions		Two*, Four@
Pinion/differential adjustment (shim, other)		Shim
Pinion/differential bearing adjustment (shim, other)		Collapsible spacer
Driving wheel bearing (type)		Straight roller bearing*, tapered roller bearing @
Lubricant	Capacity [L (pt.)]	1.66
	Type recommended	GL-5 Gear Lubricant

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

Axle ratio (or overall top gear ratio)		3.23	3.08	2.73	3.45
No. of teeth	Pinion	42	40	41	38
	Ring gear or gear	13	13	15	11
Ring gear o.d.		194 (7.625)			197 (7.75)
Transaxle	Transfer gear ratio	Not Applicable			
	Final drive ratio	"	"		

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

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

* - 2.73 and 3.23 axles.
@ - 3.27 and 3.45 axles.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

	SPORT COUPE		IROC-Z	
Engine Description/Carb. Engine Code	2.8L V6 173CID PFI RPO LB8	5.0L V8 305CID EFI RPO L03	5.0L V8 305CID PFI RPO LB9	5.7L V8 350CID PFI RPO L98

Propeller Shaft – Rear Wheel Drive

Manufacturer Type (straight tube, tube-in-tube, internal-external damper, etc.)			Straight tube - Internal damper
Outer diam. x length* x wall thickness	Manual 3-speed transmission		Not Available
	Manual 4-speed transmission		"
	Manual 5-speed transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)
	Overdrive		Not Available
	Automatic transmission		63.5* x 1057 x 1.65 mm (2.5* x 41.6 x .065 in.)
Inter-mediate bearing	Type (plain, anti-friction)		None
	Lubrication (fitting, prepack)		"
Slip yoke	Type		Splined
	Number of teeth		27
	Spline o.d.		29.84 mm (1.174 in.)
Universal joints	Make and mfg. no.	Front	Saginaw 44
		Rear	Saginaw 44
	Number used		Two
	Type (ball and trunnion, cross)		Cross
	Rear attach (u-bolt, clamp, etc.)		Strap & bolts
	Bearing	Type (plain, anti-friction)	Anti-friction
		Lubrication (fitting, prepack)	Prepacked
Drive taken through (torque tube, arms or springs)			Torque Arm
Torque taken through (torque tube, arms or springs)			Torque Arm

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

* - 70mm (2.75) dia. aluminum shaft replaces base steel shaft where necessary for weight reduction.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	All Models

Ø Suspension - General Including Electronic Controls

Car leveling	Standard/optional/not avail.		Not Applicable
	Manual/automatic control		" "
	Type (air/hydraulic)		" "
	Primary/assist spring		" "
	Rear only/4 wheel leveling		" "
	Single/dual rate spring		" "
	Single/dual ride heights		" "
	Provision for jacking		Jacking provisions on rocker panels
Shock absorber damping contols	Standard/option/not avail.		Not Applicable
	Manual/automatic control		" "
	Number of damping rates		" "
	Type of actuation (manual/ electric motor/air, etc.)		" "
	sensors	Lateral acceleration	" "
		Deceleration	" "
		Acceleration	" "
		Road surface	" "
Shock absorber (front & rear)	Type		Direct, double acting, hydraulic (a)
	Make		Delco
	Piston diameter		54mm (2.125 in) front; 25 (1.0) rear
	Rod diameter		25mm (1.0 in) front; 13.49mm (0.53) rear

(a) - Delco Bilstein rear shock absorbers on IROC-Z

Ø Suspension – Front

Type and description			Independent w/coil springs, modified MacPherson strut
Travel*	Full jounce		75.0 mm (2.95 in)
	Full rebound		104.0 mm (4.90 in)
Spring	Type (coil, leaf, other) & material		Coil, steel alloy
	Insulators (type & material)		Rubber (top)
	Size (coil design height & i.d., bar length x dia.)		260 x 103.0; 2490 x 15 mm, base (10.2 x 4.06; 98 x .59 in)
	Spring rate [N/mm (lb./in.)]		Sport Coupe 64.0 (365.0), IROC-Z 96.0 (548.0)
	Rate at wheel [N/mm (lb./in.)]		Sport Coupe 17.7 (101.0), IROC-Z 25.6 (146.0)
Stabilizer	Type (link, linkless, frameless)		Link
	Material & bar diameter		Steel 30 mm (1.2 in) | Steel 34 mm (1.3 in) IROC-Z

Ø Suspension – Rear

Type and description			Salisbury axle w/torque arm, ICA, track bar, coil springs
Travel*	Full jounce		87.0 mm (3.4)
	Full rebound		118.0 mm (4.6)
Spring	Type (coil, leaf, other) & material		Coil-Steel Alloy
	Size (length x width, coil design height & i.d., bar length & dia.)		254.0 x 102.6; 2709 x 12.0 (10 x 4.03; 27.9 x .472 in)
	Spring rate [N/mm (lb./in.)]		18/25 variable coil (103.0) Spt. Cpe. IROZ-Z 23.0 (131.5)
	Rate at wheel [N/mm (lb./in.)]		22.7 (130.0) Spt. Cpe. IROZ-Z 29.0 (165.4)
	Insulators (type & material)		Rubber isolated
	If leaf	No. of leaves	Not Applicable
		Shackle (comp. or tens.)	" "
Stabilizer	Type (link, linkless, frameless)		Link
	Material & bar diameter		18 mm (007 in) Spt. Cpe. | IROZ-Z - 23 mm (0.9 in)
Track bar (type)			"U" section w/rubber bushings

* Define load condition:

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	Sport Coupe	IROC-Z

∅ Brakes - Service

Description				Single caliper disc front, duo-servo drum rear disc optional front/rear
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)			Disc
	Rear (disc or drum)			Drum; disc optional for IROZ-Z
Valving type (proportion, delay, metering, other)				Proporting, failure warning
Power brake (std., opt., n.a.)				Standard
Booster type (remote, integral, vac., hyd., etc.)				Tandem vacuum
Vacuum	Source (inline, pump, etc.)			Inline
	Reservoir (volume in.³) and source			None
	Pump-type (elec, gear driven, belt driven)			"
Traction control	Operational speed range			"
	Type engine intervention (electronic, mech.)			"
Anti-lock device	Front/rear (std., opt., n.a.)			"
	Manufacturer			"
	Type (electronic, mech.)			"
	Number sensors or circuits			"
	Number anti-lock hydraulic circuits			"
	Integral or add-on system			"
	Yaw control (yes, no)			"
	Hydraulic power source (elect., vac. mtr., pwr. strg.)			"
Effective area [cm²(in.²)]*				615.5 (95.4) total
Gross lining area [cm²(in.²)]**(F/R)				691.6 (107.2) total
Swept area [cm²(in.²)]***(F/R)				1985.1 (307.7) total
Rotor	Outerworking diameter		F/R	F/267 mm (10.5), R/267 mm (10.5)
	Inner working diameter		F/R	F/171.5 mm (6.75), R/171.5 mm (6.75)
	Thickness		F/R	F/26.2 mm (1.03, R/26.2 mm (1.03)
	Material & type (vented/solid)		F/R	Cast iron, vented F/R
Drum	Diameter & width		F/R	241.0 mm (9.5), 50.8 mm (2.0)
	Type and material		F/R	Cast iron finned (aluminum for selected applications)
Wheel cylinder bore			F/R	F/64 mm (2.5); R/19 mm (0.75) drum; 25.4 mm (1.0) disc
Master cylinder	Bore/stroke		F/R	Bore: 24.0 mm (0.94) disc/drum; 25.4 mm (1.0) disc/disc
Pedal arc ratio				3.25:1
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]				--
Lining clearance			F/R	Self-adjusting/self-adjusting
Brake lining — Front wheel	Bonded or riveted (rivets/seg.)			Riveted; 8
	Rivet size			5.3 x 7.92 (.210 x .312)
	Manufacturer			Delco Marine
	Lining code*****			DM8034
	Material			Semi-metallic
	****	Primary or out-board		125.0 x 48.4 x 11.04 mm (4.92 x 1.91 x 0.435)
	Size	Secondary or in-board		125.0 x 48.4 x 10.55 mm (4.92 x 1.91 x 0.415)
	Shoe thickness (no lining)			O/B3.42 mm (0.135); IB 4.85 mm (0.191)
Brake lining — Rear wheel	Bonded or riveted (rivets/seg.)			Riveted 10 primary, 12 secondary drum; riveted, 8-disc
	Manufacturer			Inland / Delco Moraine
	Lining code*****			IN 4035/4050 / DM 5470
	Material			Non-asbestos
	****	Primary or out-board		192.5 x 50.8 x 4.98mm (7.58 x 2.0 x 0.196) / (a)
	Size	Secondary or in-board		249.6 x 50.8 x 6.75mm (9.83 x 2.0 x 0.266) / (b)
	Shoe thickness (no lining)			Drum 1.98mm(0.078);disc OB/3.42mm(0.135),IB/4.85mm(0.1

*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.

