

# GENERAL

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# MODEL IDENTIFICATION

BODY	SERIES NAME	BODY STYLE	MODEL DESIGNATION	PASS OR SEATS
X-CAR	NOVA	4-Dr. Sedan	1XX69	6
		2-Dr. Coupe	1XX27	6
		2-Dr. Hatchback Coupe	1XX17	6
	NOVA CUSTOM	4-Dr. Sedan	1XY69	6
		2-Dr. Coupe	1XY27	6

# SERIAL NUMBERS AND IDENTIFICATION

ONLY BASIC DESIGNATION SHOWN

## VEHICLE IDENTIFICATION NUMBER

Vehicle Designation Interpretation

1	X	27	D	8	W	100001
						Sequential Number
					Assembly Plant (*)	
				Model Year 1978		
			Engine Type (**)			
		Body Style (last two digits of model Number)				
		Car line and Series (***)				
Make ("1" for Chevrolet)						

- \*W - Willow Run-GMAD    T - Tarrytown-GMAD
- \*\*D - L6-250 (110 H.P.)    L - V8-350 (160 H.P.)
- U - V8-305 (145 H.P.)
- \*\*\*X - Chevy Nova

**EXAMPLE:** The twenty-fifth Chevrolet vehicle built at Chevrolet-Willow Run if it were a 1XX27 model (Nova Coupe) with a L6-250 (110 H.P.) engine would bear VIN Number 1X27D8W100025.

Location . . . . . Stamped on plate attached to top left hand of instrument panel.

## TRANSMISSION IDENTIFICATION

Example: S8E01

Type	Source	Model Year	Production <sup>o</sup>
<u>Designation</u>	<u>Designation</u>	<u>1978</u>	<u>Month &amp; Date</u>
UR	S (Muncie)	8	E01D*

UR	3-Speed	L-6	S - Muncie
ZM	4-Speed	V-8 engine	P - Muncie
5WZ	3-Speed Auto.	L-6 engine	D - Parma
AG		V-8 engine	Y - Toledo

Location:

- 3-Speed . . . . . Stamped on right side of case, at adapter.
- 4-Speed . . . . . Stamped on right side of case, at adapter.
- 3-Speed Automatic . . . . . Stamped on right side of transmission, above filler plug.

<sup>o</sup>Month: E denotes May; (see below) 01 denotes 1st day  
Alpha Characters used in identifying the calendar Month

A - January	D - April	K - July	R - October
B - February	E - May	M - August	S - November
C - March	H - June	P - September	T - December

\*The letter "D" or "N" following the date numerals indicates day or night shift on automatic only.

## ENGINE IDENTIFICATION

Example: F1210CCJ

<u>Source</u>	<u>Production*</u>	<u>Type</u>
<u>Designation</u>	<u>Month &amp; Date</u>	<u>Designation</u>
F (Flint)	1210	CCJ

250 Cubic Inch L-6 Base Engine

- CCJ - Regular engine, 3-speed
- CCH - Regular engine, 3-speed automatic

305 Cubic Inch V-8 (RPO LG3)

- CTH - Optional engine, 4-speed .
- CTK - Optional engine, 3-speed automatic

350 Cubic Inch V-8 (RPO LM1)

- CHJ - Optional engine, 3-speed automatic

Location:

- 6-cylinder engine . . . . . Stamped on pad on right side of cylinder block to rear of distributor
- 8-cylinder engine . . . . . Stamped on pad at front right side of cylinder block

\*-Month: December, 12; 10th day of December, 10.

## REAR AXLE IDENTIFICATION

2TV - 2.41 Axle  
2TY - 2.73 Axle  
2TX - 3.08 Axle

Location, Identification Number  
Bottom left or right of axle tube adjacent to carrier housing.

See Power Train Section for additional information.

# EXTERIOR EQUIPMENT

## EXTERIOR EQUIPMENT

	Standard 1XX00 (17, 27, 69)	Custom 1XY00 (27, 69)	"Nova Rally" RPO Z26 1XX17-27 1XY27 (17, 27)
<b>FRONT</b>			
Bumper Filler Panel, Body Color (C) . . . . .	X	X	X
Bumper Face Bar, Bright Chrome Plated (C) . . . . .	X	X	X
Grille, Plastic, Chrome Plated (C) . . . . .	X	X	
Parking Lamps, Grille Mounted, Vertical, Amber Lens with Chevrolet Emblem (C) . . . . .	X		
Headlamp Bezels, Dark Argent With Bright Trim Molding (C) . . . . .	X		
Bow Tie Emblem on Hood at Center (C) . . . . .	X		
Parking Lamps, Grille Mounted, Vertical, Clear Lens with Black "C" Insignia (C) . . . . .		X	
Headlamp Bezels, Chrome Plated (C) . . . . .		X	
Fender Extensions, Front, Specific (C) . . . . .		X	
Moldings, Bright, Horizontal Along Hood Front Lower Edge (Includes Black "Chevrolet" Script Identification) and at Top and Outboard Sides of Fender Extensions (C) . . . . .		X	
Grille, Plastic With Diamond Pattern Styling and Chrome Plated Treatment (C) . . . . .			O
Parking Lamps, Grille Mounted, Horizontal, Clear Lens (C) . . . . .			O
Headlamp Bezels, Black Paint Treatment with Bright Trim Molding (C)			O
Emblem, "Nova Rally" in center of Grille (C) . . . . .			O
<b>REAR</b>			
Molding, Rear Window Reveal, Bright (F) . . . . .	X	X	X
Rear Lamps (In Rear End Panel), Rectangular, Two-Section with Back-Up Lamp Integral with Inboard Lamp (F & C) . . . . .	X		X
Rear Lamps, Rectangular, Three-Section with Bright Trim and Black "C" Insignia on Back-Up Lamp (F & C) . . . . .		X	
Bumper Face Bar, Bright Chrome Plated (C) . . . . .	X	X	X
Bumper Filler Panel, Body Colored, Pliable (C) . . . . .	X	X	X
Nameplate, "Chevrolet", on Deck Lid, Centered Above R.H. Outboard Tail Lamp (F) . . . . .	X	X	X
Rear End Panel Striping (Nova models only, not used on Nova Custom Coupe) . . . . .			O
<b>SIDE</b>			
Door Handles, Push-Button, Bright Chrome (F) . . . . .	X	X	X
Marker Lamps, Front, Bright Bezel and Amber Lens (C) . . . . .	X	X	X
Marker Lamps, Rear, Bright Bezel and Red Lens (F) . . . . .	X	X	X
Mirror, Outside Rear View, Rectangular, L.H. (C) . . . . .	X	X	X
Nameplate "Nova" on Front Fender (C) . . . . .	X		
Nameplate "Nova Custom" on Front Fender (C) . . . . .		O-N	
Hub Caps (C) . . . . .	X	X	
Glass Separation, Rear Door, Black (69 Only) (F) . . . . .	X	X	
Emblem, "Nova Rally" on Front Fenders (C) . . . . .			O
Rally Wheel, with Bright Hub and Trim Ring, Body Color (C) . . . . .			O
Body Side Striping (C) . . . . .			O

NOTES: "O" indicates specific feature of optional package.  
 "N" indicates new for 1978.  
 (C) = Chevrolet item, (F) = Fisher item.

# INTERIOR EQUIPMENT

## INTERIOR EQUIPMENT

	Standard 1XX00 17, 27, 69	Custom Interior 1XY00 27, 69
<b>SEATS AND FLOOR COVERING</b>		
Front Seat Cushion with Full Foam Pad (F) . . . . .	X	X
Rear Seat Cushion with Full Foam Pad (F) . . . . .	X	X
Bench Type Front and Rear Seats with Custom Vinyl or Cloth Covering (F) . . . . .		X
Full-Foam Front Bucket Seats with Integral Head Restraint and Shoulder Belt Guide (RPO) (27 Model only) (F) . . . . .		X
Black Front Seat Adjuster Handle (F) . . . . .	X	X
Black Front Seat Back Release Latch (F) . . . . .	X	X
Folding Rear Seat with Single-Point Hinge, Hatchback Coupe Only (F) . . . . .	X	
Bright Rear Seat Back Release Latch, Hatchback Coupe Only (F) . . . . .	X	
Front Bench Seat Head Restraints (all models) with Shoulder Belt Guide (17-27 only) (F) . . . . .	X	X
Front and Rear Seat Belts (Base), Black, with Black Die-Cast Metal Buckles, Locking Retractors (F) . . . . .	X	X
Front and Rear Seat Belts (RPO), Color-Coordinated Belts with Color-Keyed Die-Cast Metal Buckles, Roof-Mounted Single Locking Retractors (F) . . . . .	O	O
Vinyl-On-Felt Treatment for Storage Compartment Under Load Floor - Hatchback Coupe Only (F) . . . . .	X	
Trim Color Seat Hinge Arm Cover (F) (Base-Black Paint) . . . . .		X
High Level Acoustic Package (F & C) . . . . .		X
One-Piece Hood Insulator (C) . . . . .		X
Cut-Pile Carpet in Passenger Compartment (F) . . . . .	X	X
Luggage Compartment Mat (Printed Vinyl on Needled Felt) (27-69 Models) (F) . . . . .	X	X
Carpet Load Floor Covering - Hatchback Coupe Only (F) . . . . .	X	

NOTES: (C) Chevrolet Item, (F) Fisher Item  
"O" indicates specific feature of optional package

# INTERIOR EQUIPMENT

## INTERIOR EQUIPMENT

	Standard	Custom Interior
	1XX00 17, 27, 69	1XY00 27, 69
<b>INSTRUMENT PANEL AND STEERING WHEEL</b>		
Soft Black Turn Signal and Transmission Shift Lever Knobs (C) . . . . .	X	X
Steering Column Ignition Switch with Integral Steering Wheel and Transmission Lock (C) . . . . .	X	X
Black T-Handle Parking Brake Release (C) . . . . .	X	X
Blended Air Heater (C) . . . . .	X	X
Two-Speed Windshield Wiper/Washer Illuminated Control (C) . . . . .	X	X
Ash Tray (C) . . . . .	X	X
Speedometer, Odometer and Fuel Gage (C) . . . . .	X	X
Instrument Panel Pad, Color Coordinated (C) . . . . .	X	X
Clock Hole Cover Plate (C) . . . . .	X	X
Radio Hole Cover Plate and Light Switch/Windshield Wiper Panel (Color-Coordinated) (C) . . . . .	X	
Radio Hole Cover Plate and Light Switch/Windshield Wiper Panel (Woodgrain) (C) . . . . .		X
Glove Compartment Door Lock (C) . . . . .	X	X
Black, Soft Vinyl Steering Wheel (C) . . . . .	X-N	X-N
Soft Black Steering Wheel Shroud, with gold "Bow-Tie" emblem . . . . .	X-N	X-N
Heater Control Panel Light (C) . . . . .	X	X
Temperature, Generator, Oil Pressure and Brake Warning Lights (C) . . . . .	X	X
High-Beam and Turn Signal Indicators (C) . . . . .	X	X
Black Cowl Vent Control Knobs (F) . . . . .	X	X
Bright finish Instrument Panel Light Control Knob (C) . . . . .	X	
Bright finish Radio Control Knobs - RPO (C) . . . . .	X	
Bright Radio (RPO) and Light Switch Control Knobs with Wood Grain Applique (C) . . . . .		X
Black Steering Column and Hazard Flasher Knob (C) . . . . .	X	X
"Fasten Seat Belt" Lamp in Instrument Cluster (C) . . . . .	X	X
Glove Compartment Light (C) . . . . .		X
Additional Bright Framing on Instrument Cluster Carrier (C) . . . . .		X
Instrument Cluster with Wood Grain Accents (C) . . . . .		X
Cigar Lighter (C) . . . . .		X

NOTES: (C) Chevrolet Item, (F) Fisher Item  
"N" indicates new for 1978.

# INTERIOR EQUIPMENT

## INTERIOR EQUIPMENT

	Standard 1XX00 17, 27, 69	Custom Interior 1XY00 27, 69
<b>ROOF AND PILLARS</b>		
Hardboard Formed Headlining, Perforated (F) . . . . .	X	
Scored and Folded Foam Core with Non-Perforated Cloth Covered Headlining (F) . . . . .		X
Trim Color Windshield, Roof Rail and Rear Window Moldings (F) . . .	X	X
Black Rear View Mirror Support (F) . . . . .	X	X
Padded Sunshades with Vinyl Covering (F) . . . . .	X	
Padded Sunshades with Cloth Covering (F) . . . . .		X
Trim Color Plastic Coat Hooks (F) . . . . .	X	X
Left Front Door Jamb Switch (F) . . . . .	X	X
Right Front Door Jamb Switch (F) . . . . .		X
Front Seat Shoulder and Lap Belt Motion Sensing Single Retractor Reels with Color Coordinated Covers (F) . . . . .	X-N	X-N
Front Shoulder Belts (base), Black, Non-Detachable (F) . . . . .	X	X
Front Shoulder Belts (RPO), Color-Coordinated, Non-Detachable (F) .	X	X
Center Dome Lamp with Bright Bezel (F) . . . . .	X	X
Black, Textured, Vinyl-Clad 8-Inch Rear View Mirror Bonded to Windshield-Std. Type (F) . . . . .	X	
Black, Smooth, Vinyl Clad 10-Inch Day-Night Rear View Mirror with Black Padded Edge, Bonded to Windshield (F) . . . . .		X
<b>DOOR AND QUARTER PANEL</b>		
Color-Coordinated Door Pull Strap attached to Rear Door Trim Panel - 69 Only (F) . . . . .	X	X
Front Door Padded Armrest with Integral Door Pull Handle (F) . . . .	X	X
Flush Mounted Door Opening Handles, Bright, in an Upper, Forward Location (F) . . . . .	X	X
Black Finished Door Handle Cup (F) . . . . .	X	
Black Finished Door Handle Cup with Bright Edges (F) . . . . .		X
High Profile Window Regulators with Clear, Blue Tinted Plastic Control Knobs (F) . . . . .	X	X
Bright Door Lock Buttons (F) . . . . .	X	X
Rear Door Padded Armrest with Ash Tray and Integral Door Pull Handle (F) . . . . .		X
Deluxe Door Trim Panel with Horizontal Simulated Wood Grain Strip (F) . . . . .		X
Rear Quarter Arm Rest with Ash Tray (F) . . . . .		X
Plastic Quarter Panel Trim (Coupes) (F) . . . . .	X	X

NOTES: (C) Chevrolet Item, (F) Fisher Item  
"N" indicates new for 1978.



# EXTRA COST EQUIPMENT

EQUIPMENT	RPO	ACC
Air conditioning, Four-Season: (See page 12 for content)	C60	
Battery, heavy duty	UA1	
Belts, seat and shoulder: in addition to or replacing standard belts.		
Deluxe seat belts and front seat shoulder harness	AK1	
6 Seat and 2 shoulder belts (Bench front seat) or		
5 Seat and 2 shoulder belts (RPO A51 bucket front seats), color keyed to interior. Not available with black interior.		
Console, floor - (RPO A51 required) (1XY27 model only)	D55	
Front bucket seats - Special Contour (available with custom only 1XY27 model)	A51	
Glass, Soft-Ray tinted: all windows	A01	
Horns, dual	U05	
Instrumentation, special: (Tachometer package) includes tachometer, voltmeter, temperature gage and clock	U14	
Instrumentation special (Econominder package) includes econominder, voltmeter and temperature gage	UF7	
Lighting, auxiliary:	ZJ9	
Courtesy lights		
Right hand front door jamb switch (Standard 1XY00 models)		
Glove compartment light (Standard 1XY00)		ACC
Luggage compartment light (Not available on 1XX17)		ACC
Ash tray light		
Rear door jamb switches (1XX + 1XY69)		
Underhood light		ACC
Headlamp reminder buzzer		
Automatic rear compartment lamp switch (1XX17 only)		
Mirror, vanity visor lighted		ACC
Mirror, rear view, day/night 10" (1XX00 models only) (Base 1XY00 models)	D31	
Molding, wheel opening (Not available with RPO Z26 Nova Rally)	B96	
Moldings, body side (Not available with RPO Z26 Nova Rally)	B84	
Moldings, wide, body side (Not available with RPO Z26 Nova Rally)	BW2	
Moldings, roof drip	B80	
Radiator, heavy duty	V01	
Radio equipment: Radios, pushbutton - Includes concealed w/s antenna		
AM Radio	U63	ACC
AM/FM Radio	U69	ACC
AM Radio and Stereo Tape player	UM1	ACC
AM/FM Stereo Radio and Tape player	UM2	ACC
Speaker, rear seat	U80	ACC
Windshield antenna	U76	
Roof cover, vinyl (Padded type)	C09	
Two-Tone Paint (Not available with RPO Z26)	D99	
Pin striping (Not available with RPO Z26)	D85	
Speed and cruise control (Available only with Automatic Trans.)	K30	
Steering wheel, Comfortilt (Available for all except steering column mounted 3-speed manual transmission)	N33	
Suspension, heavy duty front and rear	F40	
Suspension, sports, front and rear (V8 engines only)	F41	
Tire, Stowaway spare (E78-14 or F78-14 B/W on specific 14 x 5 wheel) std. equipment on hatchback model, includes refillable CO2 Tire inflator bottle	N65	
Wheel covers, (Not available with ZJ7 or Z26 Nova Rally)	P01	
Trim cover, wire wheel (Simulated) (Not available with Z26 Nova Rally)	N95	
Wheels, rally (14 x 6 or 14 x 7 depending on tire size) (Not available with Z26 Nova Rally) (included)	ZJ7	
Wheels, rally (14 x 7) body colored, (Not available with Z26 Nova Rally)	ZN5	
Windshield wipers - intermittent	CD4	
Window - swing out rear quarter (27 models only)	A20	
<b>FACTORY-INSTALLED REGULAR PRODUCTION TIRES</b>		
FR78 x 14-steel belted - radial ply, White lettered	QBT	
FR78 x 14-steel belted - radial ply, Blackwall	QDV	
FR78 x 14-steel belted - radial ply, White stripe	QDW	
E78 x 14B-bias belted - highway Blackwall	QEG	
E78 x 14B-bias belted - Whitewall, single stripe	QEH	

## EXTRA COST EQUIPMENT

EQUIPMENT	RPO	ACC
<b>FEATURE ITEMS</b>		
Deluxe bumpers, front and rear impact strips, front and rear bumper guards (Available on all models) . . . . .	VES	
Color-keyed floor mats - 2 Front, 2 Rear . . . . .	B37	ACC
Door edge guards . . . . .	B93	ACC
Electric clock . . . . .	U35	ACC
L.H. outside remote-control rear view mirror . . . . .	D33	ACC
Sport outside rear view mirrors, LH remote control and RH manual (body color) . . . . .	D35	
Rear window defogger (Forced air) . . . . .	C50	ACC
Pin striping, lower body side (Not available with RPO Z26 Nova Rally equipment or RPO B74 wide wheel opening molding) . . . . .	D85	
<b>MODEL OPTIONS</b>		
Cabriolet formal roof coupe equipment (See page 10 for content) . . . . .	AB8	
Interior decor and convenience group (See page 11 for content) . . . . .	ZJ3	
Nova Rally (see page 11 for content) . . . . .	Z26	
<b>POWER TEAMS</b>		
Axle, positraction . . . . .	G80	
5.0 Litre 305 V8, 2-Barrel Carburetor . . . . .	LG3	
Turbo-Fire 350 V8, 4-Barrel Carburetor . . . . .	LM1	
4-Speed manual transmission (available only with LG3 engine) . . . . .	M20	
3-Speed Automatic . . . . .	M38	
<b>POWER ASSISTS</b>		
Brakes, power (option available only with L6 engine) . . . . .	J50	
Steering, power: variable ratio . . . . .	N41	
Power door lock system . . . . .	AU3	
Power windows . . . . .	A31	

**AB8 CABRIOLET FORMAL ROOF, COUPE EQUIPMENT**

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**MODEL AVAILABILITY**

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Nova (1XX27 and 1XY27 Coupes Only)

**EQUIPMENT (Used in addition to or in place of standard equipment)**

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**EXTERIOR**

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Plastic exterior filler panel insert forming formal side window opening.  
Specific quarter window glass.  
Landau style, fully padded vinyl top.  
Landau molding treatment around periphery of vinyl Landau cover (right center section with bead at outer edges color keyed to vinyl top).  
Bright rear window reveal molding (same as base).  
"Cabriolet" script. Nameplate on sail panel.

**INTERIOR**

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Quarter upper trim finishing panel above belt.  
Air exhaust system in body lock pillar.

# RPO ZJ3 AND RPO Z26 RALLY OPTION

## ZJ3 INTERIOR DECOR AND CONVENIENCE GROUP

### MODEL AVAILABILITY

Nova (1XX17-27-69), (Included with Custom models)

### EQUIPMENT (used in addition to or in place of standard equipment)

### INTERIOR

Right front door jamb switch, for dome lamp operation.  
Glove box lamp.  
Mirror 10" prismatic inside rear view.  
Cigarette lighter.  
Bright framing on instrument cluster carrier.

## Z26 NOVA RALLY

### MODEL AVAILABILITY

Nova (1XX17-27, 1XY27)

### EQUIPMENT (Used in addition to or in place of standard equipment)

### EXTERIOR

Chrome plated grille, diamond pattern styling.  
Rectangular, horizontally-oriented parking lamps with clear lenses and bright peripheral trim.  
Black painted headlamp bezels with bright perimeter molding.  
Body side and rear end panel striping in five available colors;  
Black, White and Gold, Orange or Red (rear striping not included when 1XY27 Custom Coupe is selected).  
"NOVA RALLY" Nameplates on grille and fender side.  
("Chevrolet" emblem deleted from center of hood).  
Rally wheels, 14 x 6 painted to match body color  
(except with Gold striping, wheels match stripe color), with bright hub, bright lug nuts and P06 trim ring.

# AIR CONDITIONING

## FOUR SEASON (RPO C60)

Integral air cooling and heater system. Manually controlled by two vertical levers on instrument control panel, plus 4-speed fan switch. Right lever operates compressor and air selector doors; and directs air to defroster outlets; left lever controls temperature of air flow from instrument panel outlets.

## BASIC COMPONENTS

Control panel, evaporator, blower, condenser, receiver-dehydrator, refrigerant (freon) tank, air intake assembly and duct assembly for both systems.

## EQUIPMENT (Used in addition to or in place of base equipment)

### CHASSIS

Front and Rear Springs . . . . . Heavy duty  
Rear Axle Ratio - Refer Power Trains Section

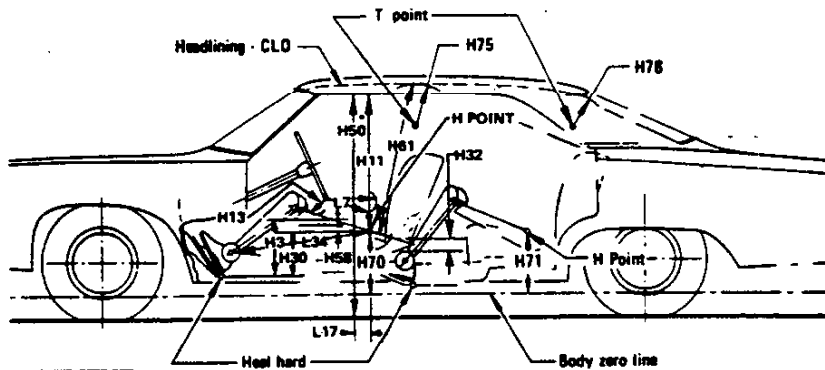
### POWER TRAINS

Fan Blade . . . . . 7 blade  
Fan Clutch . . . . . Thermomodulated fluid coupling  
Crankshaft Pulley . . . . . Single three groove pulley  
Water Pump & Fan Pulley . . . . . Single  
Compressor & Crankshaft Belt . . . . . One  
Generator . . . . . 55 Ampere  
Radiator . . . . . Heavier duty

# DIMENSIONS AND WEIGHTS

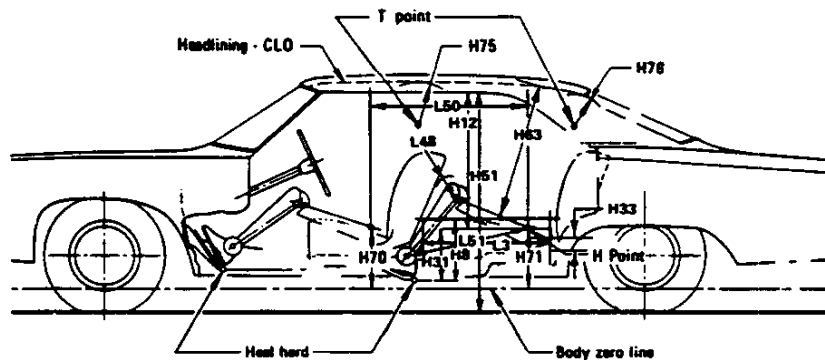
INTERIOR DIMENSIONS .....	2, 3
LUGGAGE CAPACITY .....	3
EXTERIOR DIMENSIONS .....	4, 5
VEHICLE WEIGHTS .....	6
OPTIONAL EQUIPMENT WEIGHTS .....	6

# INTERIOR DIMENSIONS



## FRONT COMPARTMENT

CODE	DESCRIPTION	2-DOOR HATCHBACK COUPE	2-DOOR COUPE	4-DOOR SEDAN
H-3	Seat cushion height		9.7	
H11	Entrance height	30.4		31.3
H13	Steering wheel thigh clearance		3.6	
H30	H point to heel point		7.3	
H32	Seat cushion deflection		3.3	
H50	Upper body opening to ground	48.2		49.1
H58	H point rise		0.7	
H61	Effective headroom	38.2		39.1
H70	H point to body O line		12.8	
H75	Effective 'T' point headroom	38.4		39.3
W3	Shoulder room		56.6	
W5	Hip room		53.3	
L7	Steering wheel torso clearance		13.0	
L17	H point travel		4.7	
L34	Effective leg room		41.7	



## REAR COMPARTMENT

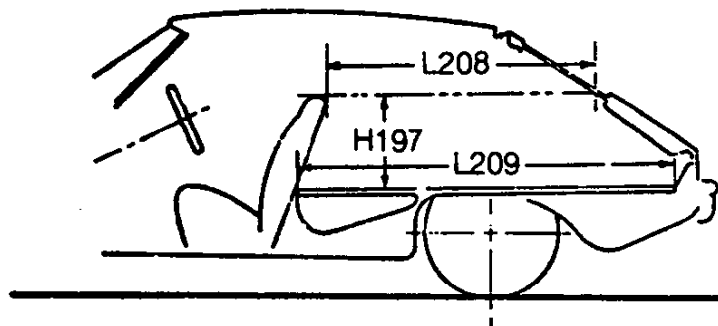
H8	Seat cushion height	13.2		13.9
H12	Entrance height	-		30.3
H31	H point to heel point	10.5		11.6
H33	Seat cushion deflection	5.2		4.9
H51	Upper body opening to ground	-		48.1
H63	Effective headroom	36.7		37.1
H71	H point to body O line	12.6		13.7
H76	Effective 'T' point headroom	36.5		36.8
W4	Shoulder room	55.3		56.7
W6	Hip room	52.8		53.6
L3	Rear compartment room	24.2		25.4
L50	H point couple distance	30.8		32.7
L51	Effective leg room	32.4		35.2

# INTERIOR DIMENSIONS

## LUGGAGE COMPARTMENT

CODE	DESCRIPTION	2-DOOR HATCHBACK COUPE	2-DOOR COUPE	4-DOOR SEDAN
H195	Liftover height		27.4	
V1	Usable luggage capacity (cu.ft.) (a)	--	13.4	13.0

(a) Corporation "H" (shoe box) method of measurement is used.

