

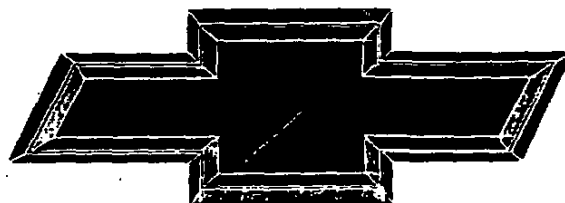
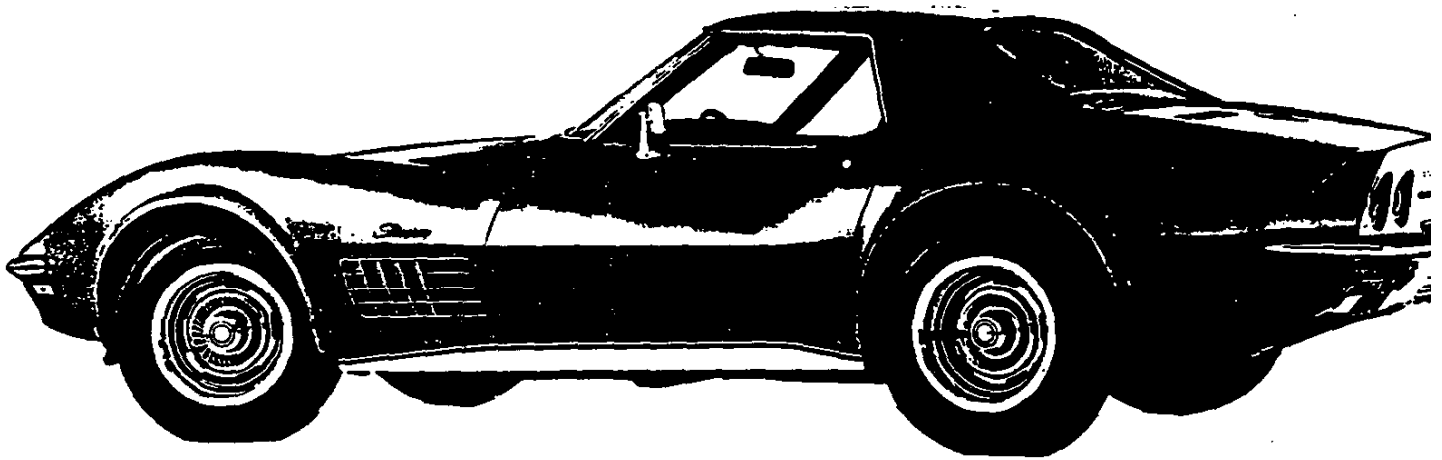


**CHEVROLET**

**1971**

**CORVETTE**

**SPECIFICATIONS**



**GENUINE CHEVROLET™**



# 1971 CORVETTE

Production: 14,680 coupe, 7,121 convertible, 21,801 total.

## 1971 NUMBERS

**Vehicle:** 194371S100001 through 194371S121801

• For convertibles, fourth digit is a 6.

**Suffix:** CGT: 350ci, 270hp, at                      CPH: 454ci, 365hp, mt  
CGY: 350ci, 330hp(ZR1), mt                    CPJ: 454ci, 365hp, at  
CGZ: 350ci, 330hp(LT1), mt                   CPW: 454ci, 425hp, mt, ah  
CJK: 350ci, 270hp, at                          CPX: 454ci, 425hp, at, ah  
CJL: 350ci, 270hp, mt

**Block:** 3970010: 350ci, 270hp, 330hp  
3963512: 454ci, 365hp, 425hp

**Head:** 3946074: 454ci, 425hp                      3993820: 454ci, 365hp  
3973487: 350ci, 270hp, 330hp                    3994026: 454ci, 425hp (uu)

**Carburetor:** Rochester Q-jet #7041204: 454ci, 365hp, at  
Rochester Q-jet #7041205: 454ci, 365hp, mt  
Rochester Q-jet #7041212: 350ci, 270hp, at  
Rochester Q-jet #7041213: 350ci, 270hp, mt  
Holley R4801A #3989021: 350ci, 330hp, mt  
Holley R4802A #3986195: 454ci, 425hp, mt  
Holley R4803A #3986196: 454ci, 425hp, at

**Distributor:** 1112038: 350ci, 330hp, ig    1112053: 454ci, 425hp, at, ig  
1112050: 350ci, 270hp                      1112076: 454ci, 425hp, mt, ig  
1112051: 454ci, 365hp

**Alternator:** 1100543: 454ci, 365hp, 425hp    1100544: All with ac  
1100950: 350ci, 270hp, 330hp

**Ending Vehicle:** Aug 70: 101212    Jan 71: 108230    May 71: 118223  
Sep 70: 102226    Feb 71: 110886    Jun 71: 120686  
Nov 70: 102675    Mar 71: 113626  
Dec 70: 105269    Apr 71: 115983

**Abbreviations:** ac=air conditioning, ah=aluminum heads,  
at=automatic transmission, ci=cubic inch, hp=horsepower, ig=transistor  
ignition, mt>manual transmission, uu=uncertain usage.

## 1971 FACTS

- The 1971 Corvette was one of the least-changed in appearance. A labor dispute in May 1969 caused 1969 production to run long, shortening normal 1970 production by over four months. Chevrolet then treated 1971 Corvette production as an extension of 1970. Plus, GM directed its divisions to reduce octane requirements in 1971 engines, an effort which carried a higher priority than appearance changes.
- With the exception of RPO LS6, 1971 engines were detuned variants of 1970 engines. GM's intention in reducing octane requirements to 91 (research) in 1971 was to give oil companies phase-in time for the unleaded fuels needed for catalytic converters still four years away.
- The 454ci LS6 engine with 425hp was designed to operate on low-lead fuel, but a comparable engine was not available in 1970, so it won the horsepower race for the two years despite its lower octane appetite. It featured aluminum heads and could be combined with an automatic transmission, although not when combined with the ZR2 package.
- One visible clue to a 1971's outward appearance was amber parking light lenses, although very early production had clear lenses.
- The 1971 Corvette was the last model to feature the fiber-optics light monitoring system. It's thought the cost savings permitted inclusion of the optional anti-theft alarm system as standard equipment the following year.



## 1971 OPTIONS

RPO #	DESCRIPTION	QTY	RETAIL \$
19437	Base Corvette Sport Coupe .....	14,680	\$5,496.00
19467	Base Corvette Convertible .....	7,121	5,259.00
—	Custom Interior Trim .....	2,602	158.00
A31	Power Windows .....	6,192	79.00
A85	Custom Shoulder Belts (std with coupe) .....	677	42.00
C07	Auxiliary Hardtop (for convertible) .....	2,619	274.00
C08	Vinyl Covering (for auxiliary hardtop) .....	832	63.00
C50	Rear Window Defroster .....	1,598	42.00
C60	Air Conditioning .....	11,481	459.00
—	Optional Rear Axle Ratio .....	2,395	13.00
J50	Power Brakes .....	13,558	47.00
LS5	454ci. 365hp Engine .....	5,097	295.00
LS6	454ci. 425hp Engine .....	188	1,221.00
LT1	350ci. 330hp Engine .....	1,949	483.00
M21	4-Speed Man Trans, close ratio .....	2,387	0.00
M22	4-Speed Man Trans, close ratio, heavy duty ...	130	100.00
M40	Turbo Hydra-Matic Automatic Transmission ...	10,060	0.00
N37	Tilt-Telescopic Steering Column .....	8,130	84.30
N40	Power Steering .....	17,904	115.90
P02	Deluxe Wheel Covers .....	3,007	63.00
PT7	White Stripe Tires, F70x15, nylon .....	6,711	28.00
PU9	White Letter Tires, F70x15, nylon .....	12,449	42.00
T60	Heavy Duty Battery (std with LS5, LS6) .....	1,455	15.80
UA6	Alarm System .....	8,501	31.60
U69	AM-FM Radio .....	18,078	178.00
U79	AM-FM Radio, stereo .....	3,431	283.00
ZR1	Special Purpose LT1 Engine Package .....	8	1,010.00
ZR2	Special Purpose LS6 Engine Package .....	12	1,747.00

- A 350ci. 270hp engine, 4-speed wide-ratio manual transmission, vinyl interior trim, and soft top (conv) or T-tops were included in the base price.
- The ZR1 included the LT1 engine, M22 transmission, heavy-duty power brakes, transistor ignition, special aluminum radiator, and special springs, shocks, and front and rear stabilizer bars (ZR1s have appeared with and without rear stabilizers). ZR1s also had metal fan shrouds. RPOs A31, C50, C60, N40, P02, UA6, U69 and U79 were not available with ZR1.
- The ZR2 package was similar to ZR1, except ZR2 included RPO LS6, the 454ci. 425hp engine.
- Custom interior included leather seat trim, wood-grain accents and lower carpet trim on interior door panels, wood-grain accents on console, and special cut-pile carpeting.
- M40 was no cost with the base 350ci. 270hp engine, but cost \$100.35 with LS5 or LS6. It was not available with LT1, ZR1 or ZR2.

## 1971 COLORS

CODE	EXTERIOR	QTY	SOFTTOP	WHEELS	INTERIORS
905	Nevada Silver .....	1,177	Bk-W	Silver	Bk-Db-Dg-R
912	Sunflower Yellow .....	1,177	Bk-W	Silver	Bk-Dg-S
972	Classic White .....	1,875	Bk-W	Silver	Bk-Db-Dg-R-S
973	Mille Miglia Red .....	2,180	Bk-W	Silver	Bk-R
976	Mulsanne Blue .....	2,465	Bk-W	Silver	Bk-Db
979	Bridgethampton Blue .....	1,417	Bk-W	Silver	Bk-Db
983	Brands Hatch Green .....	3,445	Bk-W	Silver	Bk-Dg
987	Ontario Orange .....	2,269	Bk-W	Silver	Bk-Dg-S
988	Steel Cities Gray .....	1,591	Bk-W	Silver	Bk-S
989	War Bonnet Yellow ...	3,706	Bk-W	Silver	Bk-Dg-S

- Suggested interiors shown. Other combinations were possible.
- Exterior color quantity total is 499 short of total production.

**Interior Codes:** std=Bk/V, 402=Bk/L, 407=R/V, 412=Db/V, 417=S/V, 420=S/L, 423=Dg/V.

**Abbreviations:** Bk=Black, Db=Dark Blue, Dg=Dark Green, L=Leather, R=Red, S=Saddle, V=Vinyl, W=White.

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# The Corvette Black Book

1983-1993

October 1992

Published by

Michael Bruce Associates, Inc.  
 Michael Antonick, President  
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 Powell, Ohio 43065



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# SECTION 0

## GENERAL INFORMATION AND LUBRICATION

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### GENERAL INFORMATION

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### MODEL IDENTIFICATION

Series	Model Number		Description	
	6-Cyl.	V-8		
Biscayne	15369	15469	4-Door Sedan, 6-Pass.	
Brookwood	—	15435	4-Door Station Wagon, 2-Seat	
Bel Air	15569	15669	4-Door Sedan, 6-Pass.	
Townsmen	—	15835	4-Door Station Wagon, 2-Seat	
	—	15845	4-Door Station Wagon, 3-Seat	
Impala	16369	16469	4-Door Sedan, 6-Pass.	
	—	16439	4-Door Sport Sedan, 6-Pass.	
	16357	16457	2-Door Sport Coupe, 5-Pass.	
	—	16467	2-Door Convertible, 5-Pass.	
Kingswood	—	16435	4-Door Station Wagon, 2-Seat	
	—	16445	4-Door Station Wagon, 3-Seat	
Impala Custom	—	16447	2-Door Sport Coupe, 5-Pass.	
Caprice	—	16639	4-Door Sport Sedan, 6-Pass.	
	—	16647	2-Door Sport Coupe, 5-Pass.	
Kingswood Estate	—	16635	4-Door Station Wagon, 2-Seat	
	—	16645	4-Door Station Wagon, 3-Seat	
Nomad	13136	13236	4-Door Station Wagon, 2-Seat	
Camaro	12387	12487	2-Door Sport Coupe 4-Pass.	
Greenbrier	13336	13436	4-Door Station Wagon, 2-Seat	
	—	13446	4-Door Station Wagon, 3-Seat	
Malibu	13569	13669	4-Door Sedan, 6-Pass.	
	13539	13639	4-Door Sport Sedan, 6 Pass.	
	13537	13637	2-Door Sport Coupe, 5-Pass.*	
	13567	13667	2-Door Convertible, 5-Pass.*	
Concours	13536	13636	4-Door Station Wagon, 2-Seat	
	—	13646	4-Door Station Wagon, 3-Seat	
Monte Carlo	—	13857	2-Door Custom Coupe, 5-Pass.*	
Concours Estate	—	13836	4-Door Station Wagon, 2-Seat	
	—	13846	4-Door Station Wagon, 3-Seat	
El Camino	13380	13480	2-Door Sedan Pickup, 3-Pass. Deluxe	
	13580	13680	2-Door Sedan Pickup, 3-Pass. Malibu	
Nova	—	—	—	
	—	11327	11427	2-Door Sport Coupe, 5-Pass.
	—	11369	11469	4-Door Sedan, 6-Pass.

\*4-Passenger when optional bucket seats are ordered.

**VEHICLE DIMENSIONS**

**BISCAYNE, BROOKWOOD, BEL AIR, TOWNSMAN, IMPALA,  
KINGSWOOD, IMPALA CUSTOM CAPRICE, KINGSWOOD ESTATE**

Model	Sedan	2-Door Sport Coupe	Convertible Coupe	Station Wagon
Length Overall	216.4"	216.4"	216.4"	223.2"
Width Overall (Body)	76.5"	79.5"	79.5"	79.5"
Height Overall	54.1"	53.6"	53.5"	57.1"
Wheelbase	21.5"	121.5"	121.5"	125.0"
Tread-Front	63.8"	63.8"	63.8"	64.1"
Tread-Rear	63.7"	63.7"	63.7"	63.0"
Curb Weight: Approximately 3848 lbs. 4-Door Sedan with L-6 Engine; 4006 lbs. with V-8 Engine.				

**NOMAD, 300 DELUXE, GREENBRIER, MALIBU, CONCOURS,  
CONCOURS ESTATE WAGON, EL CAMINO**

Model	Sedan	2-Door Sport Coupe	Convertible Coupe	Station Wagon	Sedan Pickup
Length Overall . . . . .	201.2"	197.2"	197.2"	207.5"	207.5"
Width Overall (Body) . . . . .	75.4"	75.4"	75.4"	75.4"	75.4"
Height Overall . . . . .	53.3"	52.7"	52.9"	54.4"	54.4"
Wheelbase . . . . .	116.0"	112.0"	112.0"	116.0"	116.0"
Tread-Front . . . . .	60.0"	60.0"	60.0"	59.3**	59.3**
Tread-Rear . . . . .	59.9"	59.9"	59.9"	59.2"	59.2"
Curb Weight: Approximately 3297 lbs. 4-Door Sedan with L-6 Engine 3430 lbs. with V-8 Engine.					
*60.2" w/Disc Brakes.					

**MONTE CARLO**

**CAMARO**

**NOVA**

Model	Custom Coupe
Length Overall . . .	205.8"
Width Overall (Body)	75.6"
Height Overall . . .	52.9"
Wheelbase . . . . .	116.0"
Tread-Front . . . . .	60.2"
Tread-Rear . . . . .	59.3"
Weight: Custom Coupe 3564 lbs.	

Model	Custom Coupe
Length Overall . . .	188.0"
Width Overall (Body)	74.4"
Height Overall . . .	50.1"
Wheelbase . . . . .	108.0"
Tread-Front . . . . .	60.6"
Tread-Rear . . . . .	60.0"
Weight: With L6 Eng. 3167 lbs. With V-8 Eng. 3313 lbs.	

Model	Sedan	2-Door Sport Coupe
Length Overall . . .	189.4"	189.4"
Width Overall (Body)	72.4"	72.4"
Height Overall . . . .	53.9"	52.5"
Wheelbase . . . . .	111.0"	111.0"
Tread-Front . . . . .	59.0"	58.9"
Tread-Rear . . . . .	58.9"	58.9"
Curb Weight: Approximately 3028 lbs. with L-6 Engine; 3169 with V-8 Engine.		

**MODEL IDENTIFICATION—CORVETTE**

Model Number	Description
19437	2-Door Sport Coupe, 2-Passenger
19467	2-Door Convertible, 2-Passenger

**VEHICLE DIMENSIONS—CORVETTE**

Model	Convertible	Sport Coupe
Length Overall . . . . .	182.5"	
Width Overall (Body) . .	69.2"	
Height Overall . . . . .	47.9"	47.8"
Wheelbase . . . . .	98.0"	
Tread-Front . . . . .	58.7"	
Tread-Rear . . . . .	59.4"	
Curb Weight:	3220 lbs. Convertible	3210 lbs. Sport Coupe with Base V-8

**SERIAL NUMBERS**

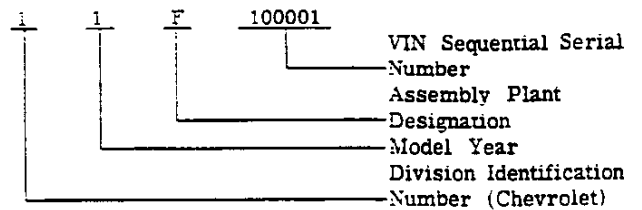
For the convenience of servicemen when writing up certain business papers, such as Warranty Claims Product Information Reports, or reporting product failures in any way, we are showing on a chart, the location of various unit numbers. These unit numbers and their prefixes and suffixes are necessary on these papers for various reasons--such as accounting, follow-up on production, etc.

The prefixes on certain units identify the plant in which the unit was manufactured, and thereby permits proper follow-up of the plant involved to get corrections made when necessary.

**ENGINE AND TRANSMISSION NUMBER**

The Vehicle Identification Number is stamped on the engine and transmission of each vehicle (see chart for location).

Example:



At multi-car plants where more than one Chevrolet series is produced, the VIN sequence numbers will be staggered to eliminate duplication of component identification numbers.

Example:

Los Angeles	VIN Sequence
15000-16000 Series (First Vehicle)	000001
13000 Series (First Vehicle)	100001

**VEHICLE COMPONENT SERIAL AND UNIT NUMBER LOCATION**

Component	Model	Location
Vehicle Serial Number Plate	All	Top of instrument panel left, front
Body Number, Trim and Paint Plate	15-16000 Series 13000 Series 11000 Series 12000 Series 19000 Series	Upper right-hand side of dash panel Upper left-hand side of dash panel Upper left-hand side of dash panel Upper left-hand side of dash panel Upper left-hand door hinge pillar
Engine and Transmission Vehicle Identification Number	6 Cyl. 8 Cylinder 3-Spd. (Muncie) 4-Spd. (Muncie) 3-4 Spd. (Saginaw) Powerglide Turbo Hydra-matic 350 Turbo Hydra-matic 400	On pad at right-hand side of cylinder block at rear of distributor On pad at front, right-hand side of cylinder block On boss above filler plug On right side of case at lower rear of cover flange On lower right side of case adjacent to rear of cover On left upper flange of converter opening of transmission housing
Rear Axle Number	All except Corvette	On right or left axle tube adjacent to carrier On bottom surface of carrier at cover mounting flange
Delcotron	All	On top drive end frame
Starter	All	Stamped on outer case, toward rear
Battery	All	On cell cover segment, top of battery

### Vehicle Serial Number

A typical vehicle serial number plate yields manufacturer's identity, vehicle type, model year, assembly plant and production unit number when broken down as shown in the following chart.

Manufacturer Identity <sup>1</sup>	Body Style <sup>2</sup>	Model Year <sup>3</sup>	Assembly Plant <sup>4</sup>	Unit Numbers
1	5645	1	F	100025

<sup>1</sup>Manufacturers identity number assigned to all Chevrolet built vehicles.

<sup>2</sup>See Model Identification in this section.

<sup>3</sup>Last number of model year (1971).

<sup>4</sup>F-Flint

<sup>5</sup>Unit numbering will start at 000,001 or 100,001 depending on the vehicle.

### KEYS AND LOCKS

Four keys (two rectangular head and two oval head) are provided with each vehicle. The rectangular head key operates the ignition switch and front door locks. The oval-head key operates the locks for the glove box and rear compartment lid (spare tire compartment lid lock on Corvette).

### PUSHING, TO START ENGINE

**NOTE:** Towing car to start is not recommended due to the possibility of the disabled car accelerating into tow car.

### AUTOMATIC TRANSMISSION

Do not attempt to start the engine by pushing the car. Should the battery become discharged, it will be necessary to use an auxiliary battery with jumper cables to start the engine.

**CAUTION:** To prevent damage to electrical system, never connect booster batteries in excess of 12 volts and connect positive to positive and negative to negative.

### MANUAL TRANSMISSION

When a push start is necessary turn off all electrical loads such as heater, radio, and if possible, lights, turn

on the key, depress the clutch, and place the shift lever in high gear. Release the clutch when your speed reaches 10 to 15 miles per hour.

### TOWING VEHICLES

The car may be towed safely on its rear wheels with the (selector lever in "N" (Neutral) position at speeds of 35 mile per hour or less under most conditions.

However, the drive shaft must be disconnected or the car towed on its front wheels if 1) Tow speeds in excess of 35 MPH are necessary, 2) Car must be towed for extended distances (over 50 miles) or, 3) Transmission is not operating properly. If car is towed on its front wheels, the steering wheel should be secured to maintain a straight ahead position.

### LIFTING VEHICLES

Many dealer service facilities and service stations are now equipped with a type of automotive hoist which must bear upon some part of the frame in order to lift the vehicle. In Figures 1 through 5 the shaded areas indicate areas recommended for hoist contact.

### LIFTING THE CORVETTE

Shaded areas in Figure 5 indicate recommended points for hoist or jack contact. When using a single post hoist place hoist on frame side rail behind kickup at front and forward of #3 body mount at rear. When using a twin-post hoist, two methods are recommended.

- a. If no rear axle or suspension work is contemplated, use either suspension adapters or drive-on adapters at the front, and drive-in adapters at the rear. If a need for axle work develops, use jack stands beneath the frame side rails on each side and lower rear post.
- b. If rear axle work is contemplated, use either suspension adapters or drive-on adapters at the front and frame lift adapters as shown in Figure 9. If frame lift adapters are not available, use jack stands.

**NOTE:** Wooden blocks, bolted to steel beam shown in Figure 6 are necessary to allow beam to clear exhaust system.

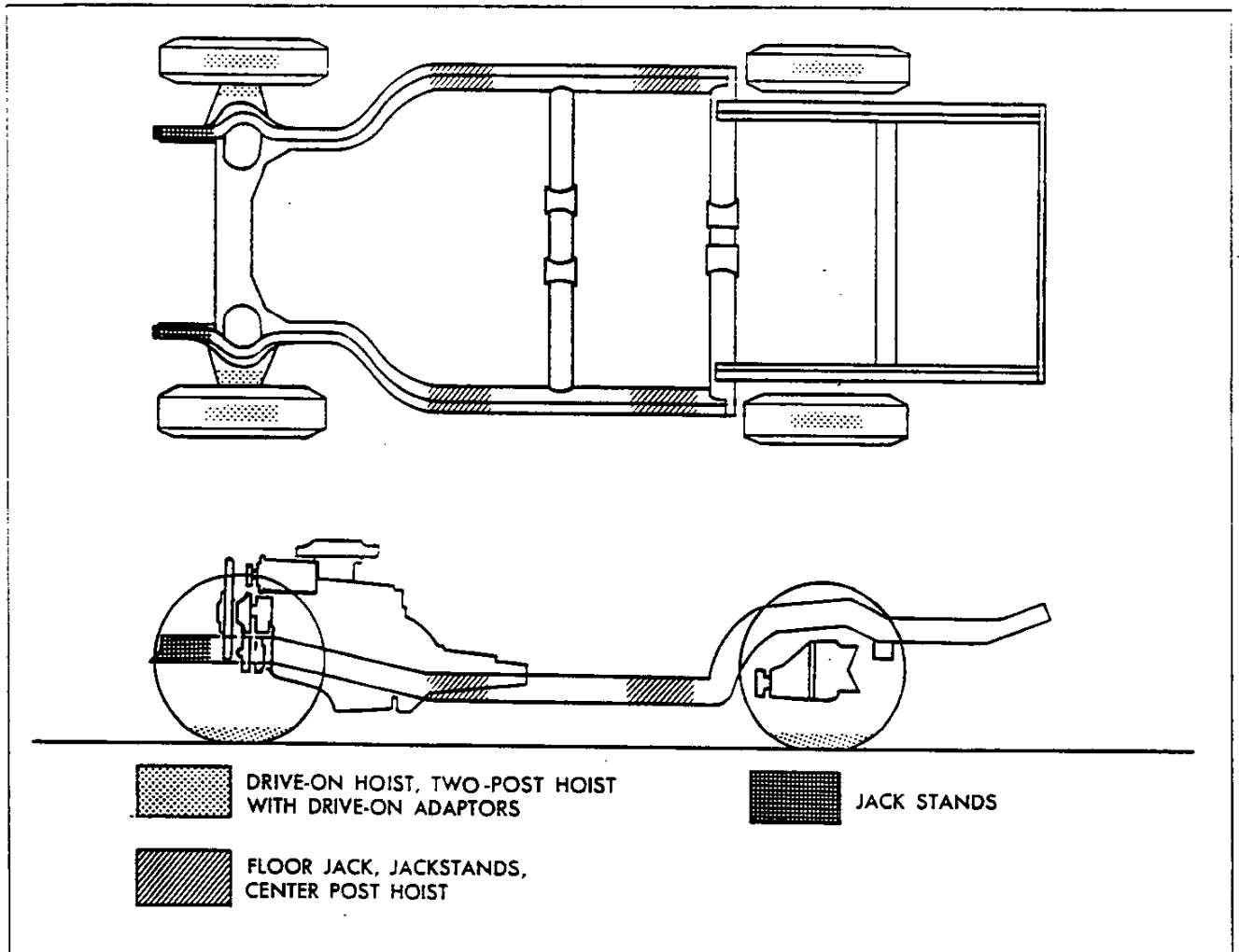


Fig. 5—Vehicle Lifting Points—19000 Series



Fig. 6—Frame Lift Adapters—19000 Series

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The time or mileage intervals on the following pages are intended as a general guide for establishing regular maintenance and lubrication periods for your car. Sustained heavy duty or high speed operations or operation under adverse conditions may necessitate more frequent servicing.

## ENGINE

### CRANKCASE CAPACITY

6 Cylinder . . . . .	4 qt.
8 Cylinder (307) . . . . .	4 qt.
8 Cylinder (350) . . . . .	4 qt.
8 Cylinder (400) . . . . .	4 qt.
8 Cylinder (402) . . . . .	4 qt.
8 Cylinder (454) . . . . .	4 qt.
With filter change; add 1 qt. for 6 and 8 Cyl. engines.	

### LUBRICATION

Crankcase oil should be selected to give the best performance under the climatic and driving conditions in the territory in which the vehicle is driven.

During warm or hot weather, an oil which will provide adequate lubrication under high operating temperatures is required.

During the colder months of the year, an oil which will permit easy starting at the lowest atmospheric temperature likely to be encountered, should be used.

When the crankcase is drained and refilled, the crankcase oil should be selected, not on the basis of the existing temperature at the time of the change, but on the lowest temperature anticipated for the period during which the oil is to be used.

Unless the crankcase oil is selected on the basis of viscosity or fluidity of the anticipated temperature, difficulty in starting will be experienced at each sudden drop in temperature.

### SAE VISCOSITY OILS

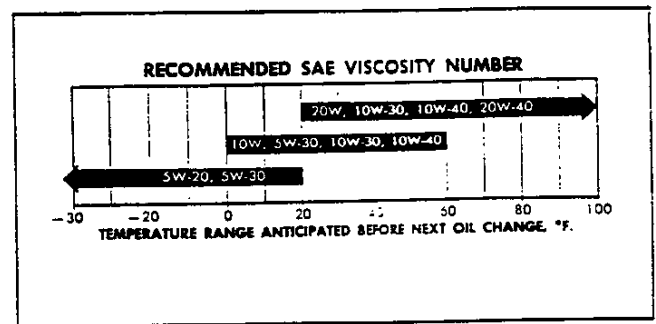
SAE Viscosity Numbers indicate only the viscosity or

body of the oil, that is, whether an oil is a light or a heavy body oil, and do not consider or include other properties or quality factors.

The lower SAE Viscosity Numbers, such as SAE 5W and SAE 10W which represents the light body oils, are recommended for use during cold weather to provide easy starting and instant lubrication. The higher SAE Viscosity Numbers such as SAE 20 and SAE 30, which represents heavier body oils, are recommended for use during warm or hot weather to provide improved oil economy and adequate lubrication under high operating temperatures.

Oils are available which are designed to combine the easy starting characteristics of the lower SAE Viscosity Number with the warm weather operating characteristics of the higher SAE Viscosity Number. These are termed "multi-viscosity oils." SAE 5W-30, SAE 5W-20, SAE 10W-40W, and SAE 10W-30.

The following chart will serve as a guide in selecting the proper oil viscosity. In addition to providing proper lubrication, the correct viscosity helps assure good cold and hot starting by reducing friction and thus increasing cranking speed.



- SAE 5W-20 oil is not recommended for sustained high speed driving.
- SAE 30 oils may be used at temperatures above 40°F.

## Types of Oils

In service, crankcase oils may form sludge and varnish and under some conditions, corrosive acids unless protected against oxidation.

To minimize the formation of these harmful products and to assure the use of oil best suited for present day operating conditions, automobile manufacturers have developed a series of sequence tests designed to evaluate the ability of any oil to properly lubricate automobile engines.

It is recommended that only those oils which are certified by their suppliers as meeting or exceeding the maximum severity requirements of these sequence tests (or GM Standard 6041-M) be used in Chevrolet engines. Certified sequence tested oils will be described as such on their containers.

## MAINTAINING OIL LEVEL

The oil gauge rod is marked "Full" and "Add Oil." These notations have broad arrows pointing to the level lines. The oil level should be maintained between the two lines, neither going above the "Full" line nor under the "Add Oil" line. **DO NOT OVERFILL.** After operating vehicle allow a few minutes for oil to return to crankcase before checking oil level.

Check the oil level frequently and add oil when necessary.

## ENGINE OIL CHANGE INTERVALS

**NOTE:** Under prolonged dusty driving conditions, it is recommended that these operations be performed more often.

To insure continuation of best performance, low maintenance cost and long engine life, it is necessary to change the crankcase oil whenever it becomes contaminated with harmful foreign materials. Under normal driving conditions draining the crankcase and refilling with fresh oil every 4 months or every 6000 miles whichever occurs first, is recommended. In certain types of service including trailer hauling, extensive idling, short trip operation at freezing temperatures (engine not thoroughly warmed-up), or in commercial use, such as taxicab, limousine or patrol car service, the oil change interval should not exceed 2 months or 3,000 miles, whichever occurs first.

It is always advisable to drain the crankcase only after the engine has become thoroughly warmed up or reached normal operating temperature. The benefit of draining is, to a large extent, lost if the crankcase is drained when the engine is cold, as some of the suspended foreign material will cling to the sides of the oil pan and will not drain out readily with the cold, slower moving oil.

## CRANKCASE DILUTION

Probably the most serious phase of engine oil deterioration is that of crankcase dilution which is the thinning of the oil by fuel vapor leaking by pistons and rings and mixing with the oil and by condensation of water on the cylinder walls and crankcase.

Leakage of fuel, or fuel vapors, into the oil pan occurs mostly during the "warming up" period when the fuel is not thoroughly vaporized and burned. Water vapor enters the crankcase through normal engine ventilation and

through exhaust gas blow-by. When the engine is not completely warmed up, these vapors condense, combine with the condensed fuel and exhaust gases and form acid compounds in the crankcase.

As long as the gases and internal walls of the crankcase are hot enough to keep water vapor from condensing, no harm will result. However, when the engine is run in low temperatures moisture will collect and unite with the gases formed by combustion resulting in an acid formation. The acid thus formed is likely to cause serious etching or pitting which will manifest itself in excessively rapid wear on piston pins, camshaft bearings and other moving parts of the engine, oftentimes causing the owner to blame the car manufacturer or the lubricating oil when in reality the trouble may be traced back to the character of the fuel used, or a condition of the engine such as excessive blowby or improper carburetor adjustment.

## Automatic Control Devices to Minimize Crankcase Dilution

All engines are equipped with automatic devices which aid greatly in minimizing the danger of crankcase dilution.

The thermostat, mounted in the cylinder head water outlet, restricts the flow of water to the radiator until a predetermined temperature is reached, thus minimizing the length of time required to reach efficient operating temperature, reducing the time that engine temperatures are conducive to vapor condensation.

A water by-pass is included in the cooling system, utilizing a hole in the front of the cylinder block. This allows a limited circulation of coolant, bypassing the thermostat until thermostat opening temperatures are reached. This system provides a uniform coolant temperature throughout the engine, eliminating localized hot-spots, improving exhaust valve life, provides fast warm-up of lubricating oil and fast temperature rise in the coolant which provides fast heater operation in cold weather.

A thermostatic heat control on the exhaust manifold during the warming up period, automatically directs the hot exhaust gases against the center of the intake manifold, greatly aids in proper vaporization of the fuel.

An automatic choke reduces the danger of raw or unvaporized fuel entering the combustion chamber and leaking into the oil reservoir.

An efficient crankcase ventilating system drives off fuel vapors and aids in the evaporation of the raw fuel and water which may find its way into the oil pan.

## POSITIVE CRANKCASE VENTILATION VALVE

Every 24,000 miles or 24 months the valve should be replaced. Connecting hoses, fittings and flame arrestor should be cleaned. At every oil change the system should be tested for proper function and serviced, if necessary.

## AIR INJECTION REACTOR SYSTEM (A.I.R.) CONTROLLED COMBUSTION SYSTEM (C.C.S.)

The Air Injection Reactor system should have the drive belt inspected for wear and tension every 12 months or 12,000 miles, whichever occurs first. In addition, complete effectiveness of either system, as well as full power and performance, depends upon idle speed, ignition timing, and idle fuel mixture being set



according to specification. A quality tune-up which includes these adjustments should be performed periodically to assure normal engine efficiency, operation and performance.

### GM EVAPORATION CONTROL SYSTEM

Every 12 months or 12,000 miles (more often under dusty conditions) the filter in the base of the canister must be replaced and the canister inspected.

### MANIFOLD HEAT CONTROL VALVE

Every 6,000 miles or 4 months, check valve for freedom of operation. If valve shaft is sticking, free it up with GM Manifold Heat Control Solvent or its equivalent.

### OIL FILTER

Change engine oil filter at first engine oil change and every second oil change thereafter.

**NOTE:** For Vehicles in heavy duty operation involving continuous start-stop or prolonged idling, engine oil should be changed after 2500-3000 miles of operation. The filter should be changed after 5000-6000 miles of operation.

### AIR CLEANER

**NOTE:** Under prolonged dusty driving conditions, it is recommended that these operations be performed more often.

### Oil Wetted Paper Element Type—

First 12,000 miles inspect element for dust leaks, holes or other damage. Replace if necessary. If satisfactory, rotate element 180° from originally installed position. Replace at 24,000 miles. Element must not be washed, oiled, tapped or cleaned with an air hose.

### Crankcase Ventilation Filter (Located Within Air Cleaner)

If so equipped, inspect at every oil change and replace if necessary. Replace at least every 24,000 miles; more often under dusty driving conditions.

### FUEL FILTER

Replace filter element located in carburetor inlet every 12 months or 12,000 miles whichever occurs first, or, if an in-line filter is also used, every 24,000 miles. Replace in-line filter every 24,000 miles.

### DISTRIBUTOR

6-Cylinder Engine--Remove distributor cap and rotate lubricator 1/2 turn at 12,000 mile intervals. Replace at 24,000 mile intervals.

8-Cylinder Engine--Change cam lubricator end for end at 12,000 mile intervals. Replace at 24,000 mile intervals.

## REAR AXLE AND 3-SPEED 4-SPEED TRANSMISSIONS

The passenger car operates under the most severe lubrication conditions at high speed and requires a hypoid lubricant which will meet this condition.

### RECOMMENDED LUBRICANTS

Standard Rear Axles--SAE 80 or SAE 90 GL-5 Gear Lubricant.

Positraction Rear Axles--Use special Positraction lubricant.

**CAUTION:** Straight Mineral Oil gear lubricants must not be used in hypoid rear axles.

Manual transmissions--SAE 80 or SAE 90 GL-5 gear lubricant.

### Lubricant Additions—Manual Transmission

The lubricant level in the transmission housing should be checked periodically. (Every 6,000 miles or 4 months)

It is recommended that any additions required to bring up the lubricant level be made using the same type lubricant already in the housing.

When checking lubricant level in transmission or rear axle the unit being checked should be at operating temperature. With unit at operating temperature the lubricant should be level with bottom of the filler plug hole. If the lubricant level is checked with the unit cold the lubricant level should be 1/2 inch below the filler plug hole.

### Lubrication Additions—Rear Axle—Standard

Every 4 months or 6,000 miles, whichever occurs first: Check lubricant level, and add lubricant if necessary to fill to level of filler plug hole. Use SAE 80 or SAE 90 GL-5 Gear Lubricant.

### Lubricant Changes

The rear axle lubricant does not require changing for the life of the vehicle. If additions are needed, or when refilling the axle after service procedures, use lubricants described above.

### Transmission Shift Linkage (Manual and Automatic)

Every 6000 miles or 4 months lubricate shift linkage and on manual transmission floor controls lever contacting faces with water resistant EP chassis lubricant which meets GM Specification 6031M.

### Clutch Cross—Shaft

Periodic lubrication of the clutch cross shaft is not required. At 36,000 miles or sooner, if necessary, remove plug, install lube fitting and apply EP CHASSIS LUBRICANT which meets GM Specification GM 6031M.

## AUTOMATIC TRANSMISSIONS

**NOTE:** At first transmission fluid change, it is recommended that the Powerglide and Torque DRIVE low band be adjusted as specified in Section 7 of this manual.

### Powerglide, Torque Drive, and Turbo Hydra-Matic 350

Every 6,000 miles or 4 months check fluid level on dipstick with engine idling, selector lever in neutral position, parking brake set and transmission at operating temperature. If fluid level is below full mark on dipstick, add small amount of automatic transmission fluid. Re-check fluid level and again add a small amount of fluid if needed to bring level to full mark. **DO NOT OVERFILL.**

General Motors DEXRON<sup>®</sup> Automatic Transmission Fluid, Part Numbers 1050568, 69, 70 has been especially formulated and tested for use in the automatic transmission. Other Automatic Transmission Fluids identified with the mark DEXRON<sup>®</sup> are also recommended.

Every 24,000 miles (every 12,000 if vehicle is driven extensively in heavy city traffic during hot weather; or is in commercial use, such as a taxicab, limousine or patrol car service, where the engine idles for long periods or is used to pull a trailer) remove fluid from the transmission sump and, in Powerglide add 2 quarts\* U.S. measure (1-2/3 quarts\* Imperial measure) of fresh fluid for Chevrolet and Chevelle; add one and a half (1-1/2) U.S. measure and (1-1/4 quarts Imperial measure) for Nova and Camaro (Powerglide and Torque Drive). Operate transmission through all ranges and check fluid level as described above. For Turbo Hydra-Matic 350, add 2.5 quarts U.S. measure (2.0 quarts Imperial measure).

It is not necessary to remove the pan because a drain plug is provided.

\*Except if vehicle is equipped with transmission provided in heavy duty service options. If so equipped, drain converter and sump every 24,000 miles and add approximately 9 quarts U.S. Measure (7-1/2 quarts Imperial Measure) of fresh fluid for Chevrolet and Chevelle and 7-1/2 quarts U.S. Measure (6-1/4 quarts Imperial Measure) for Nova and Camaro.

### Turbo Hydra-Matic 400

Lubrication for the Turbo Hydra-Matic 400 will, except for fluid capacity and filter change listed below, follow the recommendations above. After checking transmission fluid level it is important that the dipstick be pushed all the way into the fill tube.

Every 24,000 miles after removing fluid from the transmission sump, approximately 7-1/2 pints U.S. measure (3 pints Imperial measure) of fresh fluid will be required to return level to proper mark on the dipstick.

Every 24,000 miles the transmission sump filter should be replaced.

## CHASSIS

### CHASSIS LUBRICATION

For chassis lubrication, consult the lubrication chart. It shows the points to be lubricated and how often the lubricant should be applied.

The term "chassis lubricant" as used in this manual, describes a water resistant EP chassis lubricant which meets GM Specification GM 6031M designed for application by commercial pressure gun equipment.

## FRONT WHEEL BEARINGS

It is necessary to remove the wheel and hub assembly to lubricate the bearings. The bearing assemblies should be cleaned before repacking with lubricant. Do not pack the hub between the inner and outer bearing assemblies or the hub caps, as this excessive lubrication results in the lubricant working out into the brake drums and linings.

Front wheels of all passenger car models are equipped with tapered roller bearings and should be packed every 24,000 miles with a high melting point water resistant front wheel bearing lubricant. On units equipped with disc brakes, use wheel bearing lubricant GM Part No. 1051195 or equivalent. This is a premium high melting point lubricant.

**CAUTION:** "Long fibre" or "viscous" type lubricant should not be used. Do not mix wheel bearing lubricants. Be sure to thoroughly clean bearings and hubs of all old lubricant before repacking.

The proper adjustment of front wheel bearings is one of the important service operations that has a definite bearing on safety. A car with improperly adjusted front wheel bearings lacks steering stability, has a tendency to wander or shimmy and may have increased tire wear. The adjustment of these bearings is very critical. The procedure is covered in Section 3 of this manual under Front Wheel Bearings--Adjust.

## BRAKE MASTER CYLINDER

Check level every 6,000 miles or 4 months and maintain 1/4" below lowest edge of each filler opening with GM Hydraulic Brake Fluid Supreme No. 11 or equivalent.

## PARKING BRAKE

Every 6,000 miles or 4 months, apply water resistant lubricant which meets GM Specification GM 6031M to parking brake cable, cable guides and at all operating links and levers.

## STEERING GEAR

### Manual

The steering gear is factory-filled with steering gear lubricant. Seasonal change of this lubricant should not be performed and the housing should not be drained - no lubrication is required for the life of the steering gear.

Every 36,000 miles, the gear should be inspected for seal leakage (actual solid grease - not just oily film). If a seal is replaced or the gear is overhauled, the gear housing should be refilled with #1051052 (13 oz. container) Steering Gear Lubricant which meets GM Specification GM 4673M, or its equivalent.

**NOTE:** Do not use EP Chassis Lube to lubricate the gear. **DO NOT OVER-FILL** the gear housing.

### Power Steering Pump

On models equipped with power steering gear, check fluid every 6,000 miles or 4 months at operating temperature in pump reservoir. Add GM Power Steering Fluid, or, if this is not available, use DEXRON<sup>®</sup> Automatic Transmission Fluid to bring level to full mark on dip stick.

## ELECTRICAL

### BATTERY CARE (ENERGIZER)

Energizer--Check fluid level monthly utilizing the level indicator cap marked "Delco Eye". If the transparent eye within the cap glows, fluid level is low. Add only colorless, odorless drinking water or distilled water to bring level to split ring in filler opening.

### DUAL ACTION SAFETY HOOD LATCHES

Every 4 months or 6,000 miles, whichever occurs first, lubricate hood latch assembly and hood hinge assembly as follows:

1. Wipe off any accumulation of dirt or contamination on latch parts.
2. Apply Lubriplate or equivalent to latch pilot bolts and latch locking plate.
3. Apply light engine oil to all pivot points in release mechanism, as well as primary and secondary latch mechanisms.
4. Lubricate hood hinges.
5. Make hood hinge and latch mechanism functional check to assure the assembly is working correctly.