(a) 125.0x48.4x11.04mm(492x1.91x0.435)
(b) 125.0x48.4x10.55(4.92x1.91x0.415)

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

Body Type And/Or Engine Displacement: Sport Coupe & IROC-Z

∅ Brakes - Service

Description			FRONT & REAR DISC BRAKES (Optional RPO J65)
Manufacturer and brake type (std., opt., n.a.)	Front (disc or drum)		Disc
	Rear (disc or drum)		Disc
Valving type (proportion, delay, metering, other)			Remote proportioning front/rear split
Power brake (std., opt., n.a.)			Standard
Booster type (remote, integral, vac., hyd., etc.)			200 mm (7.87 in.) tandem vacuum
Vacuum	Source (inline, pump, etc.)		Engine
	Reservoir (volume in.^{3}) and source		Not Applicable
	Pump-type (elec, gear driven, belt driven)		" "
Traction control	Operational speed range		" "
	Type engine intervention (electronic, mech.)		" "
Anti-lock device	Front/rear (std., opt., n.a.)		" "
	Manufacturer		" "
	Type (electronic, mech.)		" "
	Number sensors or circuits		" "
	Number anti-lock hydraulic circuits		" "
	Integral or add-on system		" "
	Yaw control (yes, no)		" "
	Hydraulic power source (elect., vac. mtr., pwr. strg.)		" "
Effective area [cm^2(in.^{2})]*			717 cm^2 (111.1 in.^{2})
Gross lining area [cm^2(in.^{2})]**(F/R)			792 cm^2 (122.9 in.^{2})
Swept area [cm^2(in.^{2})]***(F/R)			2980. 74 cm^2 (462.02 in.^{2})
Rotor	Outerworking diameter	F/R	F 301.25 mm (11.86 in.) R 296.0 mm (11.65 in.)
	Inner working diameter	F/R	F 197.40 mm (7.77 in.) R 211.0 mm (8.31 in.)
	Thickness	F/R	F 26.20 mm (1.03 in.) R 20.0 (0.79 in.)
	Material & type (vented/solid)	F/R	Cast iron vented
Drum	Diameter & width	F/R	Not Applicable
	Type and material	F/R	" "
Wheel cylinder bore			F 2 x 38 mm (1.50 in.) R 40.5 mm (1.59 in.)
Master cylinder	Bore/stroke	F/R	24.0 mm (0.94 in.)
Pedal arc ratio			3.25:1
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]			--
Lining clearance		F/R	Self adjusting
Brake lining — Front wheel	Bonded or riveted (rivets/seg.)		Integrally molded
	Rivet size		Not Available
	Manufacturer		Japan Brake Industries
	Lining code*****		CP26
	Material		Semi-metallic
	**** Primary or out-board		53.2cm^{2}x9.5mm(8.25 in.^{2}x.37 in.) area x thickness
	Size Secondary or in-board		53.2cm^{2}x9.5mm(8.25 in.^{2}x.37 in.) area x thickness
	Shoe thickness (no lining)		IB 6.0mm (.24 in.) OB 6.0 mm (.24 in.)
Brake lining — Rear wheel	Bonded or riveted (rivets/seg.)		Integrally molded
	Manufacturer		Japan Brake Industries
	Lining code*****		HB33
	Material		Semi-metallic
	**** Primary or out-board		28.4cm^{2}x8.2mm(4.4 in.^{2}x.32 in.) area x thickness
	Size Secondary or in-board		28.4cm^{2}x8.2mm(4.4 in.^{2}x.32 in.) area x thickness
	Shoe thickness (no lining)		IB 5.5 mm (.21 in.) OB 4.0 mm (.16 in.)

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	SPORT COUPE	IROC-Z

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P215/65R-15	P215/65R-15 (+)
	Type (bias, radial, steel, nylon, etc.)		Steel belted radial	
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	205 (30)	240 (35)
		Rear [kPa (psi)]	205 (30)	240 (35)
	Rev./mile-at 70 km/h (45 mph)		498 R/Km	505 R/Km
Wheels	Type & material		Cast Aluminum	
	Rim (size & flange type)		15 x 7	
	Wheel offset		8.0	
	Attachment	Type (bolt or stud)	Stud	
		Circle diameter	120.7	
		Number & size	5-M12 x 1.5 - 6H-thd. (metric)	
∅ Spare	Tire and wheel		15x4'T125/70D15 (except with G80 axle)	
	Storage position & location (describe)		Vertically adjacent to R.H. quarter panel	

Tires And Wheels (Optional)

Tire size (load range, ply)		P245/50ZR16 * (+)
Type (bias, radial, steel, nylon, etc.)		Steel belted radial
Wheel (type & material)		Cast aluminum
Rim (size, flange type and offset)		16 x 8; Front: 0; Rear: 16
Tire size (load range, ply)		
Type (bias, radial, steel, nylon, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
Tire size (load range, ply)		
Type (bias, radial, steel, nylon, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
Tire size (load range, ply)		
Type (bias, radial, steel, nylon, etc.)		
Wheel (type & material)		
Rim (size, flange type and offset)		
∅ Spare tire and wheel size (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)		14x5;P195/75D14 (inflatable) used with G80 axle and 15 road tire 15x5;P195/75D15 (inflatable) used with 16 in. road tire

Brakes – Parking

Type of control		Grip handle control
Location of control		Right side of floor console
Operates on		Rear service brakes
If separate from service brakes	Type (internal or external)	--
	Drum diameter	--
	Lining size (length x width x thickness	--

(*) Directional Tread. (+) - Non "All Season" tires.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	SPORT COUPE	IROC-Z

Steering

Manual (std., opt., n.a.)					Not Available	
Power (std., opt., n.a.)					Standard	
Adjustable steering wheel/column (tilt, telescope, other)			Type		Tilt-universal jointed strg. shaft @ base of strg. whl.6 pos	
			Manufacturer		Saginaw Steering Gear	
			(Std., opt., n.a.)		Optional	
Wheel diameter** (W9) SAE J1100			Manual		Not Available	
			Power		368 mm (14.5 in)	
Turning diameter m (ft.)	Outside front		Wall to wall (l. & r.)		12.59 (41.3)	~~12.95 (42.5)~~
			Curb to curb (l. & r.)		11.73 (38.5)	~~12.28 (40.3)~~
	Inside rear		Wall to wall (l. & r.)		Not Available	
			Curb to curb (l. & r.)		"	"
Scrub Radius*					"	"
Manual	Gear		Type		"	"
			Manufacturer		"	"
		Ratios		Gear	"	"
				Overall	"	"
	No. wheel turns (stop to stop)				"	"
Power	Type (coaxial, elec., hyd., etc.)				Coaxial	
	Manufacturer				Saginaw Steering Gear Div. G.M.C.	
	Gear		Type		Semi-reversible recirculating ball	
		Ratios		Gear	14:1	~~12.7:1~~
				Overall	15.4:1	~~14:1~~
	Pump (drive)				Belt	
	No. wheel turns (stop to stop)				2.57	~~2.14~~
Linkage	Type				Parallelogram	
	Location (front or rear of wheels, other)				Front	
	Tie rods (one or two)				Two	
Steering axis	Inclination at camber (deg.)				Not Available	
	Bearings (type)		Upper		Ball stud	
			Lower		Ball stud	
			Thrust		None	
Steering spindle & joint type					Steering knuckle with spherical joints	
Wheel spindle/hub	Diameter		Inner bearing		31.73-31.74 (1.2493-1.2498)	
			Outer bearing		21.04-21.42 (0.83-0.84)	
	Thread (size)				3/4-20 UNEF-3A (modified)	
	Bearing (type)				Tapered roller	