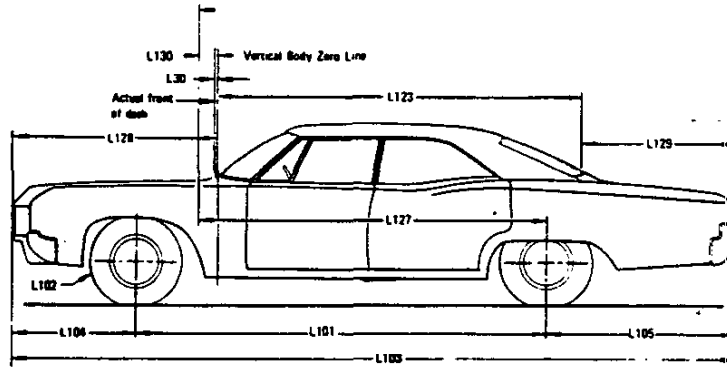


## HATCHBACK CARGO SPACE

W4	Shoulder room - Rear	55.3
H197	Front seat back to load floor height	14.4
L208	Cargo length at - Front seat back height	49.7
L209	Cargo length at floor - Front seat	76.6
V3	Total Hatchback - cargo index Volume (cu. ft.)	29.2

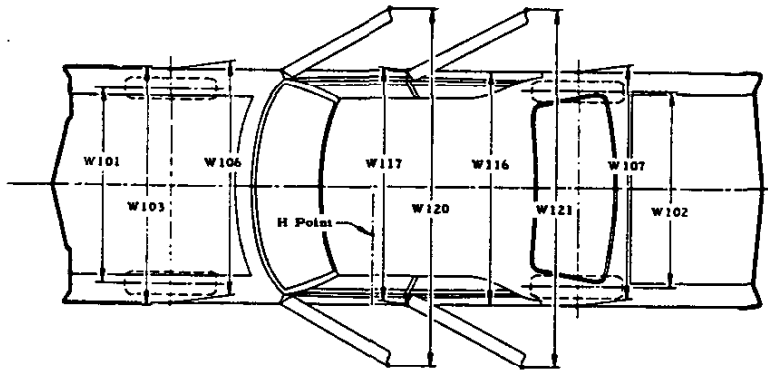


# EXTERIOR DIMENSIONS



## LENGTHS

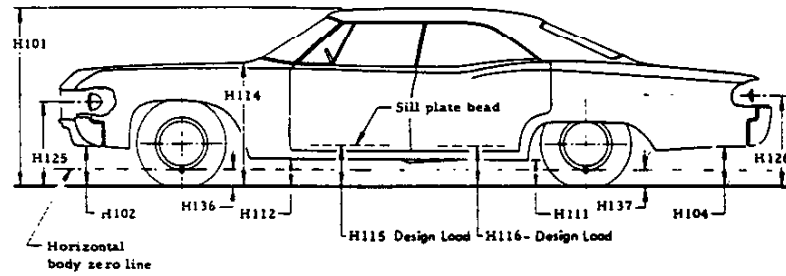
CODE	DESCRIPTION	2-DOOR HATCHBACK COUPE	2-DOOR COUPE	4-DOOR SEDAN
L101	Wheelbase		111.0	
L102	Tire size (standard)		E78-14	
L103	Overall length		196.7	
L104	Overhang, front		33.9	
L105	Overhang, rear		51.8	
-	Overall length -- less bumpers		186.7	
L123	Body upper structure length at car center line	101.0		96.8
L127	Body O line to C/L of rear wheels		93.0	
L126	Front end length at center line		56.4	
L129	Rear end length at center line	28.1		32.3
L125	Body zero plane to windshield cowl point		10.0	
L30	Body O line to actual front of dash		0.5	



## WIDTHS

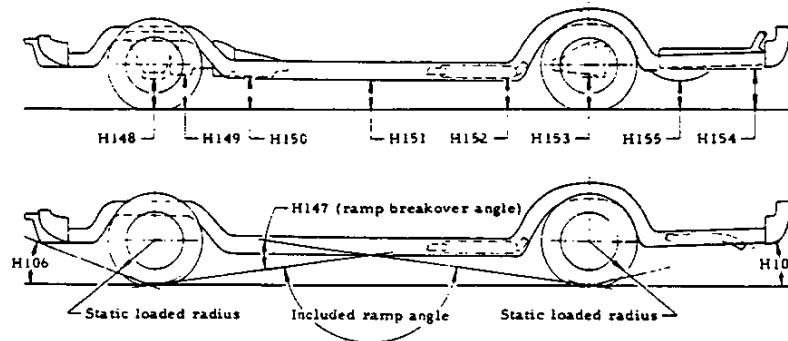
W101	Tread-Front		61.3
W102	Tread-rear		59.0
W103	Maximum overall width of car		72.2
W106	Front fender overall width		72.2
W107	Rear fender overall width		70.5
W116	Maximum overall width of body		72.2
W117	Maximum body width at number 2 pillar	-	70.7
W120	Overall car width, front doors open	144.8	127.7
W121	Overall car width, rear doors open	-	126.5

## EXTERIOR DIMENSIONS



### HEIGHTS

CODE	DESCRIPTION	2-DOOR HATCHBACK COUPE	2-DOOR COUPE	4-DOOR SEDAN
H101	Overall height (design)	52.7		53.6
H102	Front bumper to ground		12.2	
H104	Rear bumper to ground		11.0	
H111	Rocker panel to ground - rear		7.2	
H112	Rocker panel to ground - front		8.1	
H114	Hood at rear to ground		36.2	
H115	Step height - front (design)		12.6	
H116	Step height - rear (design)		12.3	
H125	Headlamp to ground		25.3	
H126	Tail lamp to ground		23.8	
H136	Body O line to ground - front		5.1	
H137	Body O line to ground - rear		4.3	



### CLEARANCES

H106	Angle of approach (degrees)	23°39'
H107	Angle of departure (degrees)	13°13'
H147	Ramp breakover angle (degrees)	13°24'
H148	Front suspension to ground	5.7
H149	Oil pan to ground	4.8
H150	Flywheel housing to ground	5.1
H151	Frame to ground	4.6
H152	Exhaust system to ground	4.8
H153	Rear axle to ground	6.6
H154	Fuel tank to ground	6.9
H155	Tire well to ground	14.5
H156	Minimum ground clearance	4.6 (a)

(a) Frame to ground.

# VEHICLE WEIGHTS

## NOVA

MODEL TYPE			SHIPPING WEIGHT			CURB WEIGHT		
MODEL DESIGNATION	BASE ENGINE	VEHICLE TYPE	Front	Rear	Total	Front	Rear	Total
1XX17	250 Cu.In. L6	2-Door Hatchback Coupe	1764	1504	3268	1756	1622	3378
1XX27	250 Cu.In. L6	2-Door Coupe	1761	1384	3145	1757	1498	3255
1XX69	250 Cu.In. L6	4-Door Sedan	1750	1432	3182	1744	1548	3292
1XY27	250 Cu.In. L6	2-Door Coupe	1789	1407	3196	1785	1521	3306
1XY69	250 Cu.In. L6	4-Door Sedan	1808	1422	3230	1802	1537	3340

**SHIPPING WEIGHT:** Weight of basic vehicle with regular equipment, including grease, oil and (3) gallons of gasoline, and engine coolant to capacity.

**CURB WEIGHT:** Shipping weight plus gasoline to capacity.

For total shipping, and curb, weights of vehicles equipped with the following options, add to, or deduct from, the base vehicle weight (lbs.).

### OPTIONAL EQUIPMENT

RPO	OPTION	WITH	WEIGHT
AU3	Electric Door Locks	2-Door Models	+ 7
		4-Door Models	+ 13
A31	Power Windows	2-Door Models	+ 10
		4-Door Models	+ 26
B37	Floor Mats, Front and Rear		+ 8
C09	Exterior Soft Roof Cover		+ 6
C50	Defogger, Rear Window		+ 3
C60	Air Conditioning	With L6 Engine	+ 63
		With V8 Engines	+ 86
D55	Floor Console	3-Speed Transmission	+ 4
		4-Speed Transmission	+ 4
		Automatic Transmission	+ 9
F41	Spec. Perf. Front and Rear Suspension		+ 25
F40	Heavy Duty Front and Rear Suspension		+ 14
J50	Power Brakes		+ 9
N41	Power Steering	L6 Engine	+ 30
		V8 Engine	+ 28
UA1	Heavy Duty Battery	With L6 Engine	+ 12
		With V8 Engine	+ 9
UM1	Radio AM Pushbutton and Stereo Tape		+ 11
UM2	Radio AM/FM Pushbutton and Stereo Tape		+ 11
U58	Radio AM/FM Stereo		+ 8
U63	Radio AM Pushbutton		+ 5
U69	Radio AM/FM Pushbutton		+ 7
ZJ7	Special Wheel, Hub Cap and Trim Ring	With 1XX17	+ 14
		With 1XX-1XY27-69	+ 18
Base	250 Cu. In. 6 Cyl. Engine	With Automatic Trans.	+ 23
LG3	305 Cu. In. V8 Engine	With Auto. Trans. & 1XX Models	+168
		With 4-Speed & 1XX Models	+157
		With Auto. Trans. & 1XY Models	+158
		With 4-Speed & 1XY Models	+147
LM1	350 Cu. In. V8 Engine	With Auto. Trans. & 1XX Models	+167
		With Auto. Trans. & 1XY Models	+156

# BODY

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EXTERIOR-INTERIOR COLORS .....	4 & 5
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## EXTERIOR PAINT PROCESS

1. **RUSTPROOFING.** Assembled car bodies are chemically sprayed to clean and etch the metal surfaces for corrosion resistance and paint adhesion. Unassembled sheet metal parts follow the same process.
2. **BODY AND SHEET METAL PRIMERS.** Four corrosion resistant primers, specially formulated, are hand sprayed on the body in areas where rust might develop. Lower areas considered especially vulnerable are coated with another rust inhibiting compound.
3. **PRIMER COAT** is applied to all outside and inside surfaces of front fenders and hoods. The parts are mechanically dipped or flow-coated to insure coating in all seams and secluded areas, and baked at 390 degrees F. for 30 minutes. A coat of sealer is then applied by hand spray to all surfaces requiring another coat of lacquer.
4. **FLASH PRIMER AND PRIMER-SURFACER COATS.** An air-dry flash primer coat is hand sprayed on surfaces below the body belt line. Then a gray primer-surfacer coat is hand sprayed on all outside surfaces of the body and oven baked for 45 minutes at 285 degrees F.
5. **INITIAL SANDING.** Power wet sanding, followed by hand sanding, is done on all body surfaces requiring lacquering. This insures a smooth surface for the lacquer finish. To remove the water, the body is wiped and run through an infra-red oven.
6. **LACQUERING.** Three coats of acrylic lacquer are spread on the exterior surfaces of the body and sheet metal parts to build up a finish of the required thickness for each color.
7. **INITIAL BAKING.** To harden the paint for final sanding, the body and sheet metal parts are baked for approximately 10 minutes at 200 degrees F.
8. **FINAL SANDING.** To remove body surface defects, power and hand sanding is done with fine grit sandpaper and mineral spirits as a wetting agent. Sanded areas are wiped to insure a clean surface before final baking.
9. **FINAL BAKING.** To assure a durable, hard, high luster finish the lacquer is baked for 30 minutes at 275 degrees F. Reheating the lacquer after final sanding permits paint film to soften, allowing surface blemishes and sanding scratches to disappear during the thermo-reflow process.
10. **UNDERCOATING.** To block out road noise, an asbestos fiber sound deadener with asphalt base is sprayed inside the wheel housings and on the bottom of the underbody at designated areas.
11. **PAINT REPAIR AND PROTECTION.** Mars, nicks, or scratches that occur during final assembly are corrected at the factory before shipment. When required, light "slush" polishing brings painted surfaces to a high luster finish. Wax is applied to all horizontal surfaces of each vehicle and polished out for protection during shipment. The wax contains no silicones, thus eliminating any paint contamination problem.

# EXTERIOR-INTERIOR COLORS

## EXTERIOR COLORS – VINYL ROOF COMBINATIONS

VINYL TOP COVER (Material - Levant Grain)	EXTERIOR COLOR AVAILABILITY
Silver Metallic	Silver 15
	Black 19
	Light Red 75
	Carmine (Met.) 77
Black	All Available Colors
White	All Available Colors
Light Blue Metallic	White 11
	Black 19
	Light Blue Metallic 22
	Bright Blue Metallic 24
Light Camel	White 11
	Black 19
	Blue-Green, Dark (Met.) 48
	Camel, Light 61
	Camel (Met.) 63
	Saffron (Met.) 67
Camel, Dark (Met.) 69	
Carmine, Dark (Met.)	Carmine (Met.) 77
Light Green (Met.)	White 11
	Black 19
	Light Green (Met.) 44
	Blue-Green, Dark (Met.) 48

# EXTERIOR-INTERIOR COLORS

## 1978 CHEVROLET NOVA 'X' INTERIOR COLOR COMBINATIONS

MODEL	Seat Type	INTERIOR TRIM												
		Black		Light Blue		Dark Green	Camel Tan		Carmine		White			
		(19X) Vinyl	(24X) Cloth	(24X) Vinyl	(44X) Vinyl	(62X) Cloth	(62X) Vinyl	(74X) Cloth	(74X) Vinyl	(19X) Vinyl /Black	(24X) Vinyl /Blue	(44X) Vinyl /Green	(74X) Vinyl /Carmine	
Standard - 1XX00														
Hatchback (17)	(A52) Bench	19R		24R			62R		74R					
Coupe (27)	(A52) Bench	19R	24B	24R		62B	62R		74R					
Sedan (69)	(A52) Bench	19R	24B	24R		62B	62R		74R					
Custom - 1XY00														
Coupe (27) *	(A52) Bench		24D		44N	62D	62N	74D	74N	11N	11N	11N	11N	
	(A51) Bucket				44N		62N		74N					
Sedan (69)	(A52) Bench		24D		44N	62D	62N	74D	74N					

### CLOTH AND VINYL USAGE

R—Plisse vinyl

B—Bordeau, 807 WC, woven sport cloth

N—Wallaby vinyl

D—Edinburgh, 739 WC, woven sport cloth

\* The 1XY27 requires a Big Four Option Number in addition to the trim combination number. The Big Four Module consists of the instrument panel, carpet, cowl kick panel, and package shelf. Module numbers are shown in parenthesis at the top of each column. Examples: Carmine—74N + 74X, White with Blue Big Four—11N + 24X.

# EXTERIOR-INTERIOR COLORS

## 1978 "NOVA RALLY" STRIPE PKG. (RPO Z26)

EXTERIOR		INTERIOR TRIM								
		BLACK	LT. BLUE	DK. GREEN	CAMEL TAN	CARMINE	WHITE			
							w/Black	w/Carmine	w/Blue	w/Green
STRIPE PACKAGE COLOR SCHEME										
White	11	Black	Black	Gold	Gold	Red	Black	Red	Black	Gold
Silver Met.	15	Black	Black	—	—	Red	Black	—	—	—
Black	19	Red	White	Gold	Gold	Red	Red	Red	—	—
Lt. Blue Met.	22	Black	White	—	—	—	Black	—	White	—
Ultramarine Blue Met.	24	Black	Black	—	—	—	White	—	White	—
Med. Green Met.	44	White	—	White	Gold	—	White	—	—	White
Dk. Blue Green Met.	48	Gold	—	Gold	Gold	—	Gold	—	—	Gold
Bright Yellow	51	Black	—	—	Black	—	White	—	—	—
Camel Beige	61	Orange	—	—	Gold	Red	Orange	—	—	—
Camel Tan Met.	63	Black	—	—	Orange	—	Black	—	—	—
Saffron Met.	67	Orange	—	—	Orange	—	White	—	—	—
Dk. Camel Met.	69	Orange	—	—	Gold	—	White	—	—	—
Red	75	Orange	—	—	Orange	White	Black	White	—	—
Carmine Met.	77	Orange	—	—	Orange	Red	White	White	—	—

### COLOR IDENTIFICATION

Stripe & Lettering		Rally Wheel Paint*
11A White	WMH 3967	Body Color
19A Black	WMH 848	Body Color
54A Gold	WMH 8014	Gold WE 7062
75A Red	WMH 7032	Body Color
80A Orange	WMH 8093	Body Color

- NOTES: 1. \* Rally Wheels match Body color except with Gold stripe package which uses Specific Wheel Cover to match Stripe.  
 2. These are the only combinations available – NO COLOR OVERRIDES ARE ALLOWED!



# EXTERIOR-INTERIOR COLORS

## 1978 NOVA BODY SIDE ACCENT STRIPE (RPO D85) BODY SIDE MOLDING EQUIPMENT (RPO BW2)

RPO BW2 - BODY SIDE MOLDING EQUIPMENT\*

RPO D85 - BODY SIDE LOWER ACCENT STRIPE\*

MOLDING IDENTIFICATION		
19Q	Black	WPV 848
22Q	Lt. Blue Met.	WPV 4964
44Q	Med. Green Met.	WPV 7024
61Q	Camel Beige	WPV 7025
79Q	Dk. Carmine Met.	WPV 7072

STRIPE IDENTIFICATION (PAINT)		
11A	White	WSA 3967
13A	Silver	WSA 4609
19A	Black	WSA 848
27A	Blue	WSA 4673
49A	Green	WSA 4922
54A	Gold	WSA 4326
75A	Red	WSA 4330
95A	Buckskin	WSA 4718

\*NOTE: For color combination applications,  
see Dealer Order Guide.

## 1978 NOVA REGULAR TWO-TONE PAINT COMBINATIONS (RPO D99)

EXTERIOR COLORS			
LOWER		UPPER	
Lt. Blue Met.	22L	White	11U
Ultramarine Blue Met.	24L	White	11U
Med. Green Met.	44L	White	11U
Camel Tan Met.	63L	Camel Beige	61U
Dk. Camel Met.	69L	Camel Tan Met.	63U
Red	75L	White	11U

# BODY CONSTRUCTION AND GLASS AREA

## GENERAL

Type . . . . . Separate partial front frame and bolt-on front end sheet metal, with protective inner fender skirts. Roof, doors, front and rear lids are of double-panel construction.

## DOORS AND LOCKS

Door construction . . . . . Double panel, hinged at front  
 Door handles . . . . . Push-button fork type latches. Inside push-button locks and 2-position free-wheeling inside door handles on rear doors of 4-door models.

## HOOD AND TRUNK LID

Type . . . . . Counterbalanced, with strap type hinges actuating torsion rods on trunk lid and spring loaded toggle-type hinges on rear of hood.  
 Hood release . . . . . External

## VENTILATION

High level air intake for passenger compartment . . with double wall plenum chamber, providing washing and air drying of rocker panels for corrosion resistance. Air and water travel through rocker panels and drain at ends of rocker inner panels.

## SEAT CONSTRUCTION

Type  
 All seat cushions and backrests . . . Formed polyfoam

## WINDSHIELD WIPERS AND WASHERS

Type . . . . . Dual 2-speed electric  
 Linkage . . . . . Parallel acting

## HEADLIGHTS

Type . . . . . Single Power Beam units

## SPARE TIRE AND TOOLS

Location . . . . . Sedan and coupe, horizontal - center forward area of trunk floor. Tools consist of bumper jack and socket type "L" wrench stored on rear quarter panel (jack base stored with spare tire).

Hatchback coupe, spare tire horizontal - under cargo floor. Bumper jack - under hinged cargo load floor.

## BODY GLASS VISIBILITY AREA

	MODELS		
	17	27	69
Windshield	1209.3		1282.1
Front Door Window	988.9		762.5
Rear Door Window	--		608.8
Rear Quarter Window	564.6	564.6 (Formal 361.5)	211.6
Back Window	1158.6	1392.1	1092.1
Total Area (Sq. In.)	3921.4	4154.9 (3951.8)	3957.1

All window glass curved safety solid plate except curved laminated safety plate windshield.



# CHASSIS

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BULBS AND LAMPS .....	7
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# FRAME AND FRONT SUSPENSION

## FRAME

Description . . . . . Extended rail front partial frame of deep sectioned double-channelled side members joined by three flanged hat-section crossmembers.

Body Mounting  
Number and type . . . . . 3 each side double cushion

## FRONT SUSPENSION

Description . . . . . Independent, SLA type with coil springs, center mounted shock absorbers and spherical joint steering knuckle pivots

Wheel travel (design)  
Total . . . . . 6.90  
Jounce . . . . . 2.34  
Rebound . . . . . 4.56  
Wheel to spring travel ratio . . . . . 2.02:1

## CONTROL ARMS

Description . . . . . Reinforced steel stamping with pre-loaded, steel encased, rubber bushings at pivots.

## STEERING KNUCKLES

Description . . . . . Nodular iron with integral steering knuckle arm.

Spindle diameters  
Inner bearing . . . . . 1.2493-1.2498  
Outer bearing . . . . . .7492-.7497  
Spindle thread size . . . . . 3/4-20 NEF-3 (modified)  
Wheel bearings  
Type . . . . . Taper roller; inner and outer

## SPHERICAL JOINTS

Type . . . . . Ball stud  
Upper . . . . . Compression  
Lower . . . . . Tension

Bearing surfaces  
Upper . . . . . Teflon-cotton composite on phenolic  
Lower . . . . . Sintered iron

## SHOCK ABSORBERS

Type . . . . . Direct, double acting, hydraulic  
Piston diameter . . . . . 1.00

## STABILIZER BAR

Type . . . . . Link  
Material . . . . . HR steel  
Diameter . . . . . .875 or .9375 or 1.00 contingent as to how vehicle is equipped

## FRONT WHEEL ALIGNMENT (CURB)

Camber (degrees)  
Manual steering . . . . .  $P3/4 \pm 3/4$   
Power Steering . . . . .  $P3/4 \pm 3/4$

Caster (degrees)  
Manual Steering . . . . .  $N1 \pm 1$   
Power Steering . . . . .  $P1 \pm 1$

Toe-in (total) . . . . .  $1/16 \pm 1/8$   
Steering axis inclination (degrees)  $10^0 @ 0.75^0$  camber

## GENERAL SUSPENSION PROVISIONS

Car leveling . . . . . Front stabilizer bar  
Anti-dive control . . . . . Angle of front upper control arm  
Anti-squat control . . . . . Rear suspension geometry

# FRAME AND FRONT SUSPENSION

## FRONT SPRINGS

Selected from a family of springs by Electronic Data Processing which identifies the correct springs for the weight of the vehicle including optional equipment ordered by the customer.

### FRONT SPRING SPECIFICATIONS

Part Number	Assy. Code	Cut-Off Length	Wire Dia.	Total Coils	Deflection Rate (lbs./inch)	HEIGHTS	
						Free	Working (In. @ Lbs.)
334444	KB	118.38	.665	7.79	400	15.10	11.00 @ 1630
334445	KF	118.41	.665	7.79	400	15.30	11.00 @ 1710
334447	KT	128.96	.668	8.49	365	16.23	11.00 @ 1900
334450	KU	132.09	.674	8.69	365	16.44	11.00 @ 1975
334451	KV	133.68	.677	8.79	365	16.64	11.00 @ 2050
346996	HM	116.07	.617	7.70	300	16.46	11.00 @ 1620
354160	ANJ	114.83	.626	7.64	330	16.41	11.00 @ 1775
354161	ANK	114.86	.626	7.64	330	16.61	11.00 @ 1840
3996361	AE	116.10	.617	7.70	300	16.66	11.00 @ 1680
6262425	DH	126.23	.680	8.29	400	15.70	11.00 @ 1870
6262426	DJ	126.26	.680	8.29	400	15.90	11.00 @ 1950
6262427	DK	129.40	.686	8.49	400	16.10	11.00 @ 2030
6262428	DL	130.99	.688	8.59	400	16.30	11.00 @ 2110
6262429	DM	132.58	.691	8.69	400	16.50	11.00 @ 2190
6272862	HW	118.44	.665	7.79	400	15.50	11.00 @ 1790

# STEERING, DRIVELINE, WHEELS AND TIRES

## STEERING

Wheel	
Type	Round with center shroud
Diameter	15.0
Column	Energy absorbing – mast jacket, shifter tube and steering shaft designed to collapse under various front impact conditions.
Gear – Manual (standard); Power (optional)	
Gear Type	
Manual (Standard)	Recirculating ball nut
Power (Optional)	Integral, recirculating ball nut with hydraulic pressure provided from a vane type pump.
Ratios, Gear	
Manual	24.0:1
Power	16.0:1 on center to 13.0:1
Ratios, Overall	
Manual	26.2:1
Power	15.07:1 on center to 11.31:1
Number of wheel turns, lock to lock	
Manual	4.99
Power	2.42
Linkage	Parallelogram, rear of wheels, 2 tie rods
Turning diameter	
Outside front, wall to wall	39.9
Outside front, curb to curb	38.1
Inside rear, wall to wall	11.77
Inside rear, curb to curb	10.89
Outside wheel angle with inside wheel @ 20°	
Manual	18.85
Power	18.65

## DRIVELINE

Type	Straight tube
Number used	One
Diameter (OD)	2.75
Wall Thickness	0.065
Length (C/L of U-joints)	
250 L6 (7.5" Ring gear)	53.14
250 L6 (8.5" Ring gear), 305 & 350 V8	51.78
Universal Joints	
Type	Cross
Number used	Two
Bearings	Prepacked, anti-friction

## WHEELS

Type	Short, spoke spider
Size	
Base equipment	14 x 6
Rally type, optional	14 x 6
Rally type, optional	14 x 7
Offset	
Base equipment	0.50
Rally type, optional (14 x 6)	0.50
Rally type, optional (14 x 7)	0.34
Attachment to Hub	
Type	5 hex nuts
Thread size	7/16-20 UNF 2-B
Bolt circle diameter	4.75

## TIRE, STANDARD EQUIPMENT

E78 x 14 bias belted	
Sidewall	
Base	Blackwall
Optional	White stripe
Static loaded radius	12.04
Loaded rev/mi @ 45 mph	796
Capacity @ 24 psi	1190

## TIRES, OPTIONAL EQUIPMENT

FR78 x 14 steel belted radial	
Sidewall	
Base	Blackwall
Optional	White stripe and White letter
Static Loaded Radius	11.60
Loaded Rev/mi @ 45 mph	797
Capacity @ 24 psi	1280

## SPARE TIRE, STOWAWAY

Base	Hatchback coupe
Optional	Remainder models
Wheel Size	14 x 5

# REAR AXLE AND SUSPENSION

## REAR AXLE

Description . . . . . Three piece housing includes integral cast iron differential carrier and housing with two pressed-in and welded steel tubes. Semi-floating axle shafts. Differential carrier contains hypoid overhung pinion and ring gear. Drive pinion supported by two taper roller bearings.

Drive pinion vertical offset . . . . . 1.75

Hypoid gear PD

250 L6 . . . . . 7.50 & 8.50

305 & 350 V8 . . . . . 8.50

Pinion bearing adjustment . . . . . Shim

Lubricant

Type . . . . . GL-5 Gear lubricant

Viscosity . . . . . 80W or 80W-90

Capacity (pts)

7.50 in. ring gear . . . . . 3.25

8.50 in. ring gear . . . . . 4.00

## AXLE SHAFT

Description . . . . . Forged and hardened steel with integral drive flange

Wheels bearings . . . . . Single row cylindrical roller, one per wheel

Oil seal . . . . . Steel encased, spring loaded synthetic rubber

## RING AND PINION GEAR AND TOOTH COMBINATIONS

(See Power Train Section for application)

2.73:1 . . . . . 41,15

3.08:1 . . . . . 40,13

2.41 . . . . . 17,41

## POSITRACTION DIFFERENTIAL (See Power Trains)

Type . . . . . Two pinion with single disc clutch

## REAR SUSPENSION

Description . . . . . Hotchkiss;  
2 semi-elliptical multiple leaf springs

Wheel travel (design)

Total . . . . . L.H.-7.84; R.H.-8.24

Jounce . . . . . 2.14

Rebound . . . . . L.H.-5.70; R.H.-6.10

Wheel to spring, travel ratio . . . . . 1:1

## SHOCK ABSORBERS

Type . . . . . Direct, double acting, hydraulic

Piston diameter . . . . . 1.00

## REAR SPRINGS

Selected from a family of leaf springs by Electronic Data Processing which identifies the correct springs for the weight of the vehicle including optional equipment ordered by the customer.