### AIR CONDITIONING

Every 6,000 miles or 4 months check sight glass under the hood, after the system has been in operation for several minutes. Sight glass should be clear but may, during milder weather, show traces of bubbles. Foam

or dirt indicate a leak which should be repaired immediately.

## BODY LUBRICATION

See Body Service Manual for Body Lubrication. (Except Corvette)

### BODY LUBRICATION POINTS (CORVETTE)

Lubricate the following items when possible.  
Hood Latch Mechanism and Hinges--Apply light engine oil to pivot points. Don't oil lock pins or catch plates.

Rear Compartment Lid Release and Hinges--Apply light engine oil.

Side Door Hinge Pins--Apply light engine oil.

Door Lock Rotor and Strike Plate--Apply light engine oil or stainless stick lubricant.

Lock Cylinders -- Lubricate with powdered graphite.

Window Regulators and Controls and Door Lock Remote Link -- Apply light engine oil.

Gas Tank Filler Cap Hinge -- Apply light engine oil.

Weatherstrips and Rubber Bumpers -- Coat lightly with a rubber lubricant.

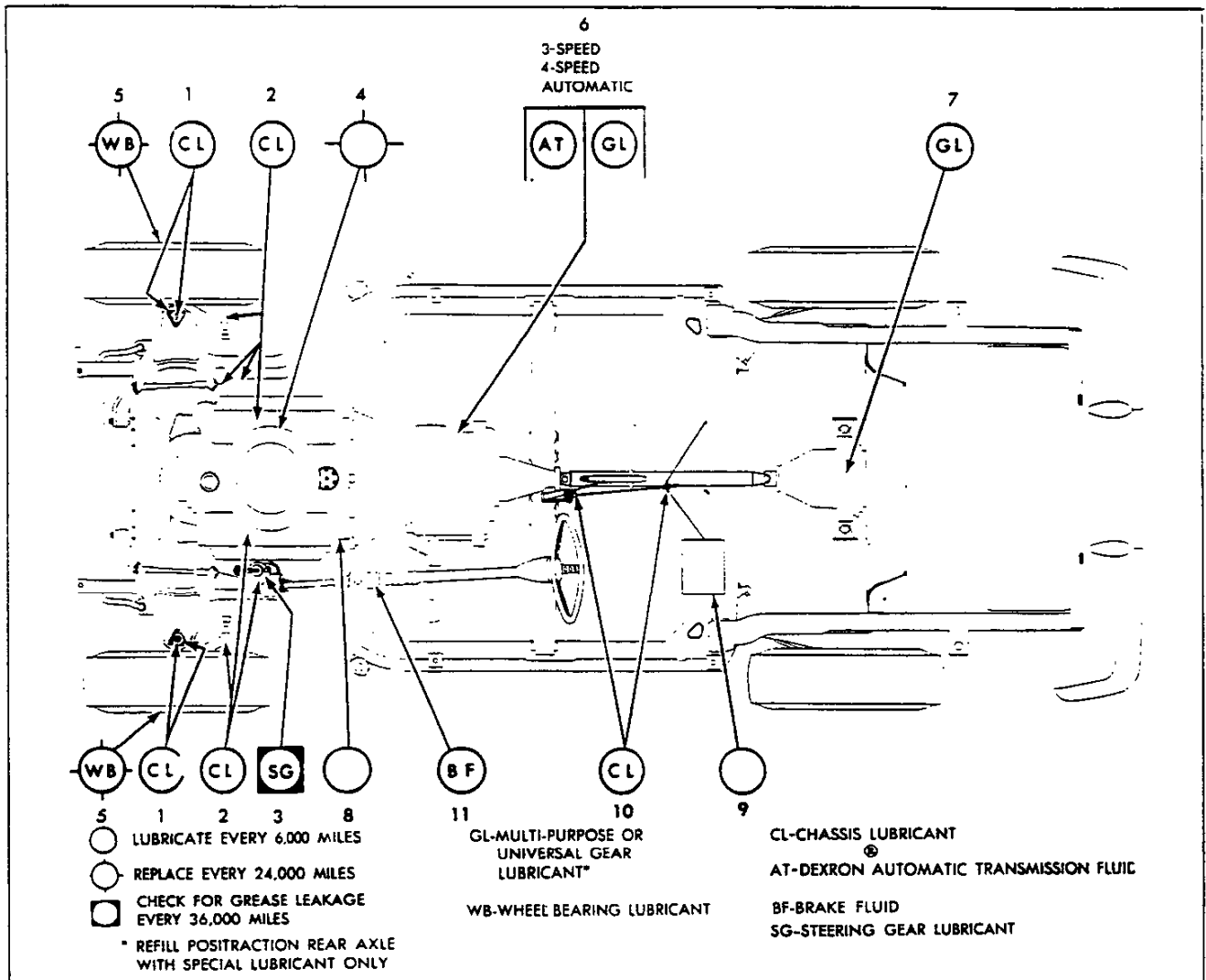


Fig. 11—Lubrication Diagram—19000 Series

- 1. Front Suspension
- 2. Steering Linkage
- 3. Steering Gear

- 4. Air Cleaner
- 5. Front Wheel Bearings

- 6. Transmission
- 7. Rear Axle
- 8. Oil Filter

- 9. Battery
- 10. Parking Brake
- 11. Brake Master Cylinder



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# SECTION 1B

## CORVETTE BODY

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## GENERAL DESCRIPTION

A structural network of steel makes up the frame of the Corvette body (See Figure 1). Combined with fiber glass reinforced plastic body panels, the steel plastic unit displays properties of increased torsional rigidity and greater beaming strength.

There are two body styles available—the regular convertible with a folding top or removable hardtop, and the new coupe series that features removable roof panels. On convertible model base equipment, either top is standard and both are optional.

## MAINTENANCE AND REPLACEMENTS

### FRONT END

#### ADJUSTMENTS

(Refer to Figure 3).

Adjustments should be made in order—hood position first, followed by catch adjustments.

#### Hood

The position of the hood in relation to the hood body opening and fender surfaces is determined by the position of the hinges and position and adjustment of catch and bumpers.

The fore and aft adjustment of the hood is performed by

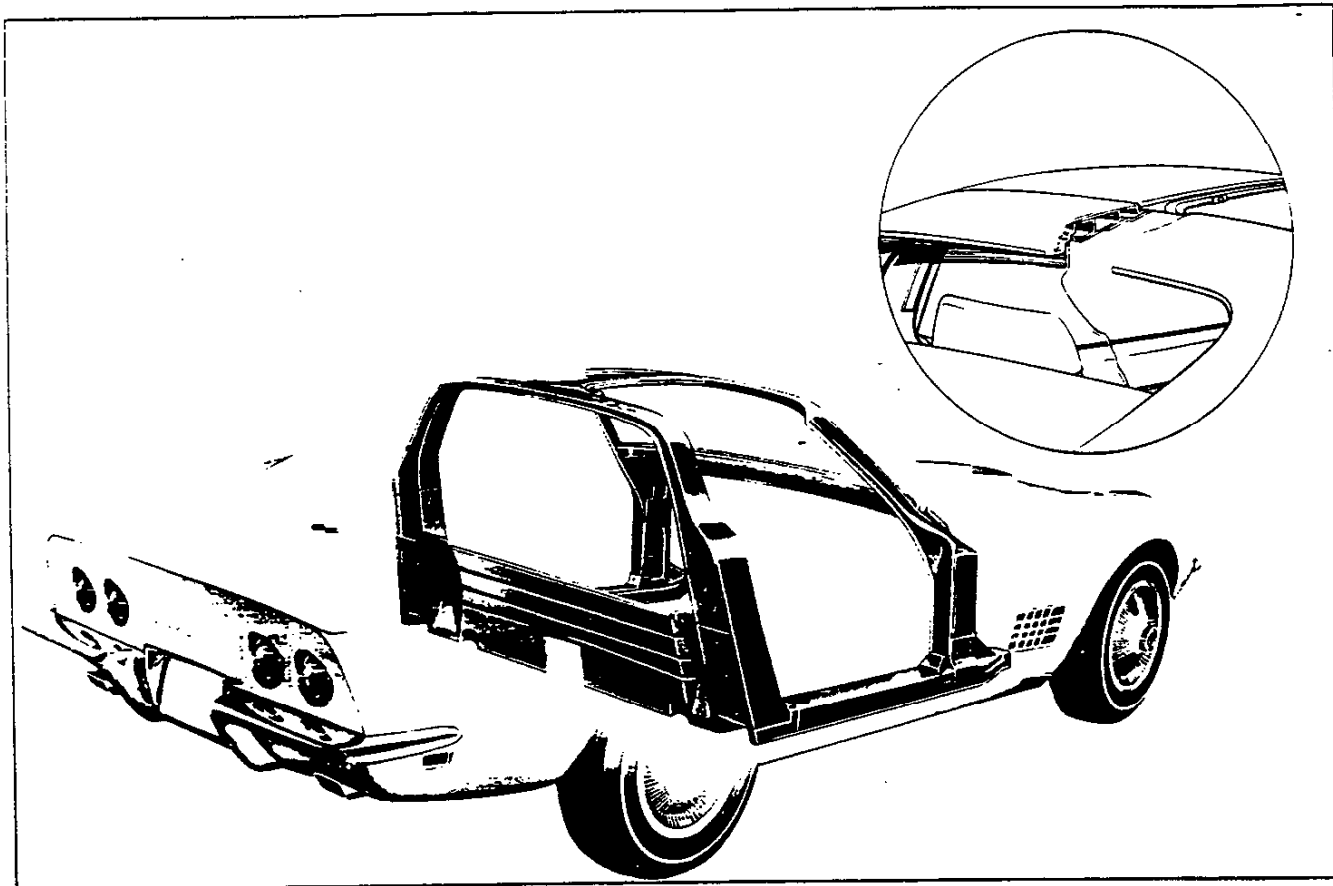


Fig. 1—Steel Reinforcing Members

loosening the hinge retaining bolts (lower) and moving the hood to the limit of slotted holes in hinge strap.

The upper surface of hood may be brought flush with adjacent surfaces by shimming under hinges and adjusting bumper screw and catch bolt engagement. Figure 4 indicates specified spacing.

Entrance of catch bolt into the plate may be adjusted by loosening two (2) catch bolt mounting screws to allow movement of bolt assembly.

Synchronization of catch release may be made by adjusting the cable retainer located at left hand catch bolt assembly.

## HOOD ASSEMBLY

### Removal

1. If hood is to be reinstalled, scribe a line around hood hinge upper strap as shown in Figure 5.
2. With aid of helper to support hood, remove screws that retain hinge straps and support assembly to hood. If hinges are removed from vehicle, note number of shims under each hinge.

### Installation

In replacing original hood, align hinge with scribe marks made on removal, and install retaining screws removed from hinges and support.

If adjustment is required, proceed as outlined in this section under Adjustments—Hood—Hood Catch.

## HOOD PROP

### Retention Feature

When extended under hood service operations are anticipated, the hood, prop track and slide should be secured by placing a 1/4 inch bolt and nut through the existing hole. This will prevent accidental closing of the hood.

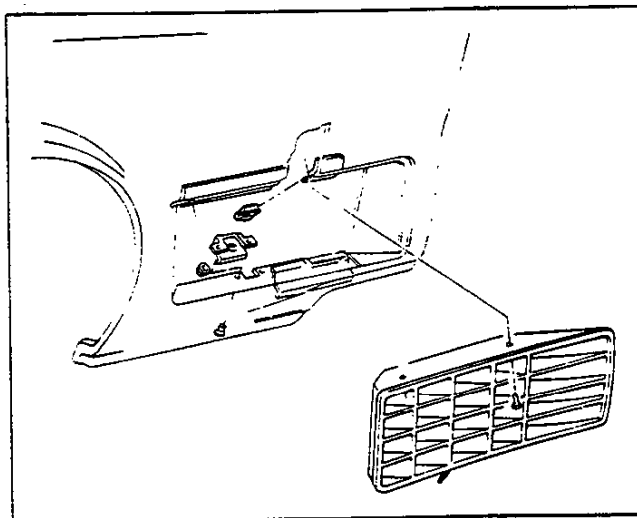


Fig. 2—Fender Side Louver

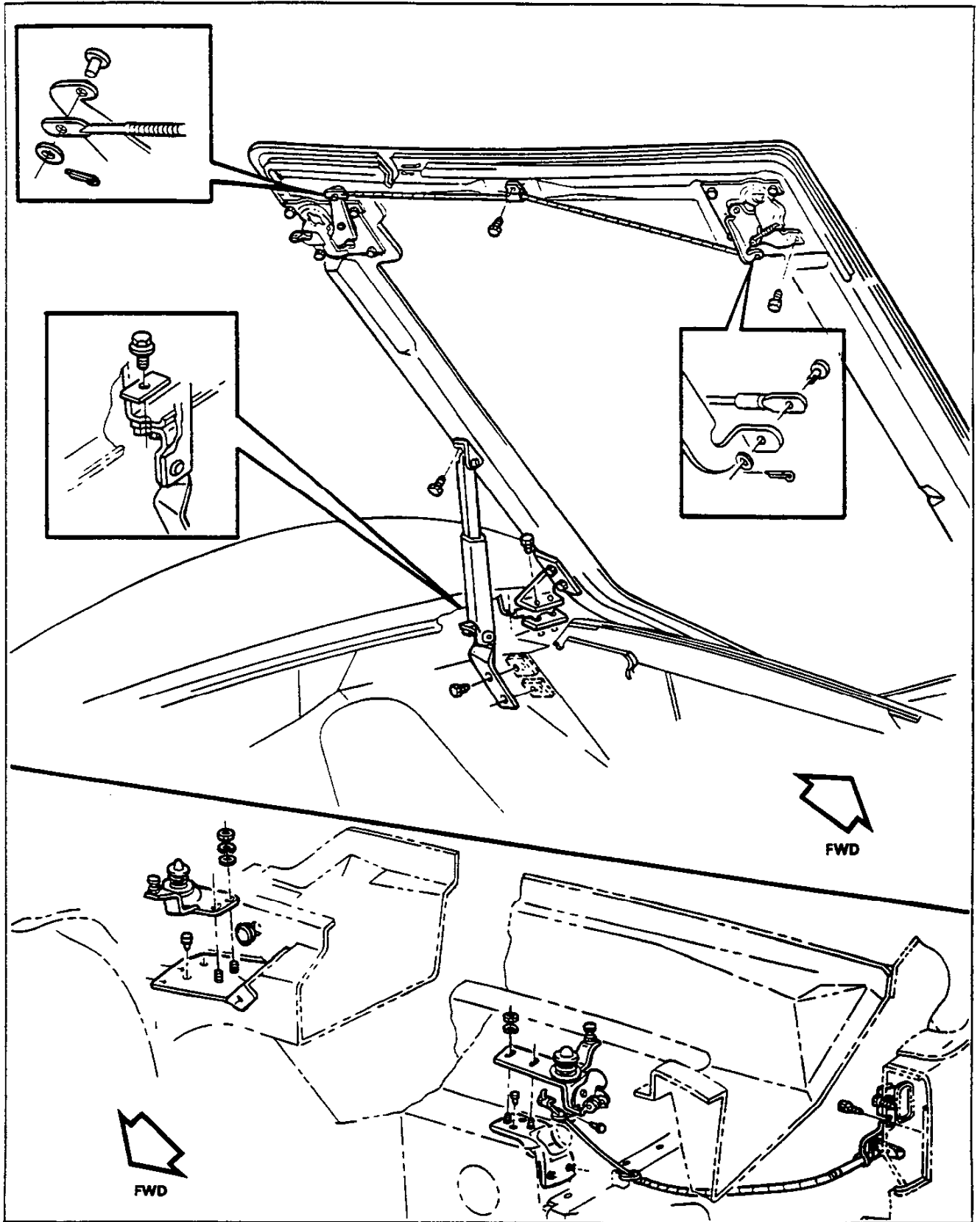


Fig. 3—Hood Hinge and Catch



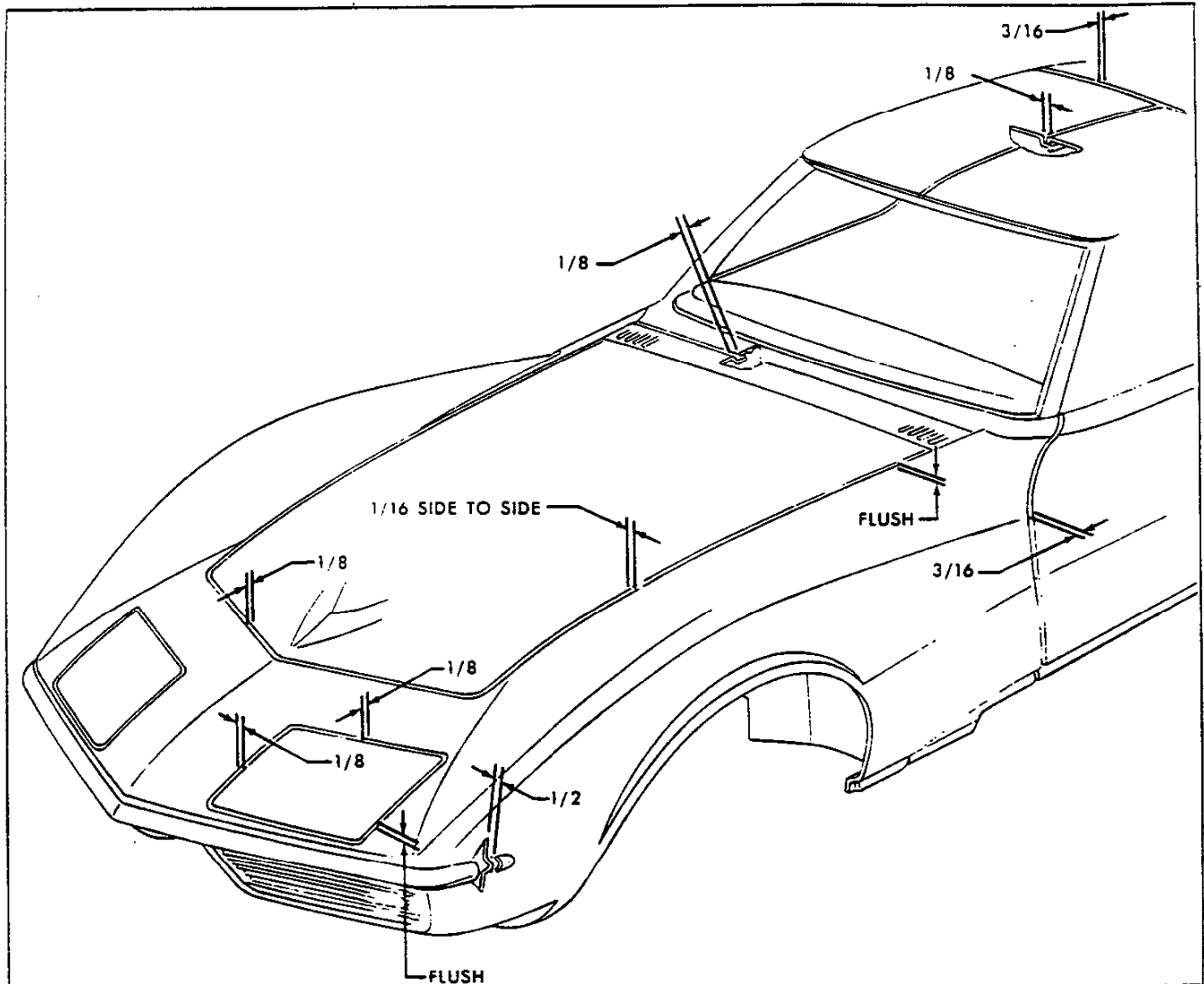


Fig. 4—Hood Spacing



Fig. 5—Scribing Line Around Hood Hinge

### FRONT EMBLEM

Front emblem including flags, numbers, and molding inserts, are retained by special nuts which may be reached by raising hood.

### FENDER SCRIPT

Above the front fender louvers the script "Stingray" will be fastened with adhesive.

### Front Fender Side Louver— Replacement (Fig. 2)

1. Reach up beneath the front fender lower edge and remove a locknut threaded on a stud fastened to the bottom of the louver.
2. From the outside, remove (2) screws driven through the upper edge of the louver.
3. Gently lift the louver up and off the fender.
4. Reverse Steps 1-3 for installation.

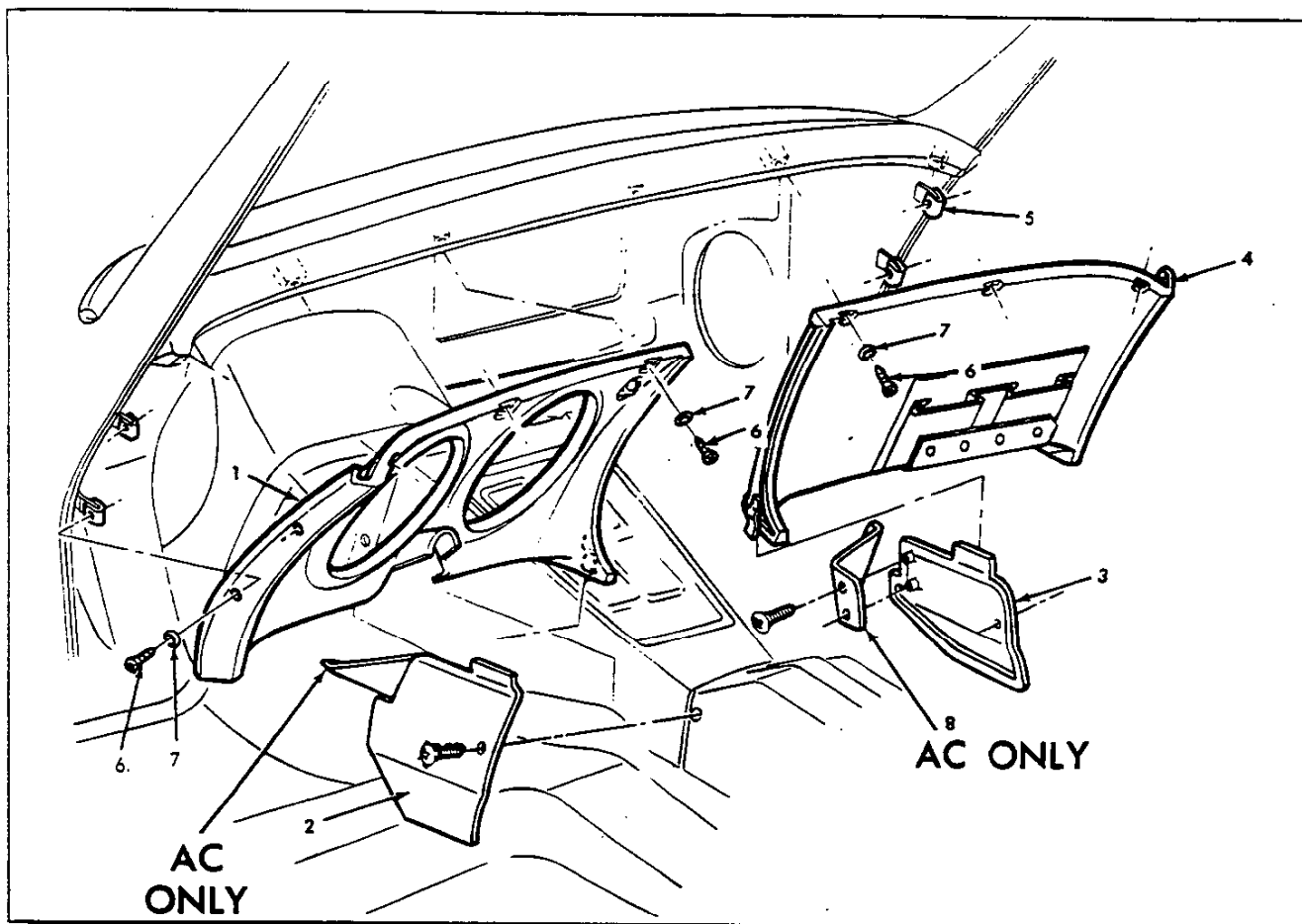


Fig. 6—Cowl Area Trim

1. Instrument Panel Pad L.H.  
2. Side Trim Panel L.H.

3. Side Trim Panel R.H.  
4. Dash Panel Pad R.H.

5. "J" Nut  
6. Screw

7. Special Washer  
8. Cover—A/C Convert

### COWL AREA TRIM

Figure 6 illustrates the mounting and location of instrument panel pads and side trim panels.

#### Removal

The right-hand dash pad, instrument panel pad and assemblies are removed by:

1. Remove two mounting screws on the outboard flange.
2. Remove two screws at inner flange of center cluster panel.
3. Pull pad outward to release special plastic retaining clips along top of panel.
4. Pull pad upward to release spring clip at top of trim side panel.

Cowl ventilator and kick panel is removed by:

1. Loosen four (4) screws securing sill plate enough to release force on kick panel.
2. Remove one (1) screw at center of kick panel.
3. Lift out panel with a force in the rearward direction.
4. For installation, follow above steps in reverse order. Side trim panels (left and right) can now be lifted out by pulling downward to release spring clip at front console assembly, after removing screw.

### Console Assembly (Refer to Figure 7)

Because of overlap design, it is necessary that the rear

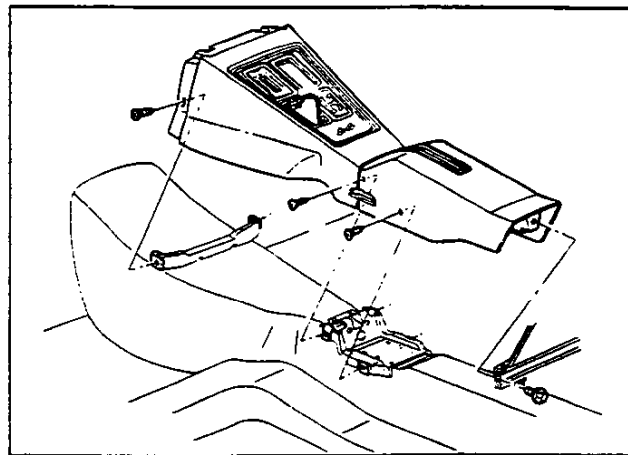


Fig. 7—Front and Rear Console Assemblies

console assembly be first removed or sufficiently loosened before the front console assembly can be removed. Steps for removing the console assemblies are in the following sequence:

1. Disconnect battery ground cable.
2. Open storage compartment, glove box, and battery lids.
  - a. Remove storage compartment interior.
  - b. Remove lid hinge screws (total of nine, three (3) per lid).
  - c. Remove eight (8) screws on periphery of compartment lid trim plate.
  - d. Remove trim plate, lids and glove compartment interior as an assembly.
3. Remove bolt at rear portion of console. Access bolt through opening created in step 2. Remove four (4) screws (two (2) per side) on side of rear portion of console.
4. Lift console. Disconnect electric window switch connectors. Continue raising console while moving it rearward to allow parking brake handle seal to slide out of slot. Remove rear portion of console from vehicle.
5. Service parking brake mechanism as outlined in Section 5 of this Manual or replace concerned power window switch(s).
6. Having first disassembled heater and side vent controls, shift knob assembly, boot assembly, and trim plate, remove front console assembly by carefully pulling rearward and upward (fig. 8).

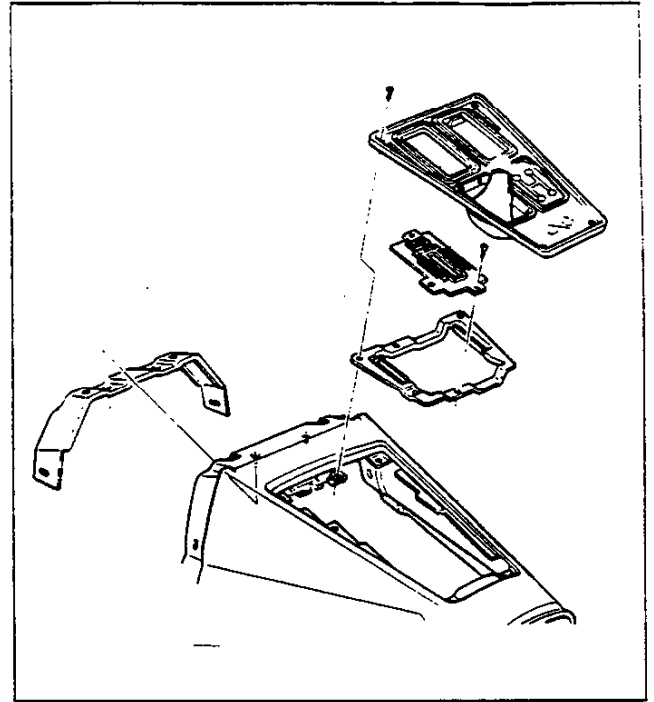


Fig. 8—Front Console Assembly

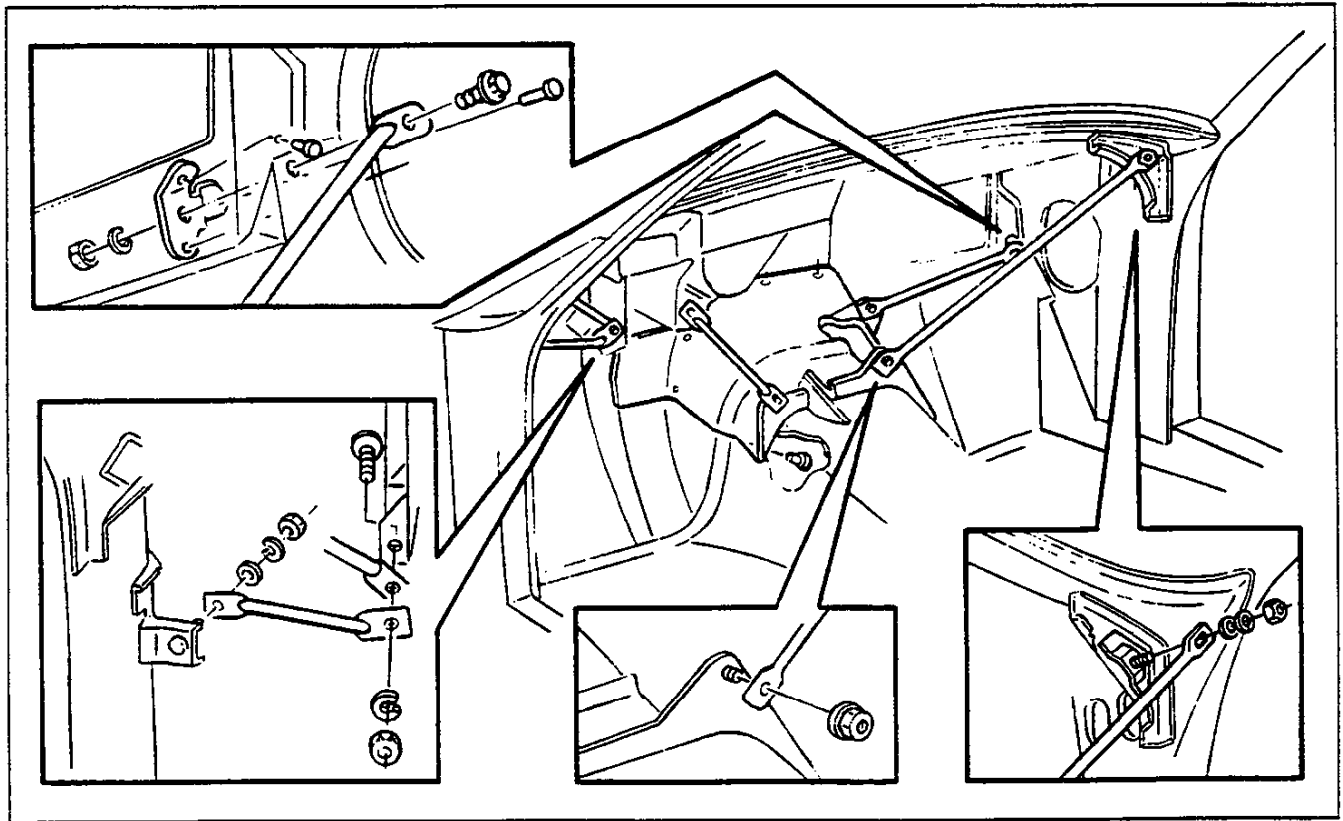


Fig. 9—Under Dash Braces - Convertible with A/C

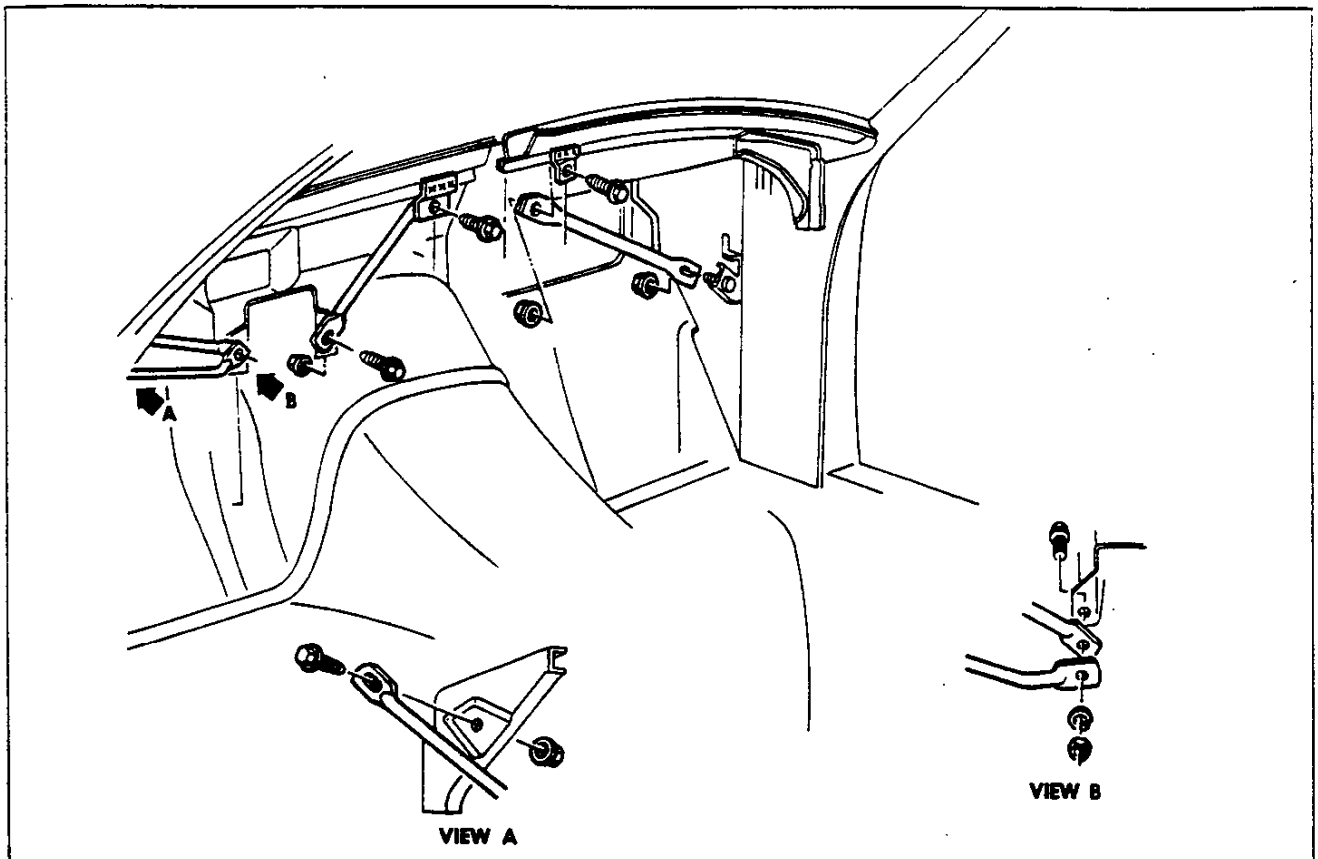


Fig. 10—Under Dash Braces - Convertible w/o A/C

7. Reverse steps 1-6 on installation, making sure seal is properly installed in its slot before finalizing the installation.

Tension of mirror stud is increased by tightening adjusting screw.

#### Under Dash Brace Rods (Figs. 9, 10)

Convertible style bodies have added reinforcements beneath the dash: one or two on the right and three on the left side. The brace rods are bolted into place from the cowl area towards the center of the vehicle.

If the heater core or radio are to be removed, the right-hand under dash braces may be removed first.

#### REAR VIEW MIRROR

##### Outside

##### Removal

The outside rear view mirror is removed from the door by removing the allen head set screw located on the outboard side of the mirror support. (See Figure 9). Mounting assembly is removed by removing two screws to body (fig. 11).

##### Installation

Mirror may be installed by following removal procedures in reverse order.

##### Inside

Installation of inside mirror is illustrated in Figure 12.

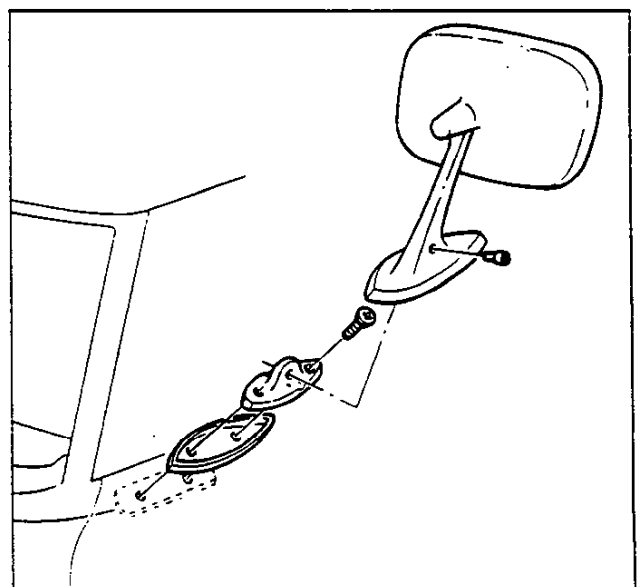


Fig. 11—Outside Rearview Mirror

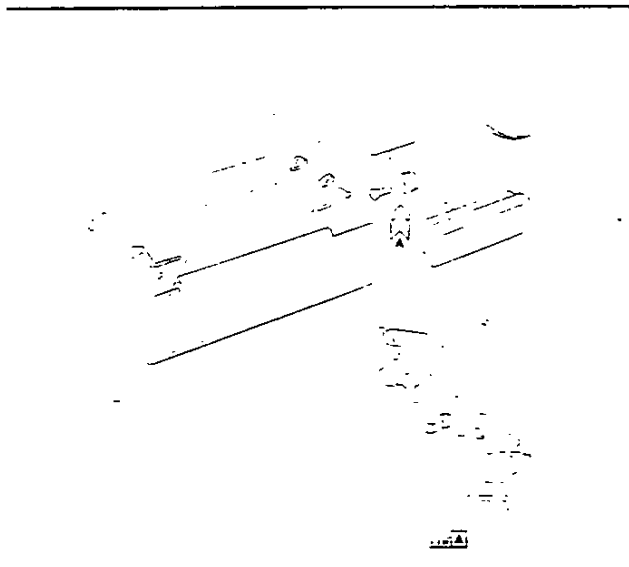


Fig. 12—Sun Visor and Inside Rearview Mirror

### SUN VISOR

Attachment of sun visor assembly to windshield header is made as shown in Figure 12. Turning of adjusting screw clockwise increases friction.

### WINDSHIELD (Figs. 12 to 16)

The windshield installation incorporates a synthetic self-curing rubber adhesive caulking compound that adheres to both glass and pinchweld frame in place of the rubber channel that was formerly used. Applied to the glass while in a soft state, the material begins to cure soon after exposure to air. It is therefore essential that installation of glass into body opening quickly follow application of material to glass. It is recommended to use the materials provided in a kit from your authorized dealer which consists of:

- a. One tube of Adhesive Caulking Material.
- b. Pressure Sensitive Adhesive Sealing Strip.
- c. Steel Music Wire (.020" diameter).
- d. Adhesive Caulking Primer.

Additional materials required:

- a. Caulking gun
- b. Two pieces of wood for wire handles.
- c. Black weatherstrip adhesive.
- d. Rubber glass spacers.