*The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.
**See Page 22

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Body Type And/Or Engine Displacement	SPORT COUPE AND IROC-Z

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	+4.7° +/- .5°
		Camber (deg.)	+0.3 +/- .5°
		Toe-in [outside track-mm (in.)]	0° +/- 0.2°
	Service reset*	Caster	#
		Camber	"
		Toe-in	"
	Periodic M.V. inspection	Caster	"
		Camber	"
		Toe-in	"
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	Not Applicable
		Toe-in [outside track-mm (in.)]	"
	Service reset*	Camber	"
		Toe-in	"
	Periodic M.V. inspection	Camber	"
		Toe-in	"

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

Same caster, camber & toe alignment for Sport Coupe & IROC at check, reset, and inspection.

Electrical – Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Round dial, pointer 0-115 mph (a)(b)
	Trip odometer (std., opt., n.a.)	Standard
EGR maintenance indicator		Not Available
Charge indicator	Type	Electric gage
	Warning device (light, audible)	Not Available
Temperature indicator	Type	Electric gage
	Warning device (light, audible)	Not Available
Oil pressure indicator	Type	Electric gage
	Warning device (light, audible)	Not Available
Fuel indicator	Type	Electric gauge with pointer
	Warning device (light, audible)	Not Available
Windshield wiper	Type (standard)	Two speed-manual control-fluidic (wet arm)
	Type (optional)	Intermittent
	Blade length	454 mm (18 inches)
	Swept area [cm^2($in.^2$)]	5792 (898.0)
Windshield washer	Type (standard)	Manual control
	Type (optional)	Not Available
	Fluid level indicator (light, audible)	" "
Rear window wiper, wiper/washer (std., opt., n.a.)		" "
Horn	Type	Vibrator
	Number used	Two
Other		Tachometer standard (Round dial, pointer) Upshift telltale

(a) Metric conversions included.
(b) 0-145 speed for IROC-Z with LB9 or L98 V8.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	2.8 Liter V6 (173 CID) (2.8 Multi Port FI) RPO LB8

Electrical – Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	75-525 (a), 75-570 (b)
	Voltage	12 Volts
	Amps at 0°F cold crank	525 (a), 570 (b)
	Minutes-reserve capacity	(a) 90 minutes, (b) 90 minutes
	Amp/hrs. - 20 hr. rate	--
	Location	Engine compartment right front
Alternator	Manufacturer	Delco Remy
	Rating (idle/max. rpm)	(c, d)
	Ratio (alt. crank/rev.)	2.75:1
	Output at idle (rpm, park)	
	Optional (type & rating)	None
Regulator	Type	Micro circuit units, integral with alternator

Electrical – Starting System

Start. motor	Manufacturer	Delco Remy
	Current drain at 0°F	235 @ 20°F.
	Power rating [kw (hp)]	1.4 (1.9)
Motor drive	Engagement type	Positive shift solenoid
	Pinion engages from (front, rear)	Rear

Electrical – Ignition System

Type	Electronic (std., opt., n.a.)		--
	Other (specify)		Computer controlled coil ignition (C^3I)
Coil	Manufacturer		Delco Remy
	Model		Separate
	Current	Engine stopped – A	0
		Engine idling – A	5.5 max.
Spark plug	Manufacturer		AC
	Model		R42 CTS
	Thread (mm)		M14 x 1.25 SAE
	Tightening torque [N•m (lb, ft)]		9-20 (7-15)
	Gap		1.143 (.045)
	Number per cylinder		One
Distributor	Manufacturer		Not Applicable
	Model		--

Electrical – Suppression

Locations & type	Internal alternator capacitor, non-metallic high-tension ignition cables, resistor spark plugs, ignition coil by-pass capacitor, internal AC blower motor by-pass capacitor & A/C compression diode, with radio provisions; hood grounding clip, engine to dash panel ground strap, fuse block capacitor and on "heater only" blower motors and coax capacitor.

(a) - Standard battery
(b) - With H.D. option UA1
(c) - 85 amp with heater, 30 amp at idle.
(d) - 100 amp with air conditioning, 36 amp at idle.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 Liter V8 (305 CID) (Electronic Fuel Injection) RPO L03

Electrical – Supply System

Battery	Manufacturer	Delco Remy
	Model, std., (opt.)	70-525 (a), 75-570 (b)
	Voltage	12 Volts
	Amps at 0°F cold crank	525 (a), 570 (b)
	Minutes-reserve capacity	75 (a), 90 (b)
	Amp/hrs. - 20 hr. rate	--
	Location	Engine compartment right front
Alternator	Manufacturer	Delco Remy
	Rating (idle/max. rpm)	(a, b)
	Ratio (alt. crank/rev.)	3.14:1
	Output at idle (rpm, park)	
	Optional (type & rating)	None
Regulator	Type	Micro circuit units, integral with alternator

Electrical – Starting System

Start. motor	Manufacturer	Delco Remy
	Current drain at 0°F	305 @ - 20°F (C)
	Power rating [kw (hp)]	2.3 (3.1)
Motor drive	Engagement type	Positive shift solenoid
	Pinion engages from (front, rear)	Rear

Electrical – Ignition System

Type	Electronic (std., opt., n.a.)		--
	Other (specify)		High Energy Ignition, (H.E.I.)
Coil	Manufacturer		Delco Remy
	Model		Integral with distributor
	Current	Engine stopped – A	0.5
		Engine idling – A	1.0
Spark plug	Manufacturer		AC
	Model		R45TS
	Thread (mm)		M14 x 1.25 SAE
	Tightening torque [N•m (lb, ft)]		9-20 (7-15)
	Gap		0.89 (0.035")
	Number per cylinder		One
Distributor	Manufacturer		Delco Remy
	Model		1103698

Electrical – Suppression

Locations & type	Internal alternator capacitor, non-metallic high-tension ignition cables, resistor spark plugs, ignition coil by-pass capacitor, internal AC blower motor by-pass capacitor & A/C compression diode, with radio provisions; hood grounding clip, engine to dash panel ground strap, fuse block capacitor and on "heater only" blower motors and coax capacitor.

(a) - 85 amp (+C41), 30 amp at idle.
(b) - 100 amp (+C60/C67), 36 amp at idle.
(c) - First five seconds of engine cranking at -20°F.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) 9-88

METRIC (U.S. Customary)

Engine Description/Carb. Engine Code	5.0 LTR V8 (305 CID) RPO LB9 (Tuned Port Fuel Injection)	5.7 LTR V8 (350 CID) RPO L98 (Tuned Port Fuel Injection)

Electrical – Supply System

Battery	Manufacturer	Delco Remy	
	Model, std., (opt.)	70-525 (a), 75-570 (b)	75-630
	Voltage	12 Volts	
	Amps at 0°F cold crank	525 (a), 570 (b)	630
	Minutes-reserve capacity	75 (a), 90 (b)	90
	Amp/hrs. - 20 hr. rate	--	
	Location	Engine compartment right front	
Alternator	Manufacturer	Delco Remy	
	Rating (idle/max. rpm)	105 amp (42 amp at idle)	
	Ratio (alt. crank/rev.)	3.14:1	
	Output at idle (rpm, park)		
	Optional (type & rating)	None	
Regulator	Type	Micro circuit units, integral with alternator	