## REAR SPRING SPECIFICATIONS

Part Number	Number of Leaves	Length	Width	Shackle	Mounting Insulation	Assy. Code	Deflection Rate (Lbs./In.)	Load @ .52 Spring Camber (Lbs.)
354184	Five	56.0	2.50	Compression type	Rubber bushed at shackle and hanger	NAY	126	535
354185	Six					HAU	126	590
354186	Six					NAW	126	665
354187	Six					NAX	126	721
362102	Six					NBA	126	721
362103	Six					NBB	126	665
362104	Six					NBC	103	565
362105	Seven					NBD	101	615
362106	Five					NBF	126	535
362107	Six					NBH	126	590
362109	Six					NBJ	126	771
378552	Seven					NCY	95	665
378553	Seven					NCZ	95	715



# BRAKES

General	Type	Front - Disc; Rear - Drum	
	System	Manual - Standard	Power - Optional (*)
Front Brakes	Type	Disc - single piston floating caliper	
	Material	Cast iron - vented	
	Diameter and Width	11.0 x 1.03	
	Lining material	Compression molded asbestos composition	
	Method of attachment	Riveted	
	Lining size (length x width x thickness)	Inboard	5.40 x 1.92 x 0.46
		Outboard	5.40 x 1.92 x 0.46
	Lining area (sq. in.)	38.76	
	Effective area (sq. in.)	36.8	
	Swept area (sq. in.)	210.4	
	Piston diameter	2.94	
	Rear Brakes	Type	Drum - Composite, web cast into rim, pinned construction
Material		Web - HR steel, Rim - cast alloy iron	
Diameter and Width		9.5 x 2.0	
Lining material		Molded asbestos composition	
Method of attachment		Riveted	
Lining size (length x width x thickness)		Primary	7.30 x 2.00 x 0.23
		Secondary	9.46 x 2.00 x 0.30
Lining area (sq. in.)		67.04	
Effective area (sq. in.)		63.72	
Swept area (sq. in.)		116.06	
Piston diameter	.938		
Apply System	Master cylinder diameter	1.00	1.125
	Piston travel	1.253	1.408
	Pedal travel	7.38	5.44
	Pedal ratio	6.22:1	3.54:1
	Line pressure @ 100 lb. pedal load	550	900
Parking Brake	Type	Mechanical: pull rods and cables operate rear service brakes; parking brake 'ON' warning lamp provided.	
	Control	Pendulum foot pedal; released by "T" handle located on instrument panel to left of steering wheel	
	Total effective area	63.72	

(\*) - Standard with V8 Engine Equipped Vehicles.

# BULBS AND LAMPS

BULBS AND LAMPS	NUMBER REQUIRED AND TRADE NUMBER	CANDLE POWER PER LAMP
Backing Lamps	2-1156	32
Parking brake alarm indicator	1-194	2
Courtesy (instrument panel)	2-631	6
Direction signal indicators	2-194	2
Dome	1-561	12
Generator indicator	1-194	2
Glove compartment	1-1891	2
Headlamp	2-6012	High beam 60W Low beam 50W
Headlamp hi-beam indicator	1-194	2
Heater or A/C control	1-194	2
Instrument cluster	5-194	2
License plate	1-194	2
Luggage compartment	1-1003	15
Oil pressure indicator	1-194	2
Parking		
Park		3
Turn	2-1157	32
Radio - AM	1-1893	2
Radio - AM/FM	1-216	1
Radio - UM1 & UM2		
Dial	1-1893	2
Ind.	1-DS410	Led (a)
Radio - U58		
Dial	1-1893	2
Indicator	1-DS410	Led (a)
Seat belt warning indicator	1-194	2
Side Marker - Front	2-194	2
Side Marker - Rear	2-194	2
Tail	4 (1XX)-1157	
Tail	6 (1XY)-1157	3
Stop and turn	2-1157	32
Temperature indicator	1-194	2
Underhood lamp	1-93	15
W/S Washer & light switch indicator	1-194	2

(a) Light emitting diode.

## FUSES AND CIRCUIT BREAKERS

CIRCUIT	TYPE OF PROTECTION	LOCATION AND CIRCUIT *
Air conditioning	30 amp fuse	In line
	25 amp fuse	Fuse panel (h)
Back-up lamps	20 amp fuse	Fuse panel (b)
Cigarette lighter	20 amp fuse	Fuse panel (e)
Clock	20 amp fuse	Fuse panel (e)
Courtesy lamps	20 amp fuse	Fuse panel (e)
Defogging unit	10 amp fuse	Fuse panel (c)
Direction signal indicator lamps	20 amp fuse	Fuse panel (b)
Dome lamp	20 amp fuse	Fuse panel (e)
Door Lock	30 amp CB	In line
Fuel economy light	10 amp fuse	Fuse panel (c)
Fuel gauge	10 amp fuse	Fuse panel (c)
Generator indicator lamp	10 amp fuse	Fuse panel (c)
Glove compartment lamp	20 amp fuse	Fuse panel (e)
Headlamps	Circuit breaker	Light switch
Headlamp hi-beam indicator lamp	Circuit breaker	Light switch
Headlight buzzer	10 amp fuse	Fuse panel (c)
Heater	25 amp fuse	Fuse panel (h)
Heater controls lamp	4 amp fuse	Fuse panel (f)
Instrument cluster lamps	4 amp fuse	Fuse panel (f)
Key buzzer	20 amp fuse	Fuse panel (e)
License lamp	20 amp fuse	Fuse panel (d)
Luggage compartment lamp	20 amp fuse	Fuse panel (e)
Oil pressure indicator lamp	10 amp fuse	Fuse panel (c)
Parking lamps	20 amp fuse	Fuse panel (d)
Parking brake alarm lamp	10 amp fuse	Fuse panel (c)
Power window motor	30 amp CB	In line
Radio	10 amp fuse	Fuse panel (g)
Radio lamp	4 amp fuse	Fuse panel (f)
Seat belt warning buzzer	10 amp fuse	Fuse panel (c)
Seat belt warning lamp	10 amp fuse	Fuse panel (c)
Side Marker lamp - Front & Rear	20 amp fuse	Fuse panel (d)
Speed cruise control	10 amp fuse	Fuse panel (c)
Tail lamps	20 amp fuse	Fuse panel (d)
Idle stop solenoid	10 amp fuse	Fuse panel (g)
Temperature indicator lamp	10 amp fuse	Fuse panel (c)
Temperature gage	10 amp fuse	Fuse panel (c)
Traffic hazard indicator	20 amp fuse	Fuse panel (a)
Stop and turn lamps	20 amp fuse	Fuse panel (a)
Underhood lamp	20 amp fuse	In line
Windshield wiper, two-speed	25 amp fuse	Fuse panel
Windshield washer	4 amp fuse	Fuse panel (f)
Windshield washer pump	25 amp fuse	Fuse panel

\* Letter suffix indicates same circuit

# POWER TRAINS

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# POWER TEAM COMBINATIONS

ENGINE	TRANSMISSION	MODEL APPLICATION	AXLE RATIOS *			RING GEAR	LW. CLASS
			ALL STATES		WITH ALT. RPO NA6		
			BASE	OPT.			
250 Cubic Inch L-6 (4.1 litre) - (L22) Base - all states	3-Speed (3.50:1 low) (a)	All Models	2.73:1	-	-	7.50 or (c) 8.50	1816
	3-Speed Automatic						
305 Cubic Inch V-8 (5.0 litre) - (LG3) Optional - all states	4-Speed (2.85:1 low) (a)	All Models	3.08:1	-	-	8.50	1816
	3-Speed Automatic		2.41:1	3.08:1			
350 Cubic Inch V-8 (5.7 litre) - (LM1) Optional - (b)	3-Speed Automatic	All Models	2.41:1	3.08:1	3.08:1	8.50	1816

\* Positraction axles available optionally for all ratios shown;  
same ratios available with Air Conditioning.

(a) Not available in California.

(b) States above 4000 Feet and California.

(c) To be used optionally.

## MULTIPLICATION FACTORS

### WITH MANUAL TRANSMISSIONS

ENGINE	CARBURETION	TRANSMISSION	TOTAL GEAR REDUCTION*					AXLE RATIO
			1st	2nd	3rd	4th	Rev	
250 Cu.In. L-6 Standard	Single Barrel	3-Speed	9.56	5.16	2.73	-	9.88	2.73
305 Cu.In. V-8 RPO LG3	2-Barrel	4-Speed	8.78	6.22	4.16	3.08	8.78	3.08

### WITH AUTOMATIC TRANSMISSIONS

ENGINE	TRANSMISSION	SELECTOR POSITION	TOTAL TORQUE MULTIPLICATION*	AXLE RATIO
250 Cu.In. L-6 Standard	3-Speed Automatic	Drive	13.76:1 - 2.73:1	2.73:1
		Low	13.76:1 - 6.88:1	
		Second	13.76:1 - 4.15:1	
		Reverse	10.59:1 - 5.30:1	
305 Cu.In. V-8 RPO LG3	3-Speed Automatic	Drive	12.15:1 - 2.41:1	2.41:1
		Second	12.15:1 - 3.66:1	
		Low	12.15:1 - 6.07:1	
		Reverse	9.35:1 - 4.68:1	
		Drive	15.52:1 - 3.08:1	3.08:1
		Second	15.52:1 - 4.68:1	
		Low	15.52:1 - 7.76:1	
		Reverse	11.95:1 - 5.97:1	
350 Cu.In. V-8 RPO LM1	3-Speed Automatic	Drive	12.15:1 - 2.41:1	2.41:1
		Second	12.15:1 - 3.66:1	
		Low	12.15:1 - 6.07:1	
		Reverse	9.35:1 - 4.68:1	
		Drive	15.52:1 - 3.08:1	3.08:1
		Second	15.52:1 - 4.68:1	
		Low	15.52:1 - 7.76:1	
		Reverse	11.95:1 - 5.97:1	

# ENGINE DATA AND RATINGS

## GENERAL DATA

Engine Type	L-6 OHV		V-8 OHV	
Piston Displacement (Cu. In.)	250		305	350
Availability	Base (L22)		LG3	LM1
Number of Cylinders	Six		Eight	
Bore (nominal)	3.875	3.736	4.00	
Stroke (nominal)	3.53		3.48	
Compression Ratio	8.1:1		8.4:1	8.2:1
Taxable (SAE) Horsepower	36.0		44.7	51.2
Firing Order	1-5-3-6-2-4		1-8-4-3-6-5-7-2	
Idling Speed	Manual (in neutral)	800	600	--
	Turbo Hydra-matic (in drive)	550 (600)	500	600
Compress. Press. (PSI) @ Cranking Speed, Engine Hot	130		160	
Power Plant Mounting	Front	Two, preloaded captive cushion type		
	Rear	One, shear type		
Measurements	Fan to rear of engine block	35.78	31.55	
	Top of air cleaner to bottom of oil pan	27.22	29.60	28.52
	Width - including air cleaner (a)	17.76	28.53	

(a) L6 engine - (oil filter to exhaust manifold); V8 engines (across exhaust manifold)  
Data in brackets ( ) pertains to California.

## ADVERTISED ENGINE RATING

Engine Designation	Availability	Carburetor	Federal		Calif.	Net Brake HP @ RPM	Net Torque @ RPM (lb. ft.)
			Below 4000 Ft.	Above 4000 Ft.			
L6 250 Cu.In.	RPO L22	Single Bbl.	X			110 @ 3800	190 @ 1600
V8 305 Cu.In.	RPO LG3	Two Bbl.	X		X	90 @ 3600	175 @ 1600
					X	145 @ 3800	245 @ 2400
V8 350 Cu.In.	RPO LM1	Four Bbl.			X	135 @ 3800	240 @ 2000
				X	X	160 @ 3800	260 @ 2400

## ENGINE SPEED AND PISTON TRAVEL

### L-6 250 CU. IN. ENGINE (RPO L22)

Transmission		3-Speed	3-Speed Automatic
Rear Axle Ratio		2.73:1	
Tire Size		E78 x 14	
Crankshaft Revolutions per Mile		2175.8	
Crankshaft RPM @ 1 MPH	Low	127.1	91.5
	Second	65.7	55.2
	Third	36.3	36.3
	Reverse	131.4	70.4
Piston Travel (ft/mile)		1280.1	

### V-8 305 CU. IN. ENGINE (RPO LG3)

Transmission		4-Speed	3-Speed Automatic
Rear Axle Ratio		3.08:1	2.41:1
Tire Size		E78 x 14	
Crankshaft Revolutions per Mile		2454.8	1920.8
Crankshaft RPM @ 1 MPH	Low	116.6	80.6
	Second	82.6	48.6
	Third	55.2	32.0
	Fourth	40.9	—
	Reverse	116.6	62.1
Piston Travel (ft/mile)		1423.8	1114.1

### V8-350 CU. IN. ENGINE (RPO LM1)

Transmission		3-Speed Automatic
Rear Axle Ratio		2.41:1
Tire Size		E78-14
Crankshaft Revolutions per Mile		1920.8
Crankshaft RPM @ 1 MPH	Low	80.6
	Second	48.6
	Third	32.0
	Reverse	62.1
Piston Travel (ft/mile)		1114.1



# VEHICLE PERFORMANCE FACTORS

ENGINE	250 CU.IN.	305 CU.IN.	350 CU.IN.
MODEL	1XX69	1XX17	1XY27

● 3-SPEED TRANSMISSION

Performance Weight (pounds)		3892
Pounds/Net Horsepower	Federal	35.38
	California	43.24
Pounds/Cu. In. Displacement		15.57
Net HP/Cu.In. Displacement	Federal	.440
	California	.360
Power Displacement (cu.ft./mile)		157.39
Displacement Factor (cu.ft./ton mile)		80.88

● 4-SPEED TRANSMISSION

Performance Weight (pounds)		4135
Pounds/Net Horsepower	Federal	28.52
	California	30.63
Pounds/Cu.In. Displacement		13.56
Net HP/Cu.In. Displacement	Federal	.475
	California	.443
Power Displacement (cu.ft./mile)		216.64
Displacement Factor (cu.ft./ton mile)		104.1

● 3-SPEED AUTOMATIC

Performance Weight (pounds)		3915	4146	4062
Pounds/Net Horsepower	Federal	35.59	28.59	25.38
	California	43.50	30.71	25.38
Pounds/Cu.In. Displacement		15.66	13.59	11.61
Net HP/Cu.In. Displacement	Federal	.440	.475	.457
	California	.360	.443	.457
Power Displacement (cu.ft./mile)		157.39	194.53	194.52
Displacement Factor (cu.ft./ton mile)		80.40	93.84	95.77

## GLOSSARY

Performance Weight	Curb Weight plus 600 Lb (weight of four 150 lb passengers)
Power Displacement	$\frac{\text{Crankshaft Revs/Mi} \times \text{Piston Displacement}}{2 \times 1728}$
Displacement Factor	$\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$

# PRINCIPAL COMPONENTS

## CYLINDER BLOCK

Material	Cast alloy iron
Bore Diameter	
L6-250 Cu. In.	3.8745-3.8775
V8-305 Cu. In.	3.7355-3.7385
V8-350 Cu. In.	3.9995-4.0025
Bearing Caps (Number, material and attachment)	
L6-250 Cu. In.	7, cast iron, 2-bolt
V8-305 & 350 Cu. In.	5, cast iron, 2-bolt
Water Jacket	Full length around each cylinder
Bore Spacing (Centerline to Centerline)	4.40

## CYLINDER HEAD

Material	High chrome cast alloy iron
Bolt No. & Size	
L6-250 Cu. In.	14; .500 dia. 13 threads/in.
V8-305 & 350 Cu. In.	34; .4375 dia. 14 threads/in.

## COMBUSTION CHAMBER VOLUME

(Total chamber volume of assembled engine with piston at top center)	
L6-250 Cu. In.	5.77 Cu. In.
V8-305 Cu. In.	5.13 Cu. In.
V8-350 Cu. In.	6.27 Cu. In.

## INLET MANIFOLD

Material	Cast alloy iron
Type	
L6-250 Cu. In.	Integral with cylinder head
V8-305 & 350 Cu. In.	8 port, double deck

## EXHAUST MANIFOLD

Material	Cast alloy iron
Type	
L6-250 Cu. In.	4 port, underslung center downtake
V8-305 & 350 Cu. In.	Dual, 4 port, center downtake
Outlet Diameter (Nominal)	2.0

## CRANKSHAFT

Material	
L6-250 Cu. In.	Cast nodular iron
V8-305 & 350 Cu. In.	Cast nodular iron
End Play	
L6-250 Cu. In.	.002-.006
V8-305 & 350 Cu. In.	.002-.007
Counter Weights	
L6-250 Cu. In.	12
V8-305 & 350 Cu. In.	6
Crank Arm Length	
L6-250 Cu. In.	1.765
V8-305 Cu. In.	1.740
V8-350 Cu. In.	1.740
Torsional Damper	Rubber mounted inertia
Timing Gear	
L6-250 Cu. In.	Cast iron
V8-305 & 350 Cu. In.	Sintered iron
Pulley Pitch Diameter	6.64

## MAIN BEARINGS

Material	Steel backed insert; (copper lead alloy or premium aluminum lining selected for specific engine application)
Type	Precision removable
Thrust Against Bearing No.	No. 5 (V8); No. 7 (L6)
Clearance	
L6-250 Cu. In.	.0003-.0029
V8-305 & 350 Cu. In.	
No. 1	.0008-.0020
No. 2, 3 & 4	.0011-.0023
No. 5	.0017-.0033

Dimensions	Theoretical	Effective	Projected
	Inner Dia.	Length	Area

### L6-250 Cu. In.

Bearing No. 1-6	2.2999	.752	1.7295
Bearing No. 7	2.2999	.760	1.7479

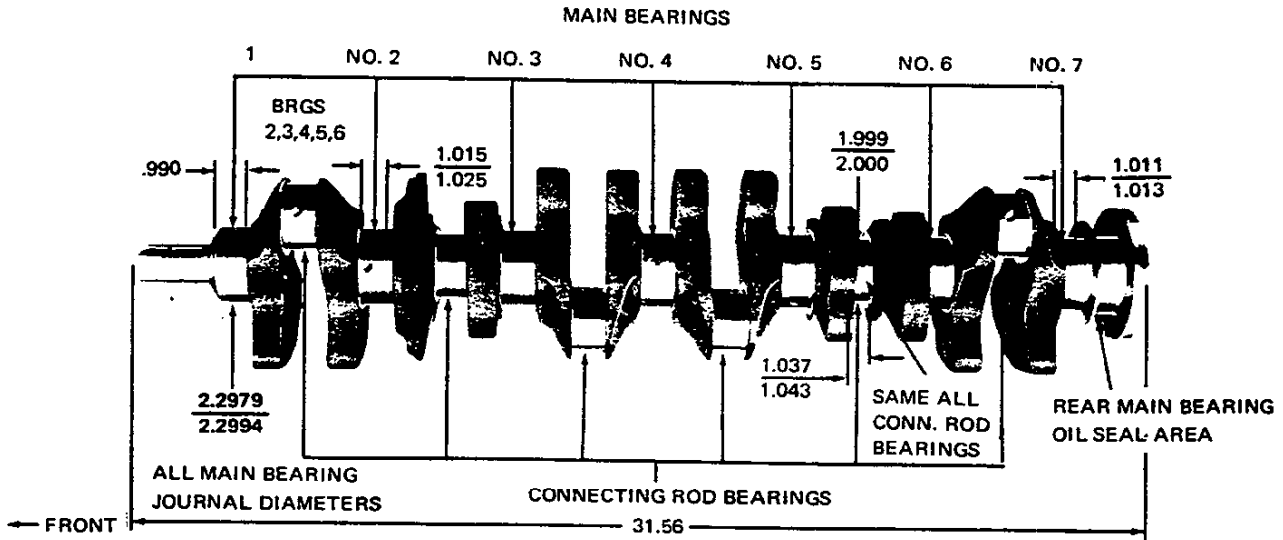
### V8-305 & 350 Cu. In.

Bearing No. 1-4	2.4502	.752	1.8425
Bearing No. 5	2.4508	1.180	2.8919

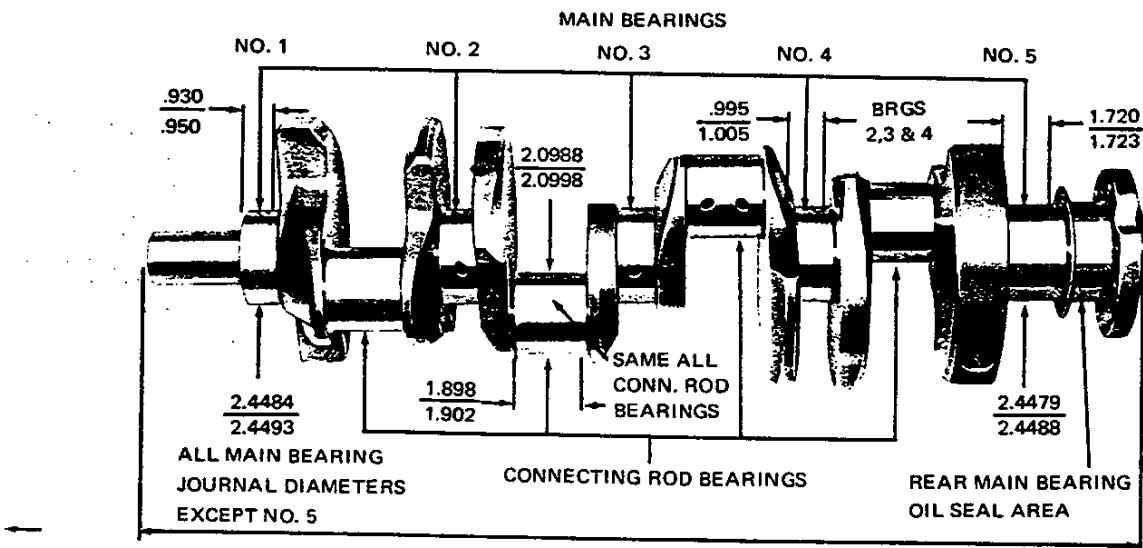
# PRINCIPAL COMPONENTS

## CRANKSHAFTS AND BEARINGS

### 250 CUBIC INCH SIX CYLINDER ENGINE



### 305 AND 350 CUBIC INCH V-8 ENGINES



# PRINCIPAL COMPONENTS

## CAMSHAFT

Material	Cast alloy iron
Drive	
L6-250 Cu. In.	Aluminum alloy
V8-305 & 350 Cu. In.	Nylon teeth with aluminum head
Lobe Lift	
L6-250 Cu. In.	.2217 Inlet; .2315 Exhaust
V8-305 Cu. In.	.2484 Inlet; .2733 Exhaust
V8-350 Cu. In.	.2600 Inlet; .2733 Exhaust
Bearings	Steel backed babbit

## VALVE TRAIN

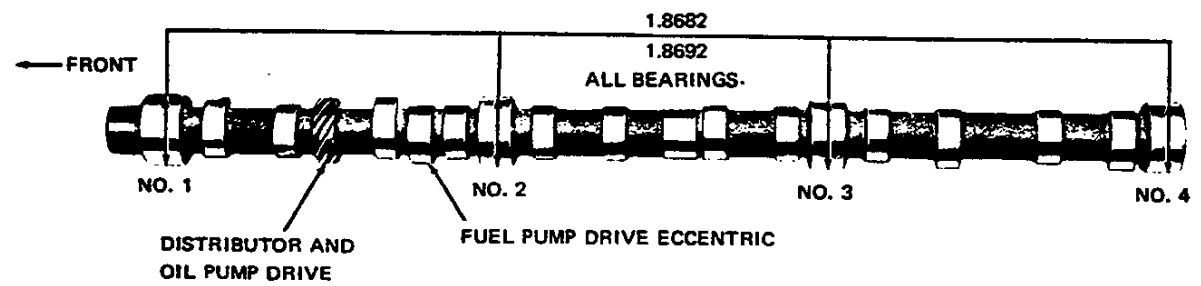
Type	Individually mounted, overhead rocker arms, push rod actuated
Lifters	Hydraulic
Rocker arms	
Ratio	
L6-250 Cu. In.	1.75:1
V8-305 & 350 Cu. In.	1.50:1
Push rods	
Type	Hollow steel
Ends	Hardened
Rotators (V8-305 & 350 Cu. In.)	Exhaust

## VALVE SPRINGS

Diameter (L.D.)	
L6-250 Cu. In.	.872-.888
V8-305 & 350 Cu. In.	.868-.884
Installed length (lb. @ in.)	
Valves closed	
L6-250 Cu. In.	76-86 @ 1.66
V8-305 & 350 Cu. In.	
Inlet	76-84 @ 1.70
Exhaust	76-84 @ 1.61
Valves opened	
L6-250 Cu. In.	170-180 @ 1.26
V8-305 & 350 Cu. In.	
Inlet	194-206 @ 1.25
Exhaust	194-206 @ 1.16
Free length	
L6-250 Cu. In.	1.90
V8-305 & 350 Cu. In.	2.03
Valve spring damper	
L6-250 Cu. In.	None
V8-305 & 350 Cu. In.	Flat steel, 4 coils
Oil shield	Steel cup

## CAMSHAFT AND BEARINGS

### 250 CUBIC INCH L-6 ENGINE



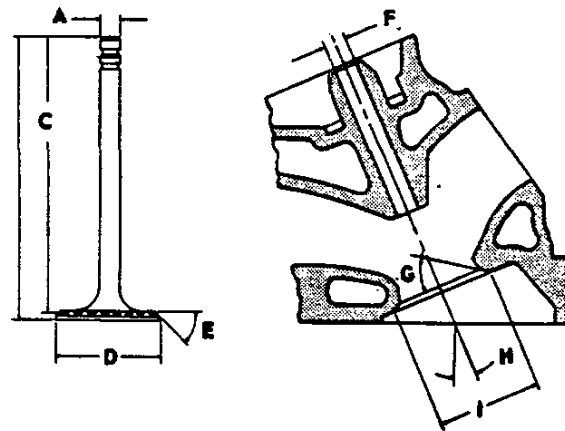
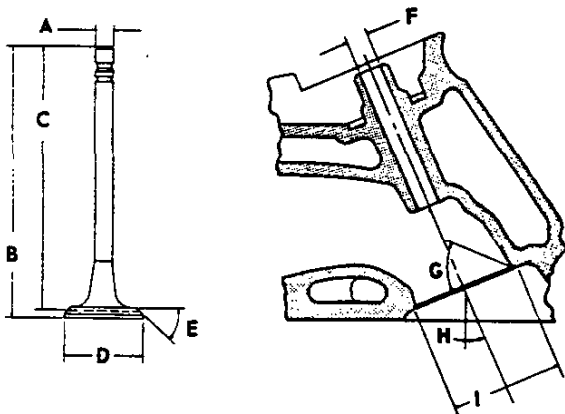
# PRINCIPAL COMPONENTS

## INLET VALVES

Material . . . . . Alloy steel  
 Coating  
 L6-250 & V8-305 Cu.In. . . . . Aluminized face  
 V8-350 Cu.In. . . . . None  
 All stems . . . . . Chrome flash

## EXHAUST VALVES

Material . . . . . High alloy steel  
 Coating  
 L6-250 Cu. In. . . . . Aluminized face  
 V8-305 & 350 Cu. In. . . . . Aluminized face  
 All stems . . . . . Chrome flash



A - Stem diameter	. . . . .	.3410-.3417
B - Overall length		
L6-250 Cu. In.	. . . . .	4.902-4.922
V8-305 Cu. In.	. . . . .	4.902-4.922
V8-350 Cu. In.	. . . . .	4.870-4.889
C - Gage length	. . . . .	4.785-4.795
D - Overall head diameter		
L6-250 Cu. In.	. . . . .	1.715-1.725
V8-305 Cu. In.	. . . . .	1.715-1.725
V8-350 Cu. In.	. . . . .	1.935-1.945
E - Angle of face	. . . . .	45°
F - Guide diameter	. . . . .	.3427-.3437
G - Angle of seat	. . . . .	46°
H - Valve angle		
L6-250 Cu. In.	. . . . .	9°
V8-305 & 350 Cu. In.	. . . . .	23°
I - Valve seat diameter		
L6-250 Cu. In.	. . . . .	1.591-1.597
V8-305 Cu. In.	. . . . .	1.823-1.829
V8-350 Cu. In.	. . . . .	1.823-1.829