### Removal

1. Set windshield wiper access door in open position.
  2. Remove windshield wiper arms.
  3. Remove weatherstrips (L and R) from frame by removing mounting screw, prying from channel, and carefully pulling downward.
  4. Remove lower corner reveal moldings (L and R) by removing two (2) screws located at end flanges to fender, and carefully prying out from retaining clips.
  5. Remove side retainer moldings (L and R) by removing three (3) screws to frame.
  6. Remove side reveal molding (L and R) by removing one (1) remaining screw.
  7. After indexing molding and header rail with tape to insure proper reinstallation, remove upper reveal molding by carefully prying out at corner with screw driver and then pulling out remainder by hand.
  8. Secure one end of steel music wire to piece of wood for handle. Insert other end through caulking material at lower corner of windshield; then secure end of wire to another piece of wood (fig. 12).
  9. With the aid of helper, carefully cut through caulking material (using a sawing motion) with the steel wire; up side of windshield, across top, down opposite side, and across bottom.
  10. Remove old glass from windshield opening.
  11. Using a sharp scraper or wood chisel, remove adhesive caulking material from pinchweld flange.
- NOTE:** It is not necessary to clean off all the old caulking material completely from windshield frame; however, there should not be any loose pieces of caulking material left in the opening.
12. Check all upper reveal molding retaining clips for damage (4 clip assemblies required). Replace those that are bent or distorted.
  13. Using weatherstrip adhesive, cement rubber spacers at bottom, sides, and top of window opening. The step-type spacers are used at bottom, the flat type are used at the top, and at the sides, window opening.
  14. Using suction cup holders, position replacement glass in body opening. Carefully check relationship of glass to body pinchweld completely around opening. The overlap of glass to body pinchweld and retaining flanges should be equal with a minimum overlap of 3/16". Where necessary, position shims under the lower spacers to obtain required overlap of glass to body upper and lower flanges.
  15. After proper glass to pinchweld relationship has been attained, mark position with grease pencil on glass and windshield pillar.
  16. Remove glass from body opening and place on protected surface.
  17. Clean inside edge surface of glass so that glass is free of any foreign material (oil, grease, etc.). By first peeling off paper backing, apply pressure sensitive sealing strip approximately 1/4 inch from edge of inside surface of glass completely around glass. Then apply a film of silane primer to inside edge surface completely around glass; also apply silane primer to sealing surface of windshield frame.
  18. Cut off painted portion of cartridge nozzle along edge of paint line.
  19. Mix adhesive caulking material and accelerator thoroughly according to directions on container.
- NOTE:** Once caulking material is mixed, there will be approximately 35 minutes of working time with the material. Subsequent steps should be performed immediately after caulking material is mixed.
20. Place caulking material in cartridge.
  21. Carefully apply a smooth continuous bead of caulking material on inside surface of glass next to edge completely around glass. Caulking material should be approximately 1/4 inch wide at the base and form a pyramid 3/8 inch high. If during application the pyramid collapses, wait about 2-3 minutes

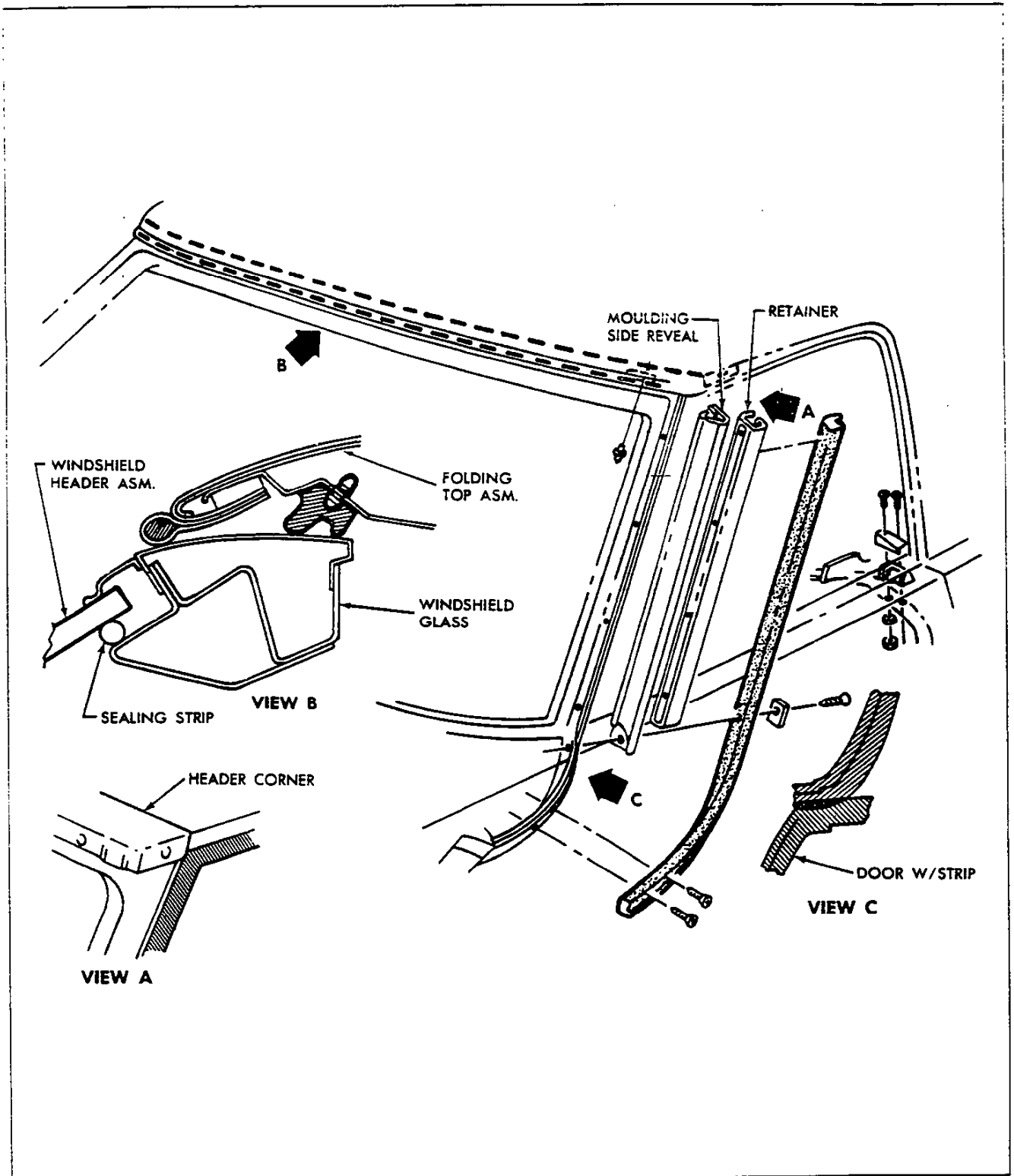


Fig. 13—Windshield Moldings and Weatherstrips

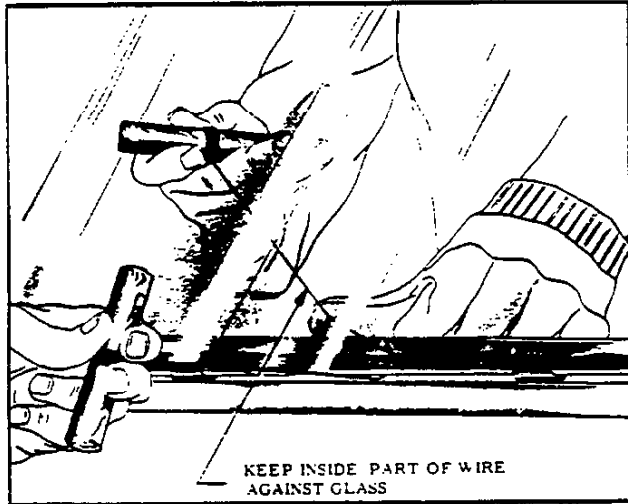


Fig. 14—Removing Old Glass from Opening

for material to set up. If an air bubble is encountered in material, back up the applicator and apply sufficient material to fill void and to dispense the bubble before continuing.

22. The reveal molding clips are self-sealing and do not require sealing before installing glass.
23. With aid of helper, lift glass and carefully position glass on spacers, matching up marks on glass and frame.
24. Press glass lightly to set caulking material to windshield opening flanges. Paddle material where necessary to insure proper seal.
25. Water test windshield immediately using a cold water spray. If any water leaks are encountered, use flat bladed screw driver or stick, and paddle caulking material into leak point to correct leak. Correction of leak is usually more effectively performed by paddling material from inside the body.

**CAUTION:** Do not run a heavy stream of water directly on caulking material while the material is still soft.

26. Install previously removed hardware and trim in the following order: upper reveal molding, side reveal molding, side retainer molding, lower corner reveal molding, and windshield pillar weatherstrip.

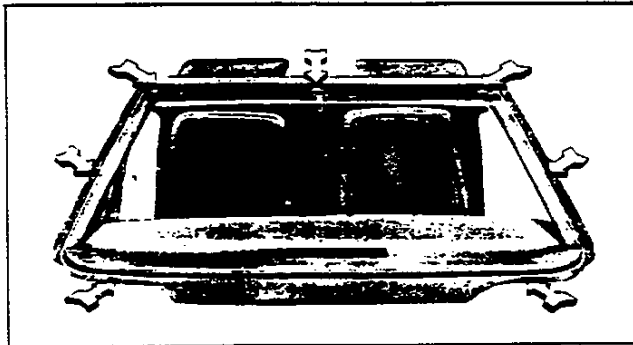


Fig. 15—Windshield Rubber Spacers

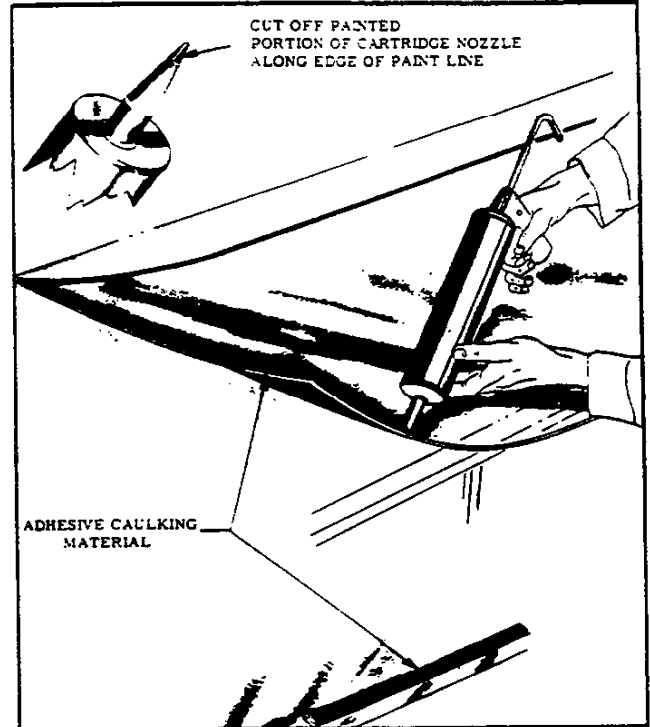


Fig. 16—Applying Caulking Material to Glass

### COWL VENTILATOR ASSEMBLY

The following procedure includes either the left or right-hand side. Refer to Figure 17.

#### Adjustment

Turn plastic adjustment link, located at middle of control cable underneath dash panel, in order to attain

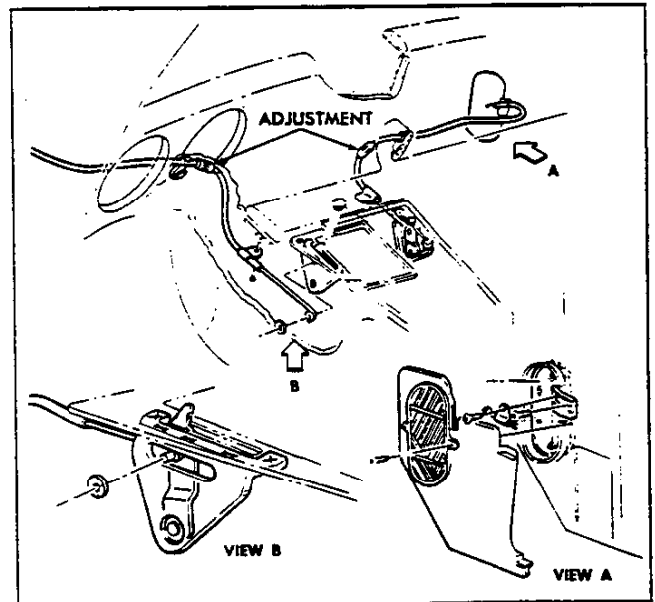


Fig. 17—Cowl Ventilator and Controls

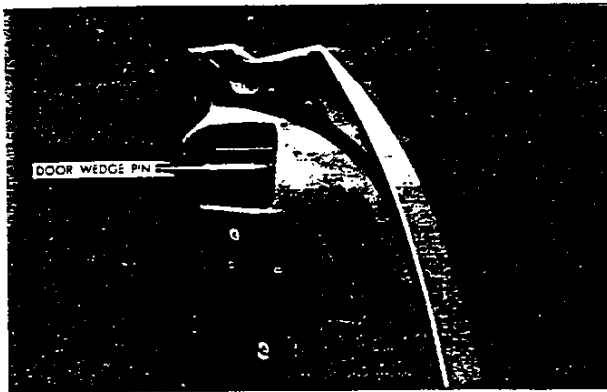


Fig. 18—Non-Adjustable Wedge Pin - Convertible Side Door

desired adjustment. Ventilator valve should be completely closed when knob is at forward position.

#### Removal

1. Remove cowi kick panel.
2. Disengage control cable fastened to bracket by screw.
3. Remove knob assembly retaining screw.
4. With console trim plate lifted out, remove nut retaining guide.
5. Remove screw retaining cable at inside front of console assembly.
6. Disassemble control mechanism.
7. Remove cable assembly by disconnecting at adjusting link and pulling through.

#### Installation

Install vent assembly following removal procedure in reverse order. Check operation and adjust accordingly.

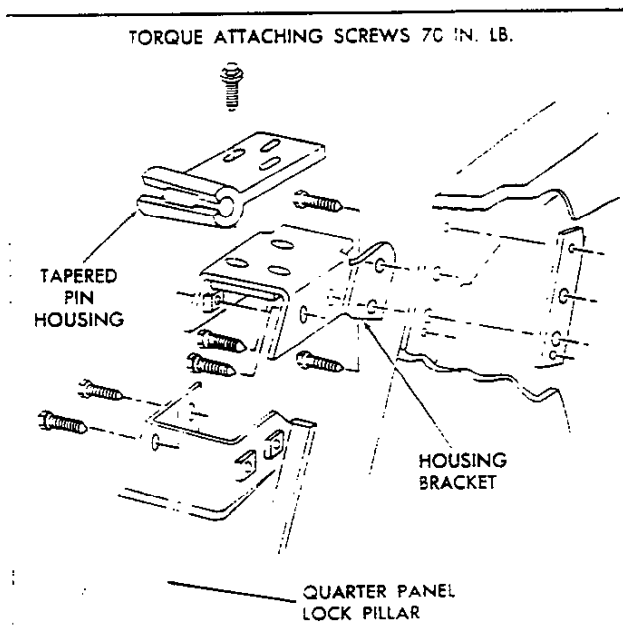


Fig. 19—Door Wedge Pin Housing and Bracket Location

## DOORS

### ADJUSTMENTS

#### Door Lock Striker (Fig. 20)

The door lock striker consists of a single metal bolt and washer assembly that is threaded into a tapped, floating cage plate located in the body lock pillar. With this design, the door is secured in the closed position when the door lock fork-bolt snaps over and engages the striker bolt.

1. To adjust striker up or down, or in or out, loosen striker bolt and shift striker as required, and then tighten striker.
2. To determine if striker fore or aft adjustment is required, proceed as follows:
  - a. Make certain door is properly aligned.
  - b. Apply modeling clay or body caulking compound to lock bolt opening.
  - c. Close door only as far as necessary for striker bolt to form an impression.

**CAUTION:** Do not close door completely. Complete door closing will make clay removal very difficult.

- d. Measure striker impression as follows:

Striker head should be centered fore and aft as shown; however, some tolerances are allowed. In this alignment, it is important that minimum dimensions as outlined in Figure 20 be strictly maintained. The following spacers are available as service parts and can be used individually or in combination to achieve the specified alignment:

- 5/64" Spacer
- 5/32" Spacer
- 1/4" Spacer
- 5/16" Spacer

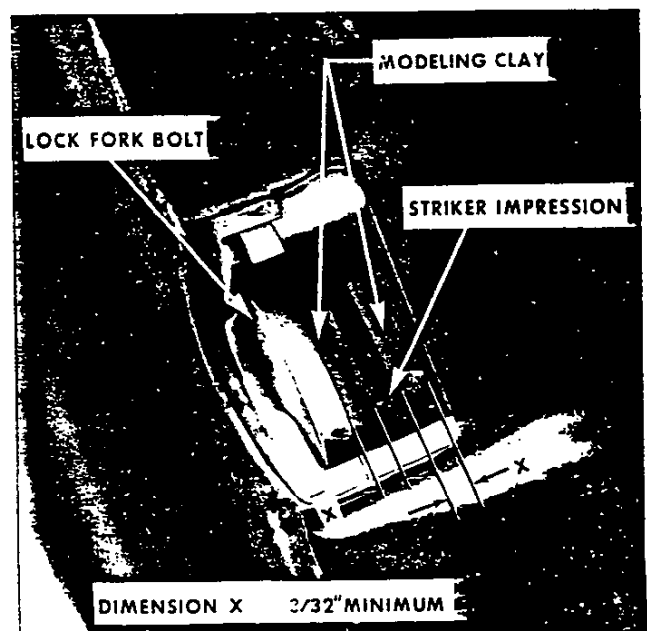


Fig. 20—Checking Adjustment of Striker



If check indicates need for emergency spacers, proceed as follows:

1. Mark position of striker on body lock pillar using a pencil.
2. Insert J-23457 wrench into head of striker bolt and remove striker.
3. To install, reverse removal procedure. Make certain striker is positioned within pencil mark.

**IMPORTANT:** Whenever a door has been removed and reinstalled or realigned, the door should not be closed completely until a visual check is made to determine if lock fork-bolt is correctly engaging with striker.

### Convertible Side Door Wedge Pin Housing And Bracket Adjustment

The wedge shaped tapered pin located on the side door (fig. 18) is not adjustable nor interchangeable right to left door.

All adjustments for entry of the wedge pin into the housing are made at the housing and housing bracket.

The housing bracket mounted in the quarter panel and lock pillar has six (6) mounting bolts allowing for alignment up and down (fig. 19).

The housing is secured with three (3) bolts to the housing bracket. The housing is adjustable on the horizontal plane in and out, back and forth.

All bracket and housing bolts should be just snug before closing door gently. Tighten all nine (9) bolts before opening door.

Try closing door after housing and housing bracket bolts are tightened to 70 inch pounds torque.

**NOTE:** No shims are to be used at tapered wedge pin, bracket, or bracket housing.

### DOOR WINDOW ADJUSTMENT (Fig. 21)

In order to perform any of the adjustments listed below, the door trim panel must be removed.

#### Window Tilted

1. Loosen two bolts (A) and adjust by rotating glass until a constant distance is gained between front edge of glass and the windshield pillar. Retighten bolts A.

#### Window Rolls Up Too Far

2. Loosen front and rear stop screws (B). Roll glass up until it properly seats in roof weather strip. Move front and rear stops until they contact window rollers. Retighten screws (B).

#### Gap Between Window Forward Edge and Windshield Pillar Too Large or Small

3. Loosen three bolts (C). Move glass towards windshield pillar weather strip until it properly seats in the stripping. Retighten bolts (C).

#### Glass Too Far Outboard or Inboard

4. Loosen bolts (D & E). Back off adjusting screws (G). Move top edge of glass inboard until it is properly

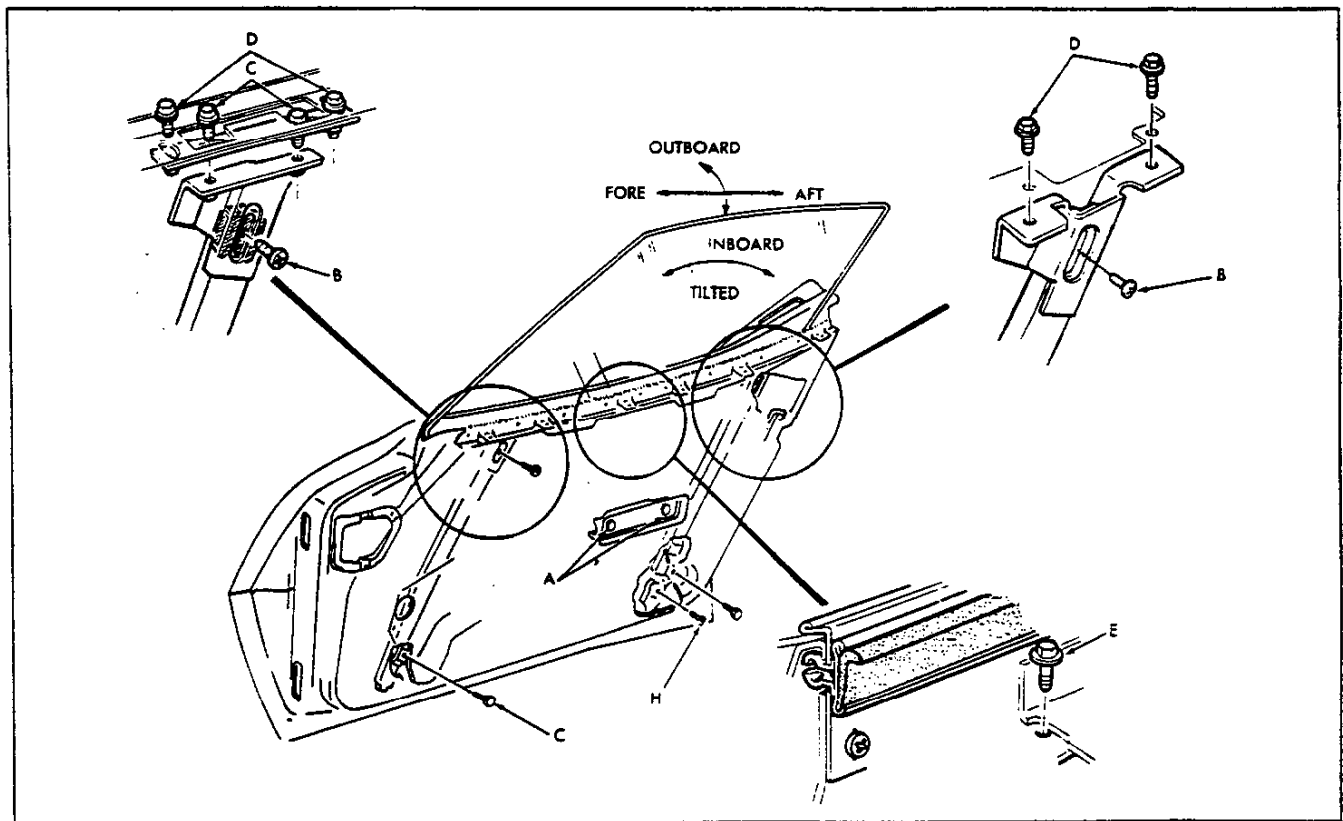


Fig. 21—Door Glass Adjustments

seated against roof rail weatherstrip. Tighten bolts (D). Move felt weatherstrip against window. Tighten bolts E. Turn adjusting screws so that the inner nylon pads are in light contact with wedges.

#### Window Rolls Down Too Far

- Loosen screw (H) and roll glass down until top edge is flush with outer panel. Move stop to contact window roller. Retighten screw (H).

If a complete door window adjustment is needed, fully adjust window by following all the steps given above in the order given.

#### Door Hinges

(Refer to Figure 22)

The position of the door assembly in the body opening is determined by the striker position previously described, and the position of the door on the hinge rear straps. The position of the door is adjusted by sliding the door fore and aft to the limit of the slotted holes in hinge pillar; in and out adjustment is done by installation and removal of shims located between hinge pillar and front straps of hinges; up and down position is determined by adjustment of rear hinge straps in slots of inner door panel. To adjust door, proceed as follows:

- Remove door trim panel as outlined in this section.
- Remove lock striker bolt after first scribing line on lock pillar surface following circular flange. This enables proper installation position.
- For up-and-down adjustment, remove hinge cover (2 screws) for access to upper hinge retaining screws.
- For in-and-out, and fore-and-aft adjustment, it is necessary to first remove instrument panel (left door only), right dash pad (right door), cowl kick panel, air inlet duct, and radio speaker, in order to gain access to hinge retaining screws.
- Adjust door as required. (Do not allow doors to hang on one hinge without support.)
- Install previously removed striker assembly, trim pads and panels and lubricate door hinges with lubricate or equivalent.

**NOTE:** After performing any door adjustment,

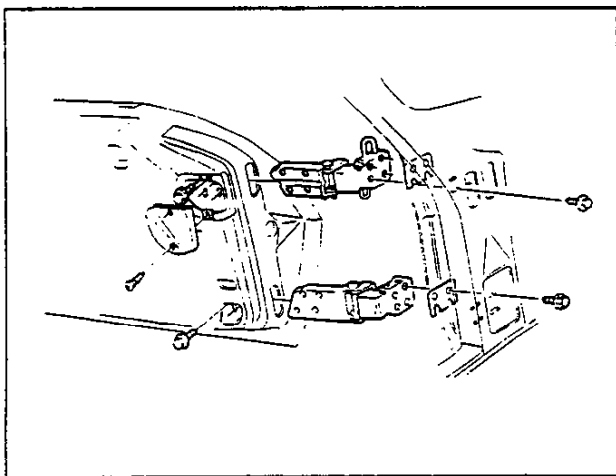


Fig. 22—Side Door Hinges

the window and lock pillar should be checked for alignment and adjusted as necessary. Do not slam door after adjustment without first checking the door lock and striker engagement. An adjustment may be necessary.

#### TRIM PANEL AND INSIDE HANDLES (Figs. 23 to 25)

- Using Tool J-7797, remove clips retaining window crank and lock control.
- Remove four (4) screws securing trim panel located at inside corners of inner door panels.
- Remove trim panel by carefully prying out at plastic fastener clips located around perimeter of panel.
- Remove door lock handle by removing one (1) screw and sliding handle forward.
- Remove formed plastic cover by peeling along edge at adhesive bead.
- For installation follow above steps in reverse order making sure trim panel is properly aligned.

#### DOOR LOCK AND REMOTE CONTROLS (Fig. 24)

##### Removal

- Raise window fully up.
- Remove door trim panel as outlined in this section.
- Disengage upper control rod assembly by releasing carburetor type clips at both ends, and removing rod through access hole.
- Disengage lock control rods by releasing clips at both ends and lifting outward.
- Remove remote control assembly by removing four (4) screws to inner door panel.
- Remove "crank link" (intermediate pivot) by removing two (2) screws to inner panel.
- Remove door lock by removing three (3) screws and lifting assembly out through access hole.

##### Installation

For installation, follow preceding steps in reverse order. After assembly of lock mechanism, adjust linkage for proper operation, by removing clip and turning threaded rods. All components should be lubricated before installation.

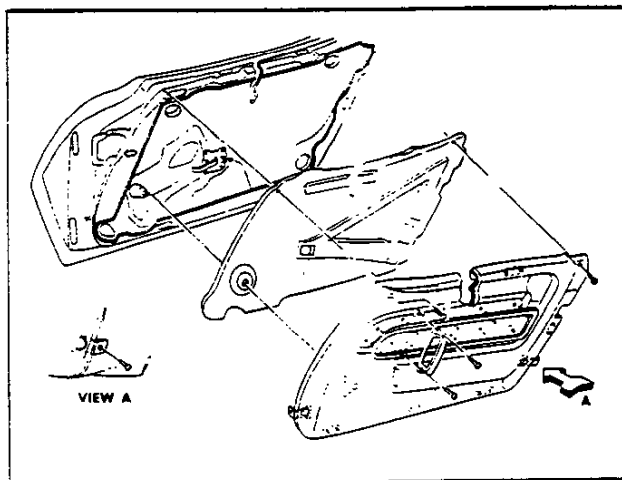


Fig. 23—Door Trim Panel Assembly

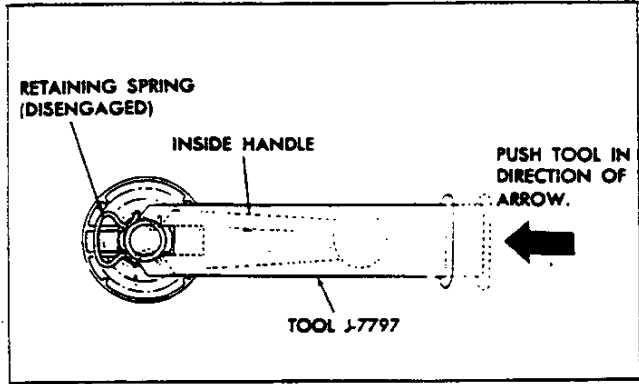


Fig. 24—Removing Window Crank with J-7797

**WEATHERSTRIP (Fig. 26)**

When installing new weatherstrip, all dirt, loose paint and old cement must be removed to ensure a good bond. Use only high quality cement designated by the manufacturer as being suitable for weatherstrip application.

**WINDOW OUTER SEAL ASSEMBLY (Fig. 27)**

1. Lower window all the way down.
2. Remove trim panel.
3. Remove two (2) screws one located at each end of seal.
4. Carefully pry out of six (6) retaining clips.
5. Lift seal assembly outward and upward.
6. For installation, secure clips and install the two screws, then install trim panel and handles.

**WINDOW ANTI-RATTLE (Fig. 27)**

1. Lower window
2. Remove trim panel
3. Remove hex head screw
4. Fish anti rattle through access
5. Install anti-rattle through access. Adjust, install trim.

**WINDOW GLASS**

**Removal**

1. Remove door trim panel as outlined in this section.
2. Remove window outer seal assembly as outlined in this section.

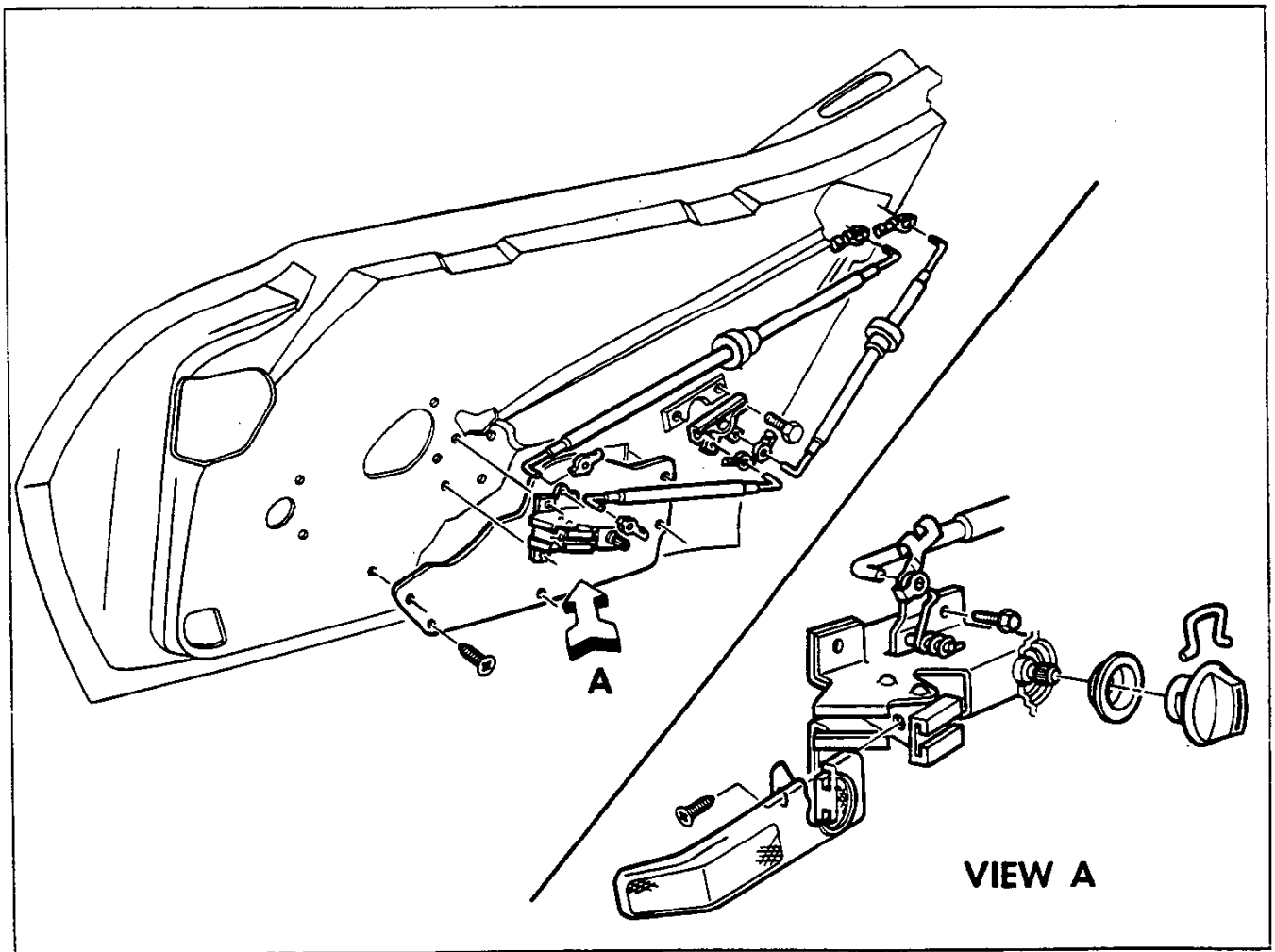


Fig. 25—Door Lock and Remote Control

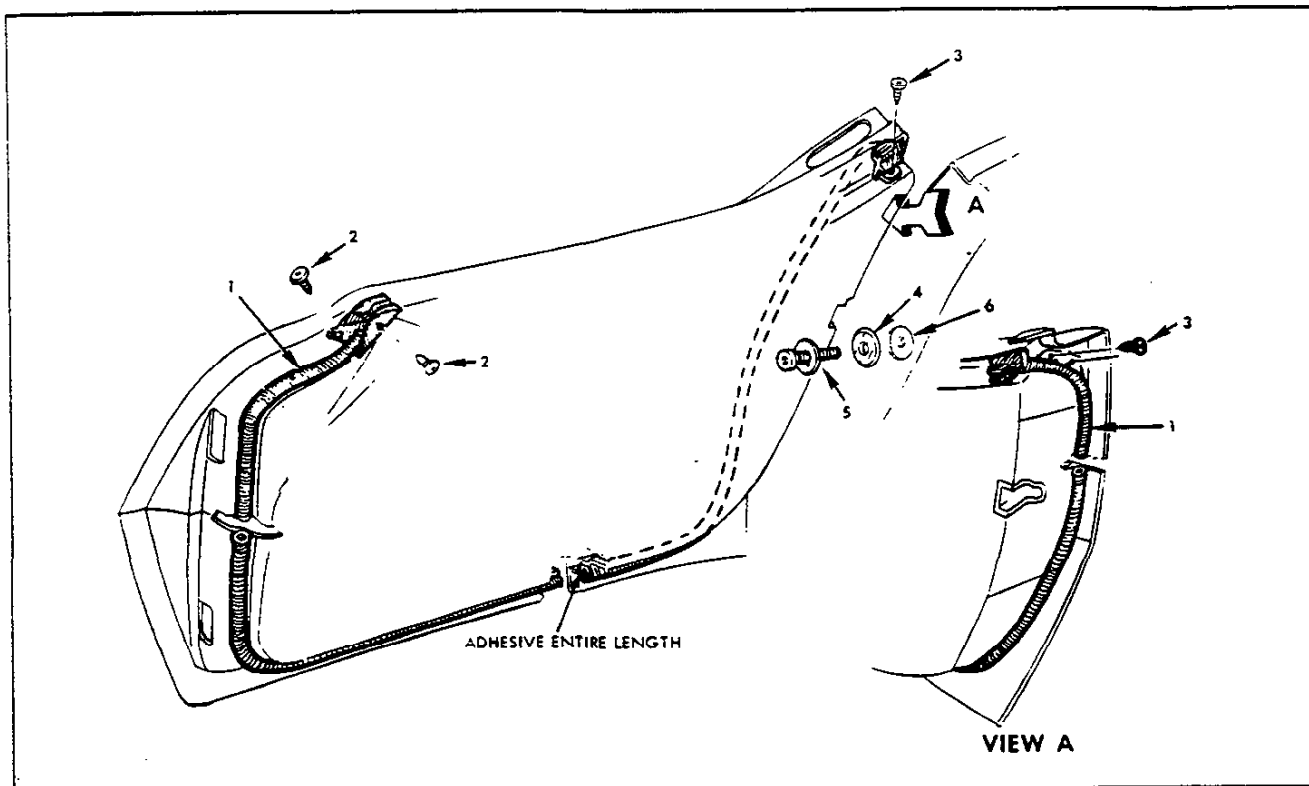


Fig. 26—Door Weatherstrip

- |                 |           |                |
|-----------------|-----------|----------------|
| 1. Weatherstrip | 3. Screw  | 5. Striker     |
| 2. Screw        | 4. Spacer | 6. Lock Pillar |

- Position window all the way up to line up two (2) sash screws through access holes.
- Remove two (2) sash screws on horizontal guide channel while holding nut with other hand (fig. 24).
- Disengage stop by removing one (1) Phillips head screw at top of channel assembly.
- Adjust front and rear channel assemblies to extreme outboard position to allow ample clearance for window removal.
- Carefully pull window upward making certain to clear roller assemblies through opening in inner door panel.

#### Installation

If replacement glass is necessary, disassemble two (2) pads and fasteners, and frame assembly by removing three (3) mounting bolts through glass (fig. 25). Mount frame assembly and pads onto new glass before installation into door.

The following steps are necessary for installation:

- Insert glass in door pocket with convex curvature towards outside of vehicle.
- Install and tighten (2) sash bolt and nut assemblies through horizontal guide channel and glass frame.
- Adjust front and rear channels to proper in and out position.
- Install inner window seal, and door trim panel.

#### GLASS RUN CHANNELS (Fig. 30)

##### Removal

Removal of either front or rear channel involves the following steps.

- Remove door trim assembly as outlined in this section.
- Remove window glass assembly as outlined in this section.
- Remove retaining screw at lower end of channel and two (2) screws retaining channel to top surface of door inner panel.
- Remove two (2) screws retaining stationary horizontal guide channel.
- Remove nut from adjusting stud.
- Adjust stud to extreme clockwise position to allow proper removal clearance.
- Carefully lift channel through upper slot as shown in Figure 31 making certain to clear opening.

##### Installation

- Position run channel in door and install retaining bolts loosely.
- Install window glass as outlined in this section.
- Make necessary adjustments to channel as outlined under Doors - Adjustments - Door Windows. Replace door trim panel.

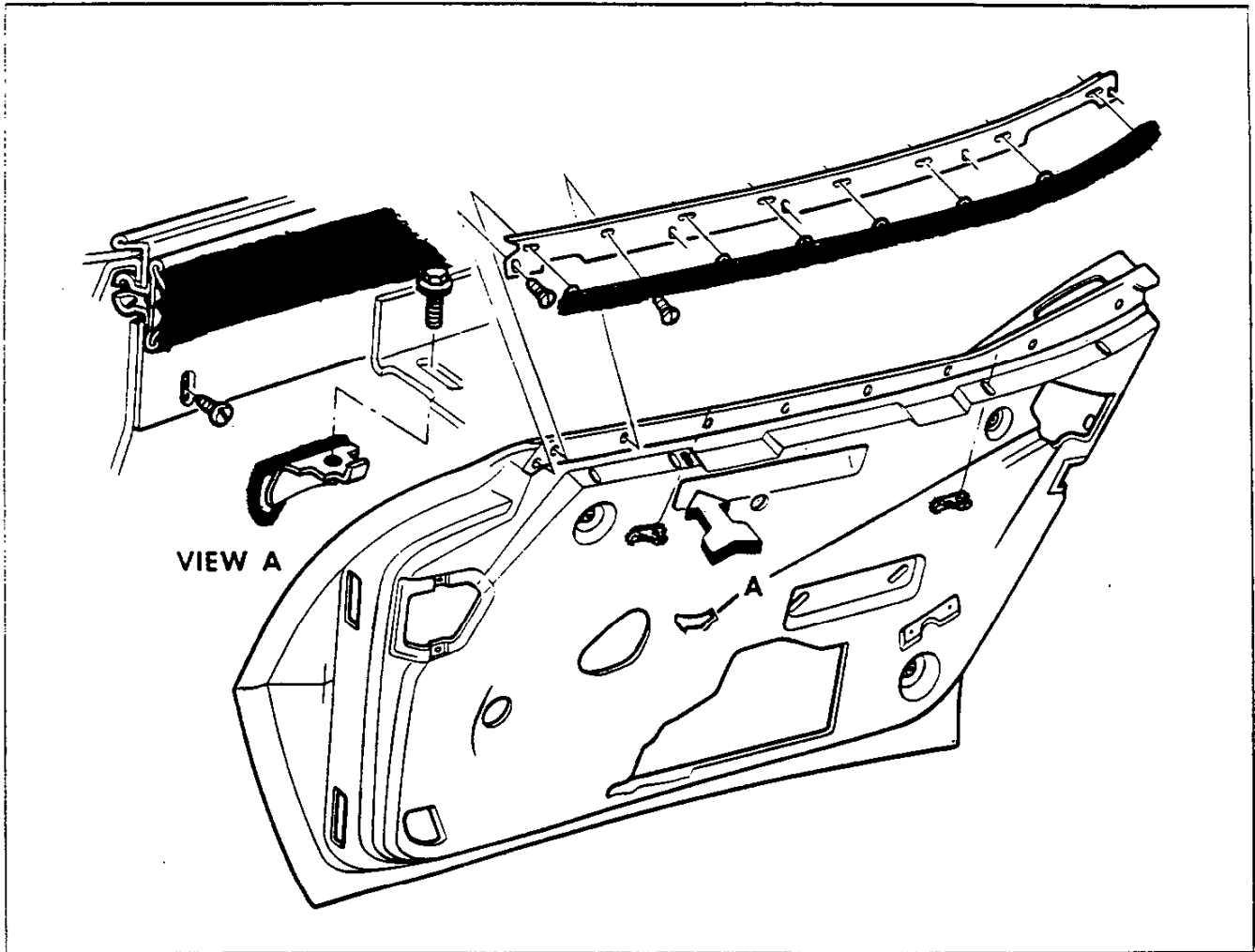


Fig. 27—Window Glass Seals and Molding

**WINDOW REGULATOR—MANUAL (Fig. 32)****Removal**

1. Remove trim panel as outlined in this section.
2. Position window all the way up.
3. Remove two (2) sash bolt and nut assemblies retaining window glass.
4. Remove two (2) screws securing stationary horizontal channel.
5. Remove window crank housing by removing three (3) screws.
6. Remove crank shaft, pin and washer spring.
7. Remove two (2) screws located adjacent to spring opening retaining regulator.
8. Remove lower bolt securing front glass channel.
9. Remove nut securing adjusting stud, and adjust front channel outward to provide adequate clearance for window regulator removal.
10. Collapse regulator linkage to elongated position.
11. While depressing front channel outward, slide regulator assembly forward and rearward to remove through access hole as shown in Figure 33.

**Installation**

Regulator may be installed by following removal pro-



Fig. 28—Removing Sash Screws

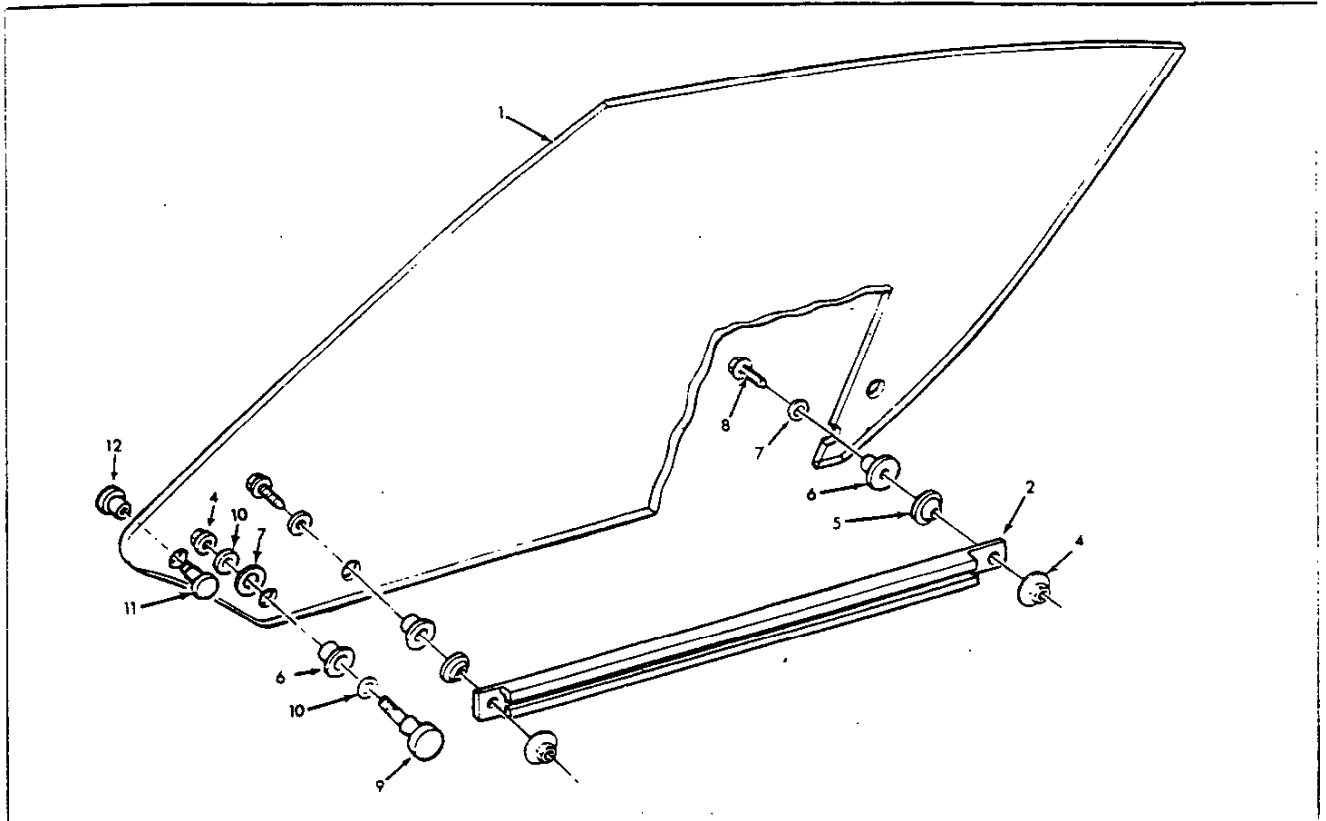


Fig. 29— Glass and Frame Assembly

- |                    |            |                    |              |
|--------------------|------------|--------------------|--------------|
| 1. Glass           | 4. Nut     | 7. Washer          | 10. Washer   |
| 2. Channel         | 5. Nut     | 8. Bolt            | 11. Fastener |
| 3. Roller Assembly | 6. Bushing | 9. Roller Assembly | 12. Cap      |

cedure in reverse order. Always lubricate all guide rails and rollers when regulator is disassembled. Test regulator thoroughly before installing door trim panel. Adjust window as outlined in this section.