Electrical – Starting System

Start. motor	Manufacturer	Delco Remy	
	Current drain at 0°F	305 @ - 20°F	
	Power rating [kw (hp)]	1.9 (2.5)	2.3 (3.1)
Motor drive	Engagement type	Positive shift solenoid	
	Pinion engages from (front, rear)	Rear	

Electrical – Ignition System

Type	Electronic (std., opt., n.a.)	--	
	Other (specify)	High Energy Ignition, (H.E.I.)	
Coil	Manufacturer	Delco Remy	
	Model	Remote mounted	
	Current – Engine stopped – A	0.5	
	Current – Engine idling – A	1.0	
Spark plug	Manufacturer	AC	
	Model	R45TS	
	Thread (mm)	M14 x 1.25 SAE	
	Tightening torque [N•m (lb, ft)]	9-20 (7-15)	
	Gap	0.89 (0.035")	
	Number per cylinder	One	
Distributor	Manufacturer	Delco Remy	
	Model	1103698	

Electrical – Suppression

Locations & type	Internal alternator capacitor, non-metallic high-tension ignition cables, resistor spark plugs, ignition coil by-pass capacitor, internal AC blower motor by-pass capacitor & A/C compression diode, with radio provisions; hood grounding clip, engine to dash panel ground strap, fuse block capacitor and on "heater only" blower motors and coax capacitor.

(a) - Standard battery.
(b) - With H.D. option UA1.

MVMA Specifications Form

Vehicle Models CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Body Type	SPORT COUPE AND IROC-Z

Body

Structure	Full unitized steel construction. Cowl, roof, underbody and body panels welded to form body shell. Bolt-in front suspension crossmember. Doors, roof, hood and hatch lid double panel construction.
∅ Bumper system front - rear	Body color soft facia, honeycomb absorber and heavy gauge reinforcement used front and rear. GM 5 mph protection.
Anti-corrosion treatment	Galvanized metals, zinc rich primers, wax coating and other corrosion resistant materials used throughout.

∅ Body – Miscellaneous Information

Type of finish (lacquer, enamel, other)		High solids acrylic enamel base coat/clear coat
Hood	Material & mass	Steel
	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Gas strut assist
	Release control (internal, external)	Internal
Trunk lid	Material & mass	Steel
	Type (counterbalance, other)	Convertible only (a)
	Internal release control (elec., mech., n.a.)	Convertible only. Mechanical release
Hatch-back lid	Material & mass	Glass/steel
	Type (counterbalance, other)	Dual gas struts - electric final closure standard.
	Internal release control (elec., mech., n.a.)	Electric release optional
Tailgate	Material & mass	Not Applicable
	Type (drop, lift, door)	" "
	Internal release control (elec., mech., n.a.)	" "
Vent window control (crank, friction, pivot, power)	Front	Not Available
	Rear	" "
Window regulator type (cable, tape, flex, drive, etc.)	Front	Sector Drive
	Rear	Sector Drive
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Bucket molded foam pad
	Rear	" " " "
	3rd seat	--
Seat back type (e.g., 60/40, bucket, bench, wire, foam etc.)	Front	Reclining bucket molded foam pad
	Rear	Folding bench. Split back optional molded foam pad
	3rd seat	--

(a) Convertible folding top manual standard, no power option.

MVMA Specifications Form
METRIC (U.S. Customary)

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•)

Body Type SPORT COUPE AND IROC-Z

∅ Restraint System

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

Glass	SAE Ref. No.	Coupe	Convertible
Windshield glass exposed surface area [cm^2(in.^{2})]	S1	9000.4 (1395.0)	
Side glass exposed surface area [cm^2(in.^{2})] - total 2-sides	S2	6519.8 (1010.6)	
Backlight glass exposed surface area [cm^2(in.^{2})]	S3	6232.0 (966.0)	3844.1 (598.8)
Total glass exposed surface area [cm^2(in.^{2})]	S4	21752.2 (3371.6)	19364.3 (3001.4)
Windshield glass (type)		Curved - Laminated Plate	
Side glass (type)		Curved - Tempered Plate	
Backlight glass (type)		Curved - Tempered Plate	Vinyl

∅ Lamps and Headlamp Locations

Headlamps	Description - sealed beam, halogen, replaceable bulb, etc.	Sealed beam - four lamp system
	Shape	Rectangular
	Lo-beam type (2A1, 2B1, 2C1, etc.)	2A
	Quantity	2
	Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)	1A
	Quantity	2

Frame

Type and description (separate frame, unitized frame, partially-unitized frame)	Full integral body frame, includes bolted on front suspension crossmember.

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

Body Type SPORT COUPE AND IROC-Z

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

∅ Air conditioning (manual, auto. temp control)		Optional - manual control
Clock (digital, analog)		Digital, in radio.
Compass/thermometer		Not Available
Console (floor, overhead)		Floor standard, Overhead not available
Defroster, elec. backlight		Optional (Not available on convertible)
Electronic	Diagnostic monitor (integrated, individual)	Not Available
	Instrument cluster (list instruments)	" "
	Keyless entry	
	Tripminder (avg. spd., fuel)	"
	Voice alert (list items)	" "
	Other	
Fuel door lock (remote, key, electric)		Not Available
Lamps	Auto head on/off delay, dimming	" "
	Cornering	
	Courtesy (map, reading)	Included in optional lamp group (under dash)
	Door lock, ignition	Not Available
	Engine compartment	Included in optional lamp group
	Fog	Standard IROC-Z, not available on Sport Coupe
	Glove compartment	Standard (compartment in floor console)
	Trunk	Included in optional lamp group
∅	Illuminated entry system (list lamps, activation)	Not Available
	Other	
Mirrors	Day/night (auto. man.)	Manual standard
	L.H. (remote, power, heated)	Remote standard, power optional
	R. H. (convex, remote, power, heated)	Manual standard, power optional. Both convex
	Visor vanity (RH / LH, illuminated)	RH, non-illuminated NA Spt. Cpe Std. IROC-Z
∅ Navigation system (describe)		
Parking brake-auto release (warning light)		Hand release, warning light standard

Radio Options

* Full gage package (non-electronic) standard on Trans Am GTA and Formula; optional on Firebird.
** Seat belt warning, engine warning.

MVMA Specifications Form
METRIC (U.S. Customary)

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

Body Type SPORT COUPE AND IROC-Z

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

∅	Deck lid (release, pull down)		Opt. - electric, door locks and rear hatch release
	Door locks (manual, automatic, describe system)		Manual - standard Electric - optional
Power equipment	Seats	2 - 4 - 6 way, etc.	Optional 6-way power driver's seat
		Reclining (R.H., L.H.)	Reclining both front seats
		Memory (R.H., L.H., preset, recline)	Not Available
		Lumbar, hip, thigh, support	" "
		Heated (R.H., L.H., other)	" "
	Side windows		Optional
	Vent windows		Not Available
	Rear windows		" "
	Antenna (location, whip, w/shield, power)		R. F. Fender fixed mast standard, power optional
∅	Radio systems — Standard		
	Radio systems — Optional	AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc.	AM/FM Stereo w/seek, scan & digital clock, AM/FM electronically tuned stereo seek, scan, cassette player & digital clock, AM/FM Stereo electronically tuned seek, scan graphic equalizer, cassette w/search & repeat w/digital clock, AM/FM Bose II Stereo, cassette search & repeat digital clock.
	Speaker (number, location)		Four-two in instrument panel, two in roof sail pan. Convertible in quarter sidewalls.
Roof open air fixed (flip-up, sliding, "T")			"T" type, optional
Speed control device			Cruise Control, optional
Speed warning device (light, buzzer, etc.)			Not Available
Tachometer (rpm)			Standard
Telephone system (describe)			Not Available
Theft deterrent system			Lock mounted on steering column; locks steering wheel, transmission shift lever and ignition. Pass Key.

(a) Power final closure latch standard for both non-convertible mode.