A - Stem diameter	. . . . .	.3410-.3417
B - Overall length		
L6-250 Cu. In.	. . . . .	4.913-4.933
V8-305 Cu. In.	. . . . .	4.913-4.933
V8-350 Cu. In.	. . . . .	4.910-4.930
C - Gage length	. . . . .	4.781-4.791
D - Overall head diameter		
L6-250 Cu. In.	. . . . .	1.495-1.505
V8-305 Cu. In.	. . . . .	1.495-1.505
V8-350 Cu. In.	. . . . .	1.495-1.505
E - Angle of face	. . . . .	45°
F - Guide diameter	. . . . .	.3427-.3437
G - Angle of seat	. . . . .	46°
H - Valve angle		
L6-250 Cu. In.	. . . . .	9°
V8-305 & 350 Cu. In.	. . . . .	23°
I - Valve seat diameter		
L6-250 Cu. In.	. . . . .	1.321-1.327
V8-305 Cu. In.	. . . . .	1.321-1.327
V8-350 Cu. In.	. . . . .	1.321-1.327

# PRINCIPAL COMPONENTS

## VALVE LIFT

L6-250 Cu.In. ....	.3880 Inlet; .4051 Exhaust
V8-305 Cu.In. ....	.3727 Inlet; .4100 Exhaust
V8-350 Cu.In. ....	.3900 Inlet; .4100 Exhaust

## VALVE TIMING (Crankshaft Degrees - Excluding Ramps)

### L6-250 Cu.In.

#### Inlet Valve

Opens - BTC .....	16°
Closes - ABC .....	48°
Duration .....	244°

#### Exhaust Valve

Opens - BBC .....	64°
Closes - ATC .....	50°
Duration .....	294°

### V8-305 Cu.In.

#### Inlet Valve

Opens - BTC .....	28°
Closes - ABC .....	64°
Duration .....	272°

#### Exhaust Valve

Opens - BBC .....	78°
Closes - ATC .....	30°
Duration .....	288°

### V8-350 Cu.In.

#### Inlet Valve

Opens - BTC .....	28°
Closes - ABC .....	72°
Duration .....	280°

#### Exhaust Valve

Opens - BBC .....	78°
Closes - ATC .....	30°
Duration .....	288°

## PISTONS

Material ..... Cast aluminum alloy

### Head type

L6-250 Cu. In. ....	Sump
V8-305 & 350 Cu. In. ....	Sump

### Skirt type

.....	Slipper
-------	---------

### Top land clearance

L6-250 Cu. In. ....	.0245-.0335
V8-305 Cu. In. ....	.0245-.0335
V8-350 Cu.In. ....	.0235-.0325

### Skirt clearance

L6-250 Cu. In. ....	.0005-.0015
V8-305 Cu. In. ....	.0017-.0042
V8-350 Cu. In. ....	.0007-.0017

### Compression ring groove depth

L6-250 Cu. In. ....	.2153-.2218
V8-305 Cu. In. ....	.2003-.2073
V8-350 Cu. In. ....	.2218-.2308

### Oil ring groove depth

L6-250 Cu. In. ....	.2093-.2158
V8-305 Cu. In. ....	.2103-.2193
V8-350 Cu. In. ....	.2038-.2103

### Pin bore offset

.....	.055-.065
-------	-----------

### Compression height

L6-250 Cu. In. ....	1.658-1.662
V8-305 Cu. In. ....	1.538-1.562
V8-350 Cu. In. ....	1.558-1.562

## PISTON PINS

Material ..... Chromium steel

### Length

L6-250 Cu. In. ....	2.990-3.010
V8-305 & 350 Cu. In. ....	2.990-3.010

### Diameter

L6-250 Cu. In. ....	.9270-.9273
V8-305 & 350 Cu. In. ....	.9270-.9273

### Clearance in Piston

L6-250 Cu. In. ....	.00015-.00025
V8-305 & 350 Cu. In. ....	.00025-.00035

Pin Mounting ..... Locked in rod by shrink fit

# PRINCIPAL COMPONENTS

## COMPRESSION RINGS – UPPER

Material	Cast alloy iron
Type	Straight edge inside of ring
Face	Barrel
Coating	
L6-250 Cu. In.	Wear resistant coating
V8-305 & 350 Cu. In.	molybdenum inlay, graphite impregnated Chrome flash
Width	
L6-250 Cu. In.	.0775-.0780
V8-305 Cu. In.	.0770-.0780
V8-350 Cu. In.	.0775-.0780
Wall Thickness	
L6-250 Cu. In.	.184-.194
V8-305 Cu. In.	.167-.177
V8-350 Cu. In.	.190-.200
Gap	.010-.020

## COMPRESSION RINGS – LOWER

Type	Inside bevel (top of ring 30 degrees to piston vertical axis)
Face	Tapered
Coating	Wear resistant
Width	
L6-250 Cu. In.	.0770-.0780
V8-305 Cu. In.	.0770-.0775
V8-350 Cu. In.	.0770-.0775
Wall Thickness	
L6-250 Cu. In.	.184-.194
V8-305 Cu. In.	.167-.177
V8-350 Cu. In.	.190-.200
Gap	
L6-250 Cu. In.	.010-.020
V8-305 Cu. In.	.010-.025
V8-350 Cu. In.	.010-.025

## OIL CONTROL RINGS

Type	Multi-piece (two rails and one spacer)
Material	
Rails	Steel
Spacer	Alloy steel
Width (assembled)	
L6-250 Cu. In.	.1850-.1870
V8-305 Cu. In.	.1859-.1879
V8-350 Cu. In.	.1850-.1870
Wall Thickness	
L6-250 Cu. In.	.152-.158
V8-305 Cu. In.	.138-.143
V8-350 Cu. In.	.150-.156
Gap	
L6-250 Cu. In.	.015-.055
V8-305 Cu. In.	.010-.035
V8-350 Cu. In.	.015-.055
Rail Coatings	Chrome plated

## CONNECTING RODS

Material	Drop forged steel
Length (Center to Center)	5.695-5.705

## CONNECTING ROD BEARINGS

Material	
L6-250 Cu. In.	Premium aluminum
V8-305 & 350 Cu. In.	Premium aluminum
Type	Precision removable
Clearance	
L6-250 Cu. In.	.0007-.0027
V8-305 & 350 Cu. In.	.0013-.0035
Theoretical I. D.	
L6-250 Cu. In.	2.0017
V8-305 & 350 Cu. In.	2.1019
Effective Length	
L6-250 Cu. In.	.807
V8-305 & 350 Cu. In.	.797
End Play	
L6-250 Cu. In.	.007-.016
V8-305 Cu. In.	.006-.016
V8-350 Cu. In.	.006-.016

# FUEL SYSTEM

## FUEL TANK

Capacity (Gal) . . . . . 21 (approximately)  
Fuel tank location . . . . . Attached to  
underbody behind rear axle  
Filler location . . . . . Behind hinged rear license plate

## FUEL FILTERS

In Fuel Tank . . . . . Mesh strainer  
In Carburetor Inlet . . . . . Paper

## FUEL PUMP ASSEMBLY

Type . . . . . Mechanical; diaphragm  
Drive . . . . . Camshaft, eccentric  
Location . . . . . Right side front of engine  
Pressure range (shut off pressure at 1800 rpm)  
L6-250 Cu. In. . . . . 4.00-5.00 psi at pump outlet  
V8-305 Cu. In. . . . . 7.50-9.00 psi at pump outlet  
V8-350 Cu.In. . . . . 7.50-9.00 psi at pump outlet

## AIR CLEANER

Type . . . . . Cylindrical with air horn  
attached to ducted air inlet  
Diameter  
L6-250 Cu.In. . . . . 12.62  
V8-305 & 350 Cu.In. . . . . 15.48  
Filter element . . . . . Oil-wetted paper

## CARBURETORS

Make and type  
L6-250 Cu.In. . . . . 1-barrel, Monojet  
V8-305 Cu. In. . . . . 2-barrel  
V8-350 Cu.In. . . . . 4-barrel

### SAE flange type

L6-250 Cu.In. . . . . 1.50  
V8-305 & 350 Cu.In. . . . . 1.50

### Throttle bore

L6-250 Cu.In. . . . . 1.69  
V8-305 Cu.In. . . . . 1.69  
V8-350 Cu.In.

Primary . . . . . 1.38  
Secondary . . . . . 2.25

Secondary throttle actuation . . . . . By linkage  
approximately when primary valves  
are opened halfway between closed and open

### Venturi diameter

L6-250 Cu.In. . . . . 1.31  
V8-305 Cu.In. . . . . 1.19  
V8-350 Cu.In.

Primary . . . . . 1.22  
Secondary . . . . . Air valve

## CHOKE

Type . . . . . Automatic



# EXHAUST SYSTEMS

## TYPE

L6-250 Cu.In. ....	Single exhaust, single converter with crossover
V8-305 & 350 Cu.In. ....	Single exhaust, single converter with crossover and dual tail pipes

## MUFFLERS

Type .....	Oval, reverse flow
Construction .....	Heads and body joined by rolled lock seam construction
<b>Heads</b>	
L6-250 Cu.In. ....	.054 sheet steel, aluminized
V8-305 Cu.In. ....	.054 sheet steel, aluminized
V8-350 Cu.In. ....	.054 sheet steel, aluminized
<b>Shell</b>	
L6-250 Cu.In. ....	.031 sheet steel, aluminized
V8-305 & 350 Cu.In. ..	.031 sheet steel, aluminized
Wrap .....	.060 indented asbestos sheet
Cover .....	.017 sheet steel, aluminized
Length, Body .....	24.00
Width (I.D.) .....	10.75
Height (I.D.) .....	4.06

## EXHAUST CROSSOVER PIPE TO CONVERTER

### Dimensions (O.D.) & Wall Thickness

L6-250 Cu.In. ....	2.25 x .078 laminated
V8-305 & 350 Cu.In.	
Crossover .....	2.00 x .078 laminated
To Converter .....	2.50 x .078 laminated

## EXHAUST PIPE - CONVERTER TO MUFFLER

### Dimensions (O.D.)

L6-250 Cu.In. ....	2.25
V8-305 & 350 Cu.In. ....	2.25

### Wall Thickness

L6-250 Cu.In. ....	.071 laminated
V8-305 & 350 Cu.In. ....	.071 laminated

## TAIL PIPES

### Dimensions (O.D.)

L6-250 Cu.In. ....	2.00
V8-305 & 350 Cu.In. ....	2.00

### Wall Thickness

L6-250 Cu.In. ....	.056
V8-305 & 350 Cu.In. ....	.056

# EMISSION CONTROL EQUIPMENT

## SYSTEM APPLICATION

System Type	Engine Adaptation		
	L6-250 L22	V8-305 LG3	V8-350 LM1
PCV - Positive Crankcase Ventilation	***	***	(a)
EGR - Exhaust Gas Recirculation	***	***	(a)
CHA - Carburetor Hot Air	***	***	(a)
MAI - Manifold Air Injection	**	**	(a)
FEC - Fuel Evaporation Control System	***	***	(a)
CCS - Controlled Combustion System	*	*	-
UFC - Under Floor Converter	***	***	(a)
EFE - Early Fuel Evaporation	***	***	(a)
MMC - Monolith Manifold Converter	**	-	-

\* - Not available in California

\*\* - California only.

\*\*\* - Available - all states.

(a) - California and 49 states above 4000 feet.

## BASIC FUNCTION OF SYSTEMS

### POSITIVE CRANKCASE VENTILATION

Withdraws oil and gas vapors from the various cavities throughout the engine for burning in the combustion cycle.

### EXHAUST GAS RECIRCULATION SYSTEM

Meters exhaust gas into induction system for recirculation throughout the combustion cycle to reduce oxides of nitrogen emissions.

### CARBURETOR HOT AIR

Meters and mixes heated air with incoming cold air to optimize fuel evaporation.

### MANIFOLD AIR INJECTION

Compresses, regulates and distributes quantities of air to the exhaust manifold to more completely burn carbon monoxide and hydrocarbon emissions.

### MONOLITH MANIFOLD CONVERTER

The flow of exhaust gases down through the catalyst within the converter, effectively controls the hydrocarbon and carbon monoxide to a more desirable emission.

### FUEL EVAPORATION CONTROL SYSTEM

Controls emission of gasoline vapors to the atmosphere by means of an integral separator with the fuel tank that separates vapor from liquid fuel - a filler cap that doesn't permit venting into the atmosphere - a canister for storage of vapors - lines, hoses and valves to control and transport vapors from fuel tank and carburetor float bowl to storage, and finally, to the carburetor for utilization in running the engine.

### CONTROLLED COMBUSTION SYSTEM

Increased combustion efficiency through leaner carburetor mixtures and revised distributor calibration. Special thermostatically controlled damper, in the air cleaner snorkel maintains warm air intake to carburetor.

### UNDER FLOOR CONVERTER

The flow of exhaust gases down through the catalyst within the converter, effectively controls the hydrocarbon and carbon monoxide to a more desirable emission.

### EARLY FUEL EVAPORATION

System is designed to produce a very short engine warm-up cycle to improve vehicle driveability and reduce exhaust emission.

# LUBRICATION SYSTEM

## GENERAL

Type	Controlled full pressure
Main Bearings	Pressure
Connecting Rods	Pressure
Piston Pins	Splash
Cylinder Walls	
L6-250 Cu. In.	Main and connecting rod bearing throw off
V8-305 & 350 Cu.In.	Pressure, jet cross sprayed
Camshaft Bearings	Pressure
Valve Lifters	Pressure
Rocker Arms	Pressure
Timing Gears	
L6-250 Cu.In.	Nozzle sprayed
V8-305 & 350 Cu.In.	Centrifugally oiled from camshaft bearing
Oil Pressure Sending Unit	
Type	Electric
Actuation	Opens or closes circuit @ 2 to 6 PSI
Oil Filler	
Cap	Positive seal
Location	
L6-250 Cu.In.	Forward end of rocker cover
V8-305 & 350 Cu.In.	Rearward on left rocker cover

## OIL PAN CAPACITIES (Quarts)

Refill	
L6-250 Cu. In.	4
V8-305 & 350 Cu.In.	4
Refill with Filter Change	
L6-250 Cu.In.	4.5
V8-305 & 350 Cu.In.	4.5

## LUBRICANT GRADES AND TEMPERATURES

20° and Above	10W-30, 10W-40, 20W-20 20W-40, 20W-50
0° to 60° above	10W, 5W-30, 10W-30, 10W-40
Below 20°F	5W, 5W-20, 5W-30

## OIL PUMP

Type	Gear
Regulator Valve	Opens between 40-45 lbs, Oil Pressure
L6-250 Cu.In.	36-41 PSI @ 2000 RPM
V8-305 & 350 Cu. In.	32-40 PSI @ 2000 RPM
Intake Type	Fixed pickup with screen
Capacity (GPM @ Engine RPM)	
L6-250 Cu.In.	4.3 @ 2000
V8-305 & 350 Cu.In.	4.3 @ 2000

## OIL FILTER

Type	Full flow, throw away canister
Location	
L6-250 Cu.In.	Right side front of engine
V8-305 & 350 Cu.In.	Left rear side of engine
Capacity	One pint
Bypass Valve	Opens between 9 to 11 PSI

## OIL PAN DRAIN PLUG

Type	Hex head
Location	
L6-250 Cu.In.	Front lower face of oil pan sump
V8-305 & 350 Cu.In.	Left lower face of oil pan sump
Size of Hex Head	.860-.875
Thread	1/2-20 UNF 2A
Length	0.81
Diameter	.410-.430

## OIL DIPSTICK - LOCATION

L6-250 Cu.In.	Right side rear of engine block
V8-305 & 350 Cu.In.	Left side center rear of engine block

# COOLING SYSTEM

## GENERAL

Type . . . Pressure, vented thru coolant recovery system  
 Capacity with Heater  
 L6-250 Cu.In. . . . . 13.6 qts  
 V8-305 Cu.In. . . . . 15.8 qts  
 V8-350 Cu.In. . . . . 16.1 qts

## RADIATOR

Make and Type . . . . . Harrison, tube and center  
 Core constant  
     Distance between fins              Manual    Auto.  
     L6-250 Cu.In. . . . . .22     .20  
     V8-305 Cu.In. . . . . .20     .16 Auto.  
     V8-350 Cu.In. . . . . .18  
     Distance between tubes . . . . . .55  
 Thickness of core  
     L6-250 Cu.In. . . . . .1.24  
     V8-305 Cu.In. . . . . .1.24  
     V8-350 Cu.In. . . . . .1.24  
 Frontal Areas  
     L6-250 Cu.In. . . . . .353  
     V8-305 . . . . . .353  
     V8-350 (Auto. Trans.) . . . . . 446  
 Overflow . . . . . Separate coolant bottle

## RADIATOR HEAVY DUTY (RPO V01)

Core constant  
     Distance between fins              Manual    Auto.  
     L6-250 Cu.In. . . . . .18     .16  
     V8-305 Cu.In. . . . . .16     .16  
     V8-350 Cu.In. . . . . .20  
     Distance between tubes . . . . . .55  
 Thickness of core  
     L6-250 Cu.In. . . . . .1.24  
     V8-305 Cu.In. . . . . .1.24  
     V8-350 Cu.In. (Auto. Trans.) . . . . . 1.96  
 Frontal area (sq. in.)  
     L6-250 Cu.In. . . . . .446  
     V8-305 & 350 Cu.In. . . . . 446  
 Overflow . . . . . Separate coolant bottle

## THERMOSTAT

Type . . . . . Pellet  
 Begins to Open at . . . . . 192°-198°  
 Fully Opened at . . . . . 227°

## RADIATOR CAP RELIEF VALVE

Opens at . . . . . Approximately 15 PSI

## RADIATOR HOSE

Outlet, lower (radiator to water pump) . . . . . 1.75 ID  
 Inlet, upper (thermostat housing to radiator) . . . . . 1.50 ID

## FAN

Number of Blades  
     L6 250 & 305 V8 . . . . . 4  
     350 V8 . . . . . 7  
 Diameter  
     L6 250 . . . . . 17.62  
     305 V8 . . . . . 18.00  
     350 V8 . . . . . 19.00

## BELTS, CRANKSHAFT, FAN AND GENERATOR

Number used . . . . . One  
 Angle of "V" . . . . . 34°-38°  
 Pitch line  
     L6-250 Cu.In. . . . . 38.00  
     V8-305 Cu.In.  
         (Except California) . . . . . 44.50  
     V8-305 Cu.In. (California) . . . . . 48.00  
     V8-350 Cu.In. (California) . . . . . 48.00  
 Width . . . . . .380

## WATER PUMP

Type . . . . . Centrifugal  
 Capacity  
     L6-250 Cu.In. . . . . 21.0 GPM @ 2000 engine RPM  
     V8-305 & 350 Cu.In. 22.7 GPM @ 2000 engine RPM  
 Bearing . . . . . Permanently lubricated double row ball  
 Drive . . . . . Fan belt  
 Ratio (pump to engine rpm)  
     L6-250 Cu.In. . . . . 1.165:1  
     V8-305 & 350 Cu.In. . . . . .949:1

## DRAIN LOCATIONS AND TYPE

Engine block; Plug  
     L6-250 Cu.In. . . . . Left side rear  
     V8-305 & 350 Cu.In. . . . . Right and left side  
 Radiator-Petcock  
     All Types . . . . . Lower left rear face

# ELECTRICAL SYSTEM

## SUPPLY SYSTEM

### BATTERY

Type . . . . . Freedom  
 Voltage Rating and Watts  
 L6-250 Cu.In. . . . . 12-2500  
 V8-305 & 350 Cu.In. . . . . 12-3200  
 Number of Cells and Plates  
 L6-250 Cu.In. . . . . 6-54  
 V8-305 & 350 Cu.In. . . . . 6-66  
 Cold Cranking Rating  
 L6-250 Cu.In. . . . . 0° @ 275 amps;  
 - 20° @ 210 amps. @ 60 minutes reserve capacity  
 V8-305 & 350 Cu.In. . . . . 0° @ 350 amps;  
 - 20° @ 270 amps. @ 80 minutes reserve capacity  
 Terminal Grounded . . . . . Negative  
 Location . . . Engine compartment, right side front

## GENERATOR

Type . . . . . Diode rectified  
 Rating  
 Amps . . . . . 37  
 Volts . . . . . 12  
 Drive . . . . . By fan belt  
 Pulley Pitch Diameter . . . . . 2.43  
 Ratio (Gen. to Engine Speed) . . . . . 2.73:1

## REGULATOR

Type . . . . . Micro circuit unit  
 integral with alternator  
 Voltage . . . . . 13.8-14.8 @ 85°F

## IGNITION SYSTEM

DISTRIBUTORS . . . . . Refer to chart below

CABLE . . . . . Linen core impregnated  
 with electrical conducting material and  
 insulation of rubber with neoprene jacket

## COIL

Type  
 L6-250 Cu.In. . . . . Integral with distributor  
 V8-305 & 350 Cu.In. . . . . Integral with distributor

## SPARK PLUGS

Type  
 L6-250 Cu.In. . . . . ACR46TS  
 V8-305 & 350 Cu.In. . . . . ACR45TS  
 Thread Size (mm) . . . . . 14  
 Gap . . . . . .035 (L6-250); .045 (V8-305 & 350)  
 Torque . . . . . 25 lb. ft.

## STARTING SYSTEM

### STARTING MOTOR

Rotation (Drive End View) . . . . . Clockwise  
 Test Conditions . . . . . Engine at operating temp.  
 No Load Test  
 Amps  
 L6-250 Cu.In. . . . . 49-87  
 V8-305 & 350 Cu.In. . . . . 70-99  
 Volts . . . . . 10.6  
 RPM  
 L6-250 Cu.In. . . . . 6200-10700  
 V8-305 & 350 Cu.In. . . . . 7800-12000  
 Motor Drive  
 Engagement . . . . . Solenoid  
 Pinion Meshes at . . . . . Rear  
 Pinion Tooth No. . . . . 9  
 Flywheel Teeth No.  
 L6 250 Cu.In. . . . . 153  
 V8 305 & 350 Cu.In. . . . . 168  
 Mounting . . . . . Bolted to cylinder block flange

DISTRIBUTORS	L6-250 Cu.In.		V8-305 Cu.In.		V8-350 Cu.In.	
	1110715	(1110716)	1103281	1103282	1103353	(1103285)
Type	High Energy Ignition					
Centrifugal advance begins @ RPM	0 @ 1000	0 @ 1000	0 @ 1000	0 @ 1000	0 @ 1000	0 @ 1200
Maximum degrees @ RPM	20 @ 4200	20 @ 4200	20 @ 3800	20 @ 3800	22 @ 4600	22 @ 4200
Vacuum advance begins @ In. Hg.	0 @ 13.5	0 @ 13.5	0 @ 13.5	0 @ 13.5	0 @ 13.5	0 @ 13.5
Maximum degrees @ In. Hg.	24 @ 50.7	15 @ 40.5	18 @ 40.5	20 @ 33.8	20 @ 33.8	10 @ 27.0
Timing (initial design setting) Crankshaft degrees @ RPM	6° BTC @ 800	6° BTC @ 600	4° BTC @ 600/N	6° BTC @ 500/D	8° BTC @ 600/D	8° BTC @ 500/D
with vacuum line disconnected	10° BTC @					
Timing mark location	Torsional damper					

Data in brackets ( ) pertains to California.

# TRANSMISSIONS AND CLUTCHES

## CLUTCHES

Engine	Type - Cubic Inch	L6-250	V8-305	
	Availability	Standard	RPO LG3	
Type		Single dry disc	Single dry disc centrifugal	
Clutch cover & pressure plate	Eff. plate load, lb.	1650-1900	2100-2300	
	Press. plate matl.	Cast iron	Nodular iron	
	Clutch spring type	Diaphragm	Diaphragm bent finger	
	Clutch spring matl.	Heat treated spring steel		
Driven plate	Type	Single disc with two friction discs		
	Cushions	Flat spring steel between friction rings		
	Dampers	(a)	10 coil springs (5 sets of two)	
	Friction rings	OD	9.12	10.34
		ID	6.12	6.50
		Total area sq. in.	71.82	101.54
Material		Woven type asbestos		
Flywheel & Ring Gear	Flywheel Material	Nodular iron		
	Ring Material	Heat treated HR steel		
	Gear	No. of teeth	153	153
		PD	12.75	12.75
		Attachment	Shrink fit	
Bearings	Release	Type	Single row ball	
		Lubrication	None, prepacked	
	Pilot	Type	Bronze bushing	
		Lubrication	None, sintered and oil impregnated	
Control	Clutch fork	Drop forged steel, pivot mounted on ball		
	Pedal mounting	Pendant from brace on dash		
	Lubrication	Crossover shaft		
Clutch housing material		Aluminum alloy		

(a) 6 outer coil springs and 3 inner coil springs equally spaced

## 3 and 4-SPEED TRANSMISSIONS

Transmission		3-Speed	4-Speed	
Engine	Type - Cubic Inch	L6-250	V8-305	
Application	Availability	Standard	LG3	
Case Material		Cast iron		
Gear Shift	Type	Remote		
	Control	Lever		
	Location	Steering column	Floor	
Gears	Type	Helical		
	Material	Forged steel hardened		
	Synchronization	All forward gears		
	Constant mesh gear	All gears	All forward gears	
	Sliding	None	Reverse	
	Ratios	First	3.50:1	2.85:1
		Second	1.89:1	2.02:1
		Third	1.00:1	1.35:1
Fourth			1.00:1	
Reverse		3.62:1	2.85:1	
Lubricant	Type	GL-5 Gear Lubricant		
	Capacity (pts)	3		
Extension	Material	Cast iron		
	Oil	Steel encased seat of spring loaded silicone		

# TRANSMISSIONS

## THREE-SPEED AUTOMATIC TRANSMSSION

Engine	Displacement	L6 250, V8-305 & V8-350 Cu.In.	
General Data	Type	Automatic hydraulic torque converter with compound planetary gear system - three forward speeds and reverse.	
	Selector lever	Location	Steering column (a)
		Operation	Actuates controls by a hydraulic system from pressurized gear type pump
		Quadrant pattern	P-R-N-D-L2-L1
	Parking Lock	Type	Locking pawl
		Operation	Applied by selector lever through manual linkage
	Method of cooling	Water	
Hydraulic System	Flywheel assembly	Steel stamping with welded on ring gear	
	Oil pressure pump	Supplies hydraulic pressure from an engine driven gear type pump	
	Type	Steel spool valve	
	Valves	Manual	Establishes range of transmission operation
		Pressure regulator	Provides main line pressure
		Shift (1-2)	Controls oil pressure for transmission shift from 1-2 or 2-1
		Shift (2-3)	Controls oil pressure for transmission shift from 2-3 or 3-2
	Modulator	Regulates line pressure with modulator oil pressure which varies with torque to transmission	
	Accumulator	Provides greater flexibility in attaining desired shift quality for various engine requirements	
	Pressure @ Idle (b)	Drive	60
		L2	87
L1		87	
Reverse		91	
Converter Assembly	Pump (Drive member)	Multivane type, sheet metal blade spot welded to steel pump housing that is an integral part of the converter housing	
	Turbine (Driven member)	Steel axial flow blades assembled between inner & outer steel shells	
	Stator assembly	Aluminum multivane type blades mounted on a one way (overrunning) roller clutch	
	Stall ratio	2.00	
	Stall speed (RPM)	2110	
	Diameter (nominal)	11.75	
Planetary Gear Set	Reaction carrier assembly	4 steel pinion gears	
	Output carrier assembly	4 steel pinion gears	
	Intermediate band	Circular steel with organic lining	
	Range	D (Drive)	2.52:1 - 1.52:1 - 1.00:1
		L2 (Low two)	2.52:1 - 1.52:1
		L1 (Low one)	2.52:1
R (Reverse)		1.93:1	
Servo Unit	Piston with release spring and inner cushion spring		
Case	Material	Aluminum	
	Type	Four, multiple disk	
Clutches	Material	Drive plates	Steel with bonded organic facings
		Driven plates	Flat steel
	Forward clutch	5 each drive & driven plates	
	Direct clutch	4 each drive & driven plates	
	Intermediate clutch	3 each drive & driven plates	
	Low & Reverse clutch	5 each drive & driven plates	
	Release spring	Radial row steel coil	
Torque Multiplication	Drive (maximum)	5.04:1 to 1.00	
	Low 2	5.04:1 to 1.52	
	Low 1	5.04:1 to 2.52	
	Reverse	3.86:1 to 1.93	
Governor	Type	Cross-axis centrifugal	
	Operation	Regulates a pressure proportional to car speed which acts upon the (1-2) (2-3) shift and modulator valves	
Lubricant	Type	Dexron II	
	Capacity (pints)	Dry	20
		Refill	8

(a) Floor mounted available when bucket seats are used; quadrant changes to P-R-N-3-2-1.