### WINDOW REGULATOR—POWER

In the case that window will not operate, check electrical connections first. Figure 34 illustrates location of junctions, switches, and circuit breaker.

#### Removal

Perform Steps 1 through 12 following Window Regulator—Manual Removal. Note that electrical connectors must be removed from motor before performing any operation on regulator. Figure 34 illustrates location of regulator on door and wiring.

#### Disassembly

**NOTE:** Do not attempt to remove motor from regulator until the following operations are performed. Arm is spring-loaded and should be locked in position when motor is removed. Refer to Figure 35.

1. Place regulator assembly in vise.
2. Using jumper leads to 12 volt DC source, operate

3. Screw a 1/4" - 20 x 1" bolt into weld nut so that end passes through hole in sector gear. It may be necessary to enlarge hole in gear slightly with file or drill. Install nut on bolt to lock arm position.

#### Installation

Be sure lock bolt is removed if regulator has been disassembled.

1. Install lubricated regulator assembly and guide rails in reverse order of removal.
2. Install window as outlined in this section.
3. Making sure connectors are securely installed on motor, test operation of window thoroughly.
4. Install door trim panel and control handles as outlined in this section.

### OUTER HANDLE AND LOCK CYLINDER (Fig. 36)

#### Removal

1. Remove trim pad.
2. Remove lock water shield.
3. Remove handle assembly by first removing (3) three screws retaining lock.
4. Remove (2) nuts attached to handle assembly studs and raise handle assembly after prying pivot link clip loose.

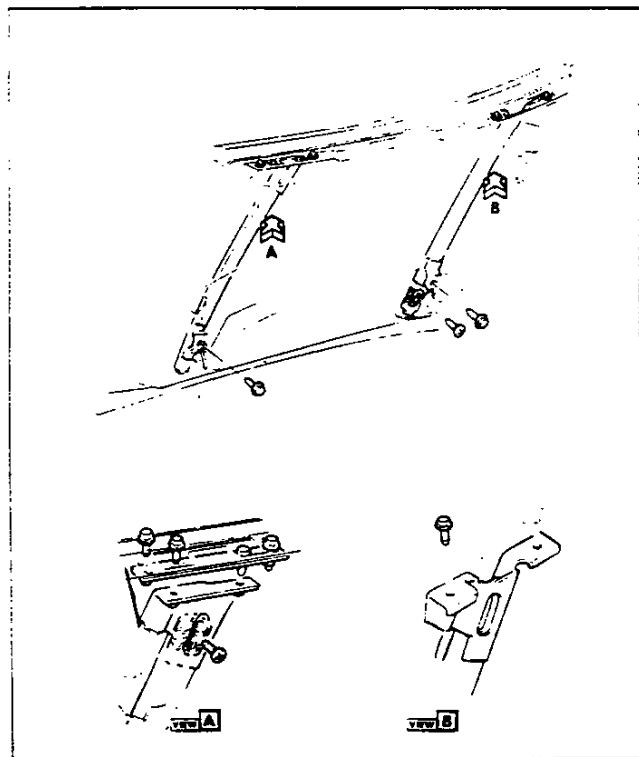


Fig. 30—Window Run Adjustment Points

5. Remove lock cylinder by repeating step (2) above then removing 2 clips on rear of cylinder.

#### Installation

1. If required, install new lock cylinder seal with assembly replacement.
2. Position handle assembly and tighten retaining nuts.
3. Slide lock back into place and secure with (3) three screws.
4. Carefully check operation of door lock, handle and cylinder.
5. Install lock water shield, using foam pressure tape as seal.
6. Install door trim panel as outlined in this section.

### HINGES—DOOR ASSEMBLY (Fig. 37)

#### Removal

1. Remove door trim panel as outlined in this section.
2. Remove hinge access cover from door inner panel.
3. For lower hinge removal, remove door sill plate, cowl kick panel, and radio speaker.
4. For access to upper hinge attaching screws, remove lower mast jacket cover and instrument panel pad (left side), or dash panel pad (right side), and air inlet ducts.
5. If entire door is to be removed and door has electric power window, disconnect and remove wiring between hinge pillar and door.
6. If hinge is to be replaced in same position, scribe around inner strap on door panel and record number of shims found between hinge strap and door panel.
7. Remove bolts retaining hinge to door. DO NOT

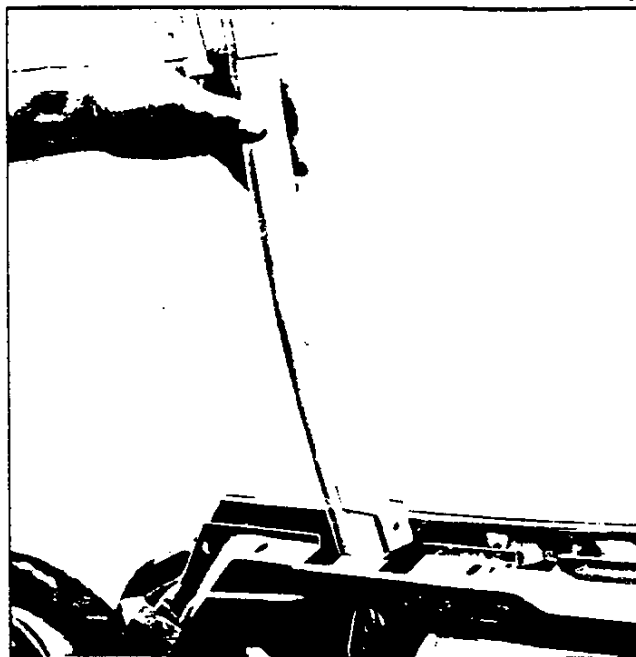


Fig. 31—Removing Front Glass Channel

ALLOW DOOR TO HANG UNSUPPORTED ON ONE HINGE.

8. Remove bolts retaining hinge to body.

#### Installation

1. If door assembly has been removed from car, scribe around lock striker as explained under Adjustments—Door Lock Striker, and remove striker from lock pillar.
2. Install hinges, replacing same number of shims removed, and aligning door hinge straps with marks scribed at disassembly.
3. As necessary, perform door adjustments as outlined in this section.
4. If door is equipped with power window, reinstall wiring.
5. Replace all trim and panels removed during disassembly.

### REAR QUARTER

#### DOOR SILL PLATE AND MOLDING

Figure 38 illustrates assembly details of both the door sill plate and molding. The sill plate, which retains the carpet, the cowl trim kick panel, and lock pillar front edge trim, is mounted to the body by four (4) screws.

The upper molding is replaced by removing seven (7) screws; the lower molding is replaced by first removing the upper molding and then removing five (5) screws and four (4) nuts at face of molding.

#### UNDERBODY STORAGE COMPARTMENT

Located directly behind the front seats, the underbody storage compartment assembly is divided into three separate storage areas.

Refer to Figure 39.

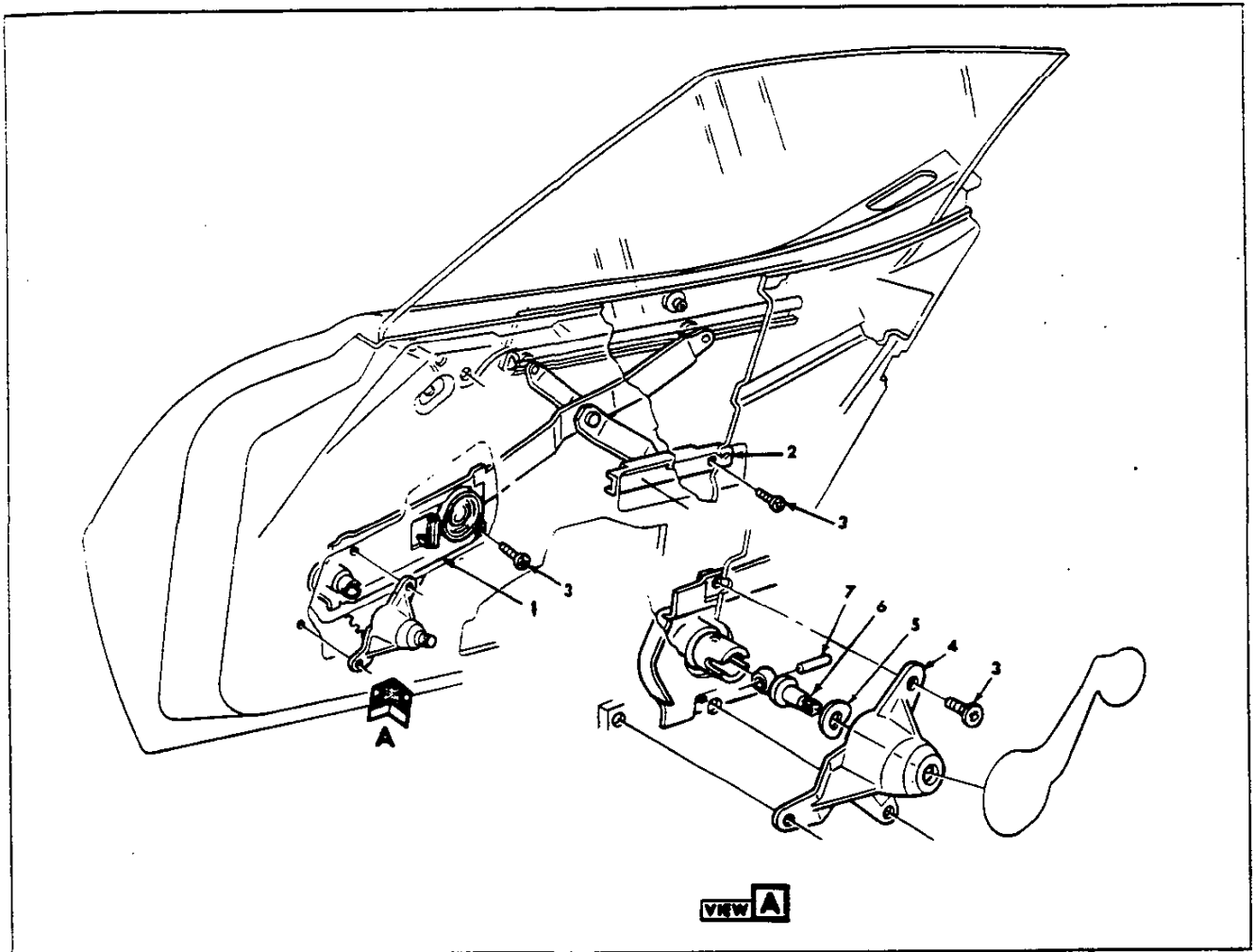


Fig. 32—Manual Window Regulator

- |                     |            |                  |        |
|---------------------|------------|------------------|--------|
| 1. Regulator        | 3. Screw   | 5. Washer-Spring | 7. Pin |
| 2. Channel Assembly | 4. Housing | 6. Shaft         |        |

1. Remove right hand box by opening lid, and lifting box upward.
2. Unfasten storage assembly by removing eight (8) screws along inner flange of frame and lower strap of door hinges.
3. Remove assembly from underbody by lifting upward.
4. Doors are removed from assembly by removing three (3) screws (outer doors) and two (2) screws (center door) at upper hinge strap.
5. Center storage compartment box is removed by removing seven (7) screws located around inside top edge of box.
6. For installation, follow above steps in reverse order.

### REAR END

#### FOLDING TOP COMPARTMENT LID (Fig. 40)

##### Adjustment

##### Hinges

The folding top compartment lid should be adjusted so

that, in the closed position, the surface of the lid is flush with surrounding body surfaces, and space between lid edge and body is 1/16" to 3/16" at sides and 3/16" to 1/4" at rear. Whenever lid position is changed on hinges, lock engagement must be inspected and adjusted if necessary. Adjust hinge position as follows:

1. Scribe a line on lid surface following contour of hinge strap. This line will assist in observation of lid movement during adjustment (fig. 41).
2. To raise or lower top surface of lid, add or remove hinge shims as required.

##### Lock

Lock engagement is adjusted as follows:

1. Lock striker is adjusted in and out to the extent of slotted mounting holes.
2. Release of lock is adjusted by loosening lock assembly retaining bolts and moving lock fore and aft to the limit of slotted holes in lock base.
3. After adjustment, lock release should be tested and readjusted as required.



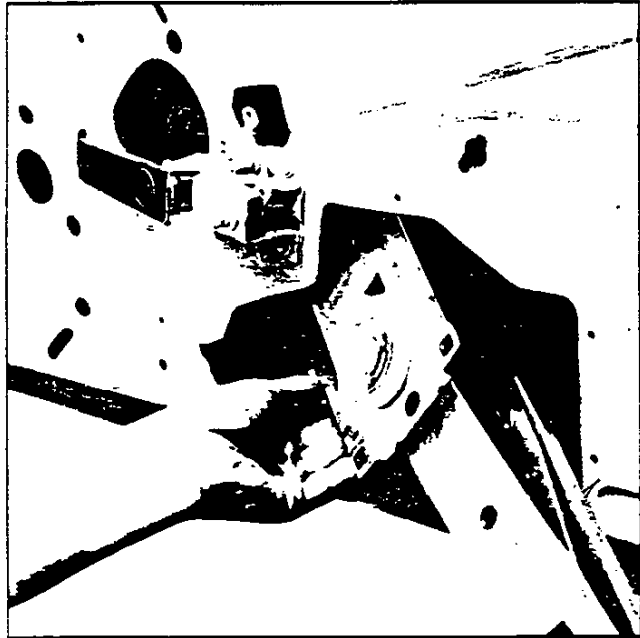


Fig. 33—Removing Window Regulator

**Closing (Fig. 40)**

1. Adjust screw and bumper in place to full down position.
2. Close lid assembly allowing pin to engage in bushing and locate housing.
3. Tighten nuts to 70 lbs. inch torque.
4. Adjust screw up until the bumper is firmly seated against the lower surface of the lid assembly.

**Hinges****Removal**

1. Scribe around hinge as shown in Figure 41.
2. Hinge is removed as an assembly by opening top compartment lid fully, and removing three (3) retaining screws. Note number of shims found between hinge frame and compartment floor.
3. Remove spring from hinge assembly by closing top compartment lid as far as possible and inserting Tool J-9550 between expanded coils in spring. Opening top compartment lid fully allows removal of spring as shown in Figure 42.
4. Directly after spring is removed, insert long bolt supplied with J-9559 through holes in end of tool through the spring, and install nut on bolt.

Spring may be removed from J-9559 or J-9559 may be installed in a new spring, by the following method:

1. Place a closed 6 or 8 inch "C" clamp in vise or fasten it to a bench top anchored to floor.
2. Hook one end of spring in clamp and the other end in hook of chain hoist, or "cheery picker", as shown in Figure 43.
3. Elongate the spring enough to allow insertion of J-9559. Install through bolt if spring is not to be installed on hinge immediately.

**Installation**

1. Install same number of shims as removed or, if repairing collision damage, etc., position hinge in

compartment. install upper mounting screws, fill gap between floor and hinge frame with shims and install lower mounting screw.

2. If spring has been removed from hinge, install spring in J-9559 and place spring on hinge with compartment lid raised; closing lid releases J-9559 for removal. Upper end of spring should rest in the one of three notches yielding best lid operation. Approximately three pounds force is necessary to close lid.

**Top Lock**

1. For locks on either side, remove rod mounting clamps by removing one (1) hex screw.
2. Remove two (2) nut-washer assemblies.
3. After disassembling lock from mounting studs, carefully remove cover and gasket from compartment lid.
4. For installation, follow above steps in reverse order. Test lock and control mechanism for proper operation.

**Lock****Removal**

1. Remove rod mounting clamps. Remove retainer from control rod assembly and disengage rod from control.
2. Scribe a mark on lid along outer contour of lock assembly.
3. Remove three (3) lock assembly retaining screws and remove lock from compartment lid.

**Installation**

1. Place lock assembly on compartment lid aligned with scribed line and install retaining screws.
2. Install end of rod in control assembly and fasten retainer securely.
3. Test operation of lock thoroughly, and adjust if necessary as outlined in this section.

**Control****Removal**

1. Remove inner mounting clamps from both cables, and disengage rods from control by removing retainers.
2. Remove four (4) mounting screws and remove control from compartment lid.

**Installation**

1. Position control on compartment lid and install mounting screws.
2. Install ends of rods in control and fasten securely with retainers.
3. Engage push rod with retainer.
4. Test operation of locks and adjust if necessary.

**GAS TANK DOOR AND REAR TRIM**

Figure 44 illustrates installation details of gas tank door, letter trim, and tail pipe bezel.

Gas tank door assembly and bezel are replaced by removing sheet metal screws located around inner surface of bezel.

Trim letters are retained by special nuts accessible from underneath vehicle.

**REAR FILLER PANEL (Fig. 44)**

1. Remove rear license plate and housing.
2. Remove tail pipe extensions from mufflers.
3. Remove eight (8) mounting screws retaining filler panel to body and slide panel down.
4. For installation, follow above steps in reverse order.

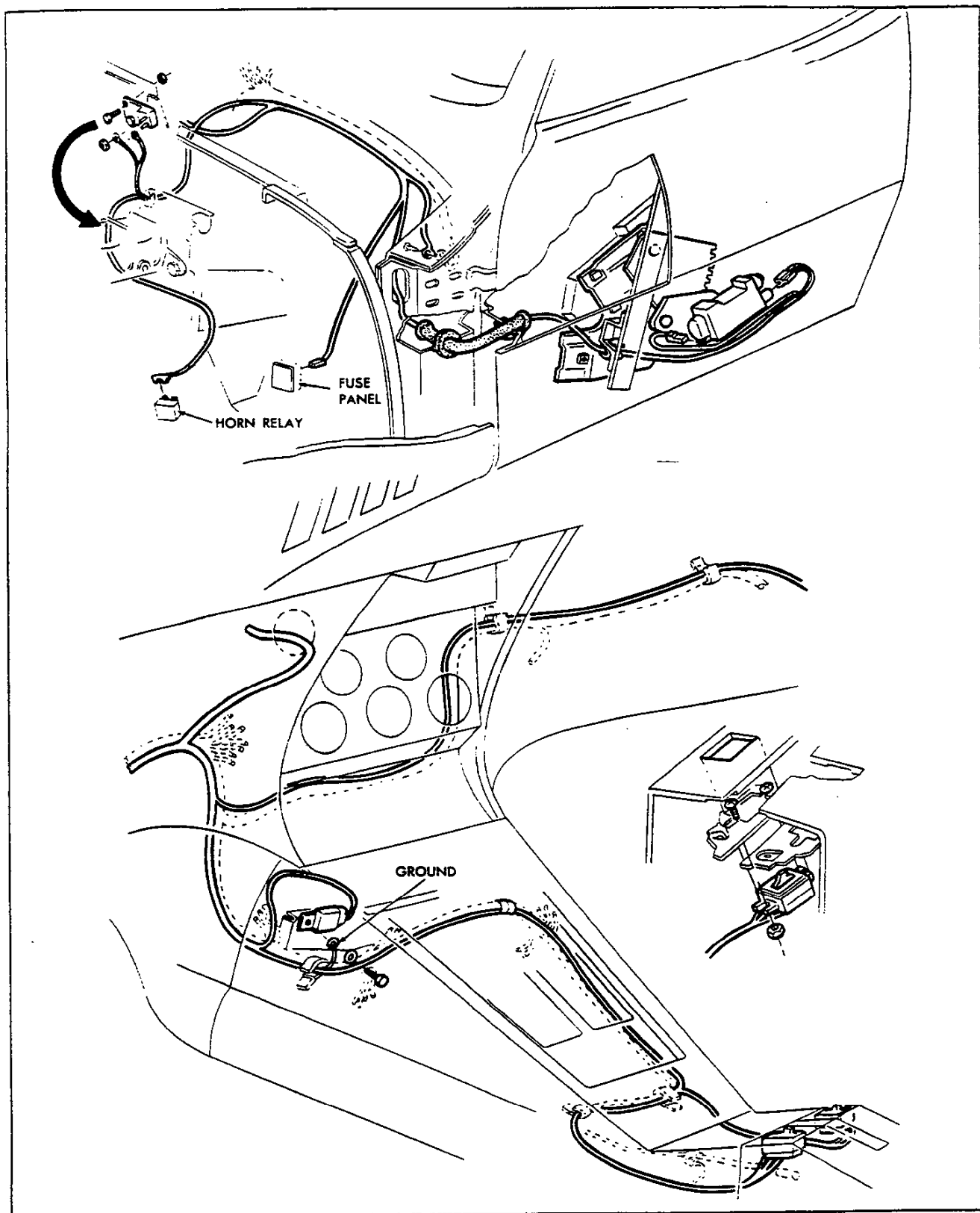


Fig. 34—Power Window Regulator Wiring

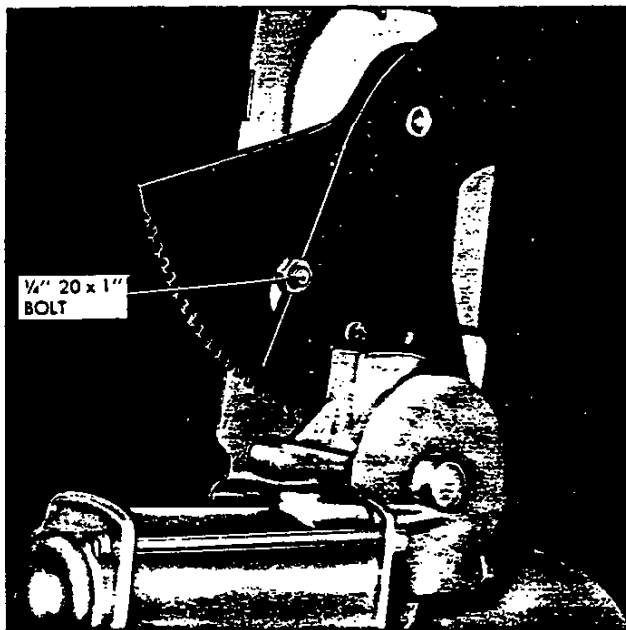


Fig. 35—Locking Arm in Place

### SPARE TIRE MOUNT (Fig. 45)

#### Removal

1. Remove spare tire as outlined in Owner's Manual.
2. Loosen pivot bolt lock nuts and turn pivot bolts out of weld nuts in crossmember.
3. Remove two (2) screws retaining swivel bolts assembly to body.
4. Remove four bolts holding cover assembly to body.

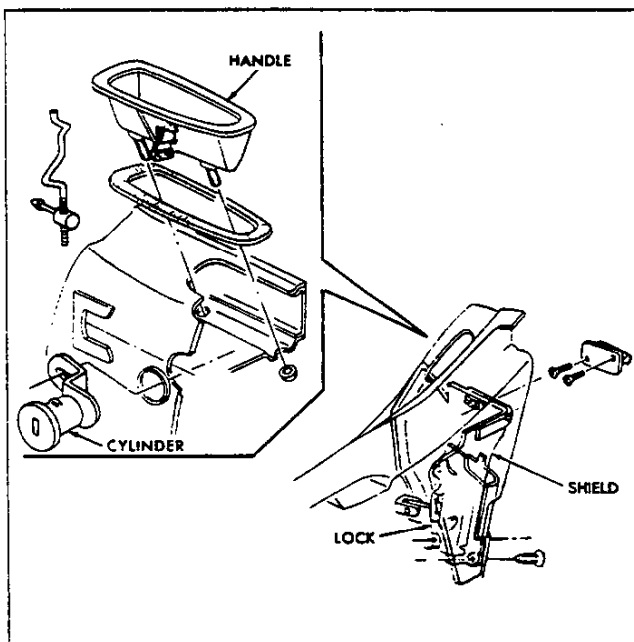


Fig. 36—Door Handle and Lock Cylinder

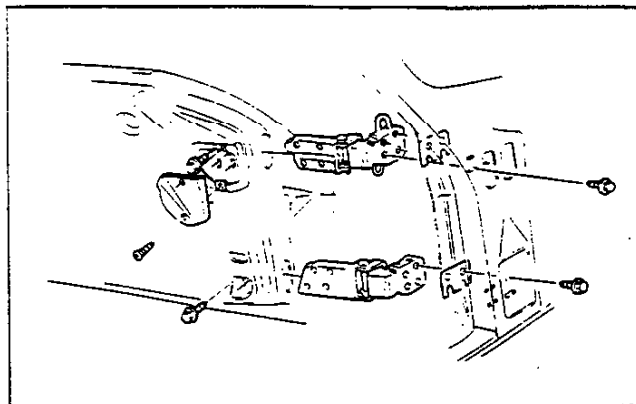


Fig. 37—Side Door Hinges

#### Installation

Installation is made by following removal procedure in reverse order. Before installation swivel bolt assembly, coat nut and bolt threads with chassis grease.

### REAR PLENUM DRAIN (Fig. 46)

The coupe rear plenum drain assembly is located in the left rear quarter of the vehicle. The exterior mounted drain shield is located in the left rear wheelhouse.

#### Replacement of Drain Hose

1. Remove interior quarter trim panel as outlined further in this section.
2. Loosen clamp on drain hose.
3. Remove and replace drain hose.
4. Install clamp on hose at rear plenum.
5. Reinstall quarter trim panel in the reverse order of removal.

## RUGS AND INTERIOR TRIM

### CLEANING SOFT TRIM

#### Procedure for Cleaning Folding Top Material

The top should be washed frequently with neutral soap suds, lukewarm water and a brush with soft bristles. Rinse top with sufficient quantities of clear water to remove all traces of soap.

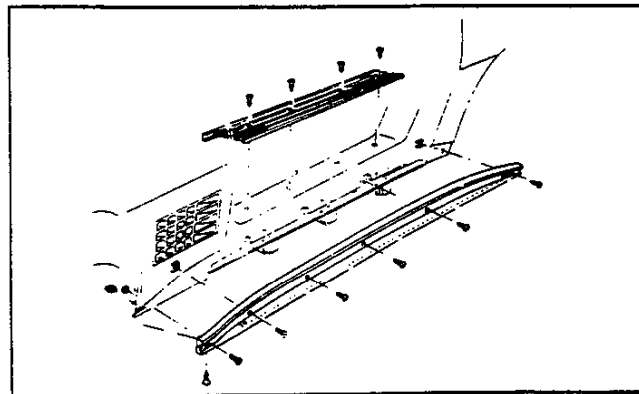


Fig. 38—Sill Plate and Trim Molding



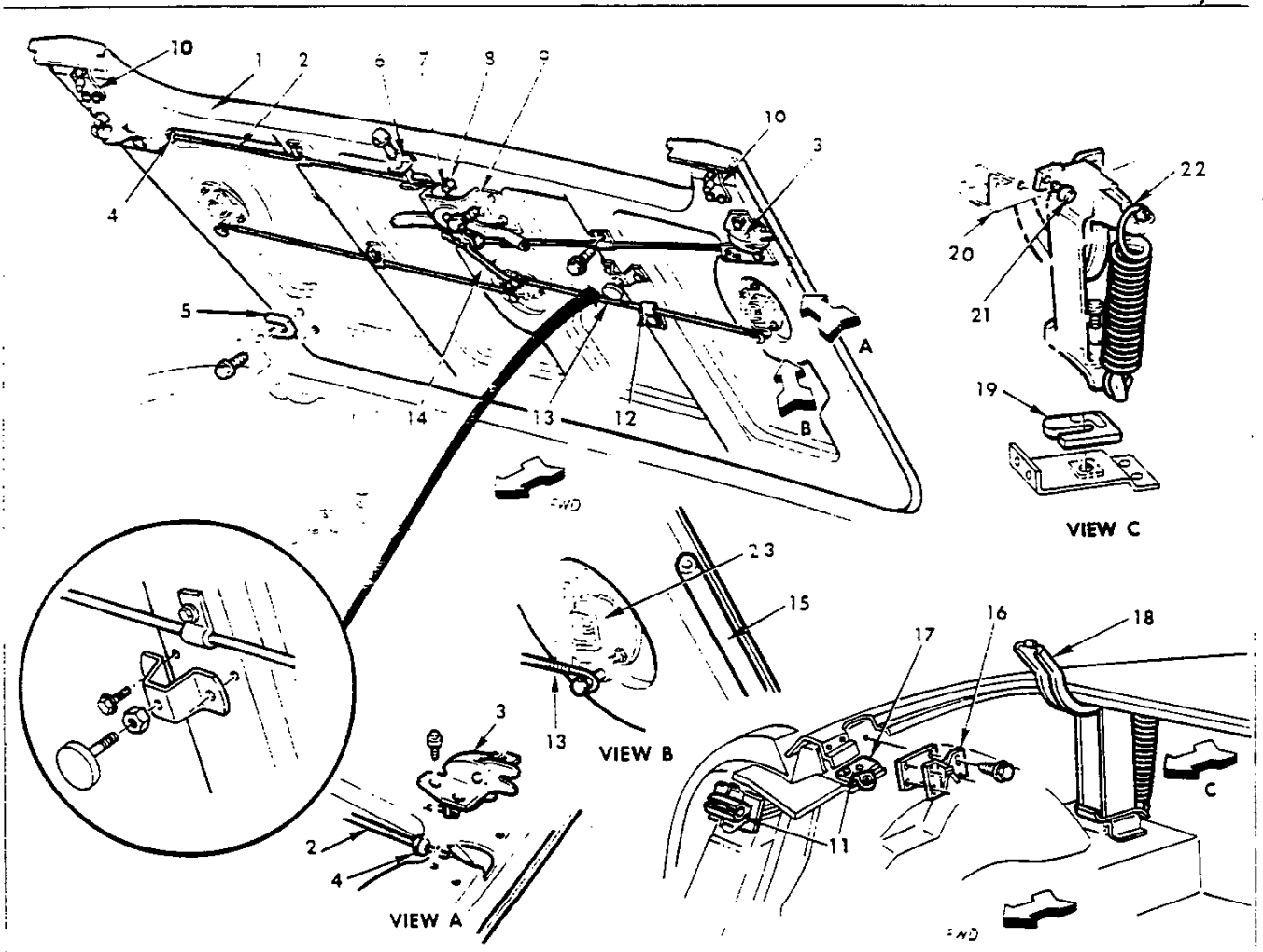


Fig. 40—Folding Top Lid Assembly

- |                  |                          |                    |                                |
|------------------|--------------------------|--------------------|--------------------------------|
| 1. Lid Assembly  | 8. Stop                  | 14. Rod            | 19. Spacer                     |
| 2. Cable         | 9. Control Assembly      | 15. Weatherstrip   | 20. Body Upper Panel           |
| 3. Lock Assembly | 10. Pin                  | 16. Spacer         | 21. Screw—Lock Washer Assembly |
| 4. Grommer       | 11. Pin Housing Assembly | 17. Bumper         | 22. Spring                     |
| 5. Shim          | 12. Clip                 | 18. Hinge Assembly | 23. Top Lock                   |
| 6. Clamp         | 13. Rod                  |                    |                                |
| 7. Screw         |                          |                    |                                |

If the top requires additional cleaning after using soap and water, a mild foaming cleanser can be used. Rinse the whole top with water; then apply a mild foaming type cleanser on an area of approximately two square feet. Scrub area with a small soft bristle hand brush, adding water as necessary until the cleaner foams to a soapy consistency. Remove the first accumulated soilage with a cloth or sponge before it can be ground into the top material. Apply additional cleanser to the area and scrub until the top is clean. Care must be exercised to keep the cleanser from running on body finish as it may cause streaks if allowed to run down and dry.

#### Procedure for Cleaning Coated Fabrics

Care of genuine leather and coated fabrics (includes

vinyl coated formed headlining) is a relatively simple but important matter. The surface should be wiped occasionally with a dry cloth, and whenever dirt accumulates, the following cleaning instructions should be used:

1. Lukewarm water and a neutral soap should be used. Apply a thick suds, worked up on a piece of gauze or cheesecloth, to the surface.
2. The operation should be repeated, using only a damp cloth and no soap.
3. The surface should then be wiped dry with a soft cloth.

Polishes and cleaners used for auto body finishes, volatile cleaners, furniture polishes, oils, varnishes or household cleaning and bleaching agents should never be used.



Fig. 41—Marking Hinge Position

#### Procedure for Cleaning Carpet

Thoroughly brush or vacuum the floor carpet. In many instances the floor carpet may require no further cleaning. If the carpet is extremely soiled remove carpet from car and thoroughly vacuum to remove loose dirt; then with a foaming type upholstery cleaner, clean ap-

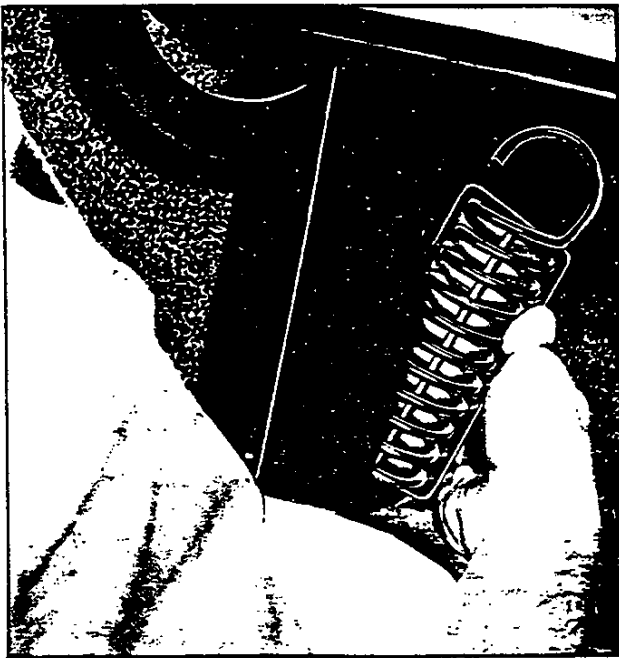


Fig. 42—Removing Hinge Spring

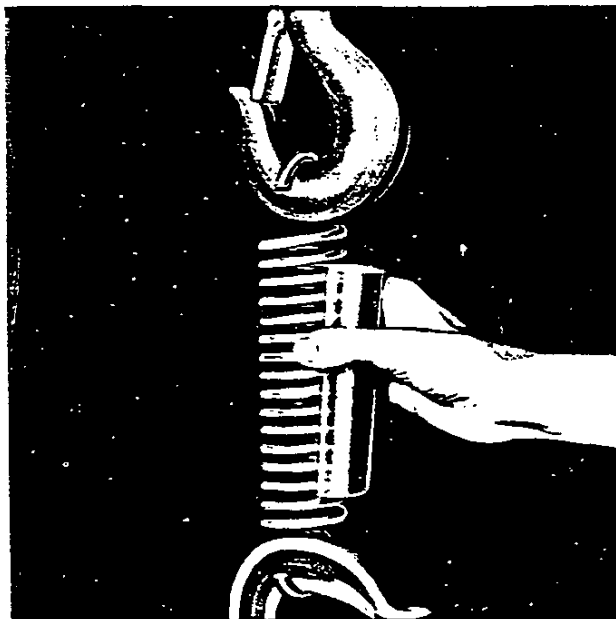


Fig. 43—Installing Tool J-9559 in New Spring

proximately one (1) square foot of carpet at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner. After cleaning the carpet use an air hose to "fluff" the carpet pile, then dry the carpet. After the carpet is completely dried, use an air hose to again fluff the carpet pile.

**NOTE:** If the carpet is not extremely soiled, it may be cleaned in the car by applying a small

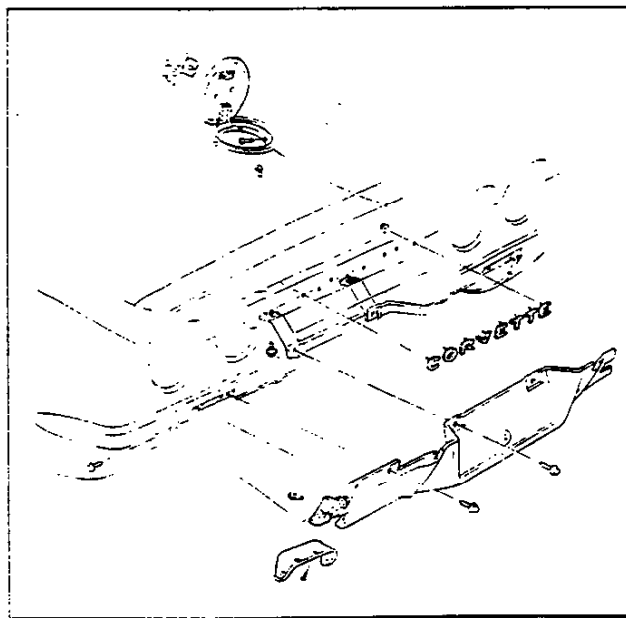


Fig. 44—Gas Tank Door and Rear Trim

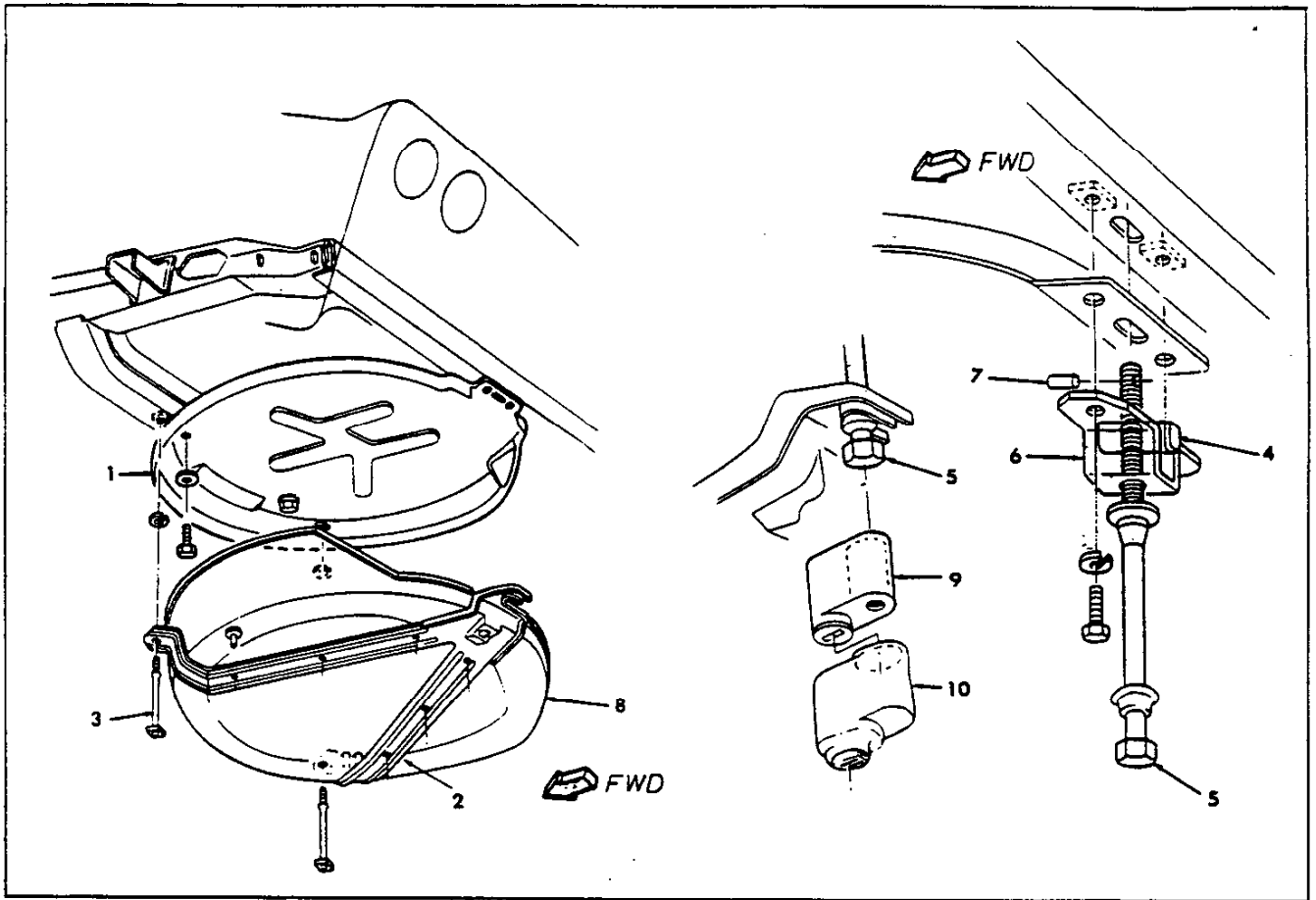


Fig. 45—Spare Tire Mount

1. Cover
2. Strap Assembly
3. Strap Assembly Pivot Bolt

4. Swivel Bolt Nut
5. Swivel Lock Bolt
6. Swivel Bolt Bracket

7. Swivel Bolt Pin
8. Tray

9. Lock Case
10. Lock Cover

amount of foaming type upholstery cleaner with a brush.

### Carpets and Covers—All Models

Removal of front compartment carpeting will require removal of sill plates and loosening of console trim; service of these items is covered in this section under Front End-Cowl Area and Console Trim.

In areas where carpeting is to be cemented, proceed as follows:

1. Remove all old carpeting, jute, etc. which may adhere to floor after original carpet is pulled up.
2. Apply 3M-1711 cement or equivalent, following directions furnished with package. Be sure floor is reasonably clean and dry before applying cement.

### SEATS

#### Removal

1. Remove bolt retaining each forward support to floor.
2. Fold seat back forward.
3. Loosen two bolts retaining each seat hold-down bracket.

4. Move seat forward and out of brackets.

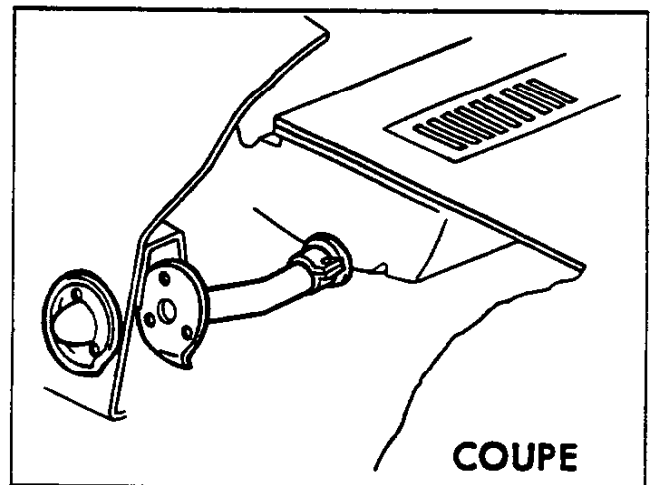


Fig. 46—Rear Plenum Drain

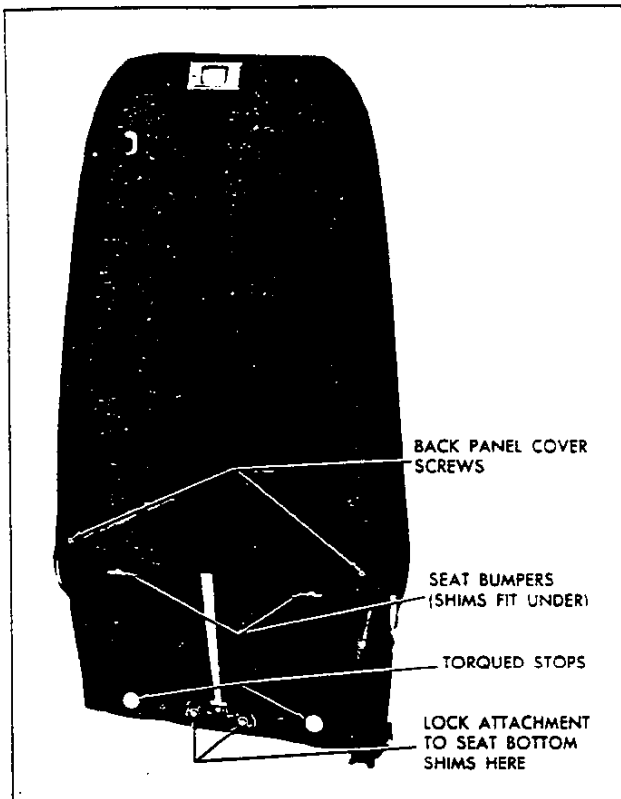


Fig. 47—Front Seat Back Shim Location

### FRONT SEAT BACK PANEL

#### Removal and Installation (Fig. 47)

1. Tilt seat back forward and remove (2) screws securing bottom of seat back panel to seat back frame.
2. Pull bottom of seat back outward and lift panel upward to disengage panel from upper retainers; then remove panel from seat back.
3. To install seat back panel, reverse removal procedure.