MVMA Specifications Form

Vehicle Models CAMARO
Model Year 1989 Issued 6-88 Revised (e)

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

Body Type		SPORT COUPE IROC-Z
Front Compartment	**SAE Ref. No.**	
Sg RP front, "X" coordinate	L31	1050 (41.3)
Effective head room	H61	940 (37.0) coupes, 942 (37.1) convertible
Max. eff. leg room (accelerator)	L34	1092 (43.0) coupes, 1089 (42.9) convertible
SgRP to heel point	H30	181 (7.1)
SgRP to heel point	L53	911 (35.9)
Back angle	L40	26.5
Hip angle	L42	98.0
Knee angle	L44	133.0
Foot angle	L46	87.0
Design H-point front travel	L17	192 (7.6)
Normal driving & riding seat track trvl.	L23	171 (6.7)
Shoulder room	W3	1460 (57.5) coupes, 1488 (58.6) convertible
Hip room	W5	1430 (56.3) coupes, 1342 (52.8) convertible
** Upper body opening to ground	H50	--
Steering wheel maximum diameter*	W9	368 (14.5)
Steering wheel angle	H18	18.0
Accel. heel pt. to steer. whl. cntr	L11	Not Available
Accel. heel pt. to steer. whl. cntr	H17	" "
Steering wheel to C/L of thigh	H13	91 (3.6)
Steering wheel torso clearance	L7	360 (14.2)
Headlining to roof panel (front)	H37	12 (0.5)
Undepressed floor covering thickness	H67	16 (0.6)

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

Rear Compartment		
Sg RP Point couple distance	L50	668 (26.3)
Effective head room	H63	905 (35.6) coupes, 918 (36.1) convertible
Min. effective leg room	L51	756 (29.8) coupes, 719 (28.3) convertible
Sg RP (second to heel)	H31	183 (7.2)
Knee clearance	L48	-15 (-0.6)
Compartment room	L3	582 (22.9)
Shoulder room	W4	1430 (56.3) coupes, 1222 (48.1) convertible
Hip room	W6	1087 (42.8) coupes, 1116 (43.9) convertible
** Upper body opening to ground	H51	--
Back angle	L41	28.0°
Hip angle	L43	68.0
Knee angle	L45	66.5
Foot angle	L47	116.5
Headlining to roof panel (second)	H38	Not Available
Depressed floor covering thickness	H73	18 (0.7)
Luggage Compartment		
Usable luggage capacity [L (cu. ft.)]	V1	146L (5.2 cu.ft.) convertible
** Liftover height	H195	883 (34.8)
Interior Volumes (EPA Classification)		
Vehicle class		Sub-Compact
Interior volume index (cu. ft.)		84.9
Trunk/cargo index (cu. ft.)		12.4

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

MVMA Specifications Form

Vehicle Models CAMARO
Model Year 1989 Issued 6-88 Revised (•)

METRIC (U.S. Customary)

Vehicle Dimensions See Key Sheets for definitions

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

Body Type	SAE Ref. No.	SPORT COUPE	IROC-Z
Width			
Tread (front)	W101	1525 (60.0)	
Tread (rear)	W102	1548 (60.9)	
Vehicle width	W103	1850 (72.8)	
Body width at Sg RP (front)	W117	1830 (72.0)	
Vehicle width (front doors open)	W120	3939 (155.1)	
Vehicle width (rear doors open)	W121	--	
Front fender overall width	W106	1850 (72.8)	
Rear fender overall width	W107	1840 (72.4)	
Tumble-home (deg.)	W122	31.5°	
Vehicle width including mirrors			
Length			
Wheelbase	L101	2566 (101.0)	
Vehicle length	L103	4877 (192.0)	
Overhang (front)	L104	1178 (46.4)	
Overhang (rear)	L105	1133 (44.6)	
Upper structure length	L123	2669 (105.1)	
Rear wheel C/L "X" coordinate	L127	2138 (84.2)	
Cowl point "X" coordinate	L125	108 (4.3)	
Front end length at centerline	L126	--	
Rear end length at centerline	L129	345 (13.6)	
Height **			
Passenger distribution (front/rear)	PD1,2,3	**	
Trunk/cargo load		**	
Vehicle height	H101	1279 (50.3)	
Cowl point to ground	H114	904 (35.6)	
Deck point to ground	H138	918 (36.1)	
Rocker panel-front to ground	H112	201 (7.9)	
Bottom of door closed-front to ground	H133	362 (14.3)	
Rocker panel-rear to ground	H111	197 (7.8)	
Bottom of door closed-rear to ground	H135	--	
Windshield slope angle	H122	62.0°	
Backlight slope angle	H121	71.0°	
Ground Clearance **			
Front bumper to ground	H102	347 (13.7)	
Rear bumper to ground	H104	329 (13.0)	
Bumper to ground [front at curb mass (wt.)]	H103	359 (14.1)	
Bumper to ground [rear at curb mass (wt.)]	H105	344 (13.5)	
Angle of approach (degrees)	H106	12.2°	
Angle of departure (degrees)	H107	18.8°	
Ramp breakover angle (degrees)	H147	13.4°	
Axle differential to ground (front / rear)	H153	182 (7.2)	
Min. running ground clearance	H156	128 (5.1)	
Location of min. run. grd. clear.		Front crossmember	

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

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

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

Body Type		SPORT COUPE	IROC-Z
Station Wagon – Third Seat	**SAE Ref. No.**		
Seat facing direction	SD1	Not Applicable	
Sg RP couple distance	L85		
Shoulder room	W85		
Hip room	W86		
Effective leg room	L86		
Effective head room	H86		
Sg RP to heel point	H87		
Knee clearance	L87		
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		
Cargo length (closed front)	L202		
Cargo length (closed second)	L203		
Cargo length at belt (front)	L204		
Cargo length at belt (second)	L205		
Cargo width (wheelhouse)	W201		
Rear opening width at floor	W203		
Opening width at belt	W204		
Min. rear opening width above belt	W205		
Cargo height	H201		
Rear opening height	H202		
Tailgate to ground height	H250		
Front seat back to load floor height	H197		
Cargo volume index [m^3($ft.^3$)]	V2		
Hidden cargo volume index [m^3($ft.^3$)]	V4		
Cargo volume. index-rear of 2-seat	V10		
Hatchback – Cargo Space			
Cargo length at front seatback height	L208	895 (35.2)	
Cargo length at floor (front)	L209	1556 (61.3)	
Cargo length at second seatback height	L210	610 (24.0)	
Cargo length at floor (second)	L211	845 (33.3)	
Front seatback to load floor height	H197	355 (14.0)	
Second seatback to load floor height	H198	242 (9.5)	
Cargo volume index [m^3($ft.^3$)]	V3	879 (31.0)	
Hidden cargo volume index [m^3($ft.^3$)]	V4	--	
Cargo volume index-rear of 2-seat	V11	350 (12.4)	
Aerodynamics*			
Wheel lip to ground, front	H172	689 (27.1)	
Wheel lip to ground, rear	H173	693 (27.3)	
Frontal area [m^2(ft^2)]		1.99 (21.3)	
Drag coefficient (Cd)		Not Available	

* EPA Loaded Vehicle Weight, Loading Conditions

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

Body Type SPORT COUPE IROC-Z

Vehicle Fiducial Marks

Fiducial Mark Number*	Define Coordinate Location
Front	X - Fiducial mark to vertical base grid line - front measured horizontally, from the base grid line to the front fiducial mark located on top of th front seat adjuster mounting bolt. Y - Fiducial mark to centerline of car - front, width measurement made from centerline car to fiducial mark located on top of the front seat adjust 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 p longitudinal). Z - Fiducial mark to horizontal base grid line - rear, measured vertically from the base grid line to rear fiducial mark located on the rail (compartment pan - longitudinal).

Fiducial Mark Number		
Front	W21*	540 (21.3)
	L54*	688 (27.1)*
	H81*	-32 (-1.3)#
	H161*	296 (11.7)
**	H163*	284 (11.2)
Rear	W22*	548 (21.6)
	L55*	2815 (110.8)*
	H82*	96 (3.8)#
	H162*	417 (16.4)
**	H164*	407 (16.0)

* Vertical Base Grid 2000 mm Line.
\# Horizontal Base Grid 500 mm Line.