(b) Conditions: 600 RPM input

## ALPHABETICAL OPTION INDEX

(Not for Ordering Purposes)

<u>Option Number</u>	<u>Description</u>	<u>Option Number</u>	<u>Description</u>
AB8	ROOF COVER: Cabriolet	P01	WHEEL TRIM: Wheel Covers, Full
AK1	BELTS, DELUXE: Color-Keyed Seat and Shoulder	QBT	TIRES: FR78-14/B White Lettered (Radial)
AU3	DOOR LOCK SYSTEM, POWER	QDV	TIRES: FR78-14/B Blackwall (Radial)
A01	GLASS, SOFT-RAY TINTED: All Windows	QDW	TIRES: FR78-14/B White Stripe (Radial)
A20	WINDOWS: Swing-Out Rear Side	QEG	TIRES: E78-14/B Blackwall (Bias Belted)
A31	WINDOWS: Power	QEH	TIRES: E78-14/B White Stripe (Bias Bel- ted)
BW2	MOLDINGS: Body Side, Deluxe	UA1	BATTERY, HEAVY-DUTY
B37	FLOOR COVERING: Mats, Color-Keyed Floor Front and Rear	UF7	ECONOMINDER GAGE PACKAGE
B51	MOLDINGS: Bright Rocker and Extension	UM1	RADIO EQUIPMENT: Stereo Tape System w/AM Radio
B74	MOLDINGS: Wheel Opening, Wide	UM2	RADIO EQUIPMENT: Stereo Tape System w/AM/FM Stereo Radio
B80	MOLDINGS: Roof Drip	U05	HORNS, DUAL
B84	MOLDINGS: Body Side	U14	INSTRUMENTATION: Special
B90	MOLDINGS: Side Window Reveal	U35	CLOCK: Electric
B93	MOLDINGS: Door Edge Guard	U58	RADIO EQUIPMENT: AM/FM Stereo Radio
B96	MOLDINGS: Wheel Opening	U63	RADIO EQUIPMENT: AM Radio
CD4	WINDSHIELD WIPER EQUIPMENT: Intermittent System	U69	RADIO EQUIPMENT: AM/FM Radio
C50	DEFOGGER, REAR WINDOW: Forced Air	U76	RADIO EQUIPMENT: Windshield Antenna
C60	AIR CONDITIONING: Four-Season	U80	RADIO EQUIPMENT: Speaker, Rear Seat
D31	MIRROR: Inside Rearview, Day-Night	V01	RADIATOR, HEAVY-DUTY
D33	MIRROR: Outside Rearview, LH Remote	V30	BUMPER EQUIPMENT: Bumper Rub Strips and Guards
D35	MIRRORS: Sport, LH Remote and RH Manual	YF5	EMISSION SYSTEMS: California Emission Requirements
D55	CONSOLE	ZJ3	INTERIOR DECOR PACKAGE
D85	STRIPING, PIN: Body Side	ZJ7	WHEEL TRIM: Wheels, Rally
F40	SUSPENSION EQUIPMENT: Heavy- Duty Front and Rear	ZJ9	LIGHTING, AUXILIARY
F41	SUSPENSION EQUIPMENT: Sport	ZN5	WHEEL TRIM: Wheels, Color-Keyed Rally
G80	AXLE, REAR: Positraction	ZP2	EXTERIOR/INTERIOR OVERRIDE
G92	AXLE, REAR: Performance Ratio	Z26	NOVA RALLY EQUIPMENT
J50	BRAKES, POWER	11A	STRIPING: White
K30	SPEED CONTROL: Cruise-Master	13A	STRIPING: Silver
LG3	ENGINE: 305 Cu. In. V8	19A	STRIPING: Black
LM1	ENGINE: 350 Cu. In. V8	27A	STRIPING: Light Blue
L22	ENGINE: 250 Cu. In. L6	49A	STRIPING: Light Green
MM3	TRANSMISSION: 3-Speed Manual	54A	STRIPING: Gold
MM4	TRANSMISSION: 4-Speed Manual	75A	STRIPING: Red
MX1	TRANSMISSION: Automatic	80A	STRIPING: Orange
NA2	EMISSION SYSTEMS: Standard Emission Equipment	95A	STRIPING: Buckskin
NA6	EMISSION SYSTEMS: High Altitude Emission Equipment	190	MOLDINGS: Black
N33	STEERING WHEEL: Comfortilt	22Q	MOLDINGS: Light Blue
N41	STEERING, POWER	44Q	MOLDINGS: Light Green
N65	STOWAWAY SPARE TIRE	61Q	MOLDINGS: Light Camel
N95	WHEEL TRIM: Wheel Covers, Wire	79Q	MOLDINGS: Dk. Carmine



# NOVA CUSTOM

## VINYL ROOF SELECTION

Vinyl Roof	Code	Exterior Color Availability	
Black	BB	Rec: 11, 15, 19, 24, 51, 61 or 67	Acc: 22, 44, 48, 63, 75 or 77
Blue, Light (Met)	DD	Rec: 11 or 22	Acc: 19 or 24
Camel, Light	CC	Rec: 51, 63 or 69	Acc: 11, 19, 43 or 67
Carmine, Dark (Met)	RR	Rec:	Acc: 77
Green, Light (Met)	GG	Rec: 11, 44 or 48	Acc: 19
Silver	QQ	Rec: 15 or 19	Acc: 75 or 77
White	WW	Rec: All except 15, 61, 69 or 75	Acc: 15, 61, 69 or 75

Rec = Recommended; Acc = Acceptable

## COLOR AND TRIM SELECTION

PLEASE NOTE: The exterior and interior combinations shown in the chart below and designated as recommended (R), represent the ideal combinations. Those that are shown as acceptable (A), are attractive, but less desirable than the recommended combinations. Orders for additional combinations may be submitted, provided the dealer initials the appropriate order form box (ZP2), as verification that the requested combination is definitely desired. CAUTION: Please utilize available color samples when ordering, especially when adding a third color element (Vinyl Top, Exterior Color, Interior Trim) in order to avoid undesirable combinations.

Seat, Headliner and Door Trim Color	Blue	Camel	Car- mine	Green	White	White	White	White
Instrument Panel Pad and Carpet Color	Blue	Camel	Car- mine	Green	Black	Blue	Car- mine	Green

Model	Seat Type							
1XY27	Custom Sport Cloth Bench	SDD1	SCC1	SRR1				
	Custom Vinyl Bench		XCC1	XRR1	XGG1	XWB1	XWD1	XWR1
	Custom Vinyl Bucket		XCC2	XRR2	XGG2			
1XY69	Custom Sport Cloth Bench	SDD1	SCC1	SRR1				
	Custom Vinyl Bench		XCC1	XRR1	XGG1			

Exterior Paint Color	Color Code										
	L	U	T								
Black	19	19	-	A	P	R	A	R		R	
Blue, Bright (Met)	24	24	-	A				R			
Blue, Bright (Met)/ White	24	-	11	A				P	R		
Blue-Green, Dark (Met)	48	49	-		P		R	A			R
Blue, Light (Met)	22	22	-	R				A	R		
Blue, Light (Met)/ White	22	-	11	R				A	R		
Camel (Met)	63	63	-		R				A		
Camel (Met)/ Camel, Light	63	-	61		R				A		
Camel, Dark (Met)	69	69	-		R				A		
Camel, Dark (Met)/ Camel (Met)	69	-	63		R				A		
Camel, Light	61	61	-		P	A			A		
Carmine (Met)	77	77	-		A	P			A		R
Green, Light (Met)	44	44	-		A		P	A			R
Green, Light (Met)/ White	44	-	11		A		P	A			R
Red, Light	75	75	-		P	A			A		
Red, Light/White	75	-	11		P	A			A		
Saffron (Met)	57	67	-			A			P		
Silver	15	15	-		A		P		P		
White	11	11	-		P	P	P	P	P	R	R
Yellow, Bright	51	51	-		P	P	P	P	P	R	R

L=Lower U=Upper T=Two-Tone

## POWER TEAMS

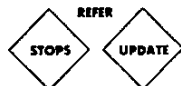
(Refer to next page for option availability and application)

ENGINE OPTION CONDITION	AXLE RATIO		
	2.41	2.73	3.08
WITHOUT YF5 CALIFORNIA OR NA6 HIGH ALTITUDE EMISSION:			
L22 MM3 or MX1	-	Std	-
LG3 MM4 MX1	- Std	- -	Std G92
WITH YF5 CALIFORNIA			
L22 MX1	-	Std	-
LG3 MX1	Std	-	-
LM1 MX1	Std	-	G92
WITH NA6 HIGH ALTITUDE EMISSION			
LM1 MX1	-	-	Std





# NOVA



Model	
1XX17	Nova Hatchback Coupe
1XX27	Nova Coupe
1XX69	Nova 4-Door Sedan

## ← COLOR AND TRIM SELECTION

**MUST ORDER ONE:** \_\_\_\_\_ **ENGINES** \_\_\_\_\_

**AVAILABLE WITH NA2 STANDARD EMISSION EQUIPMENT**  
 \_\_\_ L22 250 Cu. In. L6 (Reqs MM3 or MX1 Trans)  
 \_\_\_ L63 305 Cu. In. V8 (Reqs J50 Brakes and MM4 or MX1 Trans)

**AVAILABLE WITH NA6 HIGH ALTITUDE EMISSION EQUIPMENT (Recommended Above 4000 Foot Altitude)**  
 \_\_\_ LM1 350 Cu. In. V8 (Reqs MX1 Trans and J50 Brakes)

**CALIFORNIA REGISTRATION (REQS YF5)**  
 \_\_\_ L22 250 Cu. In. L6 (Reqs MX1 Trans)  
 \_\_\_ L63 305 Cu. In. V8 (Reqs MX1 Trans and J50 Brakes)  
 \_\_\_ LM1 350 Cu. In. V8 (Reqs MX1 Trans and J50 Brakes)

### QUICK-SPEC

**IF TIRE AND/OR TRANSMISSION IN QUICK-SPEC IS NOT DESIRED YOU MUST "PLUS" ANOTHER TIRE AND/OR TRANSMISSION OPTION.**

✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓
8 8 8 8 8	5 6 7 8 9
B B B B B	

Transmission, Automatic	MX1	X	X	X	X	X
Steering, Power	N41	X	X	X	X	X
Radio, AM	U63	X	X	N/INCL		
Moldings, Body Side	B84	X	X	N/INCL		
Tires, E78-14/B White Stripe	QEH	X	N/INCL			
Wheel Covers, Full	P01	X	X	N/INCL		
Brakes, Power	J50	X	X	X	X	X

Air Conditioning, Four-Season	C60	X	X	X	X	
Glass, Soft-Ray Tinted	A01	X	X	X	X	
Interior Decor Package	ZJ3	X	X	X	X	
Tires, FR78-14/B White Stripe	QDW	X	X	X	X	
Mirror, LH Remote	D33	X	N/INCL			
Moldings, Roof Drip	B80	X	X	X	X	
Defogger, Rear Window	C50	X	X	X	X	

Belts, Deluxe	AK1	X	X	X		
Mats, Color-Keyed Floor	B37	X	X	X		
Mirrors, LH Remote and RH Manual Sport	D35	X	X	X		
Wheels, Rally	ZJ7	X	X	X		
Bumper Rub Strips and Guards	Y30	X	X	X		
Moldings, Wheel Opening	B96	X	X	N/INCL		

Moldings, Door Edge Guard	B93	X	X			
Clock, Electric	U35	X	X			
Radio, AM/FM	U69	X	X			
Speaker, Rear Seat	U80	X	X			
Steering Wheel, ComfortLit	N33	X	X			
Moldings, Body Side Deluxe	BW2	X	X			

Horns, Dual	U05	X				
W/S Wiper Equip., Intermittent	CD4	X				
Moldings, Bright Rocker and Extension	B51	X				
Moldings, Wide Wheel Opening	B74	X				
Lighting, Auxiliary	ZJ9	X				

**PLEASE REVIEW OPTION RESTRICTIONS BEFORE ORDERING**  
 Q-S OPTION

486	C60	AIR CONDITIONING: Four-Season (Incls Y01 Rad w/L22 Eng)
		<b>AXLES, REAR:</b>
	G92	--Performance Ratio (See Power Teams Chart)
	G80	--Positraction
	UA1	BATTERY, HEAVY-DUTY
487	AK1	BELTS, DELUXE: Color-Keyed Seat and Shoulder (N/A Black or Black and White Interior Trim)
485	J50	BRAKES, POWER
487	Y30	BUMPER EQUIPMENT: Bumper Rub Strips and Guards, Front and Rear
488	U35	CLOCK: Electric (Incl w/U14 Inst)
486	C50	DEFOGGER, REAR WINDOW: Forced Air
✓	AU3	DOOR LOCK SYSTEM, POWER
	UF7	ECONOMINDER GAGE PACKAGE: (N/A U14 Inst)

**PLEASE REVIEW OPTION RESTRICTIONS BEFORE ORDERING**  
 Q-S OPTION

		<b>EMISSION SYSTEMS: (MUST ORDER ONLY ONE)</b> (See Power Teams Chart)
	YF5	--California Emission Requirements
	NA6	--High Altitude Emission Equipment
	NA2	--Standard Emission Equipment
487	B37	FLOOR COVERING: Mats, Color-Keyed Floor, Front and Rear
486	A01	GLASS, SOFT-RAY TINTED: All Windows
489	U05	HORNS, DUAL
U14	INSTRUMENTATION: Special (Incls U35 Clock)	
486	ZJ3	INTERIOR DECOR PACKAGE: (Incls D31 Mir)
489	ZJ9	LIGHTING, AUXILIARY
		<b>MIRRORS:</b>
	D31	--Inside Rearview, Day-Night (Incl w/ZJ3 Int Decor)
486	D33	--Outside Rearview, LH Remote
487	D35	--Sport, LH Remote and RH Manual
		<b>MOLDINGS:</b>
485	B84	--Body Side (N/A Z26 Rally)
✓ 488	BW2	--Body Side, Deluxe (N/A Z26 Rally) (Refer Page 6 for Standard Color Application)
✓ 489	B51	--Bright Rocker and Extension
488	B93	--Door Edge Guard
486	B80	--Roof Drip (Incl w/Vinyl Roof)
	B90	--Slide Window Reveal
✓ 487	B96	--Wheel Opening (N/A Z26 Rally)
✓ 489	B74	--Wheel Opening, Wide (N/A B96 Midg, D85 Striping or Z26 Rally)
	Y01	RADIATOR, HEAVY-DUTY: (Incl w/C60 Air w/L22 Eng)
		<b>RADIO EQUIPMENT:</b>
485	U63	--AM Radio
488	U69	--AM/FM Radio
	U58	--AM/FM Stereo Radio
	UM1	--Stereo Tape System w/AM Radio
	UM2	--Stereo Tape System w/AM/FM Stereo Radio
486	U80	--Speaker, Rear Seat (Reqs U63 or U69 Radio)
	U76	--Windshield Antenna (Incl w/above Radio Equip)
	✓ Z26	RALLY EQUIPMENT: (N/A 1XX69) (N/A Two-Tone Paint) (Refer Page 6 for Standard Stripe Color Application)
		<b>ROOF COVER, VINYL: (See Color and Trim Chart)</b>
	...	--Vinyl
	AB8	--Cabriolet (1XX27 only) (Reqs Vinyl Roof Color Code) (N/A A20 Windows)
	K30	SPEED CONTROL: Cruise-Master (Reqs MX1 Trans and J50 Brakes)
485	N41	STEERING, POWER
488	N33	STEERING WHEEL: ComfortLit (N/A MM3 Trans)
	N65	STOWAWAY SPARE TIRE: (Std on 1XX17)
	D85	STRIPING, PIN: Body Side (N/A Z26 Rally) (Refer Page 6 for Standard Stripe Color Application)
		<b>SUSPENSION EQUIPMENT: Suspension</b>
	F40	--Heavy-Duty Front and Rear
	F41	--Sport (Reqs Radial Tires) (N/A L22 Eng or F40 Susp)
		<b>TIRES: (B/W: Blackwall, W/S: White Stripe, W/L: White Lettered)</b>
	QEG	---E78 B/W (Base)
✓ 485	QEH	---E78 W/S
		--Steel Belted Radial Ply (14/B)
	QDV	---FR78 B/W
✓ 486	QDW	---FR78 W/S
	QBT	---FR78 W/L
		<b>TRANSMISSIONS: (See Power Teams Chart)</b>
	MM3	--3-Speed Manual (N/A LM1 or LG3 Eng)
	MM4	--4-Speed Manual (Reqs LG3 Eng)
485	MX1	--Automatic
		<b>WHEEL TRIM: (N/A Z26 Rally Equip)</b>
	N95	--Wheel Covers, Wire
485	P01	--Wheel Covers, Full
487	ZJ7	--Wheels, Rally
	ZN5	--Wheels, Color-Keyed Rally
		<b>WINDOWS:</b>
	A31	--Power
✓	A20	--Swing-Out Rear Side (1XX17-27 Only)
489	CD4	WINDSHIELD WIPER EQUIPMENT: Intermittent System

## BODY SIDE MOLDING AND STRIPE CHART

# NOVA

#STANDARD MOLDING COLOR REQUIRES BW2  
\*STANDARD STRIPE REQUIRES D85

### WITH VINYL ROOF

Exterior Paint Color  
and Code

		Vinyl Roof Color						
		Black	Blue Light (Met)	Camel Light	Carmine Dark (Met)	Green Light (Met)	Silver	White
		BB	DD	CC	RR	GG	QQ	WW
Black	19	Molding	Black	Blue	Black	Green	Black	Black
		Stripe	Gold	Blue	Gold	Green	Silver	White
Blue, Bright (Met)	24	Molding	Black	Blue	Black	Green	Black	Black
		Stripe	Black	Silver	Black	Green	Black	White
Blue-Green, Dark (Met)	48	Molding	Black	Black	Black	Green	Black	Green
		Stripe	Gold	Black	Black	Green	Black	White
Blue, Light (Met)	22	Molding	Black	Blue	Black	Green	Black	Blue
		Stripe	Black	Blue	Black	Green	Black	White
Camel (Met)	63	Molding	Camel	Camel	Camel	Black	Black	Camel
		Stripe	Gold	Gold	Gold	Black	Black	White
Camel, Dark (Met)	69	Molding	Black	Camel	Black	Black	Black	Black
		Stripe	Black	Gold	Black	Black	Black	White
Camel, Light	61	Molding	Black	Camel	Black	Black	Black	Camel
		Stripe	Gold	Buckskin	Black	Black	Black	White
Carmine (Met)	77	Molding	Carmine	Black	Carmine	Black	Black	Carmine
		Stripe	Red	Black	Red	Black	Black	White
Green, Light (Met)	44	Molding	Green	Black	Black	Green	Black	Green
		Stripe	Green	Black	Black	Green	Black	White
Red, Light	75	Molding	Black	Black	Black	Black	Black	Black
		Stripe	Black	Black	Black	Black	Black	White
Saffron (Met)	67	Molding	Black	Black	Black	Black	Black	Black
		Stripe	Gold	Gold	Black	Black	Black	White
Silver	15	Molding	Black	Black	Black	Black	Black	Black
		Stripe	Black	Black	Black	Black	Black	White
White	11	Molding	Black	Blue	Camel	Green	Black	Black
		Stripe	Black	Blue	Gold	Green	Black	Gold
Yellow, Bright	51	Molding	Black	Black	Black	Black	Black	Black
		Stripe	Black	Black	Black	Black	Black	White

‡ When ZP2 is specified to override Vinyl Roof and Exterior Color, Molding and Stripe Color is Black on all combinations except 19 when the molding will be Black and the stripe Gold unless otherwise specified.

### WITHOUT VINYL ROOF

Exterior Paint Color	Color Code			#Molding BW2	*Stripe D85
	L	U	T		
Black	19	19	-	Black	Gold
Blue, Bright (Met)/White	24	-	11	Black	White
Blue, Bright (Met)	24	24	-	Black	White
Blue-Green, Dark (Met)	48	48	-	Black	Gold
Blue, Light (Met)/White	22	-	11	Blue	White
Blue, Light (Met)	22	22	-	Blue	Blue
Camel (Met)/Camel, Light	63	-	61	Camel	White
Camel (Met)	63	63	-	Camel	Gold
Camel, Dark (Met)/Camel (Met)	69	-	63	Black	Gold
Camel, Dark (Met)	69	69	-	Black	Gold
Camel, Light	61	61	-	Camel	Buckskin
Carmine (Met)	77	77	-	Carmine	Gold
Red, Light	75	75	-	Black	Gold
Red, Light/White	75	-	11	Carmine	White
Green, Light (Met)/White	44	-	11	Green	White
Green, Light (Met)	44	44	-	Green	Green
Saffron (Met)	67	67	-	Black	Gold
Silver	15	15	-	Black	Red
White	11	11	-	Black	Gold
Yellow, Bright	51	51	-	Black	Orange

L=Lower U=Upper T=Two-Tone

#### PLEASE NOTE:

\* If the color of the stripe (D85), as shown in the above charts, is not desired, order one of the following options instead of D85 Stripe.  
11A=White; 13A=Silver; 19A=Black; 27A=Light Blue; 49A=Light Green; 54A=Gold; 75A=Red; 80A=Orange; 95A=Buckskin  
D85 and optional stripes N/A with Z26 Rally Sport.

† If the color of molding (BW2), as shown in the above charts, is not desired, order one of the following options instead of BW2 Molding.  
190=Black; 220=Light Blue; 440=Light Green; 610=Light Camel; 790=Dark Carmine

## NOVA RALLY STRIPE EQUIPMENT

The Exterior Paint and Interior Trim combinations shown below are the only combinations that are available.

### RPO Z26 (MUST BE SPECIFIED)

Exterior Paint Color and Code	Interior Trim								
	Black	Blue	Camel	Carmine	Green	White/Black	White/Blue	White/Carmine	White/Green
Black	19	Red	White	Gold	Red	Gold	Red	White	Red
Blue, Bright (Met)	24	Black	Black	Gold	White	White	White	White	Red
Blue-Green, Dark (Met)	48	Gold	Black	Gold	Gold	Gold	White	White	Gold
Blue, Light (Met)	22	Black	White	Black	Black	Black	White	White	Gold
Camel (Met)	63	Black	Black	Orange	Black	Black	White	White	Gold
Camel, Dark (Met)	69	Orange	Black	Gold	Black	Black	White	White	Gold
Camel, Light	61	Orange	Black	Gold	Black	Black	White	White	Gold
Carmine (Met)	77	Orange	Black	Orange	Red	Red	Orange	Orange	Gold
Green, Light (Met)	44	White	Black	Gold	White	White	White	White	Gold
Red, Light	75	Orange	Black	Orange	White	White	White	White	Gold
Saffron (Met)	67	Orange	Black	Orange	White	White	White	White	Gold
Silver	15	Black	Black	Orange	Black	Black	White	White	Gold
White	11	Black	Black	Gold	Red	Red	Black	Black	Gold
Yellow, Bright	51	Black	Black	Black	Red	Gold	Black	Black	Red
							White	White	Gold

# NOVA

## 1978 VEHICLES WITH STANDARD EQUIPMENT

Prices shown are effective with vehicles produced on or after May 1, 1978

Description	Model Number	Body Code	Wheel-base	Dealer Invoice Amount*	Dealer Price	Factory D&H†	List Price	Mfr's Spt'd Retail Price★	Destination Charge & Group Number	Total
<b>◆ 6-Cylinder Engine</b>										
<b>Nova</b>										
Hatchback Coupe . . . . .	<b>1XX17</b>	—	111"					3901.60	7.....	.....
2-Door Coupe . . . . .	<b>1XX27</b>	—	111"					3738.30	7.....	.....
4-Door Sedan . . . . .	<b>1XX69</b>	—	111"					3823.30	7.....	.....
<b>Nova Custom</b>										
2-Door Custom Coupe . . . . .	<b>1XY27</b>	—	111"					3990.30	7.....	.....
Custom 4-Door Sedan . . . . .	<b>1XY69</b>	—	111"					4075.30	7.....	.....

★ Manufacturer's Suggested Retail Prices do not include applicable destination charges, state and local taxes, license fees, options or accessories.  
 ◆ Refer to Dealer Order Guide for California Requirements.

### OPTIONS AND ACCESSORIES WHEN INSTALLED BY CHEVROLET

Prices shown are effective with vehicles produced on or after May 1, 1978

Description	Option Number	Dealer Invoice Amount*	Dealer Price	Factory D&H†	List Price	Mfr's Suggested Retail Price(‡)
<b>REFER TO DEALER ORDER GUIDE FOR OPTION AVAILABILITY AND APPLICATION</b>						
<b>Interior Trim:</b>						
V**1 Vinyl Bench Seat . . . . .					NO ADDITIONAL CHARGE	21.00
J**1 Sport Cloth Bench Seat . . . . .						21.00
S**1 Custom Sport Cloth Bench Seat . . . . .						
X**1 Custom Vinyl Bench Seat . . . . .					NO ADDITIONAL CHARGE	110.00
X**2 Custom Vinyl Bucket Seats . . . . .						
<b>Exterior Color:</b>						
<i>Paint.</i>						
Solid . . . . .					NO ADDITIONAL CHARGE	46.00
Two-Tone. Includes bright metal outline moldings . . . . .						
<i>Roof Covers.</i>						
Vinyl. Includes bright roof drip moldings . . . . .						97.00
Cabriolet . . . . .	A88					179.00
<b>Engines:</b> (Refer to Dealer Order Guide for Emission System Requirements)						
250 Cu. In. L6 . . . . .	L22				NO ADDITIONAL CHARGE	200.00
305 Cu. In. V8 . . . . .	LG3					315.00
350 Cu. In. V8 . . . . .	LM1					
<b>Air Conditioning:</b> <i>Four-Season.</i> Includes 55-amp generator and increased cooling.						
Without V8 engine. Also includes V01 radiator . . . . .	C60					549.00
With V8 engine . . . . .	C60					518.00
<b>Axles, Rear:</b>						
Performance Ratio . . . . .	G92					15.00
Positraction . . . . .	G80					59.00
Battery, Heavy-Duty . . . . .	UA1					18.00
<b>Belts, Deluxe:</b> <i>Color-Keyed Seat and Shoulder.</i> Includes plastic buckles. (Standard belts and plastic buckles are black). Replacing standard number of belts.						
Coupes and Sedans with bench seat—6 seat and 2 front shoulder . . . . .	AK1					22.00
Coupes with bucket seats—5 seat and 2 front shoulder . . . . .	AK1					20.00
Brakes, Power . . . . .	J50					71.00
<b>Bumper Equipment:</b> <i>Bumper Rub Strips and Guards.</i> Front and Rear. Includes black resilient impact strips . . . . .						
	V30					75.00
Clock, Electric: Included with U14 instrumentation . . . . .	U35					21.00
Console . . . . .	D55					80.00
Defogger, Rear Window: <i>Forced-Air.</i> . . . . .	C50					53.00

\* Dealer Invoice Amount includes Holdback Amount retained for dealer's account in accordance with Vehicle Terms of Sale Bulletin.  
 † D&H amounts reflect provision for pass through of tire weight tax imposed on manufacturer or importer of tires.  
 ‡ State and local taxes not included.