### SEAT BACK LOCK ASSEMBLY

#### Removal and Installation (Figs. 47, 48)

1. Remove front seat back panel, as previously described.
2. **IMPORTANT:** If removing and reinstalling same lock assembly, install lock up screw at location shown in Figure 48.
3. Remove lock assembly attaching screws and nuts and remove lock assembly from seat back.
4. Remove lock strap-to-cushion frame attaching screws.
5. To install seat back lock assembly, reverse removal procedure. **IMPORTANT:** After all lock assembly attaching screws, including lock strap-to-cushion frame screws, have been tightened, remove lock up screw at location shown in Figure 48.
6. If requested, shims may be added to raise seat back angle 2°.

A shim must be added to either side of back cushion, under each bumper and a shim placed under the lock strap to cushion attachment in the center of the seat cushion.

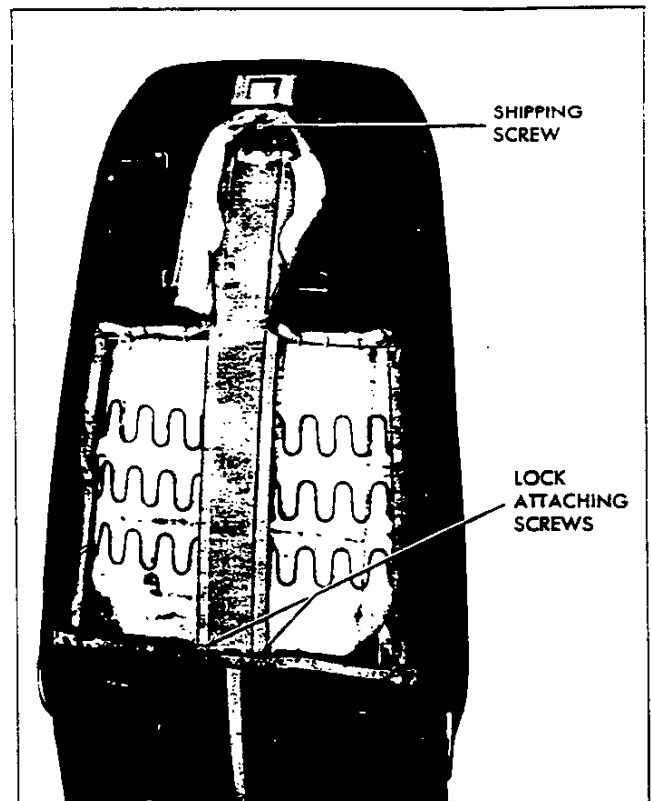


Fig. 48—Front Seat Back Lock Attachments

The shims are located in the glove box.

**NOTE:** Recheck seat back ability to lock after adding the shims.

### BODY MOUNTING

The torque of all body mounting bolts should be checked periodically as an aid to preventing annoying squeaks and rattles. All bolts should be torqued 40 to 50 ft. lb.

### BODY REPAIRS

#### GENERAL INSTRUCTIONS

The following gives information necessary for repair of collision damage and performance of general maintenance on Corvette bodies. Included here is information dealing with availability of repair panels, general installation procedures for installing panels and repairing damage to the body.

Repair of fiber glass reinforced plastic bodies can be a relatively easy matter if precautions are observed.

In cases where welding must be done on steel parts which are installed on body, do not allow flame or welding heat to come into direct contact with plastic body panels. The general area around the welding operation should be protected with wet asbestos or any other like method (several thicknesses of aluminum foil makes an excellent heat shield if out of the way of direct flame).

Straightening of steel parts while still in body must be done with care. When applying hydraulic jacks or like equipment which operates by exerting force, bear in



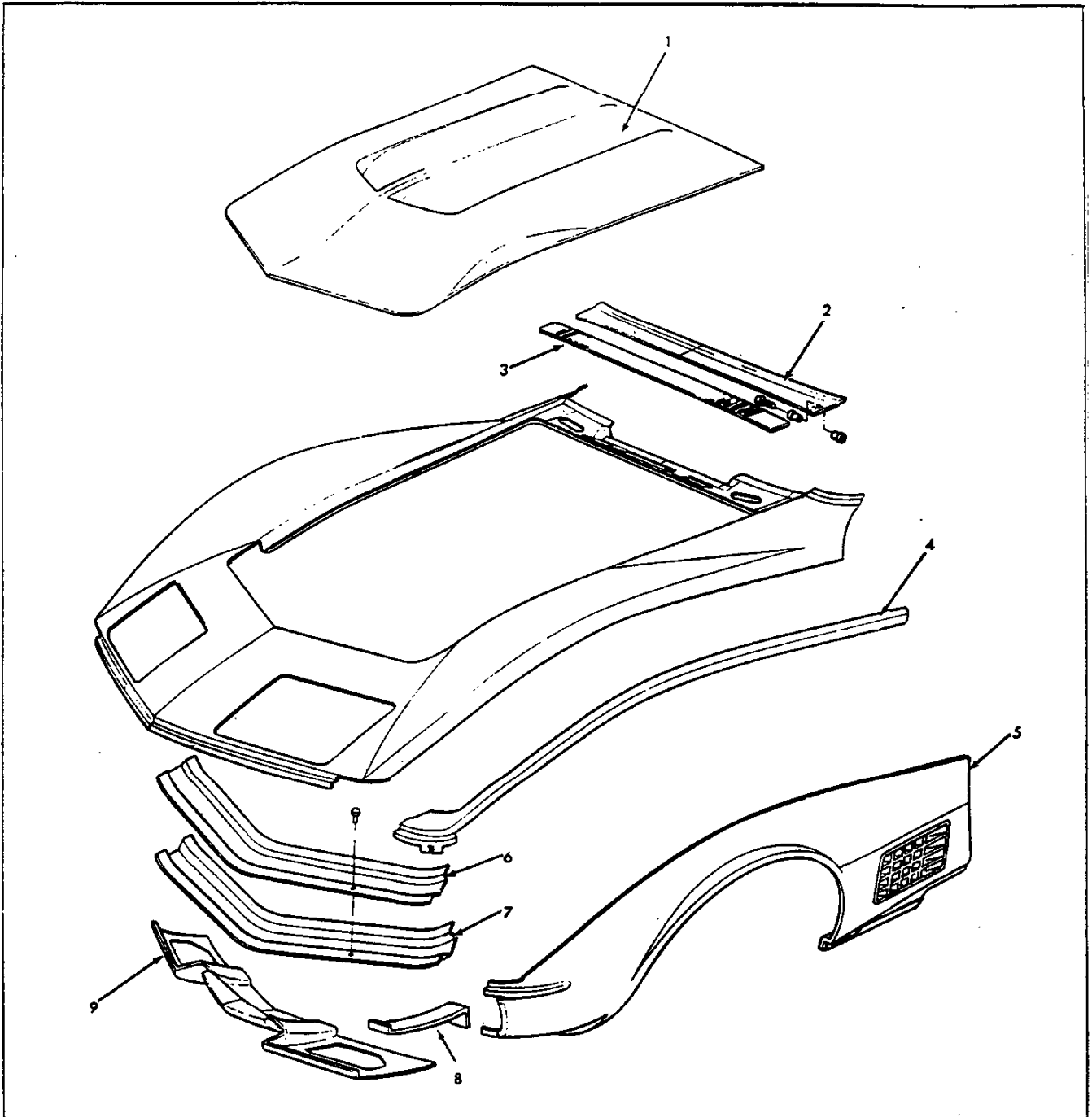


Fig. 49—Front Body Construction

- |                      |   |                               |  |
|----------------------|---|-------------------------------|--|
| 1. Panel—Hood        | 4. Bonding Strip—Front Fender<br>Upper to Lower | 6. Reinforcement—Front Fender | 8. Bonding Strip—Front Fender<br>Lower Front to Rear |
| 2. Panel—Access Door | 5. Panel—Front Fender Lower Rear                | 7. Reinforcement—Front Fender | 9. Panel—Radiator Grille Lower                       |
| 3. Panel—Grille      |   |                               |  |

mind that the part being used to brace the stationary end of tool must be able to withstand such usage and that fiber glass parts, though tougher than steel, will not yield or "take a set" as with steel parts, so they cannot be "straightened". If poor alignment exists due to collision or other physical damage, check steel reinforcements in

cowl and sill areas with care.

Tracing line of damaging force and checking body carefully for broken bonds and cracks before, during and after repairs will pay off repeatedly.

Small cracks and faults in bonds and panels will usually grow larger if left unattended.

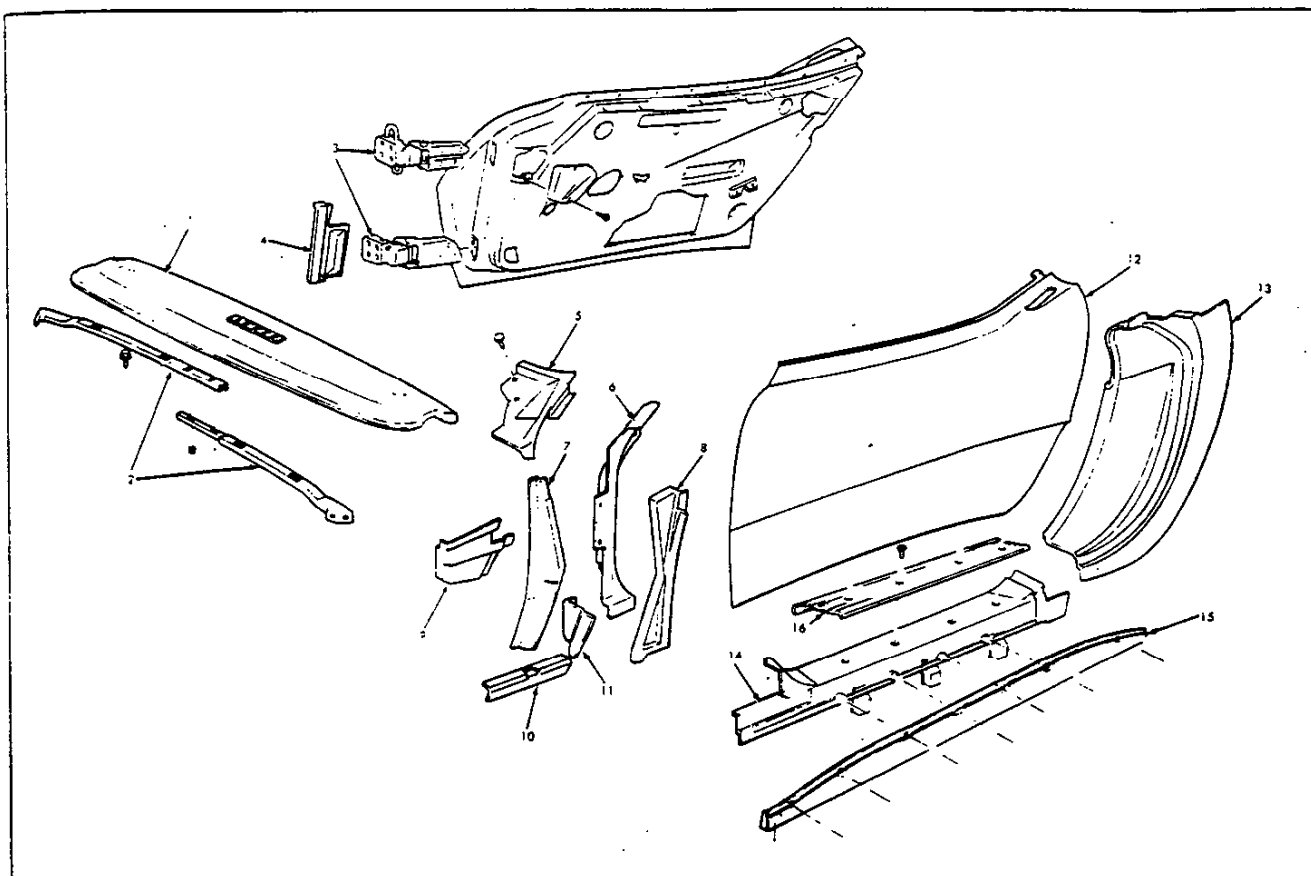


Fig. 50—Center Body Construction

- |   |                           |                                 |                |
|---|---------------------------|---------------------------------|----------------|
| 1. Pad—Instrument Panel                 | 6. Pillar—Body Hinge      | 10. Plenum Side Panel Extension | 14. Door Sill  |
| 2. Reinforcement—Instrument Panel       | 7. Plenum Side Panel      | 11. Filler Panel                | 15. Molding    |
| 3. Door Hinge Assembly                  | 8. Dash Extension Panel   | 12. Panel—Side Door Outer       | 16. Sill Plate |
| 4. Panel—Plenum Side Extension          | 9. Sill Inboard Extension | 13. Pillar Assembly—Door Lock   |                |
| 5. Bonding Strip—Lower Outer Windshield |                           |                                 |                |

## REPAIR PANELS

Body repair panels are illustrated in Figures 49 through 52. Those shown are typical of panels which are available through Chevrolet parts sources. Procedures which may be used for installing panels are explained in the following paragraphs.

Figure 53 illustrates various bonds which will be encountered during repair procedures.

## PRECAUTIONS

Creams are available to protect the skin from a condition known as occupational, or contact dermatitis. This common type of dermatitis is not contagious. Improved resin formulas in the approved kits have almost eliminated skin irritation. Cream is supplied with the kit for persons who may have a tendency toward skin irritation from the resins or dust.

The application of these creams is recommended whenever the Resin materials are used. Generally the cream is not required when the plastic (epoxy) solder kit is being used. Directions for using the cream is as follows:

1. a. Wash hands clean. Dry thoroughly.
- b. Squeeze about 1/2 inch (or 1/2 teaspoonful) of #71 cream into palm of hand.
- c. Spread evenly and lightly until cream disappears. Work cream into cuticle, between fingers and around wrists.
- d. Apply second coat, repeating Steps b and c.
- e. Hold hands briefly under cold running water to set cream.
2. Remove resin mixture from hands as soon as possible and imperatively before mixture starts to gel. This can be observed by the action of the material being used. Resin may be removed with lacquer thinner by washing in soap and water.
3. Respirators are recommended when grinding. Also some minor skin irritation from glass and powdered cured resin may be evident. Washing in cold water will help to minimize.
4. Use a belt sander with a vacuum attachment for dust control whenever possible.
5. Resin mixtures may produce toxic fumes and should be used in well ventilated areas.
6. Be careful not to get any resin material on clothing.
7. Use the right materials for the job. It is important to use the approved kits because other materials

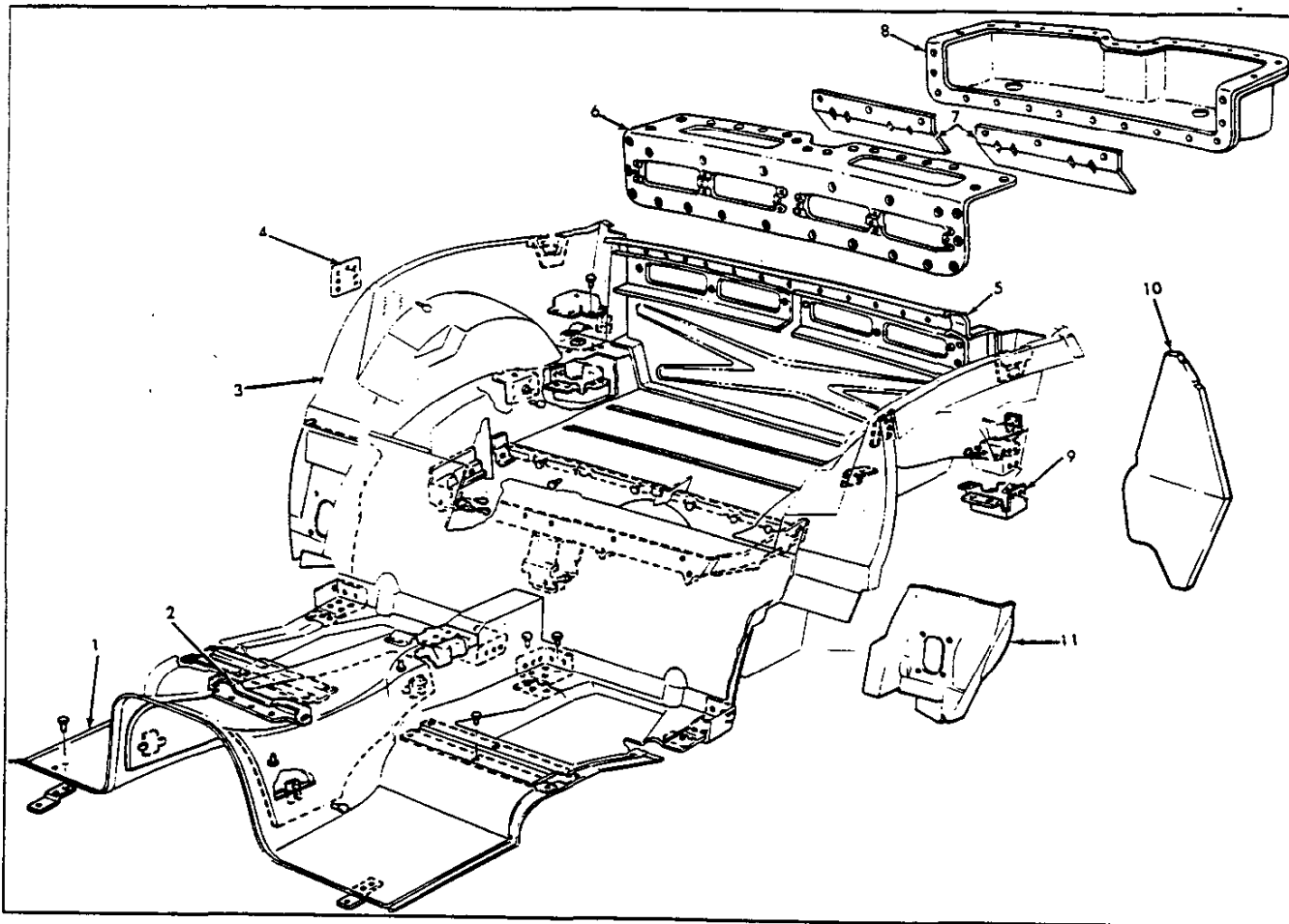


Fig. 51—Under Body Construction

- |   |                            |  |                             |
|---|----------------------------|--|-----------------------------|
| 1. Panel—Underbody                        | 4. Lid Lock Striker Anchor | 8. Plenum  | 10. Reinforcement—Body Bolt |
| 2. Support—Console                        | 5. Center Panel            | 9. Reinforcement—Folding Top Hinge Support (19467) | 11. Shield—Rear Quarter     |
| 3. Panel—Wheel Housing Closing—Right Hand | 6. Reinforcement           |  |                             |
|   | 7. Baffle                  |  |                             |

available may not meet the required engineering and safety standards.

8. Keep materials, utensils and work area clean and dry. These repairs involve chemical reactions, and dirt or moisture may upset the chemical balances and produce unsatisfactory results.
9. Before starting repair operations, look for hidden damage by applying force around the damaged area, looking for hairline cracks and other breakage. Check for minor damage at other points in the vehicle such as around exhaust pipes, grille, headlamps and points of wear. Early repair of minor damage may prevent major repair later.

#### PLASTIC SOLDER KIT

The Plastic (Epoxy) Solder Repair Kit is used for minor repairs on the Corvette body. These materials will produce an easy, quick and lasting repair in the case of small cracks, surface imperfections and small holes.

1. Use paint remover or power sander, and remove finish from damaged area. Carefully inspect for other areas requiring repairs.

2. Mix the materials (fig. 54).
3. Apply the epoxy solder using a putty knife or rubber squeegee, Figure 55. Work the material into the repair and build the material up to the desired contour. For deep filling and on vertical surfaces, several layers may be used, each about 1/2" thick.
4. Finish the repair by grinding, sanding and painting in the usual manner, Figure 56.

#### RESIN REPAIR

The Resin Repair for major repairs, consists of resin, hardener, filler, fiberglass cloth, protecting creams and mixing utensils. Repairs such as torn panels and separated joints require the adhesive qualities of the resin and the reinforcing qualities of the glass fibers. Steel to fiber glass separations are connected together with epoxy solder after first cleaning out old bond.

The following procedure is basic for repairing any plastic (fiberglass component or panel).

1. Look for hidden damage. Apply force by hand around the damaged area.

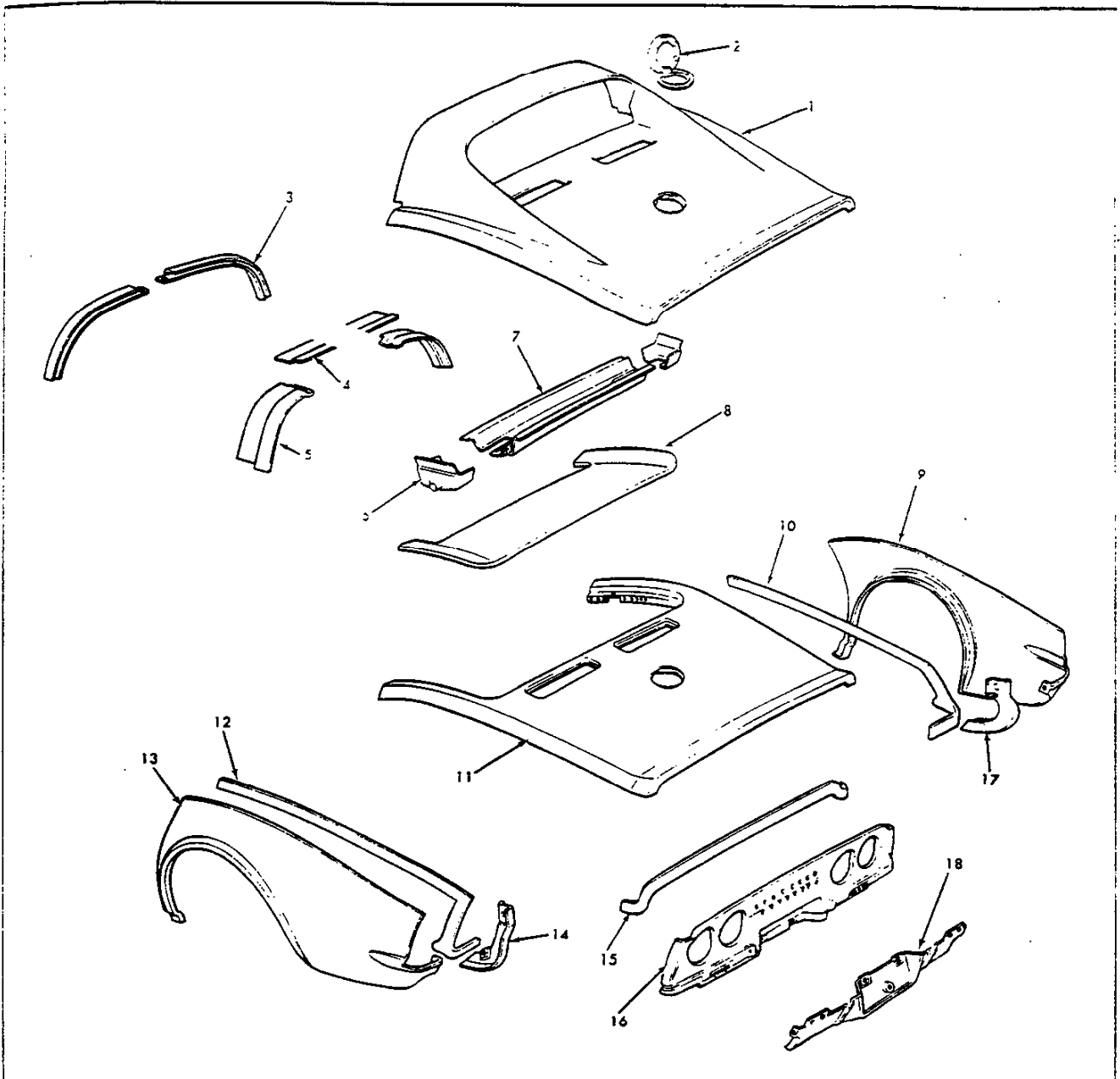


Fig. 52—Rear Body Construction

- |   |   |   |                                   |
|---|---|---|-----------------------------------|
| 1. Panel—Body Rear Upper                  | 6. Extension—Body Rear Upper Panel                                  | 11. Panel—Body Rear Upper                                     | 15. Bonding Strip—Body Rear Upper |
| 2. Bezel—Fuel Tank Filler Door            | 7. Support—Body Rear Upper Panel                                    | 12. Bonding Strip—Body Rear Upper Panel                       | 16. Body Rear Lower Panel         |
| 3. Reinforcement Roof—Right Hand          | 8. Lid—Folding Top Compartment                                      | 13. Panel—Rear Quarter—Left Hand                              | 17. Shield—Rear Quarter Splash    |
| 4. Panel—Rear Roof Inner Center—Left Hand | 9. Panel—Rear Quarter—Right Hand                                    | 14. Bonding Strip—Body Lower Panel to Quarter Panel—Left Hand | 18. Panel—Rear Filler             |
| 5. Panel—Rear Roof Inner Rear—Left Hand   | 10. Bonding Strip—Body Rear Upper Panel to Quarter Panel—Right Hand |   |                                   |

2. Use paint remover and remove finish from around damage area. Inspect area again for signs of other damage.

3. Grind or file the damaged area to form a "V" at

the broken or cracked portion. Side of "V" should have a shallow pitch for maximum bonding surface. A belt sander with a vacuum attachment will minimize the dust problem, Figure 57.

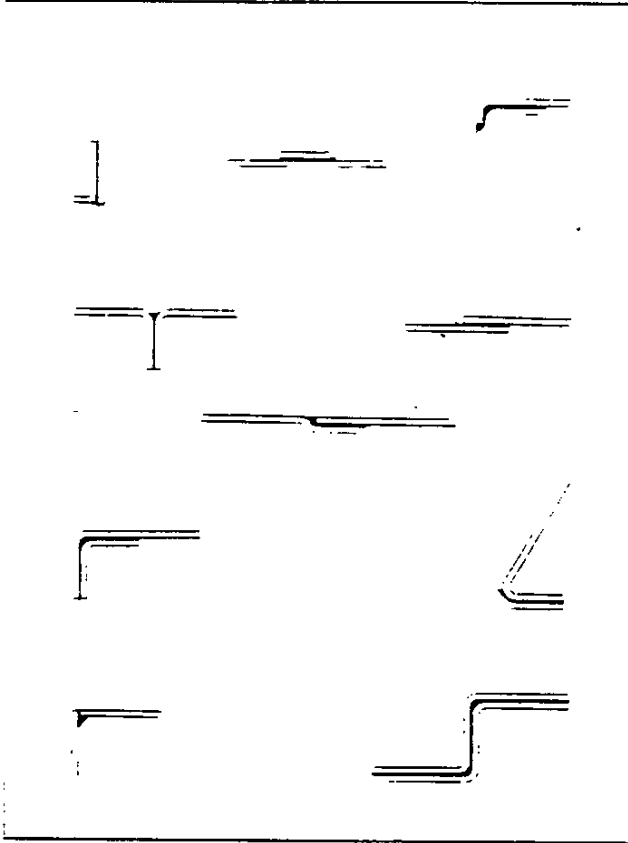


Fig. 53—Typical Body Bonds

4. If rear of damage is accessible, use a button-type repair. Clean back of area to permit the use of laminate (resin-saturated glass-cloth) on both sides of damaged area.
5. Cut fiberglass cloth to size. Make certain a minimum of five layers is cut for the average repair.
6. Mix resin and hardener, 1 part hardener to 4 parts resin. Add filler to the mix to give the mix body and reduce the "runniness" of the material.

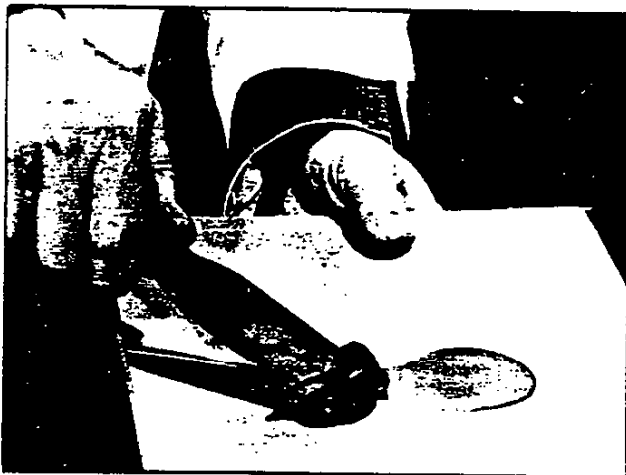


Fig. 54—Mixing Plastic (Epoxy) Solder Material

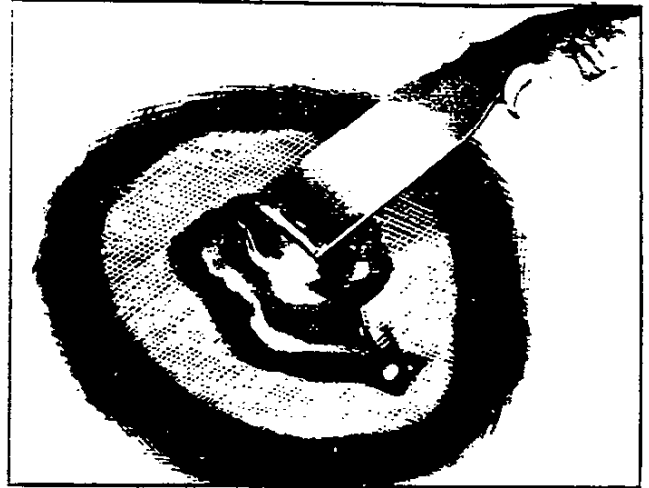


Fig. 55—Applying Plastic Solder



Fig. 56—Finishing Plastic Solder Repair

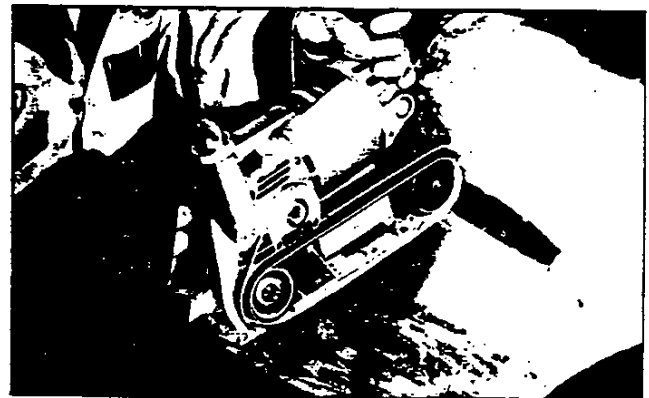


Fig. 57—Grind "V" at Damaged Area



Fig. 58—Applying Resin Mixture to Fiberglass

**CAUTION:** Cleanliness is most important. Be certain all containers are dry and clean and the resin and hardener cans are kept closed when not in use. Do not use waxed cups for mixing and do not allow resin to enter hardener can or vice versa.

7. Saturate layers of fiberglass (Fig. 58). Place laminate over damage area. Smooth out wrinkles, and make sure general contour of area is maintained. Figure 59.
8. Apply heat to repair area. Heat lamps are recommended, used at least 12" away from repair. Allow 15 to 20 minutes curing time. Trim repair to shape at gel stage.
9. After the repair is cured, grind, file or sand to contour. Files other than body files may be more suitable. A belt sander with a vacuum cleaner attachment will minimize the dust problem. Feather edge and finish sand.

**NOTE:** After Resin Repair, small pits or irregularities may appear in finished surface. Imperfections should be repaired using the Plastic (Epoxy) Solder Repair Kit.

## SPECIFIC REPAIRS

### Scratched Panels, Spot Refinishing

In many instances, a scratched panel will involve only



Fig. 59—Applying Laminate to Body

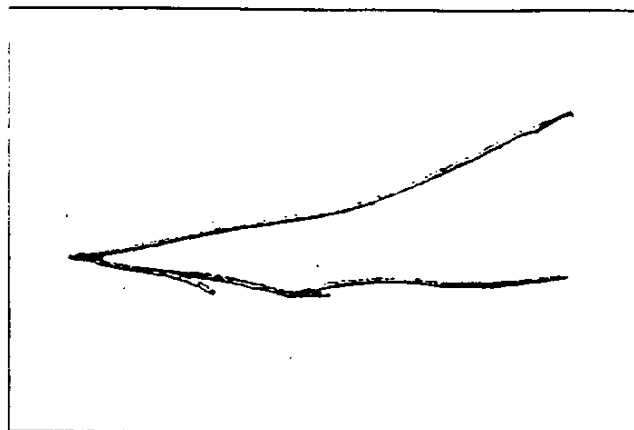


Fig. 60—Typical Scratched Panel

a paint refinishing job. Figure 60 shows the top of a fender panel which has been scratched through to the plastic.

1. Remove all paint down to the plastic from the area surrounding the scratch with Lacquer Removing Solvent.
2. Featheredge the repair area with No. 220 wet or dry sandpaper and finish block sand with No. 320 wet or dry paper. Figure 61.

**CAUTION:** Do not sand too deeply into fiberglass mat. Should it be necessary to cut fairly deep into the glass mat use the repair procedure suggested for dents and pits in plastic panels.

3. Clean up repair area using Prep-Sol or equivalent, then finish the clean-up with a tack rag.
4. Protect surrounding panels by masking before performing paint refinishing operations. Use only non-staining type masking tapes on Corvette plastic body.
5. Refinish panel as described in paint refinishing portion of this manual.

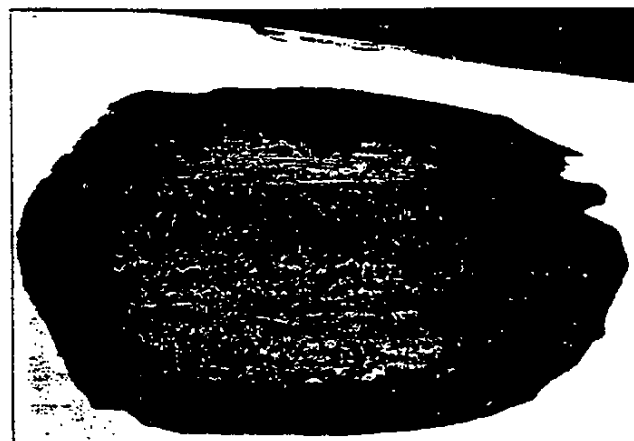


Fig. 61—Repair Area Finish Sanded

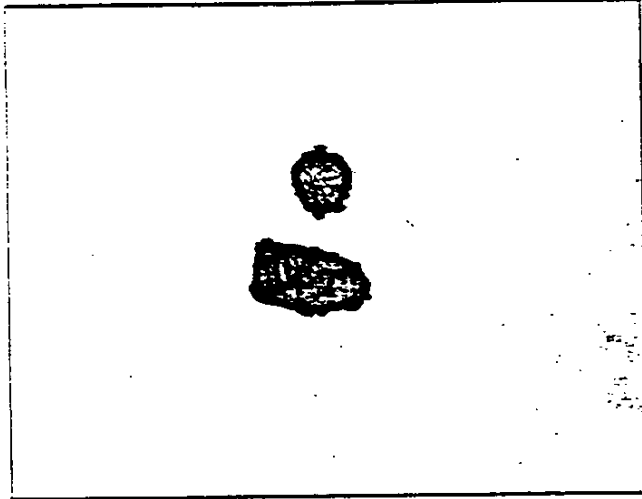


Fig. 62—Typical Pitted Panel

#### Dents or Pits in Panels, Cracks in Glaze Coat

Figure 62 shows a panel which has received a heavy glancing blow, resulting in an indentation or large pit in the panel. The following procedure is advised for a repair of this type of damage. Cracks in the glaze or finish coat of plastic and paint may also use this procedure.

**NOTE:** This repair may be used wherever the damage is not extensive and the plastic is not pierced, but the damage area does require a plastic build-up.

1. Remove paint down to the plastic from area surrounding the damage with Lacquer Removing Solvent, or its equivalent.
2. Scuff area surrounding damaged area to provide a good bonding surface.
3. Clean up work area with Prep-Sol then use tack rag for finish clean-up.



Fig. 63—Typical Cracked Panel

4. Use the Plastic Solder Repair (previously described) to fill the imperfections.
5. Feather-sand damaged area with No. 220 sandpaper and finish sand with No. 320.
6. Prepare repair area for paint refinishing operation.

#### Cracked Panels

**NOTE:** For best results, temperature should be at least 70°-75°F.

1. In the case of a cracked panel, such as shown in Figure 63, cut along the break line with a hacksaw blade and remove broken portion of the panel.
2. Remove the paint down to the plastic from both portions of the panel with a Lacquer Remover or equivalent.
3. Remove dirt and deadener thoroughly, back approximately 2 to 3 inches from the fracture, on the under side of both portions of the panel. Also, remove paint and scuff area clean to provide a good bonding surface.
4. Remove all cracked and fractured material along the break. Bevel the attaching edges of the panels at approximately a 30° angle with a file or grinder and scuff plastic surfaces along edges of break.

**NOTE:** Mask surrounding panels using a non-staining masking tape.

5. Use "C" clamps to align panel portions allowing approximately 1/8" between the panels or as necessary to provide proper alignment of panels, Figure 64.
6. Cut two pieces of woven glass fiber cloth for backup of sufficient size to overlap the fracture by approximately two inches.
7. Clean up repair area with Prep-Sol, then use tack rag for finish cleanup.
8. Use the Resin Repair Procedure previously described.

**NOTE:** In some cases it may be advantageous to provide additional reinforcements along a fracture. This may be accomplished by placing glass cloth strips in the panel break before applying the plastic mixture.

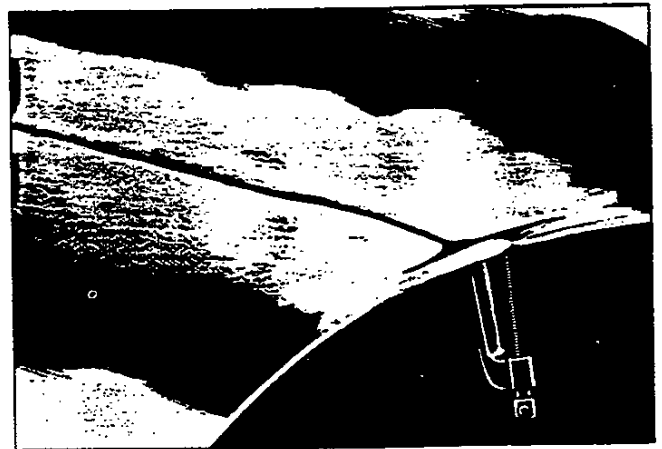


Fig. 64—Cracked Panel Preparation

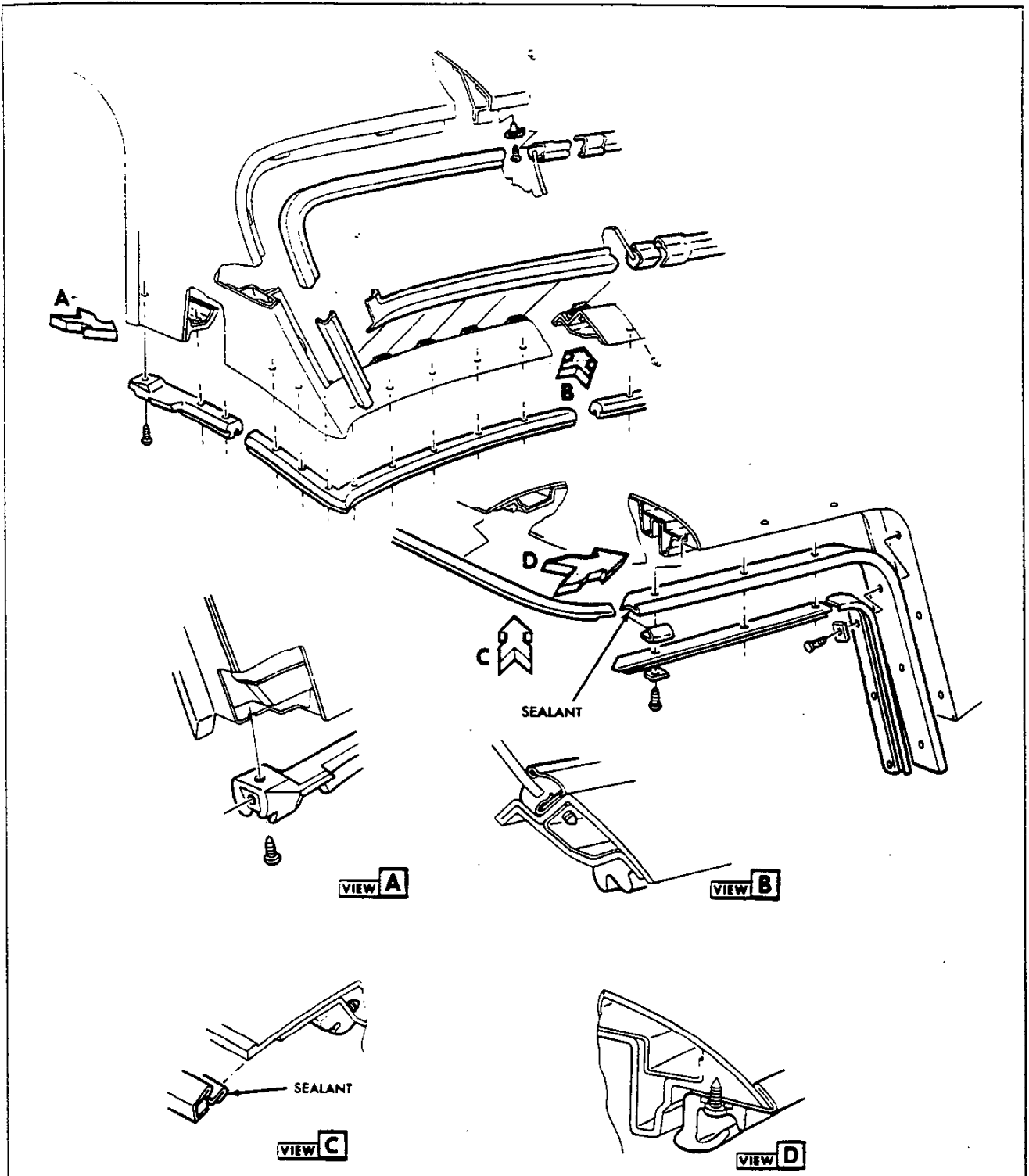


Fig. 65—Molding and Weatherstrip (Convertible Hardtop)



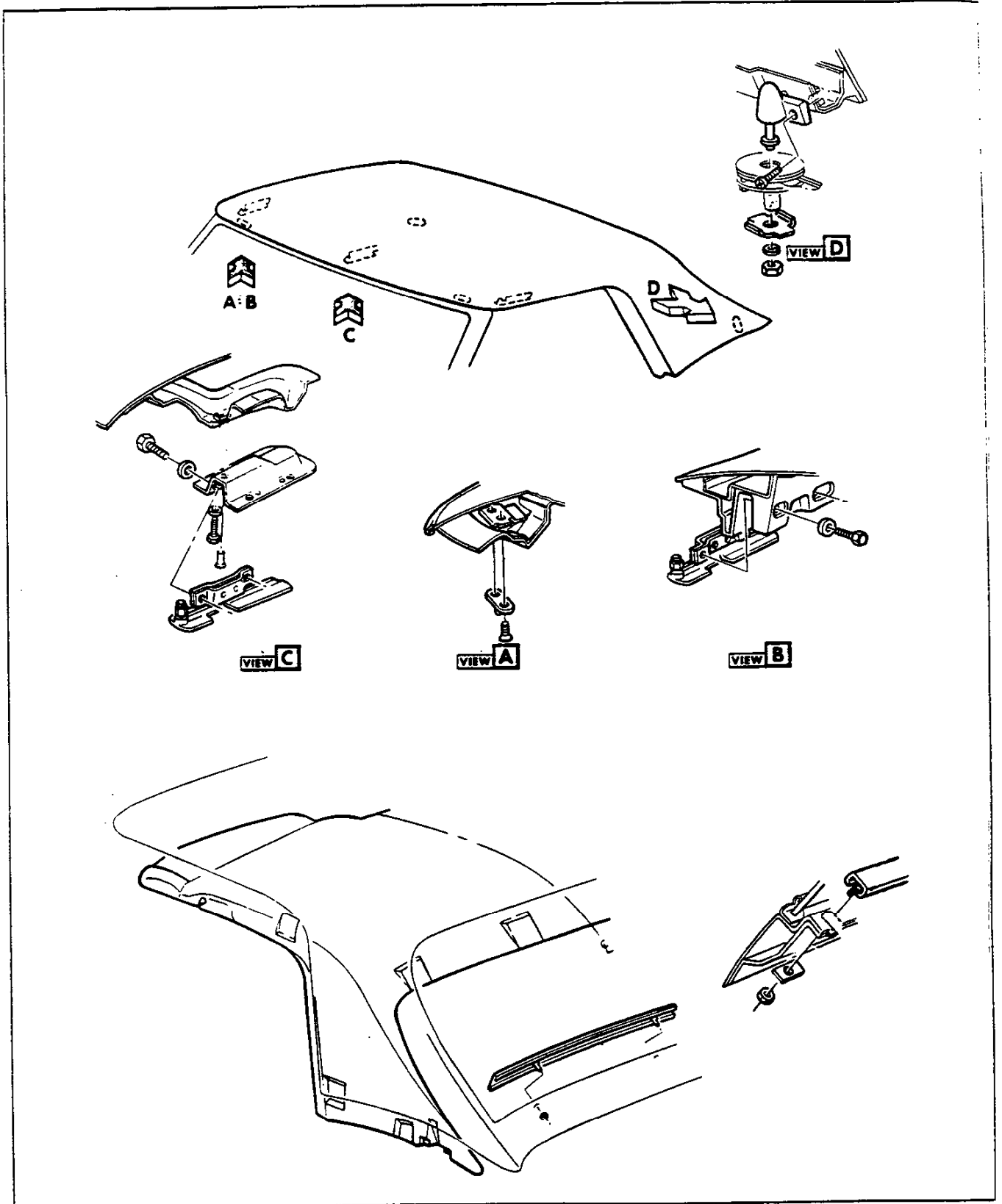


Fig. 66—Top Attachments and Headlining (Convertible Hardtop)

### Fractured Panels

Sometimes damage will occur to panels where the underside is inaccessible or for reasons of panel contour it is impractical to use back plies of fiberglass cloth. The following repair operations are typical of this type of damage.

1. Prepare the damaged area by grinding or filing all cracked and splintered material away from the fracture.
2. Bevel the edge of the fracture at approximately a 20° angle.
3. Remove paint from area surrounding fracture with Lacquer Solvent, or its equivalent.
4. Scuff surface to provide a good bonding surface. Then, clean up area with Prep-Sol and wipe dry.
5. Protect adjacent panels by masking, use non-staining masking tape.
6. Cut a strip of fiberglass cloth of sufficient size, so the fracture will be lapped from 1 to 2 inches on all sides.
7. Prepare plastic mixture in an unwaxed paper cup. (See Resin Repair procedure.)
8. Impregnate glass fiber cloth by brushing or dipping in plastic mixture. Squeeze excess mixture from cloth.

**NOTE:** Avoid over-rich plastic areas in the glass cloth, as the strength of the patch is directly proportional to the glass content of the patch.

9. Position plastic impregnated fiberglass over the fracture on the exterior of the panel, lap the break by 1 to 2 inches, and depress into fracture.
10. Carefully work excess plastic out of woven glass by sponging from the center of the break outward.

**NOTE:** Hold woven glass in place until plastic resin "gels" with Saranwrap or some similar material.

11. Trim excess or loose strands of fiberglass from patch.
12. If low spots exist, prepare another plastic mixture of resin and hardener and mix thoroughly. To this mixture add short fibers cut from glass cloth to give the mixture a putty-like consistency.
13. Liberally apply the plastic mixture with a spatula to fracture and surrounding area. Deposit enough material build-up to allow for filing and sanding operations.
14. Allow the patch to harden.
15. File or grind patch to match the general contour of the panel. Exercise care when performing these operations to avoid gouging the patch or surrounding panel.
16. Use epoxy plastic solder as necessary to fill any imperfections.
17. Allow fill to harden, then sand finish preparatory to paint operation.

### Panel Replacement

To install a replacement panel, the following method may be used. Various repair panels are available for service. See Repair Panels in general instructions at

beginning of this section. These complete panels may be used or sections may be cut to accommodate the type of repair necessary. The panels should be fitted in and all attaching parts installed to insure proper alignment.

To replace panel, proceed as follows:

1. Cut out damaged panel with a hacksaw blade and thoroughly remove all dirt and paint from the underside of the old panel or panels for a distance of approximately 2 to 3 inches back from the attaching line.
2. Remove the paint from the finish side, for a distance of 2 to 3 inches on the panel adjacent to the replacement panel location with lacquer solvent or equivalent.
3. Scuff the surface on both the replacement panel and adjacent panel for a distance of 2 to 3 inches back from the attaching line and wipe clean.
4. Bevel all attaching edges at approximately 30° across the entire thickness of the plastic so a single "V" butt joint will be formed on the finish surface when the pieces are joined. If the replacement panel does not fit closely to the break, reshape to suit.
5. Cut two backup pieces of woven glass fiber cloth to run the entire length of the joint or shorter lengths of fiber cloth may be lapped over entire length of joint, also cut wide enough to lap the junction line on either side by two or three inches.
6. Prepare a sufficient amount of liquid plastic in an un-waxed paper cup by mixing resin with hardener (See Resin Repair procedure).
7. Align replacement panel, then clamp panel in place to form a closed "V" butt joint at the panel junction. When panel cannot be clamped, use 3/16" bolts with large washer on inner and outer of panel to hold panels in alignment or use straps and sheet metal screws.
8. Impregnate backup plies of woven glass cloth with prepared plastic mixture by dipping or brushing. Remove excess plastic from cloth by squeezing.
9. Place impregnated backup plies on underside of panels. If necessary, hold backup plies in place with paper until plastic "gels."
10. Prepare another plastic mixture of resin and hardener and mix thoroughly. To this mixture add cut glass fiber (1/2" lengths) until mixture has a putty-like consistency, or utilize glass cloth.
11. Fill "V" groove with reinforced plastic material or saturated glass cloth. Build up surrounding area with sufficient material to allow for finish operations.
12. Allow patch to harden.
13. File or sand (#80-D sandpaper) to general panel contour.
14. Allow plastic fill to harden, then sand, preparatory to paint operations.

### HARD TOP

#### CARE AND STORAGE

The outside painted finish of the hard top should be cleaned in the same manner as the rest of the body. The inside headlining should be cleaned as outlined under Cleaning Soft Trim.

When hard top is not in use, it should be stored indoors where it can be kept clean and dry. If stored for a long period of time, keep covered to prevent dirt from settling on headlining and outside surface.

## REAR WINDOW

Refer to Figures 65 and 66 for parts identification.

### Removal

1. Remove hard top from vehicle and place protective covering over headlining.
2. Mark position of right-hand upper reveal molding end (fig. 67) and pry out from retaining clips. Repeat for left-hand and lower molding assemblies.
3. Remove lower (inside) garnish molding by removing four (4) nuts from fixed studs and carefully pulling molding outward.
4. Follow Steps 8 through 13 as outlined in the section entitled FRONT END--WINDSHIELD for removal of glass.

### Installation

1. Position replacement glass in opening and carefully check relationship of glass to flange completely around opening. Overlap of glass should be equal with a minimum overlap of 3/16 inches.
2. Where necessary, place shims under lower spaces to obtain required overlap of glass to upper and lower flanges.
3. After proper alignment is attained, mark position on glass and top surface with grease pencil.
4. Follow Steps 16-22 in the section entitled FRONT END--WINDSHIELD for installation of glass.
5. Press glass lightly to set caulking to window opening flanges. Paddle material where necessary to ensure proper seal.
6. Water test immediately using a cold water spray. If water leaks are encountered, use flat bladed screw driver or splint, and from the inside, paddle caulking material into point of leakage.

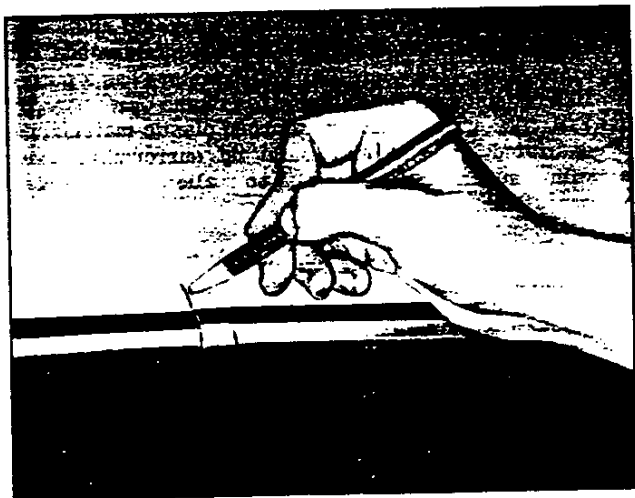


Fig. 67—Marking Molding Position

**CAUTION:** Do not run a heavy stream of water directly on caulking material while the material is still soft.

7. Install previously removed moldings in reverse order of removal.

## TOP ATTACHMENTS

Figure 66 illustrates location and installation of guides and lock mechanisms. With headlining removed as outlined in this section, to adjust left and right hand locks fore and aft, mark original position, loosen two (2) mounting bolts, and move in desired direction. Make certain that lock is engaged in serrations before tightening mounting screws.

Up-and-down adjustment is performed by turning hexagonal latch bolts clockwise and counter-clockwise respectively. Header guide pins and rear pin housings are retained by mounting screws located at flanges. Center trim plate is removed by first removing center lock, and then four (4) retaining screws.

## HEADLININGS

The headlining assembly is secured to the top by plastic fasteners located around the periphery of the hard top inner panel. The headlining is removed by carefully disengaging fasteners by prying outward with fingers on flat-bladed instrument. After removal from plastic top, the headlining can be disassembled into three parts by removing retaining nuts at inside surface of headlining. For installation, make certain to align headlining to top before engaging plastic fasteners.

## WEATHERSTRIP AND DRIP MOLDING

As shown in Figure 65, door window weatherstrip and drip molding are retained by screws to top assembly. Side outer and rear outer weatherstrip are mounted to body at ends by screw and around periphery by special plastic retaining clips. Weatherstrip is replaced by removing two (2) screws and carefully pulling outward at clip location.

Inner forward weatherstrip is replaced by removing mounting screws and disengaging special clips along length of weatherstrip. All drip molding must have pumpable sealer on underside and adhesive applied to weatherstrips.

## VINYL COVERING

### Removal

1. Remove weatherstrip assemblies.
2. Remove reveal moldings.
3. Prior to removing fabric cover, application of heat to cemented areas will permit easier loosening of cemented edges.

**CAUTION:** Apply heat by lamps held 18" (minimum) from fabric only until fabric is warm. If lamps are held too close, or fabric cover is heated over 200°F, the fabric may lose its grain, blister, or become very shiny.

4. Loosen cemented edges of fabric roof cover.

### Installation

1. Wipe roof panel with a Xylol solvent such as 3M

- Adhesive cleaner or equivalent. Remove or smooth out excess old cement. Apply solvent and allow to soak before rubbing.
- Where possible, install new cover at room temperature (approximately 72°) to permit easier fitting and removing of wrinkles from the cover assembly.
  - Determine center line of roof panel by marking center points on front of hard top and back window opening. Fold cover lengthwise. Lay cover on roof panel. Determine overhang (approximately 1").
  - Apply nitrile non-staining vinyl trim adhesive (such as 3M Vinyl Trim Adhesive) to the roof panel adjacent to center line of fabric roof cover.
  - Application of nitrile vinyl trim cement should be as thin as possible. An excessive amount of cement may result in trapped solvents (blisters) between fabric cover and roof panel. A monair roller should be used for thin adhesive application.

**NOTE:** If nitrile non-staining cement is not available, neoprene type non-staining weatherstrip cement (3M weatherstrip cement or equivalent) may be used.

- Apply cement to entire fabric roof cover.
- NOTE:** Allow approximately 15 minutes for cement to dry.
- Fold vinyl cover back to contact adhesive on roof panel. Vinyl cover seam must be parallel to centerline of vehicle.
  - Repeat above steps for opposite side of roof.
  - Use suitable spatula or roller to remove wrinkles and/or bubbles from vinyl cover.
  - Trim excess vinyl around entire top to provide a minimum of 1/2" flange which will be cemented to substructure of removable hardtop with adhesive.
  - Reinstall reveal moldings and weatherstrips.

### Vinyl Roof Cover Repairs

Certain types of fabric roof cover discrepancies can successfully be repaired without replacing or removing the cover.

### Scuffs or Small Cuts Near Exterior Moldings

If a small cut is present, an attempt should be made to cement the loose ends prior to performing the following:

- Obtain a scrap piece of fabric roof cover material, or material from a hidden area directly on complaint car (such as under reveal moldings).
- Using an electric wood burning needle or low heat soldering gun, scrape off an appropriate amount of vinyl from scrap piece of material or from hidden area and immediately apply to scuffed or cut area on car.

**CAUTION:** Be certain low heat is maintained to prevent discoloration of cover.

- Carefully blend applied vinyl to fabric roof cover, utilizing electric needle or soldering gun.

### Wrinkles, Blisters and Bubbles

- Pierce each wrinkle, blister and bubble on fabric

roof cover with a small needle.

- Completely saturate a clean shop towel with water and wring out.
- Apply cloth to wrinkle or blistered area.
- Apply a home type laundry iron over shop towel using back and forth strokes until towel is dry. (If iron has heat control settings, control should be set to "wool".)

**CAUTION:** Do not continue to use iron after towel has become dry as excess heat may cause permanent damage to vinyl roof cover.

- Remove towel and inspect area. If slight wrinkles or blisters are still present, perform the following steps:
- Using a syringe and hypodermic needle filled with clear water, inject sufficient water into wrinkle or bubble to dampen fabric backing.
- Repeat Steps 2 through 4.

## FOLDING TOP

### CARE OF THE FOLDING TOP

To avoid water stains, mildew, or possible shrinkage of the top material, do not keep the top folded for extended periods of time if it is damp or water soaked. Permit top to dry out in a raised position before stowing. Also avoid pasting advertising stickers, gummed labels or masking tape on the plastic back window. In addition to being difficult to remove, the adhesive on these stickers may also be injurious to the plastic composition of the window.

### Care of Rear Window

The large plastic rear window in the folding top will remain in good condition for the life of the top if given proper care. Due to the texture of the plastic window, it is susceptible to scratches and abrasions; therefore, when cleaning the window, follow the steps outlined below.

- To remove superficial dust, do not use a dry cloth. Use a soft cotton cloth moistened with water and wipe cross-wise of the window.
- To wash the rear window, use cold or tepid (not hot) water and a mild neutral soap suds. After washing, rinse with clear water and wipe with a slightly moistened clean soft cloth. A high quality plastic window cleaner is available from Chevrolet parts sources.

**CAUTION:** Never use solvents such as alcohol or volatile cleaning agents on the plastic window. These liquids may have a deteriorating effect on the plastic and if spilled, may spot the painted finish on the rear body panels directly below the rear window.

- When removing frost, snow or ice from the plastic window, DO NOT USE A SCRAPER. In an emergency, warm water may be used. Use care that the warm water does not contact the glass windows or windshield.

### ADJUSTMENTS

To correct variations in the top fit, adjustments are

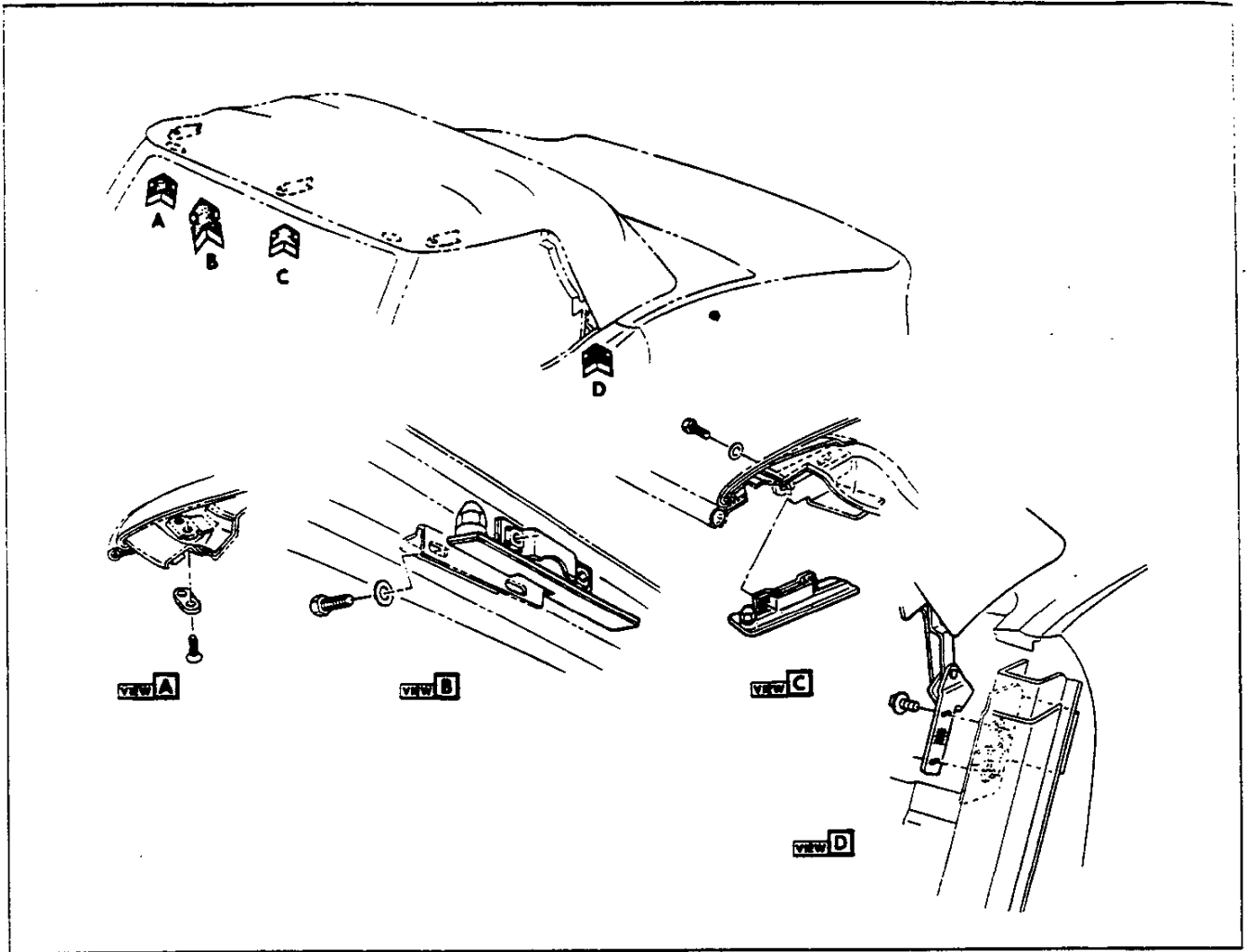


Fig. 68—Folding Top Adjustments

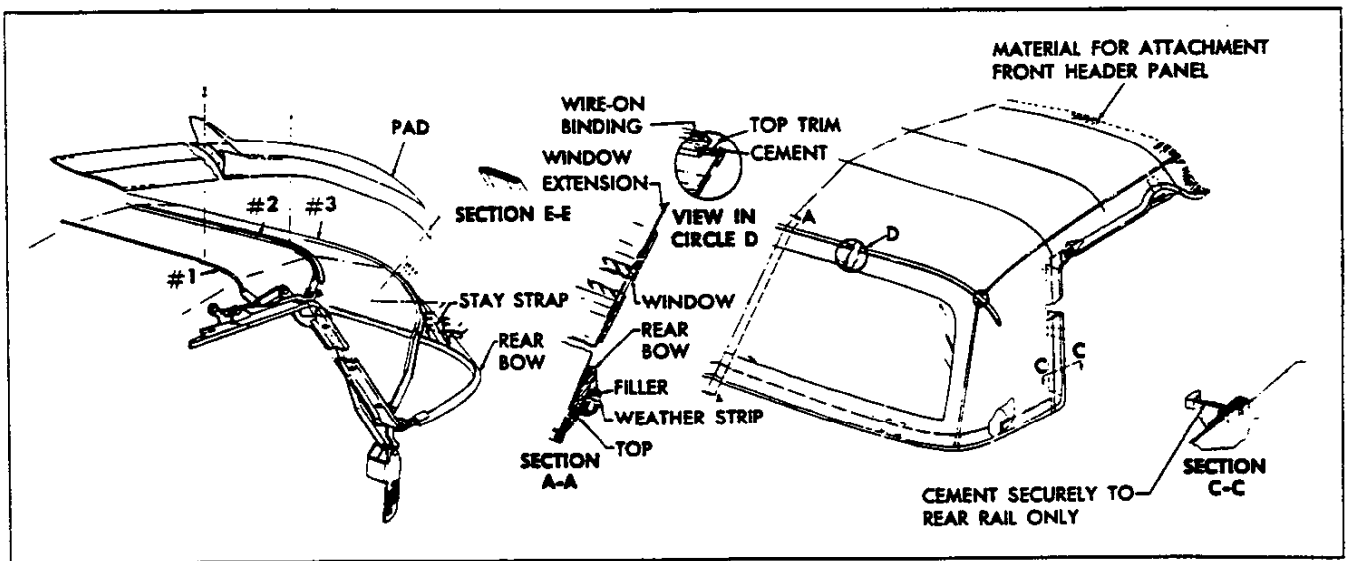


Fig. 69—Folding Top Trim Installation

made at three locations shown in Figure 68. A combination of adjustments may be necessary to correct any given problem, including door and window adjustments which are covered elsewhere in this section.

The folding top adjustments are:

#### Header

After removing header trim panel, header assembly may be moved fore and aft when the two clamping screws are loosened. This will correct such conditions as header latch guide pin alignment with the holes in the windshield upper frame. Indications of misalignment are loose top trim when top is up and locked, and excessive effort required to engage header locks. Note that it will be necessary to remove side roof rail weatherstrip to gain access to header outer clamping screw. Refer to Weatherstrip portion of this section.

#### Hinge

The hinges may be moved up and down and fore and aft to the limit of the slotted holes in hinge plate and body. To gain access to hinge, remove rigid plastic trim as explained in Interior Trim portion of this section. Repositioning hinge will correct conditions such as poor top fit at upper and rear edge of windows; faulty fore and aft engagements of rear bow hold-down pins in lock assemblies and loose or over-tight top rear panel when top is raised and properly locked in position.

#### Rear Bow Hold-Down Locks

Fore and aft adjustment is provided by slotted holes in lock housing. Turning of locating pins adjusts force that holds seal to folding top lid. The hold-down pins may be moved to left or right to center top on body in raised position; thus correcting poor alignment at windows and difficult entry of pins in locks.

### TOP ASSEMBLY REMOVAL AND INSTALLATION

The entire top assembly (frame with trim attached) may be removed from vehicle as follows:

1. Raise top, but do not engage header or rear bow locks.
2. Remove rigid plastic trim as outlined in Interior Trim portion of this section.
3. Mark installed position of hinge by scribing outline of hinge plate on lock pillar surface.
4. Remove two screws retaining each hinge to lock pillar and remove top assembly from vehicle.
5. When installing top assembly, carefully match hinge plate with scribed marks on body lock pillar and install screws. If necessary, proceed as outlined under Top Adjustments.

### TOP TRIM AND REAR WINDOW ASSEMBLY

The following information deals with removal and installation of the folding top trim and window assembly complete. Figure 69 may be referred to for parts identifications. Lettered sections (i.e. Section A-A) referred to in the instructions may also be found in Figure 77. Note that the sections are illustrated as they would appear if the parts were cut through on the lettered lines

on the top assembly and the cut surface exposed. Arrows indicate direction in which you would have to look in order to see the view shown.

Before old trim assembly is removed, top should be thoroughly adjusted as outlined in this section. As loose parts are removed such as stay straps and pads, their installed positions should be marked as an aid to installation of replacements.

#### Removal

1. Remove rear side rail window sealing weatherstrip, as explained further on in this section; also remove screws from ends of header inner weatherstrip. Note, however, that it is not necessary to remove header weatherstrip entirely and that header strip must be in place during final installation procedures of top trim so that correct tension of installed trim is achieved.
2. Remove tacks securing top and header outer weatherstrip to header (fig. 70).
3. Remove screw securing trim hold cable and spring assembly to header.
4. Pull cemented trim from rear side rail (Section C-C).
5. Remove end caps from wire-on binding; remove tacks securing binding to #3 bow (View F.). See frame and linkage portion for bow identification.
6. Remove staples securing trim to #3 bow.
7. Remove tacks securing upper ends of stay straps to #3 bow. Pads may be removed at this time, if desired. Mark position of pads and straps on head and #3 bow before removal.
8. Disconnect rear bow from top frame assembly. Two screws remain at each side Figure 71.
9. Remove trim-rear bow assembly from vehicle to clean work bench or table.
10. Remove plastic filler from rear bow weatherstrip and pull weatherstrip and trim from rear bow. Section A-A shows installed position of these components. Refer also to Figure 72.

#### Installation

1. Find and mark center of header, #3 bow, rear bow and leading and trailing edges of top trim. Align these marks during installation and recheck their alignment from time to time while installation is in progress, especially during tacking or stapling.
2. Assemble top trim and weatherstrip to rear bow, referring to Section A-A and Figure 72. Note that filler strip locks this assembly together and goes in last. Align center marks.
3. If new pads are required, install at this time, aligning with marks made when old pads were removed. Figure 73 shows pad construction; Figure 74 shows pad installed.
4. Install top trim-rear bow assembly on top frame with four screws removed at disassembly.
5. Lock down rear bow in desired "top up" position. Pull up stay straps and staple or tack to #3 bow (fig. 75).
6. Using a piece of mechanics wire, fish trim hold down cable assembly through top pocket and secure spring cable assembly to header with a screw.
7. Pull leading edge of trim up to header and align

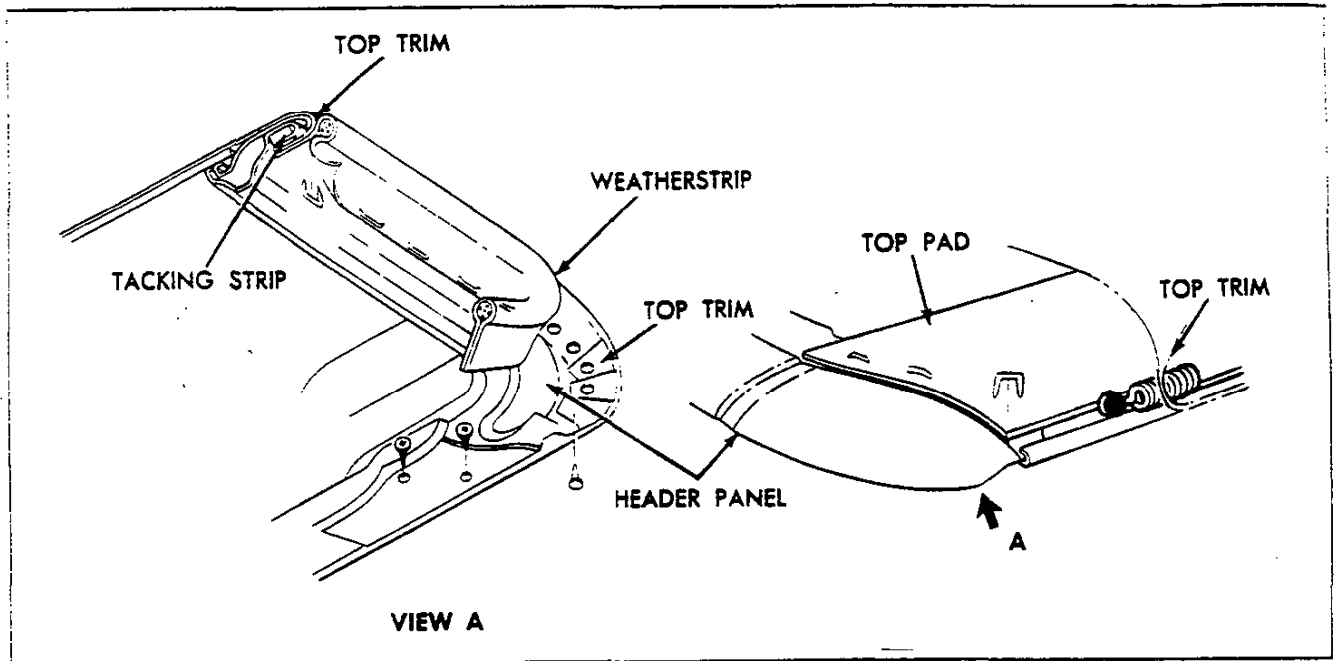


Fig. 70—Trim of Header

- center marks. Smooth out fabric and clamp, tack or staple temporarily to header.
8. Draw window extension up to #3 bow, aligning centering marks. Turn an ample amount of fabric under and tack to #3 bow. Apply neoprene trim cement, GM Part #3695016 or equivalent, to area shown in View D of Figure 69. Follow directions on package.
  9. Draw roof portion of trim over #3 bow, align marks and tack on staple.
  10. Trim off excess material and install wire-on binding as shown in Figure 76 and View D of Figure 69. Install binding caps.
  11. Remove temporary clamps or fastenings holding trim to header.

12. With header locked down, pull trim assembly up tight and mark for final installation.
13. Apply trim cement to header and rear side rail.
14. Release header from windshield. Tack or staple trim to header (fig. 70).
15. Apply trim to rear side frame, previously cemented.

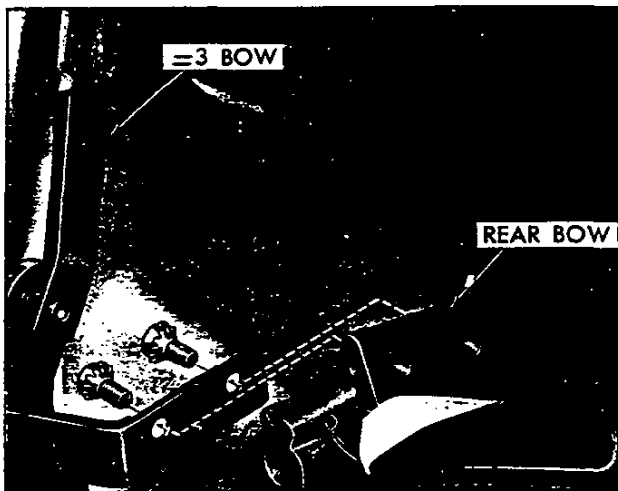


Fig. 71—Rear Bow Retaining Screws

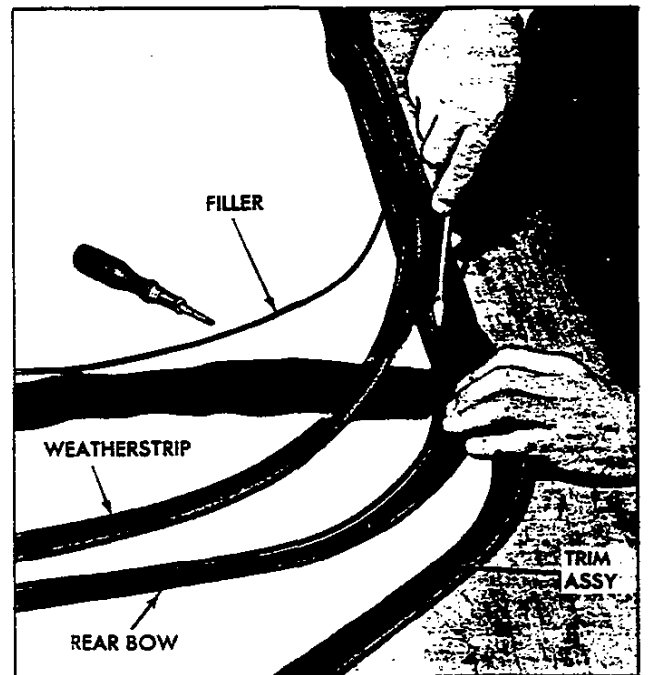


Fig. 72—Installing Trim and Weatherstrip to Rear Bow

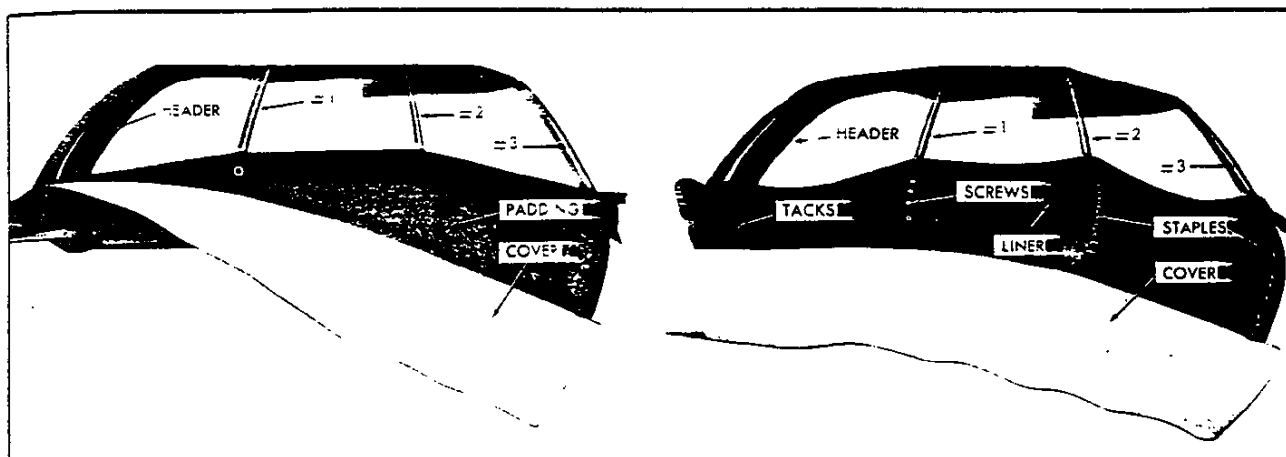


Fig. 73—Pad Construction

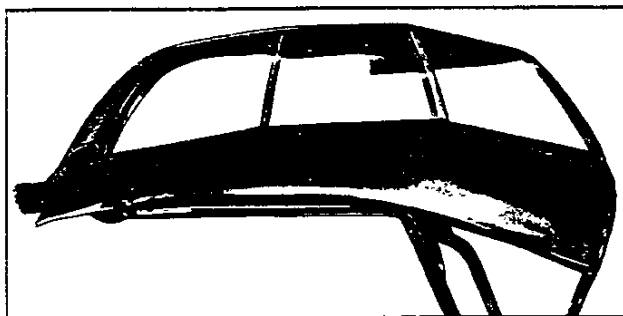


Fig. 74—Pad Installed

16. Install weatherstrips which were removed at disassembly and install retaining screws in header weatherstrip.
17. Install header trim panel.
18. Make any adjustments necessary, following instructions listed under Folding Top—Adjustments.

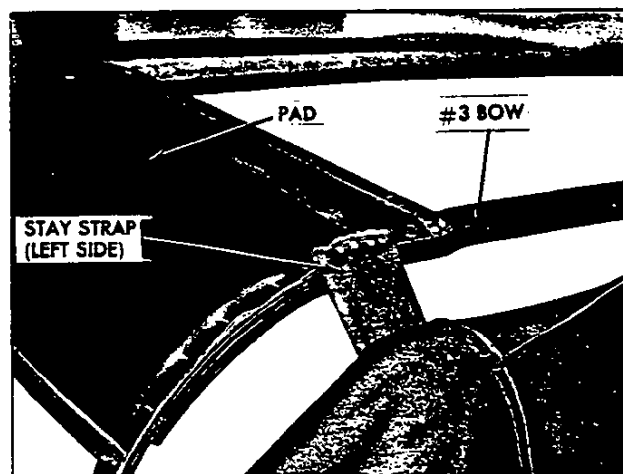


Fig. 75—Installing Stay Strap

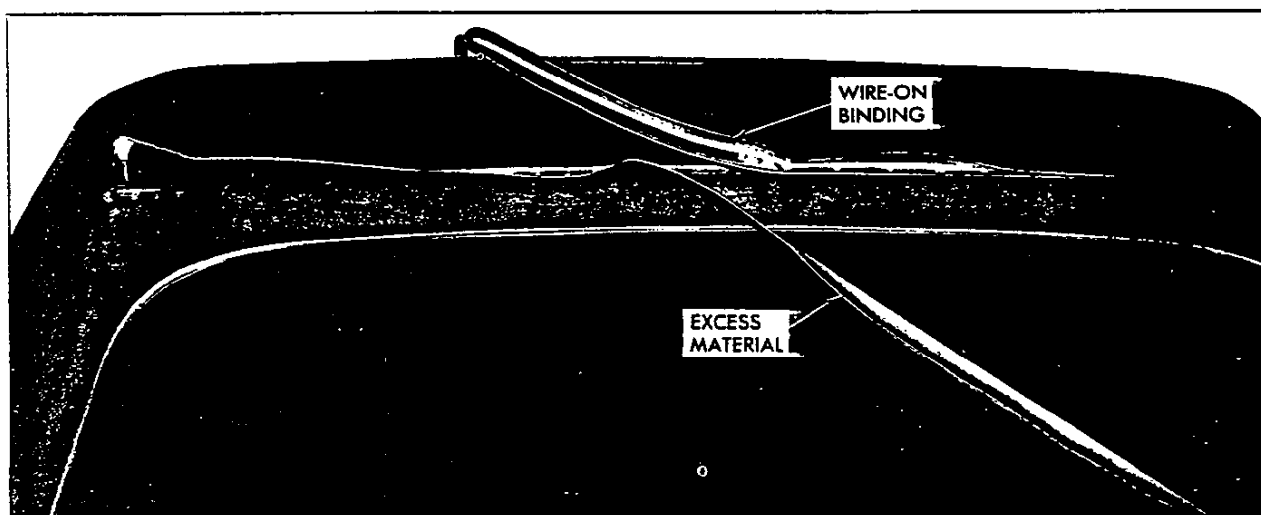


Fig. 76—Installing Binding



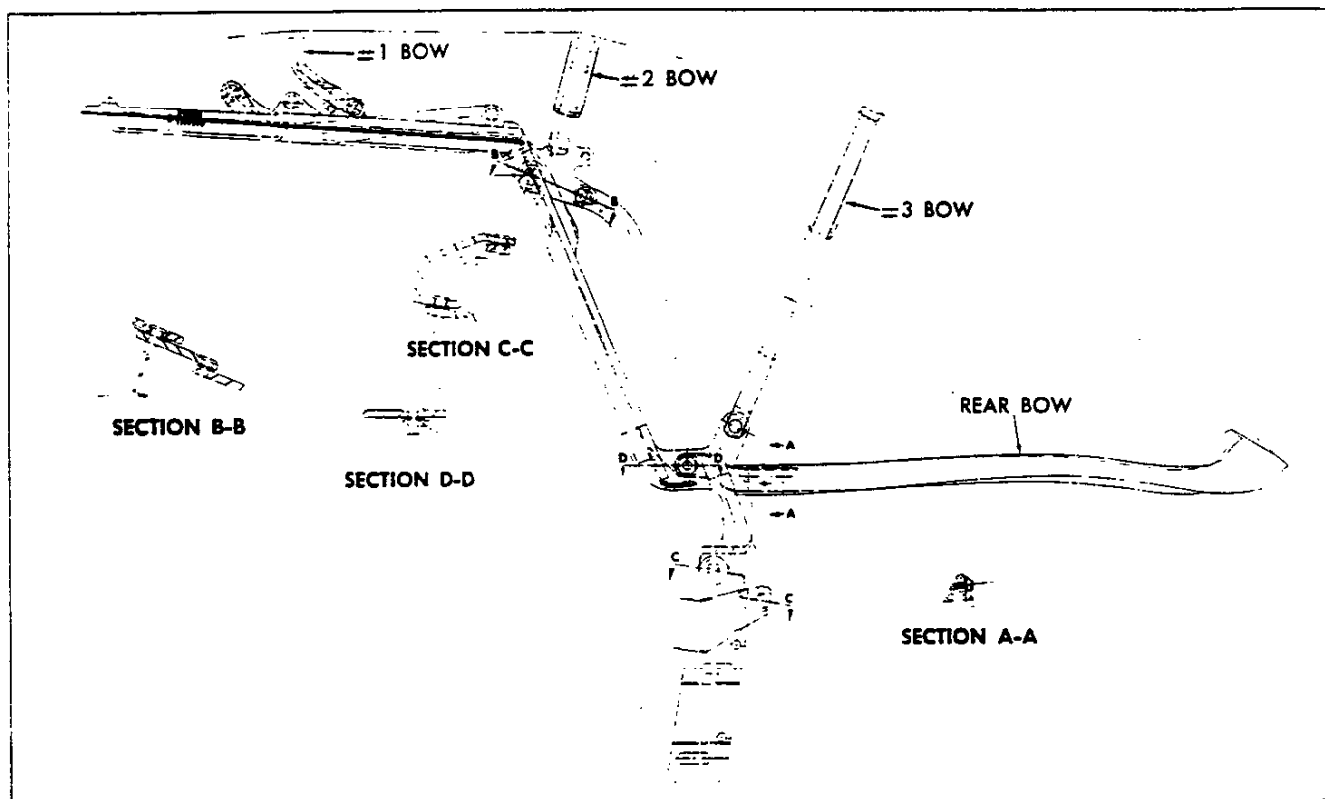


Fig. 77—Top Frame and Linkage

## FRAME AND LINKAGE

Figure 77 illustrates construction features of the folding top frame and linkage. Various cross sections in Figure 77 show the pivoting joints and their assembly.

If an operation is being performed which requires removal of folding top trim, follow directions in this section. The entire frame assembly may be removed and replaced as a unit. Follow instructions for Folding Top Trim and Rear Window Assembly and Top Assembly—Removal and Installation.

The pivoting joints should be lubricated with light machine oil once a year. Apply oil sparingly so as not to stain top trim.

## WEATHERSTRIP

### Side Rail Weatherstrip

Figure 78 illustrates installation of side rail weatherstrip which acts to seal window opening. The weatherstrip is held in place by loose screws which are part of the weatherstrip assembly, and by neoprene base cement which is applied between weatherstrip and side rail surface.

When replacing weatherstrip remove all rust, old cement and foreign material from the surfaces to be cemented, to assure successful bonding. Use only good

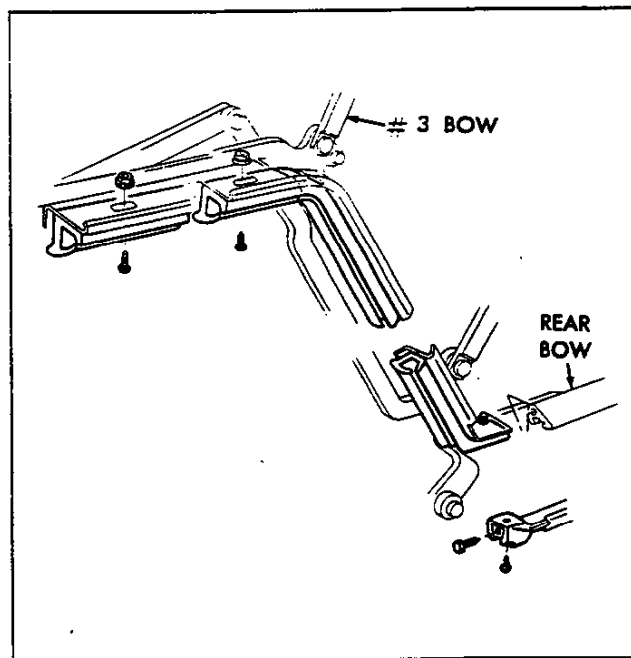


Fig. 78—Side Rail Weatherstrip

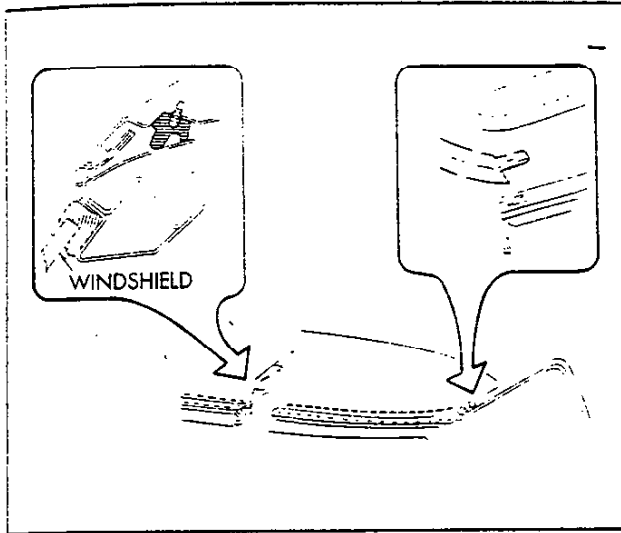


Fig. 79—Header Weatherstrip

quality neoprene cement suitable for weatherstrip application.

#### Header Weatherstrip

Weatherstrip assembly is retained to the header panel by a combination of studs, and special fasteners as shown in Figure 79 along with neoprene base weatherstrip cement.

### SPORT COUPE MODEL 19437

#### ROOF PANEL ADJUSTMENT (Fig. 80)

Each roof panel is adjusted in relationship to the other

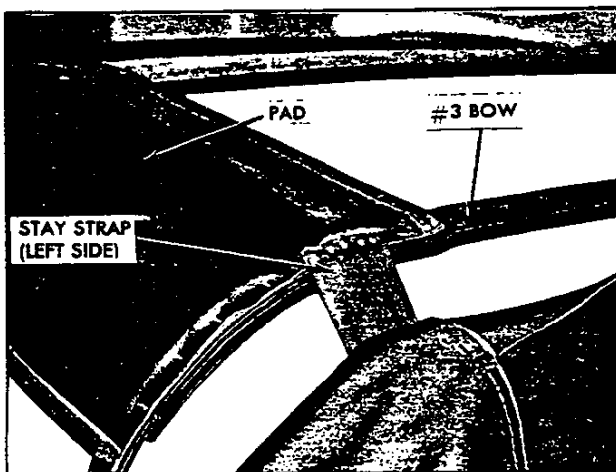


Fig. 80—Roof Panel Alignments

and to the header and roof crossover.

Roof panel inner edges are spaced parallel  $1/16''$  to  $3/16''$ . The rear edges of the roof panel are spaced  $1/8''$  to  $1/4''$  side to side. The outboard edge of the roof panel to header spacing is determined by the triangular headed pin fastened to the roof crossover. The back edge of the triangular headed pin should measure  $1/4''$  from the plate it screws into.

All latches and adjustments must be loose before starting the roof panel alignments. The only shimming possible is at the center guides.

#### Adjustment Procedure

1. Remove roof panel and place upside down on a clean soft surface.
2. Remove screw from each side of headlining panel and gently pry headlining loose from plastic retainers.
3. Loosen screws on underside of roof panel at forward (b) and center guides (c).
4. Repeat steps 1-3 for opposite roof panel.
5. Check dimension of triangular pin (a) on header panel at outer edges of the roof panel attachment locations. Refer to View A.
6. Reinstall roof panels and observe spacing. The roof halves should meet within  $1/16''$ - $3/16''$  in the center (dimension A) and within  $1/8''$ - $1/4''$  to the header (dimension B).

**NOTE:** Contour of roof is controlled by shims (d) (no more than 4). It should be noted that the fewer shims used at this location, the more compression on the seating gasket.

7. Once dimensions A and B have been obtained by manipulating each roof panel with respect to one another and the header, tighten the screws securing the center and forward guides in the roof panels.

**NOTE:** If compression at the lock locations is needed, adjust bolts (e) accordingly. If point of contact of latch bolt needs adjustment loosen bolts (f) and move latch assemblies fore or aft as necessary.

8. Align headlining with a  $3/16''$  gap all around and push headlining panels upward with firm palm pressure at nylon retainers.
9. Remove panels, make sure all nylon fasteners are engaged and reinstall headlining screws.
10. Reinstall roof panels on vehicle.

#### Weatherstrip Replacement (Fig. 81)

1. Remove roof panel and place upside down on soft clean surface.
2. Remove screw on each side of headliner panel.
3. Pry headliner loose from nylon retainers at eight (8) locations. Remove headliner.
4. Pry out plastic buttons retaining weatherstrip to roof panel.
5. Clean old sealer off roof.
6. Apply sealer to roof panel along the entire outline of the roof panel where the weatherstrip is to lie.
7. Install new weatherstrip at screw attachment end engaging all plastic retainers. Push down along strip to uniformly spread the sealer.
8. Secure weatherstrip to roof panel with four (4) screws.

9. Reinstall headliner panel.
10. Reinstall roof panel.

### INTERIOR QUARTER PANEL TRIM REMOVAL (Fig. 82)

1. Remove rear window.
2. Gently pry off back window lower garnish molding (f) by pulling lower edge forward, then after unhooking nylon fasteners, lift up.
3. Remove (right or left) rear roof trim panel latch cover (a) secured by screws.
4. Remove (right or left) rear roof trim panel (b).
5. Remove (right or left) quarter trim panel secured by screws.

**NOTE:** Four (4) screws retaining forward lip of interior quarter trim panel are removed and installed from inside door jamb.

6. Install interior trim and rear window in the reverse order of removal.

### CENTER ROOF REINFORCEMENT TRIM REMOVAL (Fig. 77)

1. Remove both rear roof trim panel latch covers (a)—2 screws each.
2. Remove rear window.
3. Remove both rear roof panels (b) secured by screws.
4. Remove left and right sun visor assemblies. Remove windshield upper garnish molding (c) secured by screws.
5. Remove center roof trim screws. Pull assembly (d) downward to release the attachment stud (e).
6. Install interior trim in the reverse order of removal, then install rear window.

### STORAGE TRAY

The storage tray which provides a means of storing rear window assembly when removed from vehicle, is replaced by removing hinge screws at rear body panel. The latch is adjusted by bending for proper engagement.

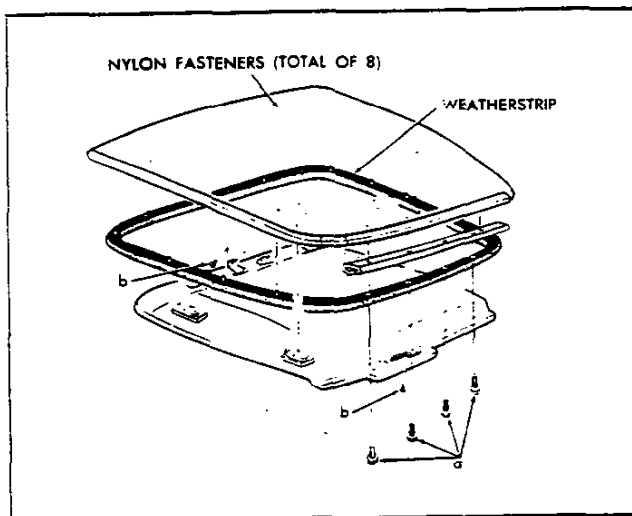


Fig. 81—Roof Panel Weatherstrips

## REAR WINDOW

### Glass Replacement

To replace rear window glass, the following procedure is recommended.

1. Remove rear window assembly from vehicle and place on bench.
2. Remove lower frame member from old glass and frame assembly.
3. Remove glass from upper frame member and clean out sealer by carefully scraping from groove around entire perimeter of frame.
4. Apply bead of caulking material (polysulfide or equivalent) around slot of both frame components.
5. Insert replacement glass into curved frame member.
6. Assemble frame by aligning lower member with glass.
7. Clean excess caulking material from surface of glass.

### Adjustment

The locks and lower receiving plates which determine the holding force are adjusted to the extent of slotted mounting holes to attain an even, adequate seal.

### Weatherstrip

The weatherstrip between the rear window assembly and rear body opening is replaced by cementing to rear inner body surface around opening. The weatherstrip is then screwed in place.

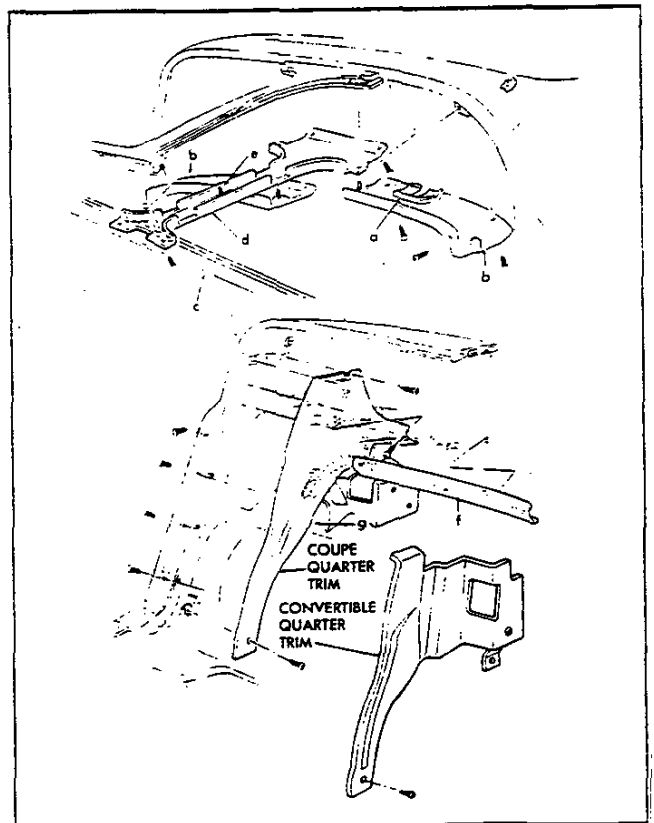


Fig. 82—Interior Quarter Trim

## SPECIAL TOOLS

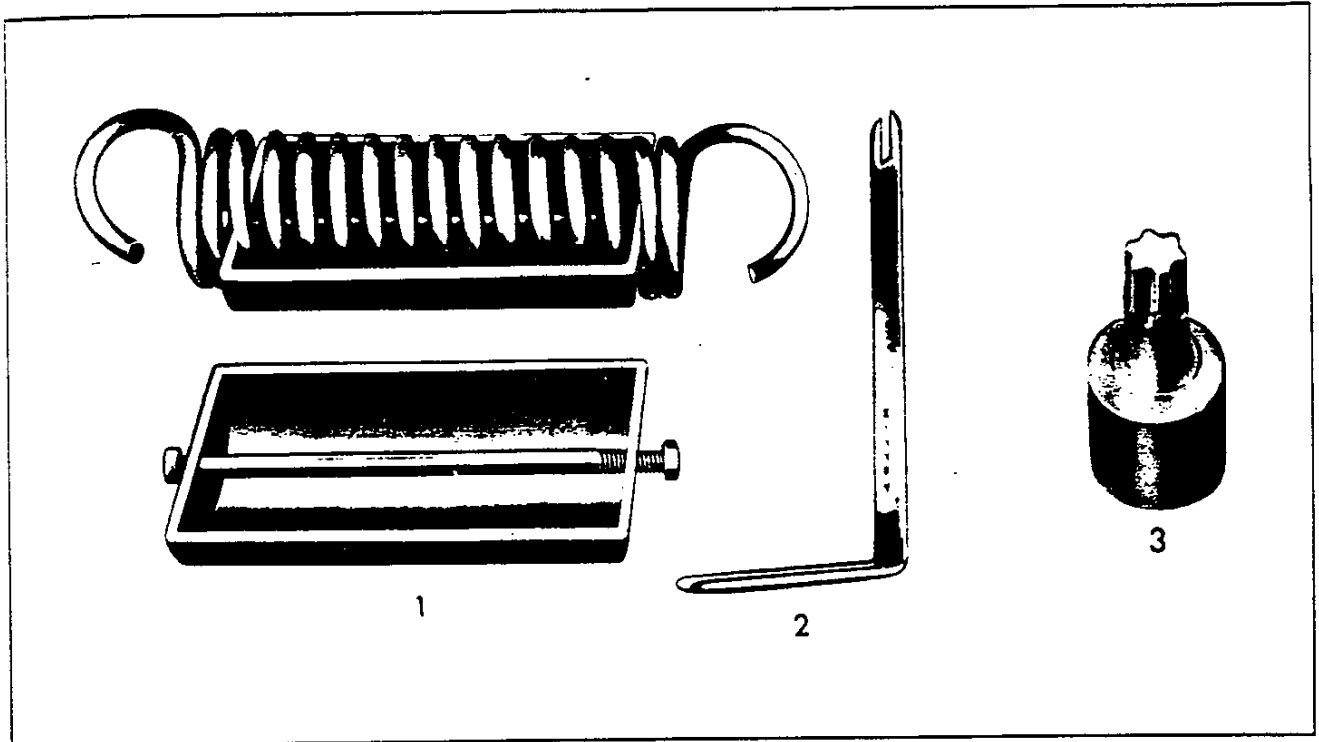
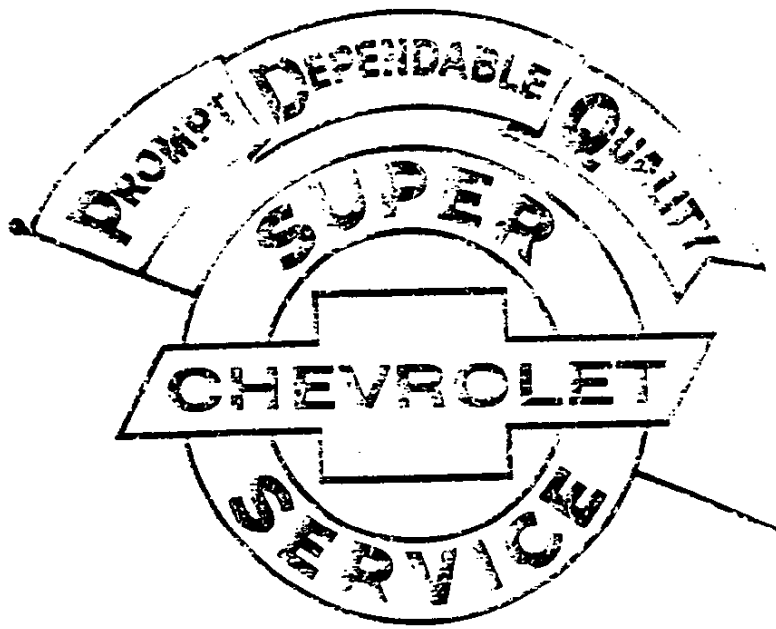


Fig. 83—Special Tools

1. J-9559 Deck Lid Spring Tool
2. J-7797 Door Handle Clip Remover
3. J-23457 Door Lock Striker Bolt Remover



Model	List Price	Factory D&H	Mfr's Suggested Retail*	Dest'n Charge	Total
-------	------------	-------------	-------------------------	---------------	-------

Chevette  
 19437 Coupe \$5248.00 \$285.00 \$5533.00  
 19467 Convertible \$5022.00 274.00 5296.00

\*Does not include state and local taxes, license fees, options or accessories.

**STANDARD EQUIPMENT**

**Air Cleaners:** Oil-wetted paper  
**Air, Front:** Independent suspension; coil springs; stabilizer bar  
**Air, Rear:** Independent suspension; leaf springs; ratio, 3.36  
**Battery:** 12 volt; 62-amp-hr  
**Belt, Seat:** Driver and passenger  
**Belt, Shoulder:** Driver and passenger (Coupe)  
**Bumper, Bumper:** Hydraulic, self-adjusting; dual system; disc-type  
 Size: 11.75" rotor (front and rear)  
 Total effective lining area 78.1 sq in  
**Bumper, Parking:** Rear wheels  
**Clutch:** Dia. 11", 123.7 sq in  
**Coilings:** 2.88" core, cross-flow type, effective area 315 sq in

**POPULAR OPTIONAL EQUIPMENT\***

Description	Opt No.	List Price	Factory D&H	Mfr's Suggested Retail*
-------------	---------	------------	-------------	-------------------------

**POWER TEAMS**

**Engines:**  
 330-hp Turbo-Fire 350 V8. Available only when standard 4-speed or 4-speed close-ratio transmission is ordered. Includes full transmission ignition system  
 365-hp Turbo-Jet 454 V8. Available only when standard 4-speed, 4-speed close-ratio or Turbo Hydro-matic transmission is ordered. Includes HD Battery  
 425-hp Turbo-Jet 454 V8. Available only when optional 4-speed or Turbo Hydro-matic transmission is ordered. Includes HD Battery  
**Transmissions:** Replacing standard 4-speed wide-range transmission  
 Turbo Hydro-matic  
 With standard 270-hp engine  
 With 365- or 425-hp engine  
 4-Speed Close-Ratio  
 With 330-, 365- or 425-hp engine  
 Special 4-Speed Close Ratio  
 With 425-hp engine only  
**Rear Axle Ratio, Rear:** Replacing standard position rear axle ratio  
 Economy ratio  
 Performance ratio  
 3.70 ratio  
 4.11 ratio  
 4.56 ratio

\*Popular Chevrolet installed options. See latest Chevrolet Price Schedule or Truck Data Book for complete list of optional equipment.

Description	Opt No.	List Price	Factory D&H	Mfr's Suggested Retail*
-------------	---------	------------	-------------	-------------------------

**POWER ASSISTS**

**Brakes, Power:** ISO \$ 45.00 \$ 2.40 \$ 47.40  
**Steering, Power:** N40 110.00 5.90 115.90  
**Windows, Power Electric:** A31 81.00 4.35 85.35

**OTHER OPTIONS**

**Air Conditioning, Four-Season—** Available only when 4-speed wide-range or Turbo Hydro-matic transmission with standard or 365-hp engine is ordered.  
 C60 \$441.00 \$23.50 \$464.50  
**Alarm System, Audio**  
 UA6 30.00 1.60 31.60  
**Battery, Heavy-Duty—** Included with 365- or 425-hp engine.  
 T60 15.00 .80 15.80  
**Belt, Custom Deluxe Shoulder—** Convertible only—2 front.  
 A85 40.00 2.15 42.15  
**Defroster, Rear Window**  
 C50 40.00 2.15 42.15  
**Paint, Exterior—** Solid colors.  
 N.C. N.C. N.C.  
**Radio, Pushbutton—** Includes antenna: AM/FM  
 U69 169.00 9.00 178.00  
 AM/FM/Stereo Radio: U69/U79 269.00 14.35 283.35  
**Roof Cover, Vinyl—** Black. Available when removable auxiliary hardtop is ordered on Convertible.  
 C08 60.00 3.20 63.20  
**Steering Wheel, Tilt-Telescopic:**  
 N37 80.00 4.30 84.30  
**Top, Auxiliary—** Removable hardtop; Convertible model only  
 C07 260.00 13.65 273.65  
**Top, Folding—** Manually operated. Convertible only—White  
 AA N.C. N.C. N.C.  
 Black BB N.C. N.C. N.C.  
**Trim, Custom—** Genuine leather seats, special carpeting, door trim panels and console with wood-grained accents.  
 T02 190.00 8.00 198.00  
**Wheel Covers, Custom**  
 T02 60.00 3.20 63.20

**OPTIONAL TUBELESS TIRES—Factory Installed**

**Replacing (5) F70 x 15/B Special Nylon Blackwall:**  
 P77 29.00 1.35 30.35  
 (5) F70 x 15/B Special White stripe nylon.  
 (5) F70 x 15/B Special Nylon White Lettered Blackwall P09 42.00 1.65 43.65

\*Popular Chevrolet installed options. See latest Chevrolet Price Schedule or Truck Data Book for complete list of optional equipment.

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1971 Corvette

Coupe  
Convertible

V8  
19437  
19467

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### New Corvette Features for 1971 . . .

- 10 Magic-Mirror colors—7 new for '71—include 3 special fire-mist choices
- New interior trim colors
- Fuel Evaporation Control System standard
- All engines operate on low lead fuel
- New Combination Emission Control (CEC) valve
- New low profile body resin process contributes to a smoother surface and improved exterior finish

### Safety and security features . . .

#### Occupant Protection Features

- Seat belts and shoulder belts (except Convertible) with pushbutton buckles and retractors—driver and passenger
- Built-in head restraints
- Energy-absorbing steering column
- Passenger-guard door locks
- Safety door latches
- Energy-absorbing padded instrument panel
- Thick-laminate windshield
- Padded sun visors
- Safety armrests
- Safety steering wheel

#### Accident Prevention Features

- Side marker lights and reflectors (front side marker lights flash with directional signal)
- Parking lights that illuminate with headlights
- Four-way hazard warning flasher
- Back-up lights
- Lane-change feature in direction signal control
- Windshield defroster, washers and dual-speed wipers
- Wide-view inside day-night mirror (vinyl-edged, shatter-resistant glass and deflecting support)

- Outside rearview mirror
- Dual master cylinder brake system with warning light

#### Anti-Theft Features

- Anti-theft ignition key warning buzzer
- Anti-theft steering column lock

#### Traditional quality features . . .

- Custom interior option (includes leather seat trim, plush cut-pile carpeting, special door trim with carpeted lower panel, plus wood-grain accents on doors and console)
- High-rise slim-tapered bucket seats with integral head restraints
- Instrument panel and console with aircraft-type instrumentation
- Astro Ventilation system with adjustable vent-ports in instrument panel
- Seat belt retractors
- Console-mounted parking brake control
- Deep-twist floor carpeting standard
- All-vinyl interior trim standard
- Color-matched seat belts
- Utilized seat and shoulder belt buckle design
- Special sport-styled steering wheel
- Tachometer
- Separate trip odometer
- Rally-type electric clock
- Ammeter, oil pressure, fuel and temperature gauges
- Vinyl-covered molded headlining on Coupe
- Courtesy light with automatic door switches
- Light monitoring system standard with indicators built into console
- Suspended accelerator pedal
- Rear compartment stowage wells
- Warning lights for seat belt and door ajar
- Tinted glass in all windows
- Efficient valve-in-head design
- Full dual exhaust system
- Positraction rear axle standard

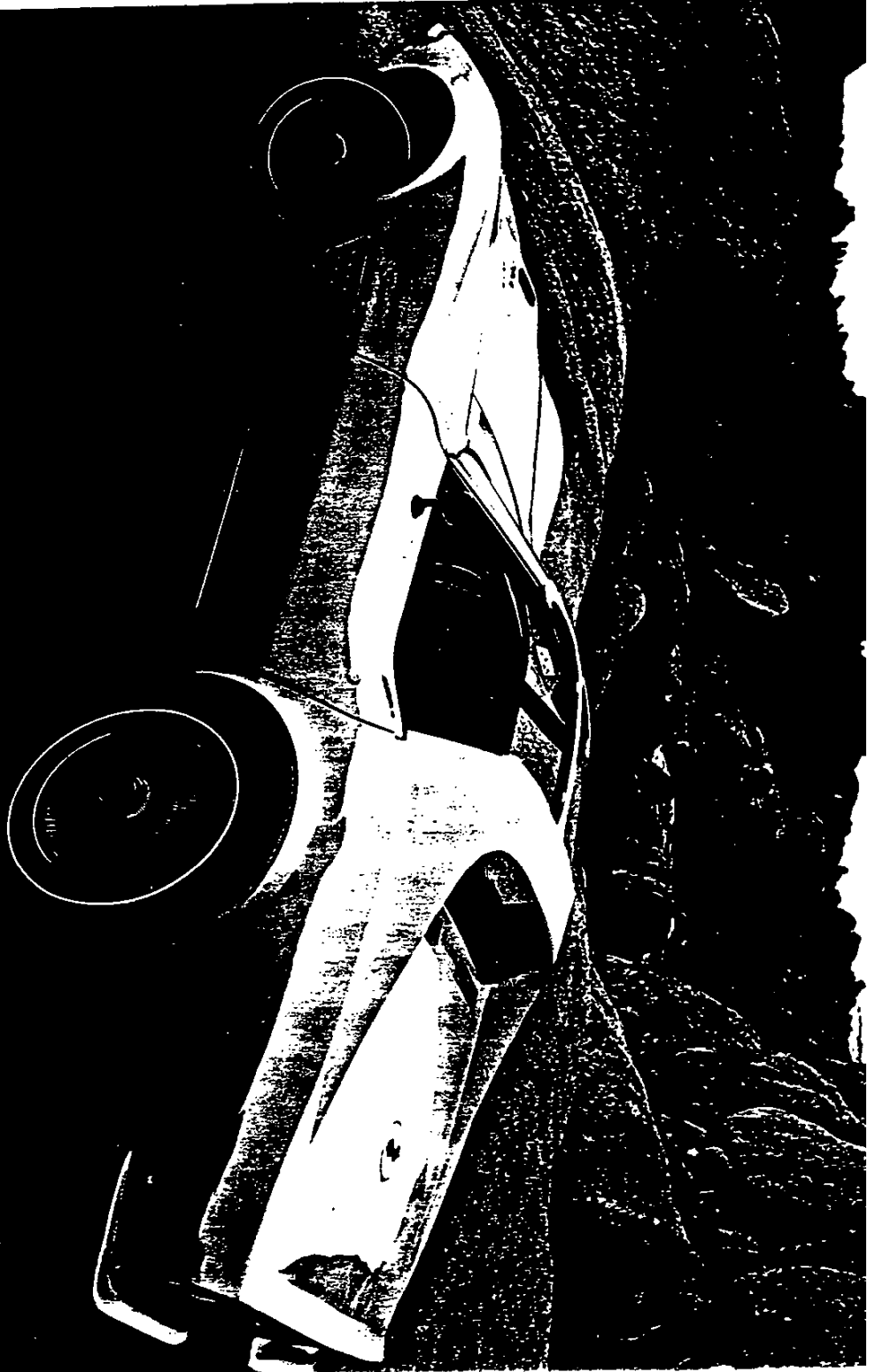
- Special high-domed hood included with 330-, 365-, and 425-hp engines
- High-output Delco-tron generator with micro-circuit integral regulator
- Sealed side-terminal energizer-type battery
- Positive-shift starter
- Automatic choke
- Controlled pressure lubrication system with full-flow oil filter
- Magic-Mirror acrylic lacquer finish
- Hide-A-Way windshield wipers with built-in washer nozzles concealed beneath power-operated cowl panel
- Concealed outside door handles
- Dual-speed electric windshield wipers
- Built-in blended-air heater and defroster system
- Padded instrument panel and sun visors
- Power-operated retractable dual headlights
- Carpeted luggage compartment behind front seats
- Rear compartment stowage wells
- Keyless door locking
- Concealed Convertible top stowage
- Separate spare tire stowage with key lock
- Full door-glass styling without ventpanes
- Front lower air spoiler
- Rear deck air spoiler
- Removable hardtop (available for Convertible) with glass rear window
- Full independent suspension system
- Self-adjusting disc brakes at all four wheels
- Rugged all-welded ladder-type frame
- Wide 15" x 8" wheels
- F70 x 15 wide-oval tires
- Precise Ball-Race steering
- Rubber-mounted front stabilizer bar

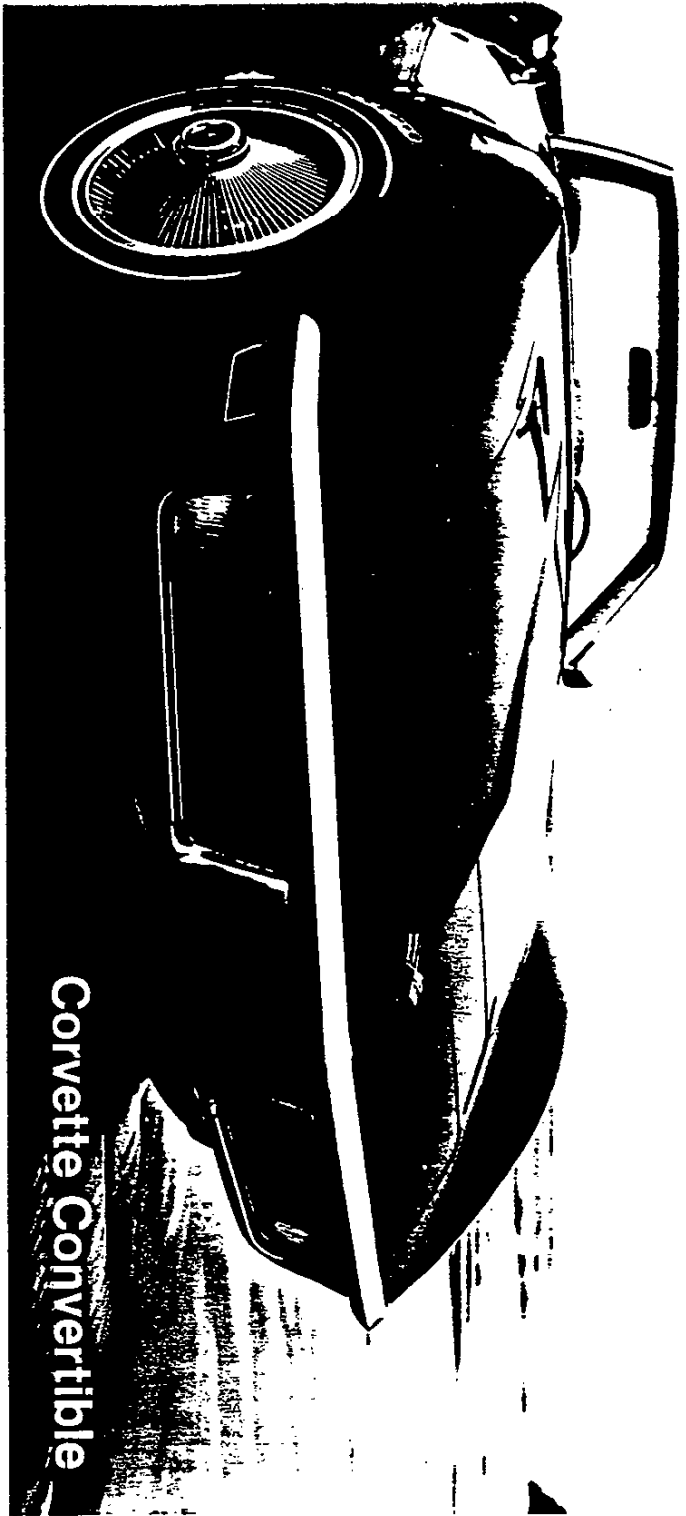
## 2 / Corvette features

Corvette Coupe /

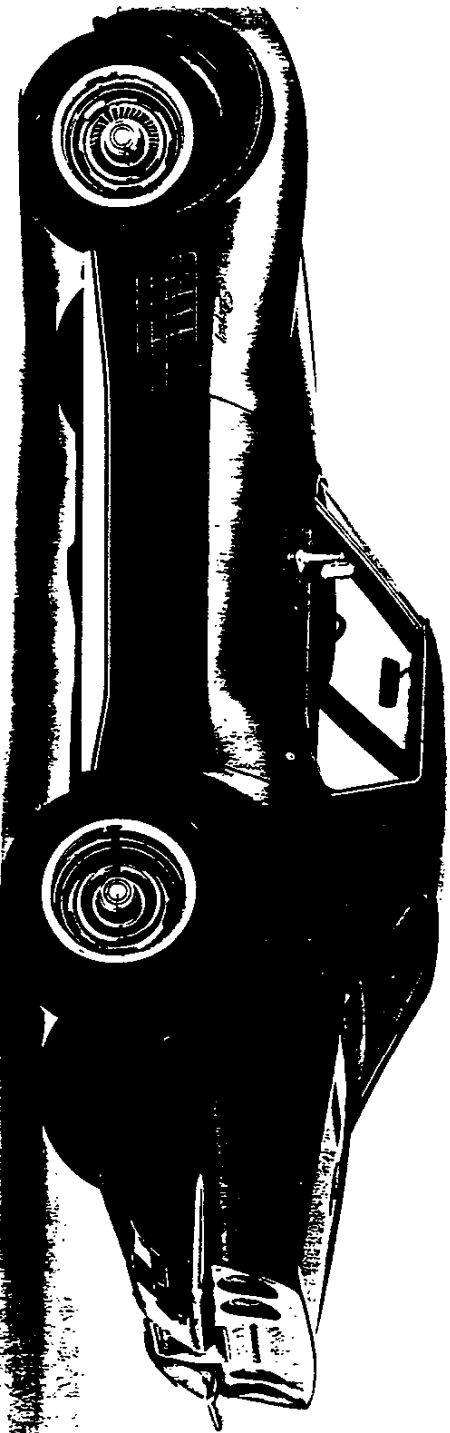


4 / Corvette Coupe with roof panels removed





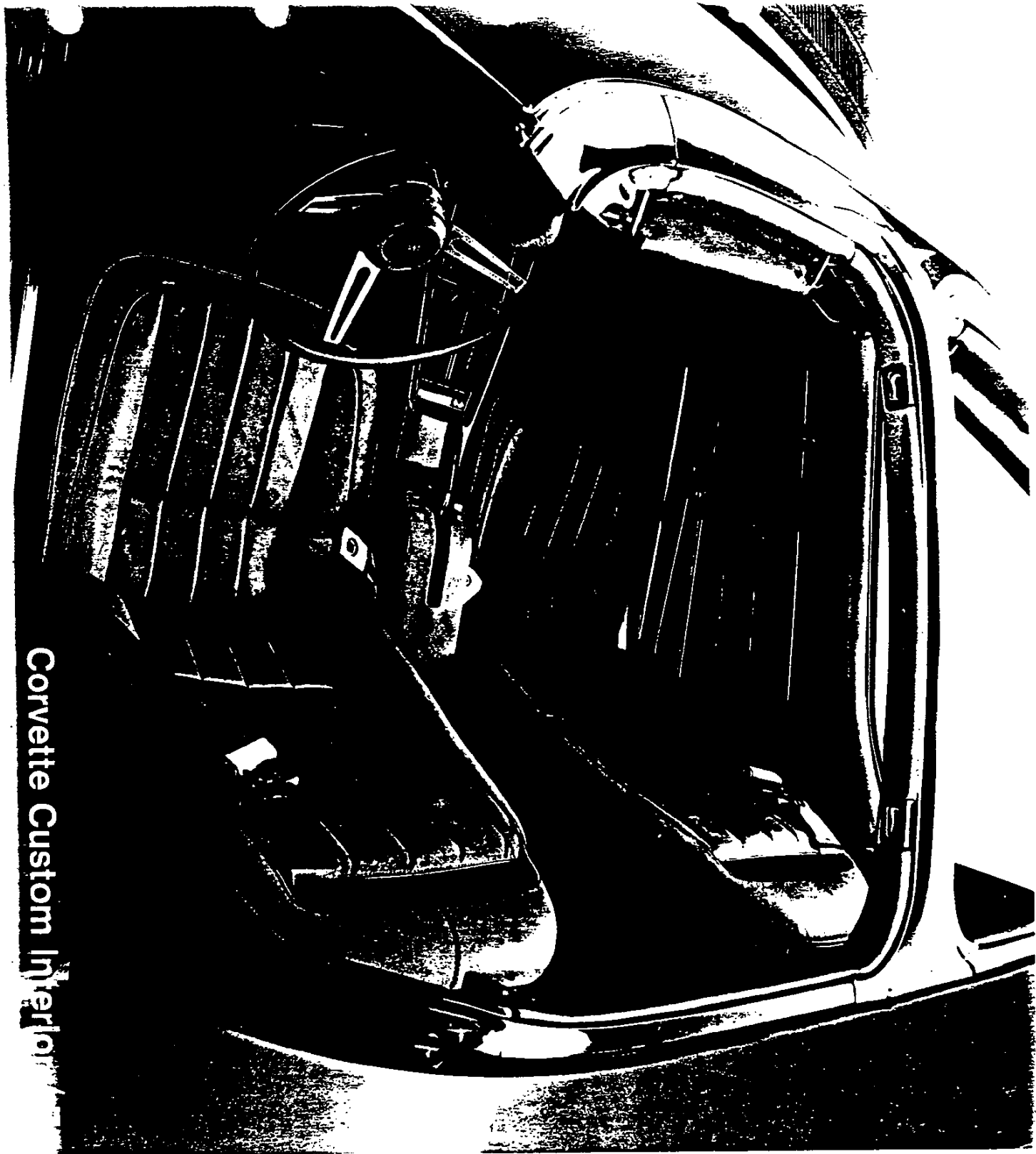
**Corvette Convertible**



**Corvette Convertible with removable hardtop / 5**



**6 / Corvette all-vinyl standard interior**



Corvette Custom Interior



Interior Trim

models	seat style	Black vinyl	Black leather	Dark Blue vinyl	Dark Green vinyl	Red vinyl	Saddle leather
Coupe & Convertible	bucket	400	403	412	423	407	420

Exterior Colors

code	code
Mulsanne Blue	26
Bridgehampton Blue	27
Brands Hatch Green	48
Steel Cities Gray	98
Ontario Orange	97
Mille Miglia Red	78
Nevada Silver	13
Classic White	10
Sunflower Yellow	52
War Bonnet Yellow	91

**Vinyl Roof Cover Color Choice (RPO C08)**

Available for removable hardtop (RPO C07) in black only with all exterior colors.

**Convertible Top Colors**

Choice of black or white convertible top available with all exterior colors.

**Seat and Shoulder Belt Colors**

Interior trim color	belt colors
Black	Black
Dark Blue	Dark Blue
Dark Green	Dark Green
Red	Red
Saddle	Saddle

**Corvette color and trim / 9**

**Engines, Transmissions and Axle Ratios**

transmissions and postraction rear axle ratios

engines	4-speed (2.52:1 low)		4-speed (2.20:1 low)		Special 4-speed (2.20:1 low)		Turbo Hydra-matic		
	std.	econ.* perf.* spec.*	std.	econ.* perf.* spec.*	std.	econ.* perf.* spec.*	std.	econ.* perf.* spec.*	
Standard V8 270-hp (210▲) Turbo-Fire 350 V8	3.36	3.08					3.08		3.36
(RPO LTT) 330-hp (275▲) Turbo-Fire 350 V8	3.55	3.36	3.70	3.55	3.36	3.08			
(RPO LSS) 365-hp (285▲) Turbo-Jet 454 V8	3.08	3.36	3.36	3.08			3.08	2.73	3.36
(RPO LSE) 425-hp (325▲) Turbo-Jet 454 V8			3.36	3.08	3.36	3.08	3.08	2.73	3.36

▲ SAE net (as installed) horsepower \*Optional at extra cost.

**Equipment Included With Optional\* V8 Engines**

	330-hp (275▲) Turbo-Fire 350	365-hp (285▲) Turbo-Jet 454	425-hp (325▲) Turbo-Jet 454
Special high-demand hood	•		
Heavier duty front springs			
Heavier duty front stabilizer bar			
Heavier duty rear wheel spindle support arms			
Rear suspension stabilizer bar			
Heavy-duty front and rear shock absorbers			
Heavier duty clutch			
Larger capacity radiator			
Dual water pump and fan pulleys			
Finned aluminum valve rocker covers			
Aluminum cylinder heads			
Heavier duty battery			
Full transistor ignition system			

▲ SAE net (as installed) horsepower \*Optional at extra cost.

# 10 / Corvette power teams

**Transmissions**

	engine	transmission gear ratios (:1)					shift selector location
		1	2	3	4	R	
4-Speed Fully Synchronized (Standard)	270-hp (210Δ) V8	1					
	330-hp (275Δ) V8	2.52	1.88	1.46	1.00	2.59	•
	365-hp (285Δ) V8						
4-Speed Fully Synchronized (RPO M21)	330-hp (275Δ) V8	2.20	1.64	1.27	1.00	2.26	•
	365-hp (285Δ) V8						
Special 4-Speed Fully Synchronized (RPO M22)	425-hp (325Δ) V8	2.20	1.64	1.27	1.00	2.26	•
	425-hp (325Δ) V8						
Turbo Hydraulic (RPO M40)	270-hp (210Δ) V8	Drive (maximum) -5.21:1 to 1:1 Low 2 -5.21:1 to 1.48:1 Low 1 -5.21:1 to 2.48:1 Reverse -4.37:1 to 2.08:1					•
	330-hp (275Δ) V8						
	425-hp (325Δ) V8						

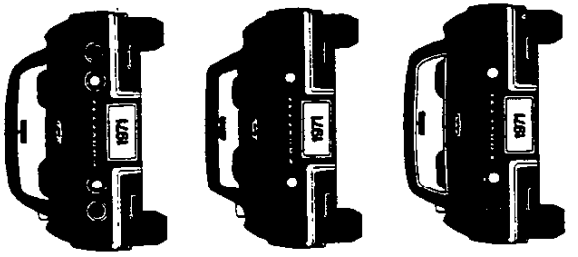
▲SAE net (as installed) horsepower

**Clutches for Corvette 4-Speed Transmission Power Teams**

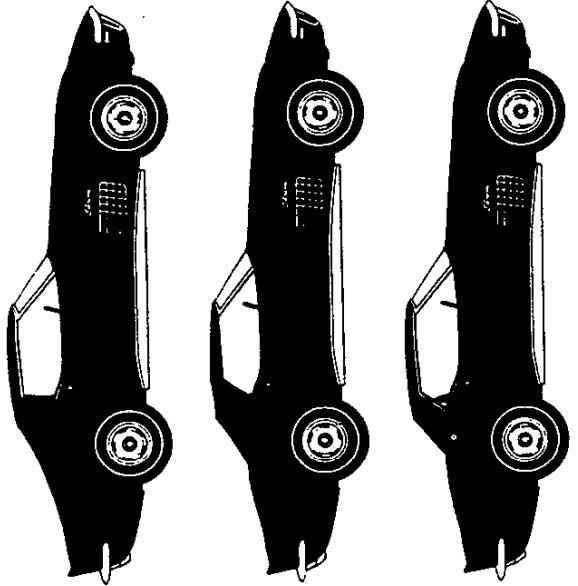
type	270-hp (210Δ)	330- (275Δ)	365-hp (285Δ)	425-hp (325Δ)
	Disc Facing Material	Semi-centrifugal bent-finger-design diaphragm spring with single dry disc—pearlitic or nodular iron pressure plate		
Disc Facing Outside Diameter	11.00	10.40	11.00	10.40
Disc Facing Total Area (sq. in.)	123.70	103.53	123.70	103.53
Spring Effective Plate Load (lbs.)	2450-2750	2900-3100	2450-2750	2900-3100

▲SAE net (as installed) horsepower

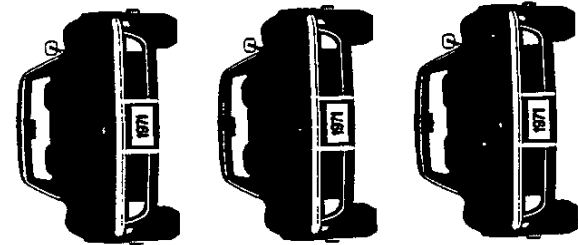
*Stimpney*



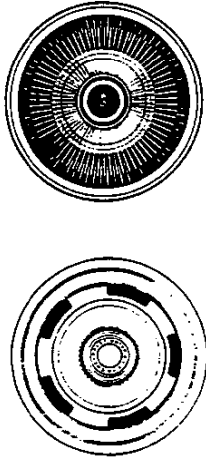
Corvette Coupe



Corvette Convertible



Corvette Convertible with optional removable hardtop (RPO C07)



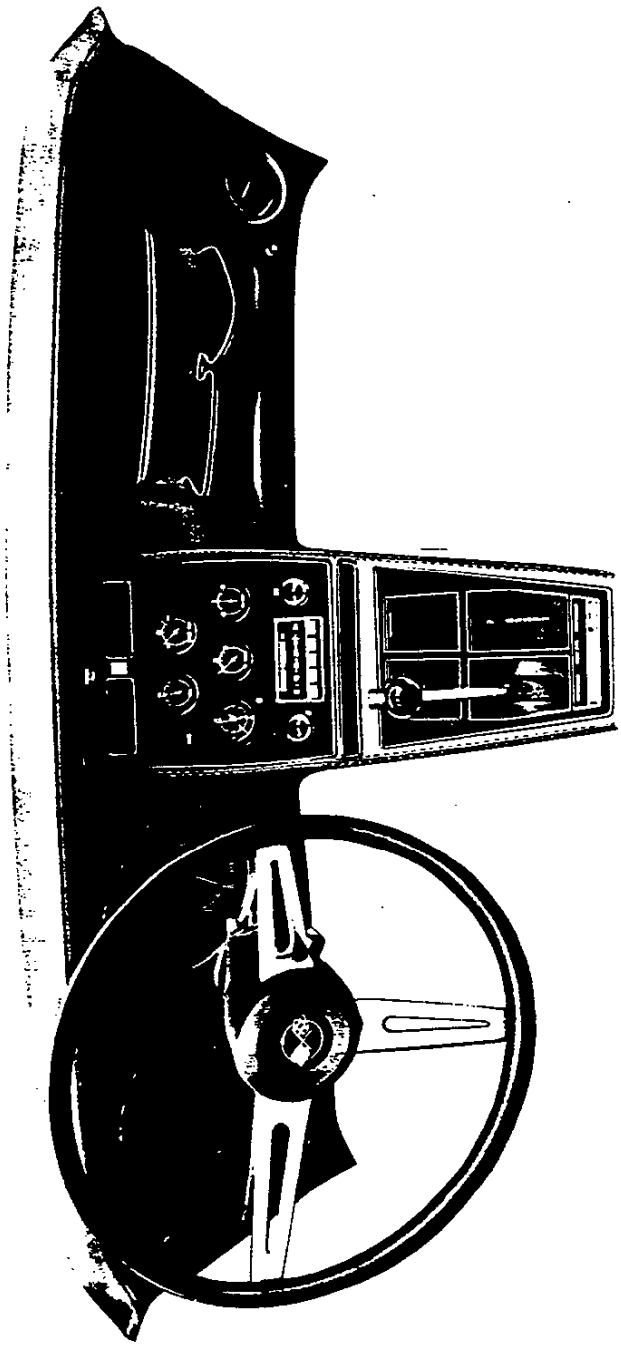
Corvette standard wheel trim ring with center cap (RPO P02)

## 12 / Corvette exterior features

Corvette Exterior Features	Coupe	Convertible
Precision-cast bright grille	•	•
Concealed headlights	•	•
Front bumper guards	•	•
White lenses over amber parking/direction signal lights	•	•
Bright license plate frames	•	•
Functional front fender louvers with bright trim	•	•
Windshield molding	•	•
Hide-A-Way windshield wipers with built-in washers	•	•
Full door-glass styling	•	•
Rectangular outside rearview mirror	•	•
Wide-oval F70 x 15 tires and 15 x 8 wheels	•	•
Body sill moldings	•	•
Bright wheel trim (tires and center caps)	•	•
Side marker lights—front and rear	•	•
Bright roof drip and rear window molding	•	•
Flush-mounted door handles	•	•
Removable roof panels and rear window	•	•
Astro Ventilation outlet grilles on rear deck	•	•
Twin-unit taillights/back-up lights with bright bezels	•	•
Bright exhaust outlet extensions and frames	•	•
Wraparound rear bumper with built-in guards	•	•

# Corvette exterior features / 13

Corvette Interior Features	Coupe	Convertible
Sports-styled steering wheel with black rim	•	•
Bright-accented Corvette horn button emblem	•	•
Adjustable Astro Ventilation vent-ports	•	•
Convenient aircraft-type center console	•	•
7000-rpm tachometer	•	•
Anti-theft steering column lock	•	•
Illuminated heater control panel	•	•
Separate trip odometer	•	•
Ammeter, temperature, fuel and oil pressure gauges	•	•
Light monitoring system alert panels	•	•
Seat belt, door ajar and headlight position indicators	•	•
Electric clock with sweep second hand	•	•
Cigarette lighter in console ashtray	•	•
Console-mounted parking brake control	•	•
Headlight high-beam indicator	•	•



**Corvette Interior Features**

	Coupe	Convertible
Luxurious all-vinyl interior styling	•	•
High-backed slim-tapered bucket seats	•	•
Utilized seat and shoulder belt buckle design	•	•
Tinted glass in all windows	•	•
Molded door pins with built-in armrests	•	•
Full door-glass styling and Astro Ventilation	•	•
Folding seat back latches	•	•
Custom Deluxe color-matched seat belts	•	•
Handy map and storage pockets	•	•
Glare-resistant padded instrument panel and sun visors	•	•
Parking brake and brake system warning light	•	•
Seat belt retractors	•	•
Deep-twist color-layed floor carpeting	•	•
Vinyl-covered molded headlining	•	•
Dual Courtesy lights with automatic door switches	•	•
Suspended accelerator pedal	•	•
Carpeted rear compartment storage walls	•	•
Day-night inside rearview mirror	•	•
Door pull handles	•	•
Black-accented hood release handle	•	•
Special bright pedal trim	•	•
Removable roof panels and rear window	•	•
Bright seat adjustment handle	•	•
Vinyl plastic rear window	•	•



Exterior Dimensions	Sport Coupe	Convertible
Wheelbase	98.0	98.0
Length (overall)	182.5	182.5
Width (overall)	69.0	69.0
Height (loaded)	47.8	47.9
Front Tread	58.7	58.7
Rear Tread	59.4	59.4
<b>Interior Roominess</b>		
Head room	37.2*	38.3
Leg room	43.0	43.0
Hip room	48.8	48.8
Shoulder room	46.9	46.9
Entrance height	29.0	29.0
<b>Luggage Compartment</b>		
Usable luggage space (cu. ft.)	6.1	5.0

\*With removable hardtop--37.1

Glass Area	Sport Coupe	Convertible
Windshield glass area (sq. in.)	977.4	977.4
Rear window glass area (sq. in.)	392.5	418.0
Total glass area (sq. in.)	2170.7	2196.2

**Tire Size & Steering Specifications**

Standard tire size	F70 x 15	F70 x 15
Turning circle--curb-to-curb (ft.)	37.0	37.0
Turning circle--wall-to-wall (ft.)	39.0	39.0
Steering ratio--std. (overall)	20.2:1	20.2:1
Steering ratio--power (overall)	17.6:1	17.6:1

**Fuel Capacity & Weight**

Rated fuel tank capacity (approximate gallons)	18	18
Curb weight--standard V8 (lbs.)	3292	3306
Shipping weight--standard V8 (lbs.)	3202	3216

**1971**



# **PASSENGER CAR SPECIFICATIONS**

**CHEVROLET**

**CORVETTE**



**ENGINEERING PRODUCT INFORMATION DEPARTMENT**

**WARREN**

**MICHIGAN**

**ORIGINAL COPY**



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# GENERAL

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INTERIOR EQUIPMENT .....	5-6
EXTRA COST EQUIPMENT .....	7
AIR CONDITIONING EQUIPMENT .....	8

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## MODEL IDENTIFICATION

**CORVETTE 19437 SPORT COUPE**  
**MODEL 19437 2-DOOR SPORT COUPE, 2-PASSENGER**

**CORVETTE 19467 CONVERTIBLE**  
**MODEL 19467 2-DOOR CONVERTIBLE, 2-PASSENGER**

# SERIAL NUMBERS AND IDENTIFICATION

## ONLY BASIC DESIGNATIONS SHOWN

### VEHICLE SERIAL NUMBER

8-Cylinder Example:

Model	Model Year	Assembly Plant (St. Louis)	Unit Number (1st Unit)
19437	1	S	100001

Thus: The 1st model built at St. Louis would be serial number 194371S100001

### ASSEMBLY PLANTS

S - St. Louis

Starting unit number . . . . . 100001 and up at each assembly plant regardless of series  
 Location . . . . . Stamped on plate attached to left hand windshield pillar

### TRANSMISSION IDENTIFICATION

● Example: P1E01

Type Designation	Source Designation	Model Year	Production <sup>o</sup> Month & Date
WT	F (Muncie)	1	E10D*
WT	4-Speed	V-8 engine	P - Muncie
CY	Turbo Hydra-Matic	V-8 engine	- - Ypsilanti

Location:

- 4-Speed . . . . . Stamped on the right side of the case at adapter.
- Turbo Hydra-Matic . . . . . Nameplate tag on right hand side of the case.

<sup>o</sup>Month: E denotes May; 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: F1210CJL

Source Designation	Production <sup>o</sup> MOnth & Date	Type Designation
F (Flint)	1210	CJL

#### 350 Cubic Inch 8-Cylinder

CJL - Regular engine, 4-speed, 4-bbl. carb.  
 CJK - Regular engine, Turbo Hydra-Matic

#### 350 Cubic Inch 8-Cylinder (RPO LT1)

CGY - Optional engine, 4-speed, 4-bbl. carb.

#### 454 Cubic Inch 8-Cylinder (RPO LS5)

CPH - Optional engine, 4-speed, 4-bbl. carb.  
 CPJ - Optional engine, Turbo Hydra-Matic

#### 454 Cubic Inch 8-Cylinder (RPO LS6)

CPW - Optional engine, 4-speed, 4-bbl. carb.  
 CPX - Optional engine, Turbo Hydra-Matic

Location:

8-Cylinder engine . . . . . Stamped on top front of RH bank of cylinder and case.

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

### REAR AXLE IDENTIFICATION

Location, Identification Number

Bottom left or right of axle tube adjacent to carrier housing.

See Power Train Section for additional information.

# EXTERIOR EQUIPMENT

## STANDARD EXTERIOR EQUIPMENT

FRONT	AERO COUPE 19437	CONVERTIBLE 19467
Radiator Grille - Die Cast Chrome Plated Aluminum	X	X
Parking Lamps - Clear Lens	X	X
License Plate Frame, Bright	X	X
Retractable Headlamps, Painted Bezels	X	X
Hood Emblem, Cross-Flags	X	X
Windshield Reveal Moldings, Bright and Painted	X	X
Concealed Windshield Wipers with Integral Washers in Wiper Arms	X	X
Front Bumper and Grille Guards, Bright	X	X

SIDE		
Front Fender and Rear Quarter Marker Lamps	X	X
Front Fender Louver - Body Color Die Cast Aluminum-Chrome Accented	X	X
Front Fender Nameplate, "Stingray" Script	X	X
Outside Rear View Mirror	X	X
Rocker Panel Molding, Bright	X	X
Wheel Trim Ring and Hub Cap	X	X
Roof Drip Molding - Bright	X	-
Removable Roof Panels	X	-
Press-Flap Door Opening Handles - Bright	X	X
Key Locks - Bright	X	X
Door Belt Bead Molding - Bright	X	X

REAR		
Rear End Panel Block Letters "Corvette"	X	X
Single Outboard Tail Lamps	X	X
Single Inboard Back-Up Lamps	X	X
Gas Tank Filler Door Emblem, Cross Flags	X	X
License Plate Frame and Compartment Bezel, Bright	X	X
Exhaust Pipe Extensions and Bezels, Bright	X	X
Air Outlet Grilles, Painted	X	X
Rear Bumper and Integral Guards	X	X

# INTERIOR EQUIPMENT

## STANDARD INTERIOR EQUIPMENT

ROOF AND PILLARS	AERO COUPE	CONVERTIBLE
	19437	19467
Molded Headlining, Padded with Sun Visor Pockets	X	-
Windshield Pillars, Padded	X	X
Sunshades, Padded with Brushed Hardware	X	X
Rear View Mirror, Padded with Brushed Finish Support	X	X
Roof Center Strut, Padded with Bright Hardware	X	-
Top Header Release Latches, Bright	X	-
Removable Rear Window, Bright Frame	X	-
Door Jamb Light Switch	X	X

SEATS AND FLOOR COVERING		
Bucket Seats - All Vinyl with Integral Head Restraints	X	X
Passenger and Stowage Compartment Floor Carpet with Sound Blanket	X	X
Seat Back Latch, Bright	X	X
Seat Adjuster Handle, Bright	X	X
Seat Belts (2), Bright Buckles (Mini-Buckles)	X	X
Shoulder Harness and Retractors (Positive Control)	X	-
Floor Stowage Compartment - 3-Doors, Carpeted	X	X
Floor Stowage Compartment Door Trim Rings and Push Buttons - Painted - Bright	X	X
Body Sill Plates - Bright and Painted	X	X
Stowage Compartment Rear Wall Courtesy Lamp	X	X
Roof Panel Stowage Vinyl Bag and Tie-Down Straps, Color-Keyed	X	-

DOOR AND QUARTER PANEL		
Molded Door Trim Panel with Stitching and Built-In Armrest	X	X
Door Assist Handle - Vinyl	X	X
Door Remote Control Handle - Chrome and Painted	X	X
Door Locking Knobs and Escutcheons - Chrome and Painted	X	X
Door Trim Panel Applique	X	X
Door Locks - Free Wheeling	X	X
Window Control Handle - Bright, Plastic Knob	X	X



# INTERIOR EQUIPMENT

## STANDARD INTERIOR EQUIPMENT

INSTRUMENT PANEL, CONSOLE AND STEERING WHEEL	AERO COUPE 19437	CONVERTIBLE 19467
Instrument Panel Pad - Trim Color - With Stitching	X	X
160 MPH Speedometer with Trip-O-Dometer	X	X
7000 RPM Tachometer	X	X
Headlamp Rotation and Main Light Switch	X	X
Windshield Washer and Wiper Control - Black-Painted	X	X
"Astro-Ventilation" Air Outlets and Control Knobs - Bright	X	X
Instrument Panel Map Pocket - R.H.	X	X
Electric Clock	X	X
Ammeter, Temperature, Fuel and Oil Pressure Gauges	X	X
Headlamp Hi-Beam Indicator	X	X
Seat Belt, Door Ajar and Headlamp Indicators	X	X
Hood Release Lever - Black-Painted	X	X
Lamp Monitoring Indicators	X	X
Rear Compartment Glove Box with Lamp - Carpeted Door	X	X
Ash Tray and Lighter	X	X
Parking Brake Warning Light	X	X
Heater Controls - Thumb Wheel	X	X
Air Vent Control Knobs - Black Plastic White Letters "Close"	X	X
Shift Quadrant - Black With Bright Lettering	X	X
Floor Center Console and Trim Plate - Padded, Morocco Finish	X	X
Floor Center Console Trim Plate "Crossed Flags" Emblem and Engine I.D.	X	X
Parking Brake Lever - Black - Bright	X	X
15" Black Vinyl Steering Wheel, Bright Trim	X	X
Horn Button Cap - Painted, Grained	X	X
Horn Button Cap Emblem - Bright, Painted	X	X
Hazard Warning Switch - Bright	X	X
Turn Signal Indicators and Control Lever - Bright, Painted	X	X
Steering Column Ignition Switch and Lock - 5-Position Painted	X	X
Center Cluster, Morocco Finish	X	X
Center Cluster "Corvette" Nameplate	X	X
Floor Console - Vinyl Grain Covered	X	X

### GLASS (TINTED)

Windshield, Laminated Safety Plate	X	X
Door Windows with "Astro-Ventilation" Monogram, Safety Solid Plate	X	X
Removable Rear Window, Safety Solid Plate	X	-
Rear Window, Vinyl Plastic*	-	X

\* Safety solid plate in optional auxiliary top.

## EXTRA COST EQUIPMENT

EQUIPMENT	RPO	ACC
<b>POWER TEAMS</b>		
330-hp Turbo-Fire 350 V-8 . . . . .	LT1	
365-hp Turbo-Jet 454 V-8 . . . . .	LS5	
425-hp Turbo-Jet 454 V-8 . . . . .	LS6	
4-Speed manual transmission - close ratio . . . . .	M21	
4-Speed manual transmission - H.D. close ratio . . . . .	M22	
Turbo Hydra-Matic automatic transmission . . . . .	M40	
Rear Axle:		
Economy ratios . . . . .	ZQ8	
Performance ratios . . . . .	ZQ9	
Special 3.70 ratio . . . . .	YE1	
Special 4.11 ratio . . . . .	YE2	
Special 4.56 ratio . . . . .	YE3	
 <b>POWER ASSISTS</b>		
Brakes, Power . . . . .	J50	
Steering, power . . . . .	N40	
Windows, power . . . . .	A31	
 <b>OTHER OPTIONS</b>		
Air conditioning, four season . . . . .	C60	
Alarm system, horn . . . . .	AU6	
Battery, heavy duty . . . . .	T60	
Belts, shoulder - Convertible only . . . . .	A85	
Cap, locking gas filler . . . . .		ACC
Carrier, rear deck . . . . .		ACC
Compass . . . . .		ACC
Defroster, rear window (forced air) . . . . .	C50	
Fire extinguisher . . . . .		ACC
Floor mats, clear vinyl twins . . . . .		ACC
Highway emergency kit - fire extinguisher, tire inflater, fuses . . . . .		ACC
Litter container . . . . .		ACC
Radio equipment: Radios, Pushbutton - Includes rear deck antenna		
AM/FM Radio . . . . .	U69	ACC
AM/FM/Stereo Radio . . . . .	U79	ACC
Roof cover, vinyl - Auxiliary top required . . . . .	C08	
Safety seat - child . . . . .		ACC
Safety seat - infant . . . . .		ACC
Spotlight, hand portable . . . . .		ACC
Steering wheel, tilt and telescope . . . . .	N37	
Suspension, special front and rear . . . . .	F41	
Top, auxiliary - Convertible only . . . . .	C07	
Top, Convertible (colors) . . . . .	C05	
Wheel covers, special . . . . .	P02	
 <b>FACTORY INSTALLED REGULAR PRODUCTION TIRES</b>		
F70 x 15 B special nylon white stripe . . . . .	PT7	
F70 x 15 B special nylon white letters . . . . .	PU9	

# AIR CONDITIONING

## FOUR-SEASON (RPO C60)

Heater integrated; manually controlled by two thumb wheel controls on instrument control panel, plus a 4-speed fan switch. Left thumb wheel uses vacuum supply and electrical switches to operate mode doors and compressor. Right thumb wheel uses bowden cable to temperature door in selector duct assembly.

## BASIC COMPONENTS

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 to Power Trains Section

### POWER TRAINS

Fan Blade . . . . . 7 blade  
Crankshaft Pulley . . . . . Dual  
Water Pump & Fan Pulley . . . . . Dual  
Compressor & Crankshaft Belt . . . . . One  
Generator . . . . . 61 Ampere

# **DIMENSIONS AND WEIGHTS**

<b>INTERIOR DIMENSIONS</b> .....	<b>2</b>
<b>EXTERIOR DIMENSIONS</b> .....	<b>3</b>
<b>VEHICLE WEIGHTS</b> .....	<b>4</b>

# INTERIOR DIMENSIONS

## LENGTHS

CODE	DESCRIPTION	19437 COUPE	19467	
			SOFT TOP	HARDTOP
H30	H point to heel point		6.8	
H37	Headlining to roof height	0.7	0.9	
H54	D point to tunnel		4.0	
H58	H point rise		0.4	
H61	Effective headroom	37.2	38.3	37.1
H67	Depressed floor covering thickness		0.2	
H70	Body zero line to H point (vert.)		7.0	
L17	H point travel		4.5	
L31	Body zero line to H point (horiz.)		44.7	
L34	Maximum effective leg room - accelerator		43.0	
L40	Back angle (degrees)		33.0	
L42	Hip angle (degrees)		107.0	
L44	Knee angle (degrees)		138.0	
L46	Foot angle (degrees)		88.0	
L53	H point to accelerator floor point		36.1	

## SEAT AND ENTRANCE

H3	Seat chair height	18.6
H11	Entrance height	29.0
H26	Interior body height, M/M @ car centerline	33.4
H27	Interior body, M/M @ C/LO	40.0
H32	Seat cushion deflection	2.2
H50	Upper body opening to ground	43.6
W3	Shoulder room	46.9
W5	Hip room	48.8
W16	Seat width (each seat)	18.5
L14	Seat back thickness	3.7
L18	Entrance foot clearance	14.5

## VISION AND CONTROL

H6	H point to W/S bottom DLO	19.8
H13	Steering wheel thigh clearance	4.2
H18	Steering column angle (degrees) horizontal	14.1
H25	Belt height	17.5
H49	H point to top of steering wheel	1.0
W7	Steering wheel center to car centerline	12.7
W9	Steering wheel maximum O.D.	15.0
W122	Tumble-home (degrees)	26.5
L7	Steering wheel torso clearance	12.4
L13	Brake pedal knee clearance	24.5
L52	Brake pedal to accelerator	3.9

## LUGGAGE COMPARTMENT

V1	Luggage Capacity - Usable (Cu.Ft.)	6.1	5.0
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# EXTERIOR DIMENSIONS

## LENGTHS

CODE	DESCRIPTION	19437 COUPE	19467	
			SOFT TOP	HARDTOP
L101	Wheelbase		98.0	
L102	Tire size (standard)		F70-15	
L103	Overall length		182.5	
L104	Overhang - front		40.6	
L105	Overhang - rear		43.9	
L123	Body upper structure length at car C/L		55.6	
L127	Body O line to C/L of rear wheels		72.0	
L128	Hood length at centerline		77.5	
L129	Deck length @ car C/L		46.7	
L130	Body zero line to W/S cowl point		13.1	
L30	Vertical O line to actual front of dash		-1.7	

## WIDTHS

W101	Tread - front	58.7
W102	Tread - rear	59.4
W103	Maximum overall width of car (W106)	69.0
W106	Front fender overall width	69.0
W107	Rear fender overall width	68.8
W120	Overall car width, front doors open	107.4

## HEIGHTS

CODE	DESCRIPTION	19467	
		SOFT TOP	HARDTOP
H101	Overall height (design)	47.8	47.9
H102	Front bumper to ground		19.2
H104	Rear bumper to ground	13.2	13.0
H111	Rocker panel to ground - rear		6.7
H112	Rocker panel to ground - front		6.7
H114	Hood at rear to ground		26.6
H115	Step height - front (design)		13.1
H122	W/S slope angle (degrees)		57.0
H125	Headlamp to ground		25.4
H126	Tail lamp to ground	27.1	26.9
H130	Step height - front (curb)	13.7	13.6
H136	Body O line to ground - front		7.6
H137	Body O line to ground - rear		7.6
H158	Roof thickness		3.9
H159	DLQ height		11.9
H160	Body thickness		24.4

## CLEARANCES

H106	Angle of approach (degrees)	22.0	
H107	Angle of departure (degrees)	21.0	
H147	Ramp breakover angle (degrees)	22.0	
H148	Front suspension to ground	5.7	
H149	Oil pan to ground	4.8	
H150	Flywheel housing to ground	5.2	
H151	Frame to ground	5.4	
H152	Exhaust system to ground	4.8	4.5
H153	Rear axle to ground	6.0	
H155	Tire well to ground	5.1	
H156	Minimum ground clearance	4.8*	4.5*

\* - Position on car - exhaust system to ground.

# VEHICLE WEIGHTS

## CORVETTE

Model Symbol	VEHICLE TYPE Description	SHIPPING WEIGHT			CURB WEIGHT		
		Front	Rear	Total	Front	Rear	Total
19437	2-Door Sport Coupe	1634	1368	3202	1616	1676	3292
19467	2-Door Convertible	1608	1608	3216	1590	1716	3306

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

**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.)

RPO	OPTION		WEIGHT
C60	Air Conditioning	With 270 HP Engine & 4-Speed Transmission	+ 90
		With 270 HP Engine & Automatic Transmission	+ 84
		With 365 HP Engine & 4-Speed Transmission	+ 98
		With 365 HP engine & Automatic Transmission	+ 89
C07	Auxiliary Top	With Folding Top Only	+ 55
A31	Power Windows		+ 10
J50	Power Brakes		+ 10
---	350 Cu.In. V8 Engine (270 HP)	With Turbo Hydra-Matic Transmission	+ 88
LT1	350 Cu.In. V8 Engine (370 HP)	With 4-Speed Transmission	+ 62
LS5	454 Cu.In. V8 Engine (365 HP)	With 4-Speed Transmission	+220
		With Turbo Hydra-Matic Transmission	+268
LS6	454 Cu.In. V8 Engine (425 HP)	With H.D. 4-Speed Transmission	+ 82
		With Turbo Hydra-Matic Transmission	+132
		With 270 HP Engine	+ 24
N40	Power Steering	With 330 HP Engine	+ 26
		With 365 & 425 HP Engine	+ 28
P02	Deluxe Wheel Covers		+ 18
U69	Radio, AM/FM Push Button	With 350 Cu.In. Engine	+ 14
		With 454 Cu.In. Engine	+ 11

# BODY

**EXTERIOR PAINT PROCESS . . . . . 2**  
**EXTERIOR-INTERIOR COLORS . . . . . 3**  
**BODY CONSTRUCTION AND GLASS AREA . . . . . 4**



## EXTERIOR PAINT PROCESS

1. **PRIMARY SANDING.** All body panels and bonded joints that receive acrylic lacquer are dry sanded to prepare surfaces for painting. A filler material, called putty rub, is applied to the entire body to fill minor imperfections.
2. **PRIMER.** Two coats of primer are applied – the first red and the second gray – and are oven baked for 60 minutes at 280 degrees F.
3. **WET SANDING.** The body is wet sanded to provide a smooth surface for the sealers. Most of the gray primer coat is removed with the red primer acting as a depth signal for the sanding operation. The body is dried to remove all moisture.
4. **SEALER.** One coat of sealer and one coat of color acrylic lacquer are applied and baked.
5. **DRY SANDING.** The body is dry sanded to prepare surfaces for the final acrylic lacquer.
6. **LACQUERING.** Three coats of acrylic lacquer are sprayed on the body to build up the required paint thickness. The paint is “rested” for eight minutes to permit it to partially set up and to remove excess volatile paint vehicle.
7. **INITIAL BAKING.** The body is oven baked for 30 minutes at 140 degrees F to harden the paint which permits the subsequent operation. Small interior and exterior parts are painted to complete the body paint schedule.
8. **FINAL BAKING.** To assure a durable, hard, high luster finish the lacquer is oven baked for 45 minutes at 250 degrees F. Reheating the lacquer permits the paint film to soften and allows surface blemishes and sanding scratches to disappear during the thermo-reflow process.
9. **FINAL SANDING AND POLISHING.** The body is lightly oil sanded and polished to bring painted surfaces to a high luster finish.

# EXTERIOR-INTERIOR COLORS

		INTERIOR TRIM COLORS & RPO NO'S.				
	Interior Trim	Black	Dark Saddle	Red	Dk. Brt. Blue	Dark Green
Standard	Vinyl	400	417	407	412	423
Custom*	Leather	403	420	-	-	-

CODE	EXTERIOR COLOR					
10	Classic White	X	X	X	X	X
13	Nevada Silver	X		X	X	X
26	Mulsanne Blue	X			X	
27	Bridgehampton Blue	X			X	
48	Brands Hatch Green	X	X			X
52	Sunflower Yellow	X	X			X
76	Mille Miglia Red	X		X		
91*	War Bonnet Yellow	X	X			X
97*	Ontario Orange	X	X			X
98*	Steel Cities Gray	X				

\*Special "Firemist" colors.

Convertible Top: Black or White with any exterior color.

Vinyl Top: Used with auxiliary top only, Black with any exterior color.

\*--Includes leather seat trim, special cut pile carpeting on floor and lower door side walls. Wood grain insert on floor console. Wood grain insert with bright die cast molding on door side wall.

# BODY CONSTRUCTION AND GLASS AREA

## GENERAL

Construction . . . . . Uniconstruction: fiber glass reinforced plastic body backboned by a steel cage outlining the passenger compartment. Principal members - underbody, front and rear end assemblies, dash panel and hinge pillars are bonded, riveted, or bolted together and to each other. Hood is plastic with bonded plastic reinforcement. Coupe: two removable roof panels and removable rear window.

## DOORS AND LOCKS

Construction . . . . . Plastic, double paneled, reinforced with steel at hinge and lock locations. Front hinged.  
 Door handles . . . . . Press-flap handles with fork-type latches. Inside door locking knob on each door, free-wheeling 2-position inside door handles.

## HOOD

Operation . . . . . Internal release lever. Front hinged with telescoping link on right side. Ratchet-type lock for hold open.

## VENTILATION

Type . . . . . Astro Ventilation cowl top air inlets channel air to cowl side kick panel outlets controlled by bowden cable and slide type levers mounted in instrument panel center console. Water drainage at base of "saddlebag" plenum chambers.

GRILLE . . . . . Die cast aluminum chrome plated.

## SEATS

Type and construction . . . . . Bucket with integral head restraints; leather grained vinyl covering over polyurethane padding. Leather optional.

## WINDSHIELD WIPERS

Type . . . . . Concealed, dual, two-speed, electric vacuum operated cowl panel; integral washers provided in wiper arms.

## HEADLIGHTS

Type . . . . . Dual retractable. Headlamp door retraction system vacuum operated.

## SPARE TIRE

Location . . . . . In well under fuel tank; accessible from underside of car. Cover with key lock provided.

## TOOLS

Type . . . . . Scissors jack, and combination jack handle and lug wrench.  
 Stowage . . . . . In well in luggage area directly behind passenger seat; carpeted door over well.

## BODY GLASS VISIBILITY AREA

LOCATION	MODELS	
	37	67
Windshield	977.4	
Door window	800.8	
Back window	392.5	418.0*
Total area (sq.in.)	2170.7	2196.2*

Windshield - Laminated safety plate (tinted)  
 Doors and Removable Rear Window on hardtop - solid safety plate (tinted).  
 Rear window on convertible - vinyl plastic.  
 (\*) Removable auxiliary top - 620.1; total - 2398.3.

# CHASSIS

FRAME AND FRONT SUSPENSION .....	2
STEERING, DRIVELINE, WHEELS AND TIRES .....	3
REAR AXLE AND SUSPENSION .....	4
BRAKES .....	5
BULBS AND LAMPS .....	6
FUSES AND CIRCUIT BREAKERS .....	7

# FRAME AND FRONT SUSPENSION

## FRAME

Description . . . . . All welded, full length, ladder constructed frame with 5 cross-members. Side rails and intermediate cross-members box section; front crossmember box girder section. Eight body mounting points.

## FRONT SUSPENSION

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

Wheel travel (design)  
 Total . . . . . 7.84  
 Jounce . . . . . Coupe 3.82 Convertible 3.97  
 Rebound . . . . . Coupe 4.02 Convertible 3.87  
 Wheel to spring, travel ratio . . . . . 1.63

## CONTROL ARMS

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

## STEERING KNUCKLES

Description . . . . . Forged steel, with integral brake caliper mounting pads and detachable steering knuckle arm

Spindle diameters  
 Inner bearing . . . . . 1.3743-1.3748  
 Outer bearing . . . . . 0.8428-0.8433  
 Spindle thread size . . . . . 27/32-20NEF-3 (modified)  
 Wheel bearings  
 Type . . . . . Taper roller

## SPHERICAL JOINTS

Type . . . . . Ball stud  
 Upper . . . . . Compression  
 lower . . . . . Compression  
 Bearing surfaces  
 Upper . . . . . Teflon-coated phenolic  
 Lower . . . . . Teflon-coated phenolic

## SHOCK ABSORBERS

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

## STABILIZER BAR

Type . . . . . Link  
 Material . . . . . HR steel  
 Diameter . . . . . 350 V-8, .750; 454 V-8, .9375  
 Bushing material . . . . . Rubber

## FRONT WHEEL ALIGNMENT (CURB)

Camber (degrees) . . . . . 0 to P1-1/2  
 Caster (degrees) . . . . . 0 to P2  
 Toe-in (total) . . . . . 3/16 to 5/16  
 Steering Axis Inclination (degrees) . . . . 6-1/2 to 7-1/2

## GENERAL SUSPENSION PROVISIONS

Car leveling . . . . . Front stabilizer bar  
 Anti-drive control . . . . . Angle of front upper control arm

## FRONT SPRINGS

Part Number	Ref.	Type	Material	Cut-off Length	Wire Dia.	Inside Dia.	Heights Working (In. @ lbs)	Deflection Rate (lbs per inch)	
								@ Spring	@ Wheel
3931823	A	Coil, R.H. helix	Steel alloy	138.25	.600	3.80	9.99 @ 1395	250	61.8
3931825	B			138.75	.618	3.80	9.99 @ 1540	284	71.8

Engine	350 Cu.In. V-8	454 Cu.In. V-8
Model	19400	19400
Reference	A	B

## STEERING, DRIVELINE, WHEELS AND TIRES

### MANUAL STEERING, regular production

Description . . . . . Semi-reversible gear with ball-nut driven by recirculating anti-friction bearings, energy absorbing steering column, steering damper attached to relay rod; two-position steering knuckle arm attachment for street and fast ratio steering. Adjustable steering column available optionally.

#### System ratios

Steering gear . . . . . 16:1  
 Overall ratio  
     Street . . . . . 20.2:1  
     Fast . . . . . 17.6:1

#### Turning diameters (ft)

Outside front, wall to wall . . . . . 39  
 Outside front, curb to curb . . . . . 37

#### Number of wheel turns, lock to lock

Street . . . . . 3.4  
 Fast . . . . . 2.92

#### Outside wheel angle with inside wheel

@ 15 degrees . . . . . 14.25  
 @ 20 degrees . . . . . 18.47  
 @ 34 degrees (limit of turn) . . . . . 27.34

Linkage . . . . . Parallelogram type, rear of front wheels

#### Steering wheel

Standard and optional telescoping wheel . . . . Deep dished, 15.0 diameter

### POWER STEERING, RPO N40

(Same as standard manual steering except as shown)

Description . . . . . Hydraulic; pump powered cylinder assisting linkage

Ratios . . . . . Gear, 16:1; overall, 17.6:1  
 Number of wheel turns, lock to lock . . . . . 2.92

### DRIVELINE

Type . . . . . Tubular propeller shaft  
 Number used . . . . . One  
 Diameter (OD)

    Manual . . . . . 2.0  
     Turbo Hydra-Matic . . . . . 2.0

#### Length (/L of U-joints)

    Manual . . . . . 29.90  
     Turbo Hydra-Matic . . . . . 29.50

#### Wall thickness

    Manual . . . . . .120  
     Turbo Hydra-Matic . . . . . .095

#### Universal joints

Type . . . . . Cross  
 Number used . . . . . Two  
 Bearings . . . . . Prepack, anti-friction

Drive and torque forces . . . . . Through rear suspension control arms

### WHEELS (Regular Production)

Type . . . . . Short spoke spider  
 Attachment to hub . . . . . 5 hex nuts, 7/16-20 UNF 2-B, arranged on a 4.75 diameter bolt circle

Offset . . . . . N.28

Rim size . . . . . 15 x 8.00

### TIRES

Construction . . . . . Nylon - 2-ply  
 Size and ply rating . . . . . F70-15B-4PR  
 Specifications

    Static Loaded Radius . . . . . 12.6

    Loaded rev/mi @ 45 MPH . . . . . 772

    Capacity (lb @ psi) . . . . . 1280 @ 24

#### Recommended inflation, all tires, psi

    Cold . . . . . 24

    Hot . . . . . 30

# REAR AXLE AND SUSPENSION

## REAR AXLE

Description . . . . . Fixed differential housing hypoid ring and pinion gear set, tubular articulating inner axle shafts and short solid outer shafts with integral drive flange, independently sprung rear wheels

Pinion offset . . . . . 1.5  
 Pinion bearing adjustment . . . . . Shim  
 Hypoid gear PD all . . . . . 8.375  
 Type . . . . . Military Spec, MIL-L-2105-B  
 Viscosity . . . . . SAE80  
 Filler plug . . . . . 1-3/8 hex, 1-20 AN thread  
 Capacity (pts) . . . . . 4.0

## RING AND PINION GEARS

Axle Ratio	Tooth Combination
2.73	41,15
3.08	37,12
3.36	37,11
3.55	32,9
3.70	37,10
4.11	37,9
4.56	41,9

## AXLE SHAFTS

Inner . . . . . Welded steel tubing with universal joint attachments to short shafts at each end.

Outer . . . . . Short, splined high-alloy steel with integral wheel mounting flange

### Axle bearings

Type . . . . . Inner and outer tapered roller, steel encased rubber bearing seals

## REAR SUSPENSION

Description . . . . . Full independent with frame-anchored differential. Position of each wheel established by 3 links: tubular axle drive shafts, transverse strut rods, torque control arms. Vertical suspension loads taken by transverse leaf spring. Built-in camber adjustment at strut rod inner ends.

Wheel travel (design height)	Coupe	Conv.
Total	6.86	6.86
Jounce	2.87	2.76
Rebound	3.99	4.10

## SHOCK ABSORBERS

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

## STRUT

Material . . . . . Forged steel  
 Diameter . . . . . .75

## STABILIZER BAR (454 V8)

Diameter . . . . . .562

## REAR WHEEL ALIGNMENT

Curb  
 Camber (degrees) . . . . . N1-3/8 to N 3/8  
 Toe-in (total) . . . . . 1/32 to 3/32

## TORQUE CONTROL ARMS

Description . . . . . Welded steel box construction

## REAR SPRING

Type . . . . . Variable rate, 9-leaf  
 Material . . . . . Chrome carbon steel, heat treated  
 Length (developed) between eye centers . . . . . 46.36  
 Width . . . . . 2.25  
 Design load, lb @ camber . . . . . 1360 @ .352  
 Deflection rate, lb per inch, @ design load  
   @ Spring . . . . . 140  
   @ Wheel (wheel rate) . . . . . 123  
 Spring liners  
 Number . . . . . 7  
 Location . . . . . Between all leaves except numbers 6 and 7  
 Material . . . . . Polyethylene with graphite

## FUSES AND CIRCUIT BREAKERS

CIRCUIT	TYPE OF PROTECTION	LOCATION AND CIRCUIT*
Air conditioning	AGC 30 fuse	In line
	AGC 25 fuse	Fuse panel (f)
Air conditioning lamp	AGC 5 fuse	Fuse panel (d)
Back-up lamps	AGC 20 fuse	Fuse panel (b)
Cigarette lighter	AGC 25 fuse	Fuse panel (c)
Cigarette lighter lamp	AGC 5 fuse	Fuse panel (d)
Clock	AGC 25 fuse	Fuse panel (c)
Clock lamps	AGC 5 fuse	Fuse panel (d)
Courtesy lamps	AGC 25 fuse	Fuse panel (c)
Defogger, rear window	AGC 10 fuse	Fuse panel (c)
Direction signal indicator lamp	AGC 20 fuse	Fuse panel (d)
Fuel gage	AGC 10 fuse	Fuse panel (b)
Glove compartment lamp	AGC 25 fuse	Fuse panel (c)
Headlamp hi-beam indicator lamp	15 amp CB	Light switch (g)
Headlamp warning indicator lamp	40 amp CB	Hinge pillar (h)
Headlamps	CB	Light switch (g)
Heater	AGC 25 fuse	Fuse panel (f)
Heater lamp	AGC 5 fuse	Fuse panel (d)
Ignition switch lamp	AGC 5 fuse	Fuse panel (d)
Instrument cluster lamps	AGC 5 fuse	Fuse panel (d)
License plate, rear	AGC 20 fuse	Fuse panel (a)
Brake warning lamp	AGC 10 fuse	Fuse panel (b)
Parking lamps	20 amp fuse	Fuse panel
Power windows	30 amp CB	Firewall
Radio	AGC 10 fuse	Fuse panel (e)
Radio lamp	AGC 4 fuse	Fuse panel (d)
Side Marker lamp - Front	AGC 20 fuse	Fuse panel
Side Marker lamp - Rear	AGC 20 fuse	Fuse panel
Spot lamp, portable	AGC 15 fuse	In line
Tail lamps	AGC 20 fuse	Fuse panel (a)
Temperature gage	AGC 10 fuse	Fuse panel (b)
Traffic hazard indicator	AGC 20 fuse	Fuse panel (c)
Windshield wiper	25 amp fuse	Fuse panel

\* Letter suffix indicates same circuit





## SERVICE BRAKES (Regular Production)

Type	4-wheel hydraulic caliper disc brakes; dual-circuit brake system, pressure differential and parking brake warning light
Line pressure; psi, @ 100 lb pedal load	576
Braking ratios	
Pedal	5.23
Hydraulic	43.3
Overall	196.0
Distribution of braking effort	Front 65.0
Brake disc	
Construction	Double faced disc spaced by integrally cast radial cooling passages
Material	Cast iron
Diameter, front & rear	11.75
Swept drum area (sq.in.)	461.2
Brake lining	
Material	Woven asbestos
Size, all segments (L x W x T)	5.96 x 2.21 x .41
Method of attachment	Riveted
Total effective area (sq.in.)	78.1
Gross lining area (sq.in.)	86.3
Master cylinder	
Piston diameter	1.00
Piston travel (with available pedal travel)	1.10
Wheel cylinders	
Number	4 per wheel
Piston diameter