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

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

MVMA Specifications Form

Vehicle Line _____

Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Code / Model	Vehicle Mass (weight)							
	CURB MASS, kg. (lb.)*			% PASS. MASS DISTRIBUTION				
				Pass In Front		Pass In Rear		
	Front	Rear	Total	Front	Rear	Front	Rear	ETWC**
Sport Coupe								
IFP87 2-Door	775	623	1398					
Hatchback Coupe	(1709)	(1373)	(3082)					
LB8 & MB1								
IFP87 W/Z08 2-Door	870	612	1482					
Convertible Coupe	(1918)	(1349)	(3267)					
LO3 & M39								
IROC-Z								
IFP87 w/Z28 2-Door	779	627	1406					
Hatchback Coupe	(1717)	(1382)	(3099)					
LO3 & M39								
IFP87 w/Z28 &Z08	874	616	1490					
2-Door Convertible	(1927)	(1358)	(3285)					
LO3 & M39								
Curb Weight - The calculated weight of a vehicle with standard equipment only as designed with the additional load of oil, lubes, coolants, and fuel all filled to capacity.								
Shipping Weight - Same as base curb weight, except 3 gallons of gasoline.								

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

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

** ETWC - Equivalent Test Weight Class - U.S. Environmental Protection Agency emission certifications are based on the ETWC's shown.
NA - Not Applicable - applies to model/series combinations not requiring testing.

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Code	Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (lb.) Front	Rear	Total	Remarks Restrictions, Requirements
RPO-AG9	Power Seat, 6-Way (Driver's side only)	1.6 (3.5)	2.0 (4.4)	3.6 (7.9)	All Models
RPO-AU3	Power Door Locks-Electric	.9 (2.0)	.9 (2.0)	1.8 (4.0)	All models
RPO-A31	Power Windows-Electric	1.2 (2.6)	1.0 (2.2)	2.2 (4.8)	All models
RPO-A90	Lock Release-Liftback Electric	.2 (0.4)	.4 (0.9)	.6 (1.3)	NA convt.
RPO-B34	Mats, Front Floor-Colored-Keyed Carpet	.8 (1.8)	.4 (0.9)	1.2 (2.7)	All models
RPO-B35	Mats, Rear Floor-Color-Keyed carpet	.2 (0.4)	.6 (1.3)	.8 (1.8)	All models
RPO-B48	Deluxe Luggage Compartment Trim	0 (0)	.4 (.9)	.4 (.9)	All models
RPO-B84	Moldings-Body Side-	.2 (0.4)	.4 (0.9)	.6 (1.3)	All models

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

MVMA Specifications Form

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Code / Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (lb.) Front	Rear	Total	Remarks Restrictions, Requirements
RPO-CC1 Roof-Removable Hatch Panels-Glass	5.8 (12.8)	9.6 (21.2)	15.4 (34.0)	Includes storage bag and attaching hardware.
RPO-CD4 Windshield washer and Wiper (Pulse System)	.2 (0.4)	0 (0)	.2 (0.4)	Optional
RPO-C49 Defogger-Rear Window (Electric)	0 (0)	.4 (0.9)	.4 (0.9)	All models
RPO-C60 Air Conditioning (Manual Control)	16.8 (37.0)	2.2 (4.9)	19.0 (41.9)	With RPO LB8 engine. Sport Coupe
	18.0 (39.7)	1.4 (3.1)	19.4 (42.8)	With engine.
	18.0 (39.7)	1.4 (3.1)	19.4 (42.8)	With RPO LB9 & MD8
	19.4 (42.8)	1.6 (3.5)	21.0 (46.3)	With RPO L03 & MD8
	18.0 (39.7)	1.2 (2.6)	19.2 (42.3)	With RPO LB9 & M39
	19.4 (42.8)	1.6 (3.5)	21.0 (46.3)	With RPO L03 & M39
RPO-DG7 Sport Mirrors - Electric Remote Control-R.H.&L.H. Controls on L.H. Door Panel.	.4 (0.9)	.2 (0.4)	.6 (1.3)	All models
RPO-D42 Rear Compartment Carco Area Cover	-.4 (-0.9)	2.4 (5.3)	2.0 (4.4)	NA convt.

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

MVMA Specifications Form

METRIC (U.S. Customary)

Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

Code / Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (lb.) Front	Rear	Total	Remarks Restrictions, Requirements
RPO-J65 Power 4-Wheel Disc Brakes.	0 (0)	3.6 (7.9)	3.6 (7.9)	IROC-Z with L98 only
RPO-K34 Cruise Control-Three Mode with Resume Feature. (Available on Manual or Automatic Transmissions.)	2.4 (5.3)	0 (0)	2.4 (5.3)	All models except LB8
	2.0 (4.4)	0 (0)	2.0 (4.4)	With LB8
RPO-LB9 5.0 Liter V8 (305 CID)	75.0 (165.3)	7.4 (16.3)	82.4 (181.6)	IROC-Z with M39
	63.6 (140.2)	2.2 (4.9)	72.4 (145.1)	IROC-Z with MD8
RPO-L03 5.0 Liter V8 (305 CID)	70.2 (154.8)	2.2 (4.9)	72.4 (159.7)	Sport Coupe with M39
	53.4 (117.7)	1.8 (4.0)	55.2 (121.7)	Sport Coupe with MD8
RPO-L98 5.7 Liter V8 (350 CID)	68.0 (149.9)	6.8 (15.0)	74.8 (164.9)	IROC-Z with MD8
RPO-M39 5-Speed Manual Transmission	-.4 (-0.9)	0	-.4 (-0.9)	

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

MVMA Specifications Form

Vehicle Line CAMARO

Model Year 1989 Issued 6-88 Revised (•) _____

METRIC (U.S. Customary)

Code ** Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (lb.) Front	Rear	Total	Remarks Restrictions, Requirements
RPO-MX0 Automatic Transmission Overdrive (700-R4)	11.4 (25.1)	3.8 (8.4)	15.2 (33.5)	With LB8-V6 engine, With Sport Coupe
	12.8 (28.2)	4.4 (9.7)	17.2 (37.9)	With L03-V8 engine, Sport Coupe
	31.4 (69.2)	10.0 (22.0)	41.4 (91.2)	With L03-V8 engine, IROC-Z
	31.4 (69.2)	10.0 (22.0)	41.4 (91.2)	With LB9 & L98 V8 Engines, IROC-Z only
RPO-N33 Steering Column-Tilt	.8 (1.8)	.2 (0.4)	1.0 (2.2)	All models
RPO-U29 Lamp Group-Auxillary Includes: -Courtesy Lamps	0	0	0	All models
RPO-U25 -Rear Compartment Light	0	.2 (0.4)	.2 (0.4)	
RPO-U26-Underhood Light	0	0	0	
RPO-TR9 Package Number	.2 (0.4)	0 (0)	.2 (0.4)	
RPO-UA1 Battery-Heavy Duty	.6 (1.3)	-	.6 (1.3)	

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

MVMA Specifications Form

METRIC (U.S. Customary)

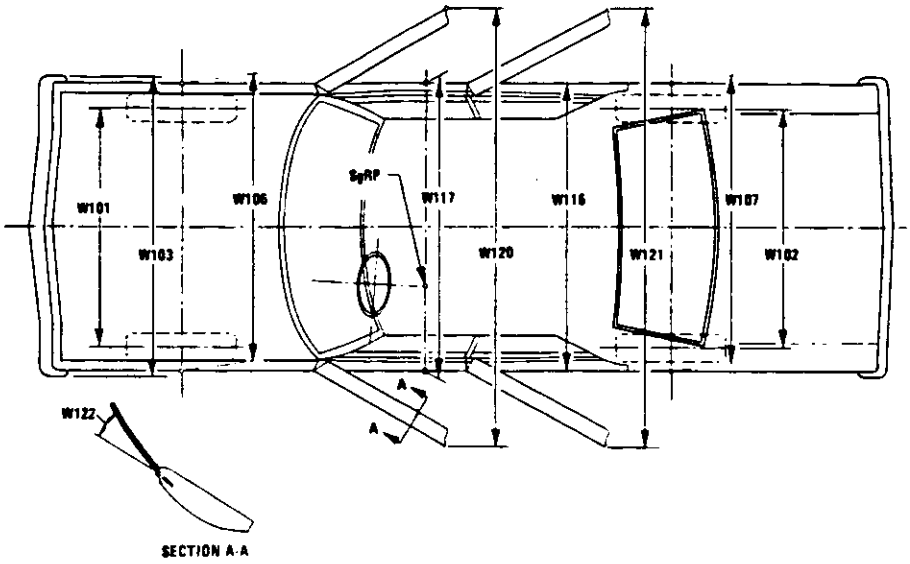
Vehicle Line CAMARO
Model Year 1989 Issued 6-88 Revised (•) _____

Code	Equipment	Optional Equipment Differential Mass (weight)* MASS, kg. (lb.) Front	Rear	Total	Remarks Restrictions, Requirements
RPO-U75	Antenna - Power (Consists of RPO-UN9 Radio Suppression Equipment requires Radio)	1.0 (2.2)	.2 (0.4)	1.2 (2.6)	All models
RPO-UU8	Extended Range Sound System AM/FM Stereo Cassette Tape, Dolby Sound and Digital Clock	.6 (1.3)	0	.6 (1.3)	Optional except convt.
RPO-UX1	Extended Range Sound System, AM Stereo/FM Stereo ETR Radio-Cassette, with Clock and Graphic Equalizer. (Includes RPO-VE8, UU6, UP8, U73, U79)	.4 (.9)	.2 (.4)	.6 (1.3)	Optional
RPO-UM6	Extended Range Sound System AM/FM Stereo ETR Radio, Clock, Cassette (Includes RPO-UP8, UU9, U73, U79.)	1.0 (2.2)	.4 (.9)	1.4 (3.1)	Optional

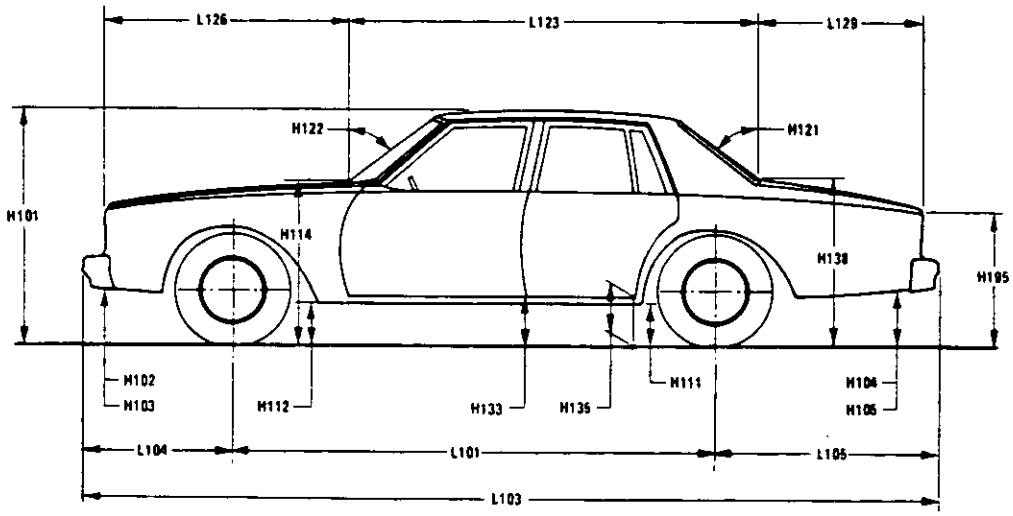
* Also see Engine - General Section for dressed engine mass (weight).

Exterior Vehicle And Body Dimensions – Key Sheet

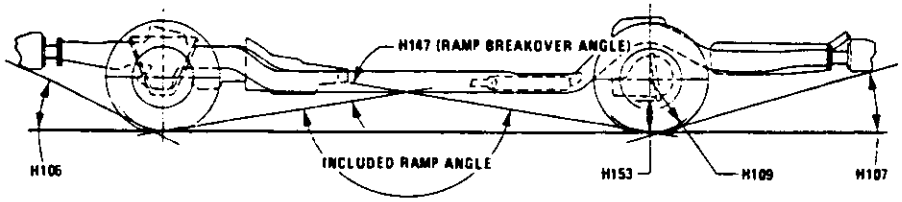
Exterior Width



Exterior Length & Height



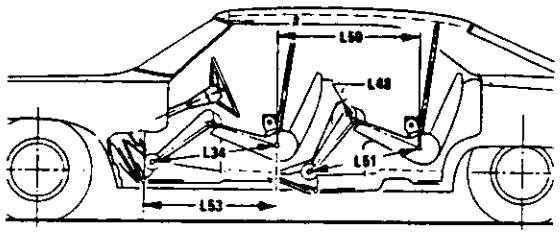
Exterior Ground Clearance

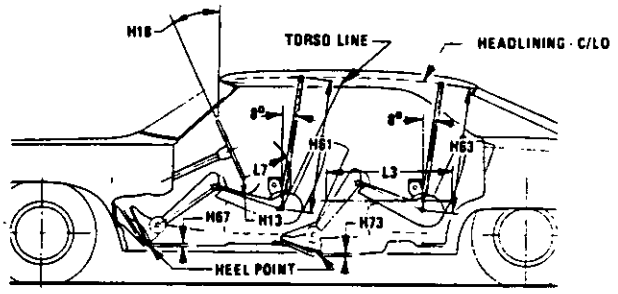


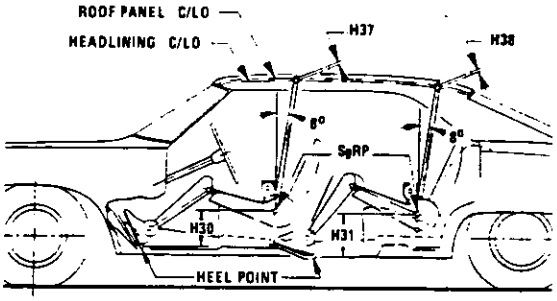
MVMA Specifications Form

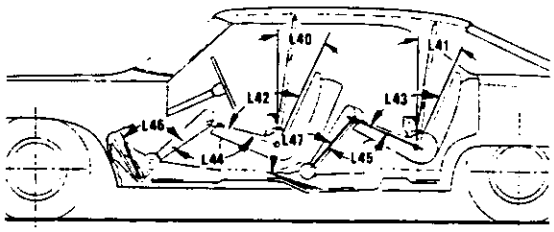
METRIC (U.S. Customary)

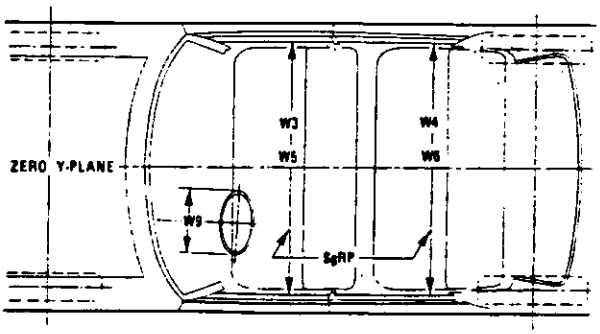
Interior Vehicle And Body Dimensions – Key Sheet

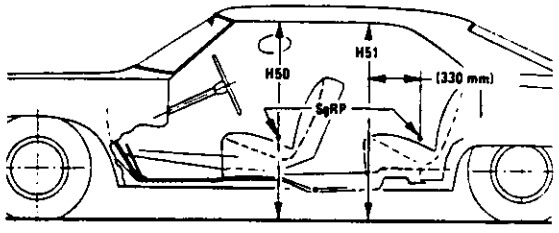




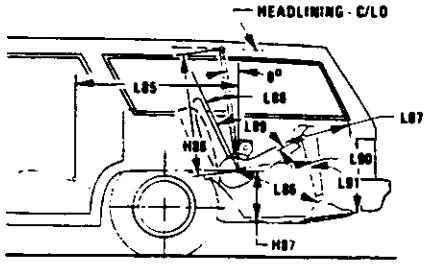


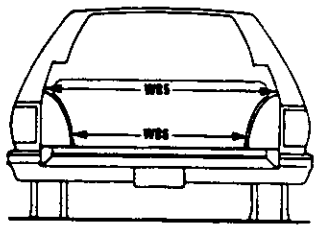




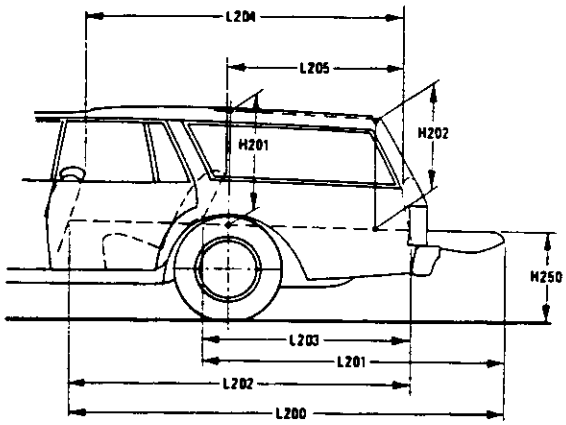


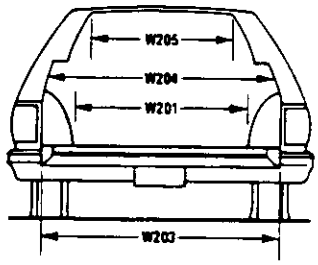
Third Seat



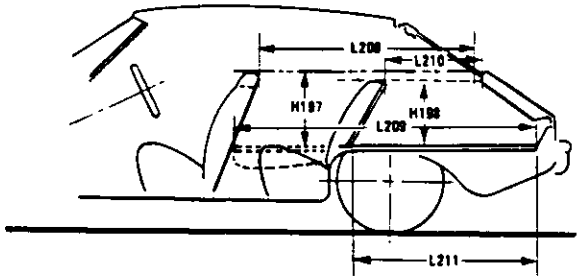


Cargo Space





Station Wagon



Hatchback

MVMA Specifications Form

METRIC (U.S. Customary)

Exterior Vehicle And Body Dimensions – Key Sheet
Dimensions Definitions

Seating Reference Point

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

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

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

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

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

Width Dimensions

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

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

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

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

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

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

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

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

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

Length Dimensions

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

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

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

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

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

L125 COWL POINT "X" COORDINATE.

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

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

L129 REAR END LENGTH. The dimension measured longitudinally from the deck point to the rearmost visible point 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" plar

H121 BACKLIGHT SLOPE ANGLE. The angle between the ve cal 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.

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

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

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

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

Ground Clearance Dimensions

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

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

H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.

H105 REAR BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H104.

H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius arc and the initial point of structural interference forward of the front tire to ground. The limiting structural component shall be designated.

H107 ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius arc and the initial point of structural interference rearward of the rear tire to ground. The limiting component shall be designated.

H147 RAMP BREAKOVER ANGLE. The angle measured between two lines tangent to the front and rear tire static loaded radius and intersecting at a point on the underside of the vehicle which defines the largest ramp over which the vehicle can roll.

H153 REAR AXLE DIFFERENTIAL TO GROUND. The minimum dimension measured from the rear axle differential to ground.

H156 MINIMUM RUNNING GROUND CLEARANCE. The minimum dimension measured from the sprung vehicle to ground. Specify location.

Glass Areas

S1 Windshield area.

S2 Side windows area. Includes the front door, rear door, vents, and rear quarter windows on both sides of the vehicle.

S3 Backlight areas.

S4 Total area. Total of all areas (S1 + S2 + S3).

Fiducial Mark Dimensions

Fiducial Mark – Number 1

L54 "X" coordinate.

W21 "Y" coordinate.

H81 "Z" coordinate.

H161 Height "Z" coordinate to ground at curb weight.

H163 Height "Z" coordinate to ground.

Fiducial Mark – Number 2

L55 "X" coordinate.

W22 "Y" coordinate.

W82 "Z" coordinate.

H162 Height "Z" coordinate to ground at curb weight.

H164 Height "Z" coordinate to ground.

Front Compartment Dimensions

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

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

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

L23 NORMAL DRIVING AND RIDING SEAT TRACK TRAVEL. The dimension measured horizontally between a point on the design H-point travel line from the SgRP to the displaced point on the design H-point travel line with the seat moved to the foremost seat position, but not to include seat track travel used for purposes other than normal driving and riding positions. (See SAE J1100)

L31 SgRP–FRONT. "X" COORDINATED.

L34 MAXIMUM EFFECTIVE LEG· ROOM–ACCELERATOR. The dimension measured along a line from the ankle pivot center to the SgRP–front plus 254 mm (10.0 in) measured with right foot on the undepressed accelerator pedal. For vehicles with SgRP to heel (H30) greater than 18 in., the accelerator pedal may be depressed as specified by the manufacturer. If teh accelerator is depressed, the manufacturer shall place foot flat on pedal and note the depression of the pedal.

L-40 BACK ANGLE–FRONT. The angle measured between a vertical line through the SgRP–front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.

L-42 HIP ANGLE–FRONT. The angle measured between torso line and thigh centerline.

L44 KNEE ANGLE–FRONT. The angle measured between thigh centerline and lower leg centerline measured on the right leg.

L46 FOOT ANGLE–FRONT. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the bare foot flesh line measured on the right leg. Ref SAE J826.

L53 SgRP–FRONT TO HEEL. The dimension measured horizontally from the SgRP–front to the accelerator heel point.

W3 SHOULDER ROOM–FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP–front at height between the belt line and 254 mm (10.0 in.) above the SgRP–front, excluding the door assist strap and attaching parts.

W5 HIP ROOM–FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP–front within 25 mm (1.0 in.) below and 76 mm (3.0 in.) above the SgRP–front and 76 mm (3.0 in.) fore and aft of the SgRP–front.

W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.

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 covereing to the underbody sheet metal at the accelerator heel point.

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.

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 dimesnion measured vertically from the heel point to the underbody sheet metal.

Luggage Compartment Dimensions

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

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

Interior Volumes (EPA Classification)

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

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

Station Wagon – Third Seat Dimensions

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

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

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

L88 BACK ANGLE–THIRD. Measured in the same mannere as L41.

L89 HIP ANGLE–THIRD. Measured in the same manner as L43.

L90 KNEE ANGLE–THIRD. Measured in the same manner as L45.

L91 FOOT ANGLE–THIRD. Measured in the same manner as L47.

W85 SHOULDER ROOM–THIRD. Measured in the same manner as W4.

W86 HIP ROOM–THIRD. Measured in the same manner as W5.

H86 EFFECTIVE HEAD ROOM–THIRD. The dimension, measured along a line 8 deg. from the SgRP–third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).

H87 SgRP–THIRD TO HEEL POINT.

SD1 SEAT FACING DIRECTION–THIRD.

Station Wagon – Cargo Space Dimensions

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

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

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

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

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

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

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

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:

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

Measured in mm:

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

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

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

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

Measured in mm:

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

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

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

Measured in mm:

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

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

V10 STATION WAGON CARGO VOLUME INDEX.
Measured in inches:

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

Measured in mm:

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

Hatchback – Cargo Space Dimensions

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

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

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

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

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

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

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

V3 HATCHBACK.
Measured in inches:

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

Measured in mm:

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

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

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

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

Measured in mm:

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

MVMA Specifications Form

METRIC (U.S. Customary)

∅ Index