# NOVA

## OPTIONS AND ACCESSORIES WHEN INSTALLED BY CHEVROLET

Prices shown are effective with vehicles produced on or after May 1, 1978

Description	Option Number	Dealer Invoice Amount*	Dealer Price	Factory D&H <sup>†</sup>	List Price	Mfr's Suggested Retail Price◇
<b>REFER TO DEALER ORDER GUIDE FOR OPTION AVAILABILITY AND APPLICATION</b>						
<b>Door Lock System, Power: Electric</b>						
Coupe .....	AU3					77.00
Sedan .....	AU3					107.00
<b>Econominder Gage Package:</b> Includes econominder, voltmeter and temperature gages .....	UF7					50.00
<b>Emission Systems:</b>						
<i>California Emission Requirements.</i> Includes all testing, equipment and /or certification necessary for registration in the State of California .....	YF5					75.00
<i>High Altitude Emission Equipment</i> .....	NA6					33.00
<i>Standard Emission Equipment</i> .....	NA2			NO ADDITIONAL CHARGE		
<b>Floor Covering: Mats, Color-Keyed Floor.</b> 2 front and 2 rear .....	B37					22.00
<b>Glass, Soft-Ray Tinted: All Windows</b> .....	A01					59.00
<b>Horns, Dual</b> .....	U05					7.00
<b>Instrumentation: Special.</b> Includes U35 clock; tachometer, voltmeter and temperature gages located in instrument panel .....	U14					107.00
<b>Interior Decor Package:</b> Standard on Nova Custom. Includes D31 mirror, cigarette lighter, glove compartment light, right front door jamb dome light switch and additional bright framing on instrument cluster .....	ZJ3					29.00
<b>Lighting, Auxiliary:</b>						
(A) Ashtray Light						
(B) Courtesy Lights						
(C) Glove Compartment Light						
(D) Luggage Compartment Light						
(E) Underhood Light						
(F) Headlight Warning Buzzer						
(G) Front Door Jamb Switch						
(H) Rear Door Jamb Switches						
(I) Rear Compartment Light Switch						
Hatchback Coupe without ZJ3 Interior Decor Package. Includes A, B, C, E, F, G & I .....	ZJ9					39.00
Hatchback Coupe with ZJ3 Interior Decor Package. Includes A, B, E, F & I .....	ZJ9					28.00
2-Door Coupe without ZJ3 Interior Decor Package or Custom Interior. Includes A, B, C, D, E, F & G .....	ZJ9					39.00
2-Door Coupe with ZJ3 Interior Decor Package or Custom Interior. Includes A, B, D, E & F .....	ZJ9					28.00
4-Door Sedan without ZJ3 Interior Decor Package or Custom Interior. Includes A, B, C, D, E, F, G & H .....	ZJ9					44.00
4-Door Sedan with ZJ3 Interior Decor Package or Custom Interior. Includes A, B, D, E, F & H .....	ZJ9					33.00
<b>Mirrors:</b>						
<i>Inside Rearview, Day-Night.</i> Included with ZJ3 Interior Decor Package .....	D31					9.00
<i>Outside Rearview, LH Remote</i> .....	D33					18.00
<i>Sport, LH Remote and RH Manual</i> .....	D35					35.00
<b>Moldings:</b>						
<i>Body Side.</i> Includes black vinyl insert .....	B84					42.00
<i>Body Side, Deluxe</i> .....	BW2					53.00
<i>Bright Rocker and Extension</i> .....	B51					37.00
<i>Door Edge Guard:</i>						
Coupes .....	B93					13.00
Sedans .....	B93					20.00
<i>Roof Drip.</i> Included with vinyl roof .....	B80					18.00
<i>Side Window Reveal</i> .....	B90					41.00
<i>Wheel Opening</i> .....	B96					21.00
<i>Wide Wheel Opening</i> .....	B74					39.00
<b>Radiator, Heavy-Duty:</b> Included with C60 air conditioning with L22 250 Cu. In. engine .....	VO1					31.00

\* Dealer Invoice Amount includes Holdback Amount retained for dealer's account in accordance with Vehicle Terms of Sale Bulletin.  
<sup>†</sup> D&H amounts reflect provision for pass through of tire weight tax imposed on manufacturer or importer of tires.  
◇ State and local taxes not included.

# NOVA

## OPTIONS AND ACCESSORIES WHEN INSTALLED BY CHEVROLET

Prices shown are effective with vehicles produced on or after May 1, 1978

Description	Option Number	Dealer Invoice Amount*	Dealer Price	Factory D&H <sup>§</sup>	List Price	Mfr's Suggested Retail Price <sup>◇</sup>
<b>REFER TO DEALER ORDER GUIDE FOR OPTION AVAILABILITY AND APPLICATION</b>						
<b>Radio Equipment:</b>						
AM Radio.....	U63					77.00
AM /FM Radio.....	U69					149.00
AM /FM Stereo Radio.....	U58					229.00
Stereo Tape System with AM Radio.....	UM1					229.00
Stereo Tape System with AM /FM Stereo Radio.....	UM2					328.00
Speaker, Rear Seat.....	U80					24.00
Windshield Antenna. Included with radio.....	U76					25.00
<b>Rally Equipment, Nova:</b> Includes lower body side and over wheel opening striping, chromed diamond pattern grille, parking lamp accent, black painted headlamp bezels, Nova Rally nameplates, 14" x 6" or 14" x 7" rally wheels painted to match body /striping color with bright center hubs and wheel trim rings. Also includes rear end panel striping on 1XX17 and 1XX27 models.....						
	Z26					202.00
<b>Speed Control: Cruise-Master.....</b>	K30					95.00
<b>Steering, Power.....</b>	N41					155.00
<b>Steering Wheel: Comfortilt.....</b>	N33					72.00
<b>Stowaway Spare: Standard on Hatchback Coupe.....</b>	N65					17.30
<b>Striping, Pin: Body Side.....</b>	D85					30.00
<b>Suspensions:</b>						
<i>Heavy-Duty Front and Rear.</i> Includes special front stabilizer, front and rear springs and matching rear shock absorbers.						
Without V8 engine						
Without N41 steering or steel belted radial ply tires .	F40					33.00
With N41 steering or steel belted radial ply tires . . . .	F40					9.00
With V8 engine . . . . .	F40					9.00
<i>Sport.</i> Includes rear stabilizer, special front stabilizer, special front and rear shock absorbers and 14" x 7" wheels. . . . .						
	F41					41.00
<b>Tires:</b>						
E78-14 /B Bias Belted Ply Blackwall (Standard) . . . . .	QEG				NO ADDITIONAL CHARGE	
E78-14 /B Bias Belted Ply White Stripe						
2-Door Coupe and Sedan						
Without N65 stowaway spare . . . . .	QEH					44.00
With N65 stowaway spare. . . . .	QEH					36.00
Hatchback Coupe. . . . .	QEH					36.00
FR78-14 /B Steel Belted Radial Ply Blackwall						
2-Door Coupe or Sedan						
Without N65 stowaway spare . . . . .	QDV					112.95
With N65 stowaway spare. . . . .	QDV					90.65
Hatchback Coupe. . . . .	QDV					90.65
FR78-14 /B Steel Belted Radial Ply White Stripe						
2-Door Coupe and Sedan						
Without N65 stowaway spare . . . . .	QDW					158.95
With N65 stowaway spare. . . . .	QDW					127.65
Hatchback Coupe. . . . .	QDW					127.65
FR78-14 /B Steel Belted Radial Ply White Lettered						
2-Door Coupe and Sedan						
Without N65 stowaway spare . . . . .	QBT					173.95
With N65 stowaway spare. . . . .	QBT					139.65
Hatchback Coupe. . . . .	QBT					139.65
<b>Transmissions:</b>						
3-Speed Manual. . . . .	MM3				NO ADDITIONAL CHARGE	
4-Speed Manual. . . . .	MM4					125.00
Automatic. . . . .	MX1					318.00
<b>Wheel Trim:</b>						
Wheel Covers, Full. . . . .	P01					39.00
Wheel Covers, Wire. . . . .	N95					124.00
Wheels, Rally. Includes special wheels and center caps, bright lug nuts . . . . .	ZJ7					72.00
Wheels, Color-Keyed Rally. Includes special wheels and center caps, bright lug nuts. . . . .	ZN5					85.00

\* Dealer Invoice Amount includes Holdback Amount retained for dealer's account in accordance with Vehicle Terms of Sale Bulletin.  
<sup>§</sup> D&H amounts reflect provision for pass through of tire weight tax imposed on manufacturer or importer of tires.  
<sup>◇</sup> State and local taxes not included.





# 1978



## Specifications Form

## Passenger Car

<b>Manufacturer</b> CHEVROLET MOTOR DIVISION GENERAL MOTORS CORPORATION	<b>Car Line</b>  NOVA	
<b>Mailing Address</b> CHEVROLET ENGINEERING CENTER 30003 VAN DYKE WARREN, MICHIGAN 48090	<b>Model Year</b>  1978	<b>ISSUED:</b> October, 1977 <b>Revised (e)</b> February, 1978

Pages Revised: 2,11,18,19,27,29, 10.

The information contained herein is prepared, distributed by, and is solely the responsibility of the automobile manufacturing company to whose products it relates. Questions concerning these specifications should be directed to the manufacturer whose address is shown above. This specification form was developed by automobile manufacturing companies under the auspices of the Motor Vehicle Manufacturers Association of the United States, Inc.

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

# MVMA Specifications Form

## Passenger Car

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#### NOTES

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

**MVMA Specifications Form  
Passenger Car**

Car Line Nova  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

**Car Models**

Model Description (Include Line Drawings of Vehicles, if Desired)	Make, Car line, Series, Body Type (Mfr's Model Code)	No. of Designated Seating Positions (Front/Rear)		Max. Trunk/Cargo Load (Pounds)
		MODEL NUMBERS	FRONT	REAR
<b>NOVA</b>				
2-Door Hatchback Coupe	1XX17	3	3	
2-Door Coupe	1XX27	3	3	
4-Door Sedan	1XX69	3	3	
<b>NOVA CUSTOM</b>				
2-Door Coupe	1XY27	3	3	
4-Door Sedan	1XY69	3	3	

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

# MVMA Specifications Form Passenger Car

Car Line Nova  
 Model Year 1978 Issued 10-77 Revised (e) 2/78

## Car and Body Dimensions See Key Sheets, for definitions.

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for all base body models of each car line.  
 SAE Ref. No. refers to the definition published in SAE Recommended Practice.  
 J1100a "Motor Vehicle Dimensions," unless otherwise specified.

SAE Ref. No.	Body Type		
	2-Door Hatchback Coupe	2-Door Coupe	4-Door Sedan

### Width

Tread - Front	W101		61.3
Tread - Rear	W102		59.0
Vehicle width	W103		72.2
Body width at Sq RP - front	W117	-----	70.7
Vehicle width front doors open	W120	144.8	127.7
Vehicle width rear doors open	W121	-----	126.5

### Length

Wheelbase	L101		111.0
Vehicle length	L103		196.7
Overhang - front	L104		33.9
Overhang - rear	L105		51.8
Upper structure length	L123	101.0	96.8
Rear wheel C/L "X" coordinate	L127		93.0
Cowl point "X" coordinate	L125		10.0

### Height\*

Passenger Distribution (front/rear)	PD1 2,3		2-3
Trunk-Cargo load (lbs)			0
Vehicle height	H101	52.7	53.6
Cowl point to ground	H114		36.2
Deck point to ground	H138		
Rocker panel - front	H112		8.1
		To ground	
		From front wheel C/L	
Bottom of door closed-front to grd.	H133	11.2	11.3
Rocker panel - rear	H111		7.2
		To ground	
		From rear wheel C/L	
Bottom of door closed-rear to grd	H135	--	10.3
Windshield slope angle	H122		53.5°

### Ground Clearance\*

Front bumper to ground	H102		12.2
Rear bumper to ground	H104		11.0
Bumper to grd - front @ curb wt	H103		13.0
Bumper to grd - rear @ curb wt.	H109		14.4
Angle of approach	H106		23°39'
Angle of departure	H107		13°13'
Ramp breakover angle	H147		13°24'
Rear axle differential to ground	H153		6.6
● Min. running ground clearance	H156		4.6
● Location of min. run. grd. clear.			Frame to ground

\*All vehicle height and ground clearances are made at the manufacturer's Design Load Weight, unless otherwise specified.

● Min. running ground clearance is defined with indicated passenger distribution and trunk/cargo load.

# MVMA Specifications Form Passenger Car

Car Line NOVA  
Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

## Car And Body Dimensions See Key Sheets, Pgs. 30-33

SAE Ref. No.	Body Type		
	2-Door Hatchback Coupe	2-Door Coupe	4-Door Sedan

### Front Compartment

H Point to body "O" line	L31	42.6	
Effective head room	H61	38.2	39.1
Effective T Point head room	H75	38.4	39.3
Max. eff. leg room - accelerator	L34	41.7	
H Point to Heel point	H30	7.3	
H Point travel	L17	4.7	
Shoulder room	W3	56.6	
Hip room	W5	53.3	
Upper body opening to ground	H50	48.2	49.1
Steering Wheel Angle Vertical	H-18	22°	
Back Angle Front	L-40	26.5°	

### Rear Compartment

H Point couple distance	L50	30.8	32.7
Effective head room	H63	36.7	37.1
Effective T Point head room	H76	36.5	36.8
Min. effective leg room	L51	32.4	35.2
H Point to Heel point	H31	10.5	11.6
Min. knee room	L48	-0.7	0.4
Rear Compartment room	L3	24.2	25.4
Shoulder room	W4	55.3	56.7
Hip room	W6	52.8	53.6
Upper body opening to ground	H51	----	48.1

### Luggage Compartment

Usable luggage capacity (cu. ft.) (a)	V1	----	13.4	13.0
Liftover height	H195	27.4		
Position of spare tire storage	Horizontal-Center Forward area of trunk floor (b)			
Method of holding lid open	Torsion Rods (c)			

- (a) Corporation "H" (shoe box) method of measurement is used.  
 (b) Hatchback Coupe, Horizontal - under cargo floor.  
 (c) Hatchback Coupe, Hydropneumatic telescopic tubes.

# MVMA Specifications Form Passenger Car

Car Line Nova  
Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

## Car And Body Dimensions See Key Sheets for definitions

### Body Type

SAE Ref. No.	2-Door Hatchback Coupe
--------------------	---------------------------

### Station Wagon — Third Seat

Shoulder Room	W85	
Hip room	W86	
Effective leg room	L86	NOT APPLICABLE
Effective head room	H86	
Effective T Point head room	H89	
Seat facing direction	SD1	

### Station Wagon — Cargo Space

Cargo length - open - front	L200	
Cargo length - open - second	L201	
Cargo length - closed - front	L202	
Cargo length - closed - second	L203	
Cargo length at belt - front	L204	
Cargo length at belt - second	L205	
Cargo width - wheelhouse	W201	
Rear opening width at floor	W203	NOT APPLICABLE
Opening width at belt	W204	
Max. rear opening width above belt	W205	
Cargo height	H201	
Rear opening height	H202	
Tail gate to ground height (curb wt.)	H250	
Front seat back to load floor height	H197	
Cargo volume index (cu. ft.)	V2	
Hidden cargo volume (cu. ft.)	V4	

### Hatchback — Cargo Space

Front seat back to load floor height	H197	14.4
Cargo length at front seat		
Back Height	L208	49.7
Cargo length at floor - front	L209	76.6
Cargo volume index (cu. ft.)	V3	29.2
Hidden cargo volume (cu. ft.)	V4	---

A printed or computer tape supplement containing additional car and body dimensions and/or drawings (based in part on SAE J1100a "Motor Vehicle Dimensions") may be available from the manufacturer.

# MVMA Specifications Form Passenger Car

Car Line NOVA  
Model Year 1978 Issued 10-77 Revised (e) \_\_\_\_\_

## Power Teams (Indicate whether standard or optional)

SAE Net bhp (brake horsepower) and net torque corrected to 85° F and 29.38 in. Hg atmospheric pressure.

SERIES # AVAILABILITY	ENGINE (1)						TRANSMISSION	AXLE RATIO (:1) (Std. first) (Indicate A/C ratio)											
	Displ. cu. in.	Ccarb.	Compr. Ratio	SAE Net @ RPM		Exhaust System*		(A)	(B)	(C)									
				BHP	Torque														
BASE - ALL STATES ALL MODELS	250 L6 (L22)	1BBL	8.1:1	110	190	S	3-spd Manual (3.50 low)-Base (N.A. in Calif)	2.73	----	----									
				@ 3800	@ 1600		3-spd Automatic (optional)	2.73	----	----									
OPTIONAL - ALL STATES ALL MODELS	305 V8 (LG3)	2BBL	8.4:1	145	245	S	4-Spd Manual (2.85 low)-Base (N.A. in Calif)	3.08	----	----									
				@ 3800	@ 2400		3-Spd Automatic (Optional)	2.41	3.08*										
OPTIONAL - ALL STATES (D) ALL MODELS	350 V8 (LM1)	4BBL	8.2:1	160	260	S	3-Spd Automatic (Optional)	2.41(E)----		3.08									
<p># - "Base" and "Optional" refer to engine availability.            (A) - Base All States            (B) - Optional except California.            (C) - Above 4000 feet altitude and Calif.            (D) - States above 4000 feet altitude and California.            (E) - California only.            Positraction and air conditioning available with all axle ratios.            * - NA in California            (1) California and altitudes above 4000 Feet:-</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: left;"><u>Engine</u></td> <td style="text-align: center;"><u>H.P.</u></td> <td style="text-align: center;"><u>Torque</u></td> </tr> <tr> <td>250 CID</td> <td style="text-align: center;">90@ 3600</td> <td style="text-align: center;">175@ 1600</td> </tr> <tr> <td>305 CID</td> <td style="text-align: center;">135@ 3800</td> <td style="text-align: center;">240@ 2000</td> </tr> </table>											<u>Engine</u>	<u>H.P.</u>	<u>Torque</u>	250 CID	90@ 3600	175@ 1600	305 CID	135@ 3800	240@ 2000
<u>Engine</u>	<u>H.P.</u>	<u>Torque</u>																	
250 CID	90@ 3600	175@ 1600																	
305 CID	135@ 3800	240@ 2000																	

\*S - Single D - Dual



# MVMA Specifications Form Passenger Car

Car Line Nova  
Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

Engine Description/Carb.	L6-250 CID/1-Bb1 RPO L22	V8-305 CID/2-Bb1 RPO LG3	V8-350 CID/4-Bb1 RPO LM1
--------------------------	-----------------------------	-----------------------------	-----------------------------

## Engine — General

Type (inline, V, Flat)	In-line		90° 'V'
Total dressed engine w/ dry *	522	624.3	565
No. of cylinders	6		8
Bore	3.875	3.736	4.00
Stroke	3.53		3.48
Piston Displacement cu. in.	250	305	350
Bore spacing (C/L to C/L)	4.40		
Cyl. No. system (front to rear)	L Bank	1-2-3-4-5-6	1-3-5-7
	R Bank	---	2-4-6-8
Firing Order	1-5-3-6-2-4		1-8-4-3-6-5-7-2
Cylinder Head Material	Cast Alloy iron		
Cylinder Block Material	Cast Alloy iron		
Cylinder block deck height	9.15		9.03
Number of mtg points	Front	Two	
	Rear	One	
Engine installation angle	3°16'		
Recommended fuel leaded, unleaded	Unleaded		
Fuel antiknock index (R+M) 2	91 Octane		
Cylinder Head Volume (cm <sup>3</sup> )	70.0	60.52	75.47
Head Gasket Thickness (Compressed); CM*RV? 3*Et 2)	.038		.021
Head Gasket Volume (cm <sup>3</sup> )	8.14	3.98	4.59
Deck Clearance (minimum) (above or below block)	.025 below		
Minimum Combustion Chamber Volume (cm <sup>3</sup> )	68.0	59.5	74.5

## Engine — Pistons

Material	Cast Aluminum Alloy		
Description and finish	Sump head; closed, slipper skirt		
Weight (piston only) oz.	20.24	20.80	21.33
Clearance (limits)	Top land	.0245-.0335	.0245-.0335
	Skirt	Top	.0005-.0015(a)
		Bottom	.0017-.0042 (b)
Ring groove diameter	No. 1 ring	3.434-3.444	3.541-3.556
	No. 2 ring	3.434-3.444	3.541-3.556
	No. 3 ring	3.446-3.456	3.577-3.592

(a) Measured 1.66 from top of piston.

\*Dressed engine weight includes the following:

Material required to make the engine an independent working power unit less radiator hoses, coolant, acceleration controls or engine mountings.

(b) Measured 1.56 from top of piston.

# MVMA Specifications Form Passenger Car

Car Line **NOVA**  
 Model Year **1978** Issued **10-77** Revised (e)

Engine Displacement		
L6 - 250 CID/1-Bb1 RPO L22	V8 - 305 CID/2-Bb1 RPO LG3	V8 - 350 CID/4-Bb1 RPO LM1

## Engine - Piston Rings

Function (top to bottom)	No. 1. oil or comp.	Compression			
	No. 2. oil or comp.	Compression			
	No. 3. oil or comp.	Oil			
Compression	Description - material, coating, etc.	Upper	(*Cast Alloy Iron, .0004" minimum chrome (A))		
		Lower	Cast Alloy Iron, Reverse twist tapered face, lubricated		
	Width	(b)	(c)	(d)	
	Gap	.010 - .020		Upper - .010-.020	Lower - .010 -.025
Oil	Description - material, coating, etc.	Multi-piece (2 rails and one space expander) Rails - Steel; chrome plated O.D., expander - stainless steel			
	Width	.1850-.1870	.1859-.1879	.1850-.1870	
	Gap	.015-.055	.010-.035	.010-.055	
	Expanders	In Oil Ring Assembly			

## Engine - Piston Pins

Material	Chromium Steel			
Length	2.990 - 3.010			
Diameter	.9270 - .9273			
Type	Locked in rod, in piston, floating, etc.	Locked in rod		
	Bushing	In rod or piston	None	
		Material	--	
Clearance	In piston	.00015-.00025	.00025-.00035	
	In rod			
Direction & amount offset in piston	Major thrust side, .060			

## Engine - Connecting Rods

Material	Deep Forged Steel			
Weight (oz.)	14.24	13.70		
Length (center to center)	5.695 - .5.705			
Bearing	Material & Type	Premium Aluminum		
	Overall length	.807	.797	
	Clearance (limits)	.0007-.0027	.0013-.0035	
	End Play	.007-.016	.006-.016	

- (A) L6 - Radius face; 305 & 350 V8 - barrel face.
- (b) Upper - .0775 - .0780; lower - .0770 - .0780
- (c) Upper - .0770 - .0780; lower - .0770 - .0775
- (d) Upper - .0775 - .0780; lower - .0770 - .0775
- (\*) L6 - 250 CID - .004" moly channel, graphite

# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

### Engine Displacement

L6 - 250 CID/1-Bb1 RPO L22	V8 - 305 CID/2-B RPO LG3	V8 - 350 CID/4-Bb1 RPO LM1
-------------------------------	-----------------------------	-------------------------------

## Engine—Crankshaft

Material		Cast Nodular Iron		
Vibration damper type		Rubber Mounted Inertia		
End thrust taken by bearing (No.)		7	5	
Crankshaft end play		.002-.006	.002-.007	
Main bearing	Material & type	(A)	(B)	
	Clearance	.0003-.0029	(C)	
	Journal dia and bearing overall length	No 1	2.2999 x .752	2.4502 x .752
		No 2	2.2999 x .752	2.4502 x .752
		No 3	2.2999 x .752	2.4502 x .752
		No 4	2.2999 x .752	2.4502 x .752
		No 5	2.2999 x .752	2.4508 x 1.180
		No 6	2.2999 x .752	-----
No 7		2.2999 x .760	-----	
Dir. & amt cyl. offset		None		
No. bolts/main brg cap		Two		
Crankpin journal diameter		1.999-2.000	2.099-2.100	

## Engine—Camshaft

Location		(D)	In block above crankshaft	
Material		Cast Alloy Iron		
Bearings	Material	Steel Backed Babbitt		
	Number	4	5	
Type of Drive	Gear or chain	Gear	Chain	
	Crankshaft gear or sprocket material	Cast Iron	Sintered Iron	
	Camshaft gear or sprocket material	Aluminum Alloy	Nylon Teeth with Aluminum Head	
	Timing chain	No. of links	--	46
		Width	--	.625
Pitch		--	.500	

- (A) #1 thru #6 and #7 lower (auto. trans.) - premium aluminum.  
 #7 upper (auto. trans.) and #7 upper and lower (man. trans.) - copper lead alloy.
- (B) #1 thru #4 and #5 lower (auto. trans.) - premium aluminum.  
 #5 upper (auto. trans.) and #5 upper and lower (man. trans.) - copper lead alloy.
- (C) #1 - .0008 - .0020.  
 #2,3,4, - .0011 - .0023  
 #5 - .0017 - .0033
- (D) Above and to right of crankshaft.

# MVMA Specifications Form Passenger Car

Car Line NOVA  
Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

## Engine Displacement

L6 - 250 CID/1-Bb RPO L22	V8 - 305 CID/2-B1 RPO LG3	V8 - 350 CID/4-Bb1 RPO LM1
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## Engine—Valve System

Hydraulic lifters (Std. opt. NA)		Standard				
Valve rotator type (intake, exhaust)		None	Exhaust			
Push rods (dia., length, material) (A)		.3125 x 9.612	.3125 x 7.724			
Rocker ratio		1.75:1	1.50:1			
Operating tappet clearance (indicate hot or cold)	Intake	Zero				
	Exhaust	Zero				
Timing (based on top of ramp points)	Intake	Opens (*BTC)	16	28	28	
		Closes (*ABC)	48	64	72	
		Duration (deg)	244	272	280	
	Exhaust	Opens (*BBC)	64	78	78	
		Closes (*ATC)	50	30	30	
		Duration (deg)	294	288	288	
Valve open overlap (deg)		66	58	58		
Intake	Material		Alloy Steel (Chrome flash stem)			
	Overall length		4.902 - 4.922	4.870 - 4.889		
	Actual overall head dia		1.715 - 1.725	1.935 - 1.945		
	Angle of seat & face (deg)		46 seat, 45 face			
	Seat insert material		None			
	Stem diameter		.3410 - .3417			
	Stem to guide clearance		.0010 - .0027			
	Lift (@ zero lash)		.3880	.3727	.3900	
	Outer spring press & length	Valve closed (lb. @ in.)	78-86 @ 1.66	76-84 @ 1.70		
		Valve open (lb. @ in.)	170-180 @ 1.26	194-206 @ 1.25		
	Inner spring press & length	Valve closed (lb. @ in.)	None	Spring Damper		
		Valve open (lb. @ in.)	None	Spring Damper		
	Exhaust	Material		High Alloy Steel, (Chrome flash stem) (B)		
		Overall length		4.913 - 4.933	4.910 - 4.930	
Actual overall head dia.		1.495 - 1.505				
Angle of seat & face (deg.)		46 seat, 45 face				
Seat insert material		None				
Stem diameter		.3410 - .3417				
Stem to guide clearance		.0010 - .0027				
Lift (@ zero lash)		.4051	.4100			
Outer spring press & length		Valve closed (lb. @ in.)	76-86 @ 1.66	76-84 @ 1.61		
		Valve open (lb. @ in.)	170-180 @ 1.26	194-206 @ 1.16		
Inner spring press & length		Valve closed (lb. @ in.)	None	Spring Damper		
		Valve open (lb. @ in.)	None	Spring Damper		

- (A) Welded steel tubing  
(B) Aluminized Head on 305 and 350 V8

# MVMA Specifications Form Passenger Car

Car Line Nova  
 Model Year 1978 Issued 10-77 Revised (●) 2-78

## Engine Description/Carb.

250 CID L6/1-Bb1 RPO L22	305 CID V8/2-Bb1 RPO LG3	350 CID V8/4-Bb1 RPO LM1
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## Engine — Lubrication System

Type of lubrication (splash, pressure, nozzle)	Main bearings	Pressure		
	Connecting rods	Pressure		
	Piston pins	Splash		
	Camshaft bearings	Pressure		
	Tappets	Pressure		
	Timing gear or chain	Nozzle	Centrifugally oiled from camshaft bearing	
	Cylinder walls	Splash	Pressure, jet cross sprayed	
Oil pump type	Gear			
Normal oil pressure (lb @ engine rpm)	36-41 @ 2000	32-40 @ 2000		
Type oil intake (floating, stationary)	Stationary			
Oil filter system (full flow, part., other)	Full Flow			
Capacity of oil case, less filter-refill (qt.)	4.0			
Oil grade recommended (SAE viscosity and temperature range)	20°F & above - 20W-20, 10W-30, 10W-40, 20W-40, 20W-50; 0-60°F - 10W, 5W-30, 10W-40, 10W-30; Below 20°F - 5W-20, 5W-30			
Engine service reqmt. (SD, SE, etc.)	SE			

## Engine — Exhaust system

Type (single, single with cross-over, dual, other)	Single with Converter	Single with crossover and converter	
Muffler No. & type (reverse flow, straight thru, separate resonator)	One, Reverse flow		
Resonator No. & type	None		
Exhaust Pipe	Branch O. D., wall thickness	---	2.0x .078*
	Main O. D., wall thickness	2.25x .078*	2.5x .078
	Material	Stainless steel (*-Laminated)	
Inter-mediate Pipe	O. D. & wall thickness	2.25x.071	
	Material	Aluminized steel tubing	
Tail Pipe	O.D. & wall thickness	2.00x .056	
	Material	Aluminized steel tubing (a)	

(a) Single exhaust with dual tailpipes on 305 and 350 V8 engines.

# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (●) 2/78

### Engine Displacement

L6 - 250 CID/1-Bb1 RPO L22	V8 - 305 CID/2-b RPO LG3	V8 - 350 CID/4-Bb1 RPO LM1
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### Engine — Fuel System

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

Induction type: Carburetor, fuel injection, supercharger		Carburetor	
Fuel Tank	Refill capacity (U. S. gals.)	Approximately 21	
	Filter location	To rear of hinged license plate	
Fuel Pump	Type (elec. or mech.)	Mechanical	
	Locations	Lower right front of engine	
	Pressure range	4.5-6.0	7.5 - 9.0
Vacuum booster (std. optional, none)		None	
Fuel Filter	Type	Fine mesh plastic strainer gasoline tank and paper filter	
	Locations	element in carburetor inlet	
Carburetor	Choke type	Automatic	
	Intake manifold heat control (exhaust or water)	Exhaust	
	Air cleaner type	Standard	Ducted air, closed paper element, single snorkel
		Optional	
	Idle speed (spec. neutral or drive)	Manual	800/N
Automatic		550(600)D	500/D
Idle A/F mix.			---
			600/D

### Carburetor Supplementary Information

Model Usage	Piston Displ.	Transmission	Carburetors		No. Used and Type	Barrel Size
			Make	Model		
A11	250	MANUAL	Rochester	17058013	One ;	1.69
		AUTOMATIC		17058014 (17058314)		
A11	305	MANUAL	Rochester	17058313	One;	1.69
		AUTOMATIC		17058108 (17058408)		
A11	350	AUTOMATIC	Rochester	17058202 (17058502)	One 4-bb1	1.38 Pri 2.25 sec.

Data in brackets ( ) specific to California.

# MVMA Specifications Form Passenger Car

Car Line Noya  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

**Engine Description/Carb.**

250 CID L6/1-Bb1 RPO L22	305 CID V8/2-Bb1 RPO LG3	350 CID V8/4-Bb1 RPO LM1
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**Engine — Cooling System**

Coolant recovery system (std., opt., none)		Standard	
Radiator cap relief valve pressure		15 PSI	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open at (°F)	192-198	
Water pump	Type (centrifugal, other)	Centrifugal	
	GPM 1000 pump rpm	21.0	22.7
	Number of pumps	One	
	Drive (V-belt, other)	V-belt	
	Bearing type	Permanently lubricated double row ball	
By-pass recirculation type (inter., ext.)		Internal	
Radiator core type (cross-flow, vertical, cellular, tube and fin, other)		Cross flow, tube & center	
Cooling system capacity	With heater (qt.)	13.6	16.0
	Without heater (qt.)		16.1
	Opt. equipment-specify (qt.)		
Water jackets full length of cyl (yes, no)		Yes	
Water all around cylinder (yes, no)		Yes	
Radiator hose	Lower	Number and type (molded, straight)	One, molded
		Inside diameter	1.75
	Upper	Number and type (molded, straight)	One, molded
		Inside diameter	1.50
	By-pass	Number and type (molded, straight)	None
		Inside diameter	---
Radiator	Standard	Width	20.80
		Height	16.97
		Thickness	1.24
	A/C	Width	26.30
		Height	16.97
		Thickness	1.24
	Heavy duty	Width	26.30
		Height	16.97
		Thickness	1.24
Fan (Standard)	Number of blades & spacing	4, staggered	7, staggered
	Diameter	17.62	18.0
	Ratio-fan to crankshaft rev.	1.165:1	.949:1
	Fan cutout type	None	
Fan (Optional)	No. of blades and spacing	7, staggered	
	Diameter	18.0	19.0
	Ratio - fan to crankshaft rev	1.165:1	.949:1
	Fan cut-out type	Thermo-modulated viscous type (a)	

(a) 250 & 350 CID engines only - N.A. with 305 CID V8

# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (e)

Engine Displacement

L6-250, V8-305 & 350 - All states <del>except Calif.</del>	L6-250, V8-305 & 350 All states above 4000 ft and California
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## Vehicle Emission Control

Type (Air injection, engine modifications, other)		Engine Modifications	Manifold Air Injection
Air Injection Pump	Type		Semi-Articulated
	Displacement		19.3 cu. in
	Drive ratio		1.15:1 (L6); 1.33:1 (V8)
	Drive type		Crankshaft Pulley
	Relief valve (type)		Diverter Valve
	Filter (describe)		Centrifugal Air Cleaner
Air Injection System	Air distribution (head, manifold, etc.)	CONTROLLED COMBUSTION SYSTEM	Exhaust Pipe
	Point of entry		Exhaust Pipe
	Injection tube i.d.		.2700
	Check valve type		Pressure Plate System
	Backfire protection (type)		Diverter Valve
Exhaust Emission Control Exhaust Gas Recirculation System	Type (controlled flow, open orifice, other)		Controlled Flow
	Valve type		Vacuum modulated shut-off and metering valve
	Valve location		L-6 - left front; V-8 - right rear of manifold
	Control energy source		Carburetor vacuum
	Exhaust source		Manifold exhaust crossover
	Exhaust cooler type		None
	Orifice no. and size		One, .030"
Catalytic Converter System	Catalyst	Type	Platinum - palladium
		Volume	260 cu. in.
	Substrate type		Alumina
	Container location		Beneath right front under body; also, monolith manifold converter of 54.9 cu. in. for L6 - Calif. only.
Other	Carburetor Hot Air		Thermostatically controlled air cleaner regulates and mixes heated with incoming cold air to reduce hydrocarbon emission.



**MVMA Specifications Form  
Passenger Car**

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

**Engine Displacement**

L-6-250 CID/1-Bb1 RPO L22	V-8-305 CID/2-Bb1 RPO LG3	V-8-350 CID/4-Bb1 RPO LMT
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**Vehicle Emission Control (Continued)**

Crankcase Emission Control	Type (ventilates to atmos., induction system, other)	Standard	Induction System	
		Optional		
	Control Unit	Make and model	A. C. Spark Plug	
		Location	Rocker Cover - L-6 Top Rear; V-8 - Left Front	
		Energy source (manifold vacuum, carburetor, other)	Manifold Vacuum	
		Control method (variable orifice, fixed orifice, other)	Variable Orifice	
Complete System	Discharges (to intake manifold, other)	Intake Manifold		
	Air inlet (breather cap, other)	Carburetor Air Cleaner		
	Flame arrestor (screen, other)	Screen		
Evaporative Emission Control	Fuel Tank	Thermal expansion volume (cu. ft.)	Approximately 10% of Refill Capacity	
		Relief pressure (psi) and location	1.1 PSI	
		Vacuum relief (psi) and location	0.7 PSI	
		Vapor-liquid separator type	Integral with fuel tank	
		Vapor vented to (crankcase, canister, other)	Canister	
	Carbu- retor	Vapor vented to (crankcase, canister, other)	Canister	
	Vapor Storage	Storage provision (crankcase, canister, other)	Canister	
		Volume (cu. ft.) or capacity (grams)	Approximately 50 grams storage capacity.	
		Control valve type	Controlled by orifice and carburetor throttle body and throttle blade position.	

# MVMA Specifications Form Passenger Car

Car Line Nova  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

**Engine Description/Carb.**

250 CID L6/1-Bb1 RPO L22	305 CID V8/2-Bb1 RPO LG3	350 CID V8/4-Bb1 RPO LM1
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**Electrical — Supply System**

Battery	Make and Model	Delco Remy 85-4 'Freedom'	Delco Remy 85-5 'Freedom'	
	Voltage Rtg & Total Plates	12V, 2500 Watts	12V, 3200 Watts	
	SAE Designation No. and/or capacity	60 Min. reserve cap.	80 minute reserve capacity	
	Location	Engine compartment, right front		
Generator or Alternator	Make	Delco Remy		
	Model	1102491	1102394	
	Type and rating	Diode rectified - 37A		
	Output at engine idle (neutral)	12-20A		
	Ratio—Gen. to Cr/s rev.	2.73:1		
Regulator	Make	Delco- Remy		
	Model	---		
	Type	Micro circuit unit integral with distributor		
	Regu- lated	Voltage	13.8-14.8	
		Current		
	Voltage test conditions	Temperature	Operating	
		Load	3-8	
Other		None		

**Electrical — Starting System**

Starting Motor	Make	Delco - Remy			
	Model	1108774	1109056	1109059	
	Engagement type	Positive shift solenoid			
Motor Drive	Pinion engages from (front, rear)	Rear			
	Number of teeth	Pinion	9		
		Flywheel	Manual	153	168
			Auto.	153	168

# MVMA Specifications Form Passenger Car

Car Line **Nova**  
 Model Year **1978** Issued **10-77** Revised (●) \_\_\_\_\_

Engine  
Description/Carb.

250 CID L6/1-Bb1 RPO L22	305 CID V8/2-Bb1 RPO LG3	350 CID V8/4-Bb1 RPO LM1
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## Electrical — Ignition System — Distributor

Distributor	Manual	1110715	1103281	---
	Automatic	1110715 (1110716)	1103282	1103353 (1103285)
Timing	Manual	6°	4°	---
	Automatic	10° (6°)	4° (6°)	6° (8°)

Distributor Model	CENTRIFUGAL ADVANCE Crankshaft Degrees at Engine RPM			VACUUM ADVANCE Crankshaft Deg. at In. of Mercury	
	Start	Intermediate	Maximum	Start	Maximum
1110715	0@1000	7@1600	20@4200	0@4	24@15
1110716	0@1000	7@1600	20@4200	0@4	15@12
1103281	0@1000	10@1700	20@3800	0@4	18@12
1103282	0@1000	10@1700	20@3800	0@4	20@10
1103353	0@1100	12@1600	22@4600	0@4	20@10
1103285	0@1200	12@2000	22@4200	0@4	20@10
Data in brackets specific to the State of California.					

# MVMA Specifications Form Passenger Car

Car Line Nova  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

Engine Description/Carb.

250 CID L6/1-Bb1 RPO L22	305 CID V8/2-Bb1 RPO LG3	350 CID V8/4-Bb1 RPO LM1
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## Electrical—Ignition System

Type	Conventional - Std., Opt., N.A.	---
	Transistorized - Std., Opt., N.A.	---
	Other (specify)	High Energy Ignition System (H.E.I.)
Coil	Make	Delco-Remy
	Model	Integral with distributor cap
	Current	Engine stopped Engine idling
Spark Plug	Make	A.C. Spark Plug
	Model	R46TS   R45TS
	Thread (mm)	14
	Tightening torque (lb ft)	25
	Gap	.035   .045

## Electrical—Suppression

Locations & type	Non metallic high tension ignition cables
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## Electrical—Instruments and Equipment

Speedometer	Type	Inline with pointer
	Trip odometer (std. opt., N.A.)	NA
EGR maintenance indicator		NA
Charge Indicator	Type	Tell-tale
	Warning device	NA
Temperature Indicator	Type	Tell-tale
	Warning device	NA
Oil pressure Indicator	Type	Tell-tale
	Warning device	NA
Fuel Indicator	Type	Electric Gauge
	Warning device	NA
Windshield Wiper	Type - standard	Electric Two-Speed
	Type - optional	Intermittent
	Blade length	15.9"
	Swept area	680.5
Windshield Washer	Type - standard	Pushbutton
	Type - optional	NA
	Fluid level indicator	NA
Horn	Type	Vibrator
	Number used	One
	Current draw (A) per horn	4.5-6.5 @ 12.5 Volts (low note)
Other	Restraint system warning light and buzzer. Brake failure warning light and parking brake light.	

# MVMA Specifications Form Passenger Car

Car Line Nova  
 Model Year 1978 Issued 10-77 Revised (e) 2/78

### Engine Description/Carb.

250 CID L6/1-Bb1 RPO L22	305 CID V8/2-Bb1 RPO LG3
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### Drive Units—Clutch (Manual Transmission)

Make & type	Chevrolet, single dry disc	Chevrolet, single dry disc Centrifugal	
Type pressure plate springs	Diaphragm	Diaphragm, bent finger design	
Total spring load (lb.)	1650-1900	2100-2300	
No. of clutch driven discs	One		
Clutch facing	Material	Woven type asbestos	
	Manufacturer	Chevrolet	
	Part Number	3828054	3927129
	Rivets/Plate	36	40
	Rivet size	.143 x .213	.184 x .208
	Outside & inside dia.	9.12 x 6.12	10.34 x 6.50
	Total eff. area (sq. in.)	71.82	101.58
	Thickness	.135	
Engagement cushioning method	Flat spring steel between facings		
Release bearing	Type & method of lubrication	Single row ball, packed and sealed	
Torsional damping	Methods, springs, friction material	Coil springs	

### Drive Units—Transmissions

Manual 3-speed (std., opt., N.A.)	Standard	N.A.
Manual 4-speed (std., opt., N.A.)	N.A.	Standard
Manual 5-speed (std., opt., N.A.)	NA	
Manual overdrive (std., opt., N.A.)	NA	
Automatic (std., opt., N.A.)	Optional	

### Drive Units — Manual Trans.

Number of forward speeds	3	4		
Transmission ratios	In first	3.50	2.85	
	In second	1.89	2.02	
	In third	1.00	1.35	
	In fourth	--	1.00	
	In fifth	--	--	
	In reverse	3.62	2.85	
Synchronous meshing, specify gears	All forward gears			
Shift lever location	Column	Floor		
Lubricant	Capacity (pt.)	3		
	Type recommended	GL-5 Gear Lubricant		
	SAE viscosity number	Summer	80W or 80W-90	
		Winter	80W or 80W-90	
Extreme cold		80W or 80W-90		

# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (e)

Engine Displacement		
L6 - 250 CID/1-Bb1. RPO L22	V8 - 305 CID/2-Bb1. RPO LG3	V-8 - 350 CID/4-bb1 RPO LM1

## Drive Units—Automatic Transmission

Trade name	3-Speed Automatic		
Type (describe)	Torque Converter with Planetary Gears		
Selector location	Steering Column - Standard; floor mounted - Optional		
Gear Ratios	P	Park	
	R	1.94	
	N	Neutral	
	D	2.52-1.52-1.00	
	L2	2.52-1.52	
	L1	2.52	
	Max. upshift speed - drive range	61-75	73-90
	Max. kickdown speed - drive range	58-72	70-86
Torque Converter	Number of elements	3	
	Max. ratio at stall	2.0	
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	11.75	
Lubricant	Capacity - refill (pt.)	8	
	Type recommended	Dexron II	
Special transmission features			

## Drive Units—Axle

Type (front, rear)	Rear			
Description	Semi-Floating Axle Shaft Overhung Drive Pinion and Ring Gear			
Limited Slip differential, type	Disc Clutches			
Drive Pinion Offset	1.75 Vertical			
No. of differential pinions	Two			
Pinion adjustment (shim, other)	Shim			
Pinion bearing adj. (shim, other)	Collapsible Sleeve			
Wheel bearing type	Direct or single row cylindrical roller			
Lubricant	Capacity (pt.)	3.25 - 7.50" ; 4.0 - 8.50"		
	Type recommended	GL-5 Gear Lubricant		
	SAE viscosity number	Summer	80W or 80W-90	
		Winter	80W or 80W-90	
Extreme cold		80W or 80W-90		

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

Axle ratio	2.41	2.73	3.08	2.73
No. of teeth	Pinion	17	15	13
	Ring gear	41	41	40
Ring Gear O. D.		8.50 (V-8)		7.50 (1-6) 8.50 with L6 also (Manuf. option)

# MVMA Specifications Form Passenger Car

Car Line Nova  
 Model Year 1978 Issued 10-77 Revised (●)

**Engine Description/Carb.**

250 CID L6/1-bb1 RPO L22	305 CID V8/2-bb1 RPO LG3	350 CID V8/4-bb1 RPO LM1
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**Drive Units—Propeller Shaft**

Number used		One	
Type (straight tube, tube-in-tube, internal-external damper, etc.)		Straight tube	
Outer diam. x length* x wall thickness	Manual 3-speed trans.	2.75 x 51.78 x .065 (a)	NA
	Manual 4-speed trans.	NA	2.75x 51.78x .065 NA
	Manual 5-speed trans.	Not Applicable	
	Overdrive	Not Applicable	
	Automatic transmission	2.75 x 51.78 x .075 (a) .065	2.75 x 51.78 x .065
Inter-mediate bearing	Type (plain, anti-friction)	None	
	Lubrication (fitting, prepack)	---	
Slip Yoke	Type	Yoke	
	Number of teeth	27	
	Spline O. D.	1.502-1.503	
Universal joints	Make and Mfg. No.	Chevrolet 1285	Manual Trans.-Chevrolet 1285 Auto. Trans.-Chevrolet 1315
	Number used	Two	
	Type (ball and trunnion, cross)	Cross	
	Rear attach. (u-bolt, clamp, etc.)	Strap & bolt	
	Bearing	Type (plain, anti-friction)	Anti-friction
Lubric. (fitting, prepack)		Pre-pack	
Drive taken through (torque tube or arms, springs)		Leaf springs	
Torque taken through (torque tube or arms, springs)		Leaf springs	

\*Center to center of universal joints, or to centerline of rear attachment.

(a) Length with 8.5 inch ring gear - 53.14" with 7.5 inch ring gear.

# MVMA Specifications Form

## Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

Body Type And/Or Engine Displacement, Etc.

BASE	RALLY
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### Drive Units — Tires And Wheels (Standard)

TIRES	Size, load range, ply		F78-14B (B/W-Std; W/S - Opt)	
	Type (bias, radial, etc.)		Biasbelted	
	Inflation pressure (cold) for recommended max. vehicle load	Front (a)	24	
		Rear (a)	26	
Rev./mile @ 45 mph		797		
WHEELS	Type & material		Short spoke, disc, steel	
	Rim (size & flange type)		14 x 6 (Regular)	14 x 6 Rally
	Wheel offset		0.50	
	Attachment	Type (bolt or stud)	Stud	
		Circle diameter	4.75	
	Number & size		5 Hex Nuts - 7/16-20 UNF-2B	
Spare wheel (same or other) (b)		14 x 5 with stowaway spare; Regular wheel with remainder		

### Drive Units — Tires And Wheels (Optional)

Size, load range, ply		FR78-14 (B/W-Opt; W/S and W/L - Opt)	
Type (bias, radial, etc.)		Steel Belted Radial	
Wheel type & material		Rally-Steel (W/RPO ZJ7)	Rally-Steel (W/RPO F41)
Rim (size, flange type, and offset)		14x6; 0.50	14x7; 0.34
Size, load range, ply			
Type (bias, radial, etc.)			
Wheel type & material		Short Spoke Disc Steel (Reg)	
Rim (size, flange type, and offset)		14 x 7; 0.34 (W/RPO F41 & N95)	
Size, load range, ply			
Type (bias, radial, etc.)			
Wheel type & material			
Rim (size, flange type, and offset)			
Size, load range, ply			
Type (bias, radial, etc.)			
Wheel type & material			
Rim (size, flange type, and offset)			

### Brakes — Parking

Type of control		Foot pedal apply; "T" handle release	
Location of control		Left of steering column under instrument panel	
Operates on		Rear service brakes	
If separate from service brakes	Type (internal or external)	---	
	Drum diameter	---	
	Lining size (length x width x thickness)	---	

- (a) Full rated pressure shown; selected tire pressures are contingent on weight of vehicle.  
 (b) Stowaway spare tire standard on hatchback coupe; optional on remainder of models.



# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (●)

Body Type And/Or Engine Displacement

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## Brakes — Service

Brake Type (std., opt., N.A.)	Drum	Front	-----	
		Rear	-----	
	Disc	Front	Standard	
		Rear	Standard	
Self adjusting (std., opt., N.A.)			Standard	
Special Valving	Type (proportion, delay, metering, other)		Metering and Proportioning	
Power Brake (std., opt., N.A.)			Standard - V8 engines; Optional L6 Engines	
Booster Type (remote, integral, etc.)			Integral	
Effective area (sq. in.) *			100.52	
Gross lining area (sq. in.) **			115.6	
Swept area (sq. in.) ***			326.4	
Drum	Diameter (nominal)	Front	-----	
		Rear	9.5	
Type and material			Composite, finned, cast iron	
Rotor	Outer working diameter		11.0	
	Inner working diameter		7.18	
	Thickness		1.03	
	Material & type (vented/solid)		Cast Iron, Vented	
Wheel cylinder bore	Front		2.9375	
	Rear		.9375	
Master Cylinder	Bore		Manual - 1.00; Power - 1.125	
	Stroke		Manual - 1.25; Power - 1.408	
Pedal arc ratio			Manual - 6.22:1; Power - 3.54:1	
Line pressure at 100 lb. pedal load				
Shoe Clearance	Front		Self Adjusting	
	Rear		Self Adjusting	
Anti-skid device type (std., opt., N.A.)			N/A	
Brake Lining	Bonded or riveted, rivets/seg.		Riveted	
	Rivet size		Front - .210 x .379; Rear .143 x .250	
	Manufacturer		Delco Moraine	
	Part number			
	Front Wheel	Material		Inboard - molded asbestos; outboard - metallic impregnated asbestos
		Size (length x width x thickness)	Prim. or out-board	5.40 x 1.92 x .465
			Second. or in-board	5.40 x 1.92 x .465
		Segments per shoe		One
		Shoe thickness		.540
		Rear Wheel	Material	
	Size (length x width x thickness)		Prim. or out-board	7.30 x 2.0 x .23
			Second. or in-board	9.46 x 2.0 x .23
	Segments per shoe		One	
	Shoe thickness		Primary - .275; Secondary - .305	

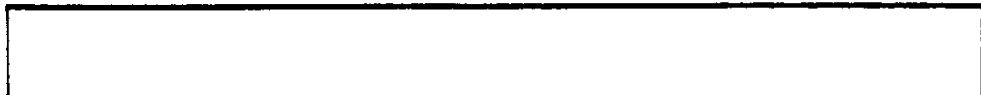
\* Excludes rivet holes, grooves, chamfers, etc.

\*\* 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.)

# MVMA Specifications Form Passenger Car

Car Line Nova  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_



## Steering

Manual (std., opt., NA)		Standard, energy absorbing steering column	
Power (std., opt., NA)		Optional	
Adjustable steering wheel (tilt, swing, other)	Type and description	Tilt type - Universally jointed steering shaft at base of steering wheel.	
	(std., opt., NA)	Optional	
Wheel diameter	Manual	15"	
	Power	Same as Manual	
	Turning diameter (feet)	Outside front	Wall to wall (l. & r.) Curb to curb (l. & r.)
Turning diameter (feet)	Inside rear	Wall to wall (l. & r.)	N.A.
		Curb to curb (l. & r.)	
Manual	Gear	Type	Semi-Reversible, recirculating ball stud
		Make	Saginaw Steering
	Ratios	Gear	24.0:1
		Overall	26.2:1
No. wheel turns (stop to stop)		4.99	
Power	Type (coaxial, linkage, etc.)		Integral gear and power piston with vane type pump
	Make		Saginaw Steering
	Gear	Type	Same as Manual
		Ratios	Gear
		Overall	15.07/11.31:1
Pump driven by		Crankshaft Pulley	
No. wheel turns (stop to stop)		2.42	
Linkage	Type		Parallelogram
	Location (front or rear of wheels, other)		Rear
	Drag link (trans. or longit.)		None
	Tie rods (one or two)		Two
Steering Axis	Inclination at camber (deg.)		10 @ 0.75°
	Bearings (type)	Upper	Ball Stud with non-metallic bearings
		Lower	Ball Stud with non-metallic and sintered iron bearings
Thrust		None	
Whl. Align. (range at curb wt. & preferred)	Caster (deg.)		Manual - N 1 + 1; Power - P 1 + 1
	Camber (deg.)		P 3/4 + 1/8
	Toe-in (outside track inches)		1/16 + 1/8
Steering spindle & joint type		Steering Knuckle	
Wheel Spindle	Diameter	Inner bearing	1.2493 - 1.2498
		Outer bearing	7492 - 7497
	Thread size		3.4 - 20 NEF (modified)
	Bearing type		Taper
Wheel Align. @ curb wt.	Service checking	Caster (deg.)	Manual Steering - 2.0° to 0°; Power Steering 0° to + 2°
		Camber (deg.)	0° to + 1.6°
		Toe-in (outside)	+ .05° to + .25°
	Service reset	Caster	Manual Steering -1° ± 0.5°; Power Steering +1° ± 0.5°
		Camber	+0.8 ± 0.5°
		Toe-in	+ .15 ± .05°
Periodic M.V. inspection	Caster	Manual Steering -3° to +1° Power Steering -1° to +3°	
	Camber	-0.7° to +2.3°	
	Toe-in	-.15 to +.55	

# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (a)

**Body Type And/Or Engine Displacement**

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## Suspension — General

(See Supplement page for details on Air Suspension)

Provision for car leveling	Front Stabilizer Bar	
Provision for brake dip control	Front Suspension Geometry	
Provision for acc. squat control	Front Suspension Geometry	
Special provisions for car jacking	Position jack in bumper slots on upper outboard face of front and rear bumpers	
Shock absorber front & rear	Type	Direct, double acting Hydraulic
	Make	Delco
	Piston dia.	1.0
Other special features		

## Suspension — Front

Type and description	Independent SLA type with coil springs	
Travel	Full Jounce	2.34
	Full Rebound	4.56
Spring	Type (coil, leaf, other)	Coil
	Material	Steel Alloy
	Size (coil design height & I.D., bar length x dia.)	11.0 x 4.5; 116.07 x 0.617 (a)
	Spring rate (lb. per in.)	300 (a)
	Rate at wheel (lb. per in.)	92.5
Stabilizer	Type (link, linkless, frameless)	Link
	Material & bar diameter	Steel- .875" (base tires, suspension and V8 engines; also L6 with power steering, base suspension and tires (b))

## Suspension — Rear

Type and description	Salisbury rear axle with multiple leaf springs	
Drive and torque taken through	Leaf Springs	
Travel	Full Jounce	2.14
	Full Rebound	5.70 - LH; 6.10 - RH
Spring	Type (coil, leaf, other)	Multiple leaf
	Material	Chrome Carbon steel
	Size (length x width, coil design height & I.D., bar length & dia.)	56.0 x 2.50
	Spring rate (lb. per in.)	96 (a).
	Rate at wheel (lb. per in.)	106
	Mounting insulation type	Rubber bushed at shackle and hanger
if leaf	No. of leaves	Five
	Shackle (comp. or tens.)	Compression
Stabilizer	Type (link, linkless, frameless)	Link (Used only with RPO F41 sport suspension)
	Material & bar diameter	Steel - .5625
Track bar type	None	

- (a) Ratings for base equipped model only. Springs for all models computer selected by size and rate according to vehicle weight including optional equipment.
- (b) Stabilizer bar deleted from L6 engine and manual steering equipped vehicle, when equipped with base suspension and bias belted tires.

# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (e) \_\_\_\_\_

**Body Type**

2-DOOR HATCHBACK COUPE	2-DOOR COUPE	4-DOOR SEDAN
	BASE	FORMAL

**Frame**

Body frame integral with separate partial frame

Type and description (Separate frame, unitized frame, partially - unitized frame)

**Body — Miscellaneous Information**

Type of finish (lacquer, enamel, other)	Acrylic lacquer		
Hood counterbalanced (yes, no)	Yes		
Hood release control (internal, external)	External		
Vehicle Ident. No. location	Top left hand of instrument panel pad		
Theft protection - type	Lock, mounted on steering column; locks steering wheel, transmission, shift levers and ignition.		
Vent window control method (crank, friction pivot, power)	Front	None	
	Rear	None	
Seat cushion type	Front	Formed, foam pad	
	Rear	Formed, foam pad	
	3rd seat	None	
Seat back type	Front	Formed, foam pad	
	Rear	Formed, foam pad	
	3rd seat	None	
Windshield glass type	Curved - laminated plate		
Side glass type	Curved - tempered plate		
Backlight glass type	Curved - tempered plate		
Windshield glass exposed surface area	1209.3		1282.1
Side glass exposed surface area	1553.5	1350.4	1582.9
Backlight glass exposed surface area	1158.6	1392.1	1092.1
Total glass exposed surface area	3921.4	4154.9	3951.8

# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (●) \_\_\_\_\_

Body Type		
2-DOOR HATCHBACK COUPE	2-DOOR COUPE	4-DOOR SEDAN

## Convenience Equipment

Power windows	Side windows	Optional
	Vent windows	NA
	Backlight or tailgate	--
Power seats (specify type as well as availability)		NA
Reclining front seat back (R-L or both)		
Radios (specify type as well as availability)		Optional - AM Pushbutton, AM/FM Pushbutton, AM/FM Stereophonic, AM Stereo with tape, AM/FM stereo with tape
Rear seat speaker		Optional
Power antenna		NA
Clock		Optional
Air conditioner (specify type and availability)		Optional - Four Seasons with manual control
Speed warning device		NA
Speed control device		Optional - with automatic transmissions only
Ignition lock lamp		NA
Dome lamp		Standard
Glove compartment lamp		Standard IXY models - Optional IXX models
Luggage compartment lamp		Optional - not available on IXXI7 model
Underhood lamp		Optional
Courtesy lamp		Optional (a) - Standard (b)
Map lamp		NA
Cornering light lamp		NA
Rear window defroster electrically heated		NA
Rear window defogger		Optional
Power Door Lock System		Optional
Windshield Antenna		Available with factory installed radio

**Lamp Height And Spacing\*** (a) Instrument panel courtesy lamps.  
 (b) Cargo area courtesy lamp for Hatchback Coupe

Height above ground to center of bulb or marker	Headlamp (H125)	Highest**	25.3
		Lowest	--
	Tail (H126)	Highest	23.8
		Lowest	--
Sidemarker	Front	25.1	
	Rear	20.5	
Distance from CL of car to center of bulb	Headlamp	Inside	--
		Outside**	26.6
	Tail	Inside	--
		Outside	25.7
	Directional	Front	18.5
		Rear	25.7

\*Measured with passenger load and trunk/cargo load specified in Car and Body Dimension section.

\*\*If single headlamps are used enter here.

# MVMA Specifications Form Passenger Car

Car Line  
Model Year

NOVA-  
1978

Issued 10/77

Revised (●) 2/78

## Vehicle Weights

Model	CURB WEIGHT * (Pounds)			% PASS WEIGHT DISTRIBUTION				SHIPPING WEIGHT ** (Pounds)
	Front	Rear	Total	Pass. In Front		Pass. In Rear		
				Front	Rear	Front	Rear	
NOVA								
2-DOOR HATCHBACK								
● COUPE 1XX17	1756	1622	3378	46.0	54.0	18.6	81.4	3268
2-DOOR COUPE								
● 1XX27	1757	1498	3255	46.0	54.0	18.6	81.4	3145
4-DOOR SEDAN								
● 1XX69	1744	1548	3292	46.0	54.0	18.6	81.4	3182
NOVA CUSTOM								
2-DOOR COUPE								
● 1XY27	1785	1521	3306	46.0	54.0	18.6	81.4	3196
4-DOOR SEDAN								
● 1XY69	1803	1537	3340	46.0	54.0	18.6	81.4	3230

CURB WEIGHT - THE CALCULATED WEIGHT OF A VEHICLE WITH STANDARD EQUIPMENT only as designed with the additional load of oils, lubes, coolants AND FUEL ALL FILLED TO CAPACITY.

SHIPPING WEIGHT: SAME AS BASE CURB WEIGHT EXCEPT 3 GALLONS OF GASOLINE

\* Reference - SAE J1100. Passenger Car Dimension Definitions, Pg. 1. Base Curb Weight.  
 \*\* Shipping weight definition -

**MVMA Specifications Form**  
**Passenger Car**

Car Line NOVA  
 Model Year 1978 Issued \_\_\_\_\_ Revised (●) \_\_\_\_\_

Equipment Differential Weights	WEIGHT (Pounds)			Remarks
	Front	Rear	Total	
	AIR CONDITIONING	+ 60	+ 3	
	+ 83	+ 3	+ 86	with V8 engine
SPECIAL CONTOUR FRONT BUCKET SEAT	- 2	- 2	- 4	1XY27 Model Only
POWER WINDOWS	+ 6	+ 4	+ 10	2-Door Models
	+ 12	+ 14	+ 26	4-Door Models
ELECTRIC DOOR LOCKS	+ 4	+ 3	+ 7	2-Door Models
	+ 6	+ 7	+ 13	4-Door Models
POWER STEERING	+ 30	0	+ 30	with L-6 Engine
	+ 28	0	+ 28	with V-8 engine
POWER BRAKES	+ 8	+ 1	+ 9	
EXTERIOR SOFT TRIM ROOF COVER	+ 2	+ 4	+ 6	
FLOOR COMPARTMENT CONSOLE	+ 3	+ 1	+ 4	with 3 & 4 speed transmission
	+ 7	+ 2	+ 9	with automatic transmission
HEAVY DUTY SUSPENSION FRONT & REAR	+ 15	- 1	+ 14	
SPORT SUSPENSION FRONT & REAR	+ 28	- 3	+ 25	with V8 engine
FLOOR MATS, FRONT AND REAR	+ 4	+ 4	+ 8	
BATTERY-HEAVY DUTY	+ 13	- 1	+ 12	with L-6 engine
	+ 10	- 1	+ 9	with V-8 engine
RALLY WHEEL HUB CAP & TRIM RING				
14X6 WHEEL	+ 7	+ 7	+ 14	Used with base & F40 suspension
14X7 WHEEL	+ 7	+ 11	+ 18	Used with F41 Suspension
WHEEL COVERS SIMULATED WIRE	+ 11	+ 11	+ 22	

**MVMA Specifications Form**  
**Passenger Car**

Car Line NOVA  
Model Year 1978 Issued 10-77 Revised (e) \_\_\_\_\_



Equipment Differential Mass	Optional Equipment Mass			Remarks
	MASS (kg)			
	Front	Rear	Total	
RADIO AM PUSH BUTTON	+ 4	+ 1	+ 5	
RADIO AM/FM PUSH BUTTON	+ 5	+ 2	+ 7	
RADIO AM/FM STEREO	+ 6	+ 2	+ 8	
RADIO AM & STEREO TAPE	+ 8	+ 3	+ 11	
RADIO AM/FM & STEREO TAPE	+ 8	+ 3	+ 11	
AUXILIARY SPEAKER	0	+ 2	+ 2	
305 CU. IN V-8 - LG3	+123	+ 22	+ 145	Used with 1XX00 Models
	+115	+ 20	+ 135	Used with 1XY00 Models
350 CU. IN V-8 - LM1	+122	+ 22	+ 144	Used with 1XX00 Models
	+133	+ 20	+ 133	Used with 1XY00 Models
4-SPEED TRANSMISSION	+ 8	+ 4	+ 12	
3-Speed Auto. Trans.	+ 17	+ 6	+ 23	



# MVMA Specifications Form Passenger Car

Car Line NOVA  
 Model Year 1978 Issued 10-77 Revised (e) 2-78

Body Type		
2-DOOR HATCHBACK COUPE	2-DOOR COUPE	4-DOOR SEDAN

## Vehicle Fiducial Marks

Fiducial Mark  
Number \*

Define Coordinate Location

Front

- X - FIDUCIAL MARK TO VERTICAL BODY ZERO LINE-FRONT, MEASURED HORIZONTALLY FROM THE BODY ZERO LINE TO THE FRONT FIDUCIAL MARK LOCATED ON TOP OF THE FRONT SEAT ADJUSTER MOUNTING BOLT.
- Y - FIDUCIAL MARK TO CENTERLINE OF CAR-FRONT, WIDTH MEASUREMENT MADE FROM CENTERLINE OF CAR TO FIDUCIAL MARK LOCATED ON TOP OF THE FRONT SEAT ADJUSTER MOUNTING BOLT.
- Z - FIDUCIAL MARK TO HORIZONTAL BODY ZERO LINE-FRONT, MEASURED VERTICALLY FROM BODY ZERO LINE TO FRONT FIDUCIAL MARK LOCATED ON TOP OF THE FRONT SEAT ADJUSTER MOUNTING BOLT.

Rear

- X - FIDUCIAL MARK TO VERTICAL BODY ZERO LINE-REAR, MEASURED HORIZONTALLY FROM BODY ZERO LINE TO THE REAR FIDUCIAL MARK LOCATED ON REAR UNDERBODY CROSSBAR.
- Y - FIDUCIAL MARK TO CENTERLINE OF CAR-REAR, WIDTH MEASUREMENT MADE FROM CENTERLINE OF CAR TO FIDUCIAL MARK LOCATED ON THE REAR UNDERBODY CROSSBAR.
- Z - FIDUCIAL MARK TO HORIZONTAL BODY ZERO LINE-REAR, MEASURED VERTICALLY FROM BODY ZERO LINE TO THE REAR FIDUCIAL MARK LOCATED ON REAR UNDERBODY CROSSBAR.

Fiducial  
Mark  
Number

Coordinate Location of  
Fiducial Mark

Fiducial Mark  
to Ground  
at Curb

Front

X	Y	Z	
29.88	22.70	6.97	COUPE
29.88	22.70	6.97	SEDAN

345 (13.6 in)  
345 (13.6 in)

Rear

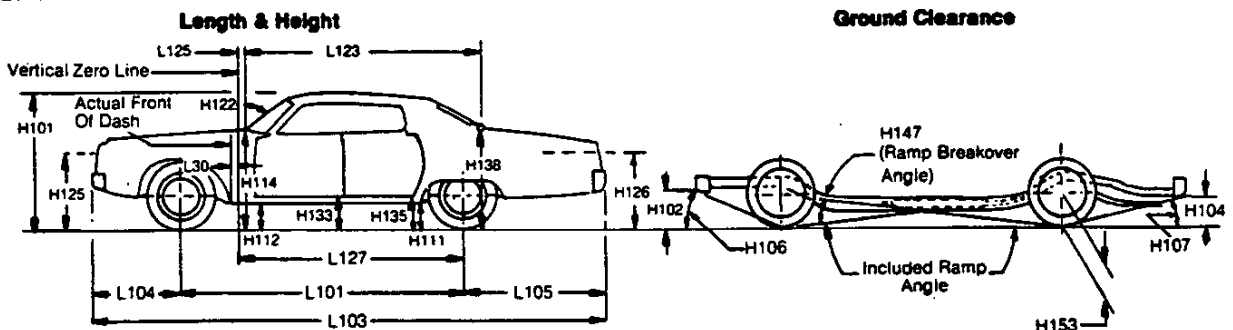
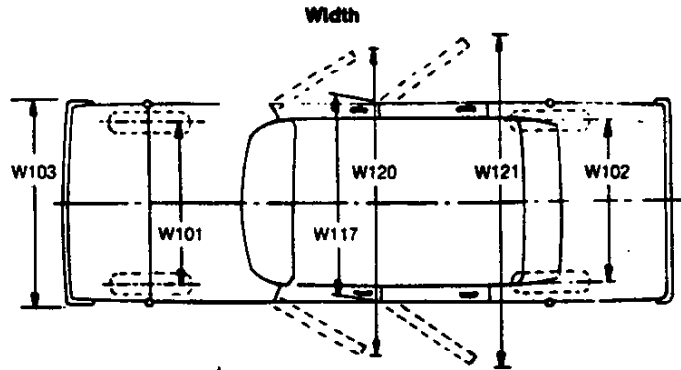
131.12	22.50	9.14	COUPE
131.12	22.50	9.14	SEDAN

417 (16.4 in)  
417 (16.4 in)

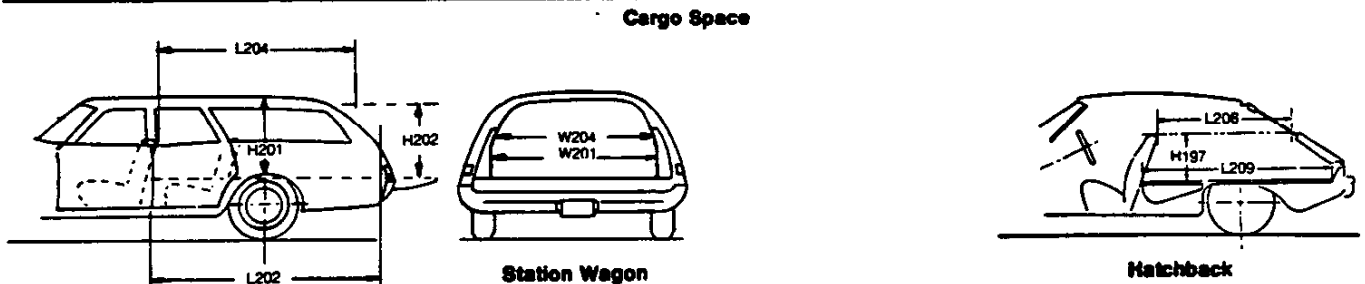
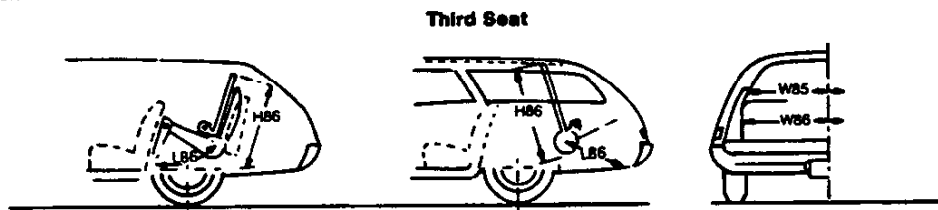
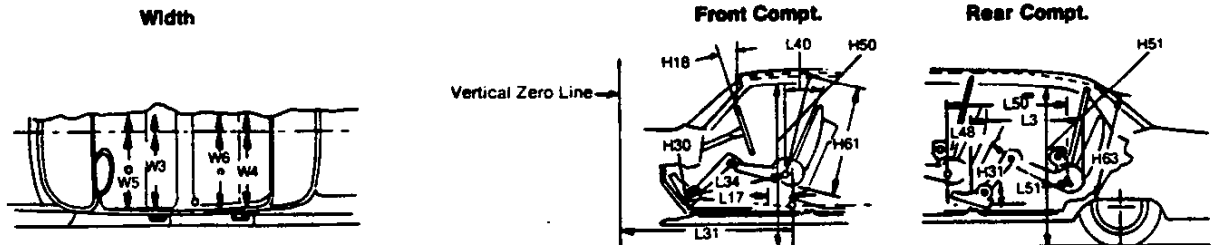
\*Reference - SAE Recommended Practice, J182, A Motor Vehicle Fiducial Marks - September, 1973

# MVMA Specifications Form Passenger Car

## Exterior Car And Body Dimensions — Key Sheet



## Interior Car And Body Dimensions — Key Sheet



# MVMA Specifications Form

## Passenger Car

### Exterior Car And Body Dimensions — Key Sheet

#### Dimension Definitions

#### Width Dimensions

- W101** WHEEL TREAD — FRONT. Measured at centerline of tires, with nominal camber, at ground.
- W102** WHEEL TREAD — REAR. Measured at centerline of tires at ground.
- W103** MAXIMUM OVERALL CAR WIDTH. Include bumpers, moldings, or sheet metal protrusions. Measured to outside of metal.
- W117** MAXIMUM BODY WIDTH AT NO. 2 PILLAR. Measured across body at No. 2 pillar, excluding hardware and applied moldings.
- W120** MAXIMUM OVERALL CAR WIDTH, FRONT DOORS OPEN is measured to outside of sheet metal with front doors in maximum hold-open position.
- W121** MAXIMUM OVERALL CAR WIDTH, REAR DOORS OPEN is measured in same manner as W120.

#### Length Dimensions

- L30** VERTICAL ZERO LINE TO ACTUAL FRONT OF DASH. If actual Front of Dash is to the rear of Body Zero Line, it is identified by a minus (—) sign.
- L101** WHEELBASE.
- L103** OVERALL LENGTH. Include bumper guards if standard equipment.
- L104** OVERHANG — FRONT. Measured from C/L of front wheels to front of car, including bumper guards if standard equipment.
- L105** OVERHANG — REAR. Measured from C/L of rear wheels to rear of car, including bumper guards if standard equipment.
- L123** BODY UPPER STRUCTURE LENGTH AT CAR CENTERLINE. The horizontal dimension from the Cowl Point to the Deck Point.
- L127** VERTICAL ZERO LINE TO CENTERLINE OF REAR WHEELS. A horizontal dimension.
- L125** VERTICAL ZERO LINE TO WINDSHIELD COWL POINT. The horizontal dimension from the vertical zero line to the theoretical intersection of extended windshield glass plane and normal cowl surface.

#### Height Dimensions

- H101** OVERALL HEIGHT — DESIGN. Measured with the vehicle in Manufacturer's Design Weight attitude.
- H114** COWL POINT TO GROUND. Measured at vehicle centerline.
- H138** DECK POINT TO GROUND. Measured at vehicle centerline.

- H112** ROCKER PANEL TO GROUND — FRONT. The vertical dimension from ground to bottom of rocker panel, excluding flanges. Measured to the outside of sheet metal at foremost point of rocker panel.
- H133** BOTTOM OF DOOR TO GROUND, CLOSED — FRONT is the same point on the door as H132 dimension, with door closed.
- H111** ROCKER PANEL TO GROUND — REAR. The vertical dimension from ground to bottom of rocker panel, excluding flanges. Measured to the outside of sheet metal at front of rear wheel opening.
- H135** BOTTOM OF DOOR TO GROUND, CLOSED — REAR is measured in same manner as H133.
- H122** WINDSHIELD SLOPE ANGLE. The angle between a vertical line and the windshield surface at car centerline. On compound-curved windshields the chord of the arc is used and limited to that section of the windshield comprehended by an 18-inch chord.
- H125** HEADLAMP CENTERLINE TO GROUND is measured vertically to the center of the upper lamp.
- H126** TAILLAMP CENTERLINE is measured vertically from ground to the centerline of the upper bulb.

#### Ground Clearance Dimensions

- H102** BUMPER TO GROUND — FRONT. Minimum dimension, includes bumper guards.
- H104** BUMPER TO GROUND — REAR. Minimum dimension, includes bumper guards.
- H106** ANGLE OF APPROACH. The angle between ground and a line tangent to the front tire static loaded radius arc and the first point of interference, i.e., bumper, guard, gravel deflector, fender or other component, excluding license plate. This dimension may be determined graphically for reporting purposes.
- H107** ANGLE OF DEPARTURE. The angle between ground and a line tangent to the rear tire static loaded radius arc and the first point of interference, i.e., bumper, guard, gravel deflector, tail pipe, fender or other component, excluding license plate. This dimension may be determined graphically for reporting purposes.
- H147** RAMP BREAKOVER ANGLE. The supplement of included ramp angle ( $180^\circ$  minus included ramp angle) over which car can pass without interference; measured with car sitting on a level surface, using lines tangent to arcs of front and rear static loaded radii and intersecting at point on underside of car which defines the smallest angle.
- H153** REAR AXLE DIFFERENTIAL SYSTEM TO GROUND is a minimum clearance.
- H156** MINIMUM RUNNING GROUND CLEARANCE. Location of measurement on the car is to be clearly recorded.

# MVMA Specifications Form Passenger Car

## Interior Car And Body Dimensions — Key Sheet Dimension Definitions

### Front Compartment Dimensions

- L31 H POINT TO VERTICAL ZERO LINE — FRONT is a horizontal dimension.
- H61 EFFECTIVE HEAD ROOM — FRONT. The dimension from H Point to the headlining, plus a constant of 4.0 inches, measured along a line 8° to rear of vertical.
- H75 EFFECTIVE T POINT HEADROOM — FRONT. The arc dimension from the T Point to the headlining plus 30 inches.
- L34 MAXIMUM EFFECTIVE LEG ROOM — ACCELERATOR. Measured along a diagonal line from the Manikin ankle pivot center to the H Point plus a constant of 10.0 inches. For treadle type accelerator pedals, the leg room is measured with the Manikin's right foot on the accelerator pedal and the Manikin Heel Point at Accelerator Heel Point. All other types of accelerator pedals will be measured with the Manikin foot angle set at 87° and the shoe touching the pedal.
- H30 H POINT TO HEEL POINT — FRONT. The vertical dimension from the H Point to the Accelerator Heel Point.
- L17 H POINT TRAVEL. The horizontal dimension between the H Point in the most forward and rearward seat positions.
- W3 SHOULDER ROOM—FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the H-point—front within the belt line to 10 inches above the H-point—front.
- W5 HIP ROOM—FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the H-point—front within 1.0 inches below and 3.0 inches above the H-point height and 3.0 inches fore and aft of the H-point.
- H50 UPPER BODY OPENING TO GROUND — FRONT. The vertical dimension from a point on the trimmed body opening to the ground, measured at the H Point station.
- H18 STEERING WHEEL ANGLE — VERTICAL. The angle measured from a vertical to the surface plane of the steering wheel.
- L40 BACK ANGLE — FRONT. The angle measured between a vertical line through the H-Point-Front and the torso line.

### Rear Compartment Dimensions

- L50 H POINT COUPLE DISTANCE. The horizontal dimension from the front seat H Point to the rear seat H Point.
- H63 EFFECTIVE HEAD ROOM — REAR. The dimension from the H Point to the headlining, plus a constant of 4.0 inches, measured along a line 8° to rear of vertical.
- H76 EFFECTIVE T POINT HEADROOM — REAR. Measured in the same manner as H75.
- L51 MINIMUM EFFECTIVE LEG ROOM — REAR. Measured along a diagonal line from the ankle pivot center to the H

Point plus a constant of 10.0 inches, with the foot positioned to the nearest interference between the seat structure and toe, instep or lower leg.

- H31 H POINT TO HEEL POINT — REAR. The vertical dimension from the H Point to the Manikin Heel Point on the depressed floor covering.
- L48 KNEE CLEARANCE. The minimum dimension measured from the knee pivot center to the back of front seatback minus 2.0 inches.
- L3 REAR COMPARTMENT ROOM. The horizontal dimension from the back of front seat to front of rear seat back at height tangent to the top of rear seat cushion.
- W4 SHOULDER ROOM—SECOND. The minimum dimension measured laterally between trimmed surfaces on the "X" plane through the H-point—second within 10.0-16.0 inches above the H-point—second.
- W6 HIP ROOM—SECOND. Measured in the same manner as W5.
- H51 UPPER BODY OPENING TO GROUND — REAR. The vertical dimension from a point on the trimmed body opening to the ground, measured 13.0 inches forward of the H Point.

### Luggage Compartment Dimensions

- V1 LUGGAGE CAPACITY — USABLE. The total luggage compartment luggage capacity in cubic feet with the tire and tools in place.
- H195 LIFTOVER HEIGHT. Vertical dimension from the highest point on the luggage compartment lower opening to ground, excluding corner radii.

### Station Wagon — Third Seat Dimensions

- W85 SHOULDER ROOM—THIRD. Measured in the same manner as W4.
- W86 HIP ROOM—THIRD. Measured in the same manner as W5.
- L86 EFFECTIVE LEG ROOM — THIRD SEAT. Measured along a diagonal line from ankle pivot center to H Point plus a constant of 10.0 inches. With rear-facing third seat, foot is positioned in foot well or to nearest interference with rear end or rear closure.
- H86 EFFECTIVE HEAD ROOM — THIRD SEAT. The dimension from H Point to the headlining, plus a constant of 4.0 inches. Measured along a line 8° to rear of vertical.
- H89 EFFECTIVE T POINT HEADROOM — THIRD SEAT. Measured in the same manner as H75.

# MVMA Specifications Form Passenger Car

## Interior Car And Body Dimensions — Key Sheet Dimension Definitions

### Station Wagon — Cargo Space Dimensions

- L202** CARGO LENGTH AT FLOOR — FRONT SEAT. The horizontal dimension, measured at the floor level from the rear of the front seat back to the normal inside limiting interference on the tailgate, on the car centerline.
- L204** CARGO LENGTH AT BELT — FRONT SEAT. The horizontal dimension measured from the top rear of front seat back to a vertical extension line from the normal inside limiting interference at the top of the tailgate, on the car centerline.
- W201** CARGO WIDTH — WHEELHOUSE. The minimum horizontal dimension, measured between wheel housings at floor level.
- W204** OPENING WIDTH AT BELT. The minimum horizontal dimension, measured between the nearest normal inside limiting interferences of the rear opening at the top of the tailgate.
- H201** MAXIMUM CARGO HEIGHT. The maximum vertical dimension, measured from the top of the floor covering to the headlining, on the car centerline.
- H202** REAR OPENING HEIGHT. The vertical dimension measured from the top of the floor covering to the normal inside limiting interference at the top of the rear opening, on the car centerline, with both tail and liftgates fully open.
- V2** CARGO VOLUME INDEX BEHIND FRONT SEAT. The total volume in cubic feet above the normal load floor and behind the front seat with the liftgate and tailgate closed.

$$\frac{W4 \times L204 \times H201}{1728}$$

### Hatch Back — Cargo Space Dimensions

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

- H197** FRONT SEAT BACK TO LOAD FLOOR HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seat back to the undepressed floor covering.
- L208** CARGO LENGTH AT FRONT SEAT BACK HEIGHT. The horizontal dimension measured from the top rear of front seat back to the inside limiting interference of the hatch back door on the car centerline.
- L209** CARGO LENGTH AT FLOOR — FRONT SEAT. The horizontal dimension measured at floor level from the rear of the front seat back to the normal limiting interference of the hatch back door on the car centerline.
- V3** HATCH BACK — CARGO INDEX VOLUME. Hatch back cargo index volume is to be determined by the following formula, and expressed in terms of cubic feet.

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{1728}$$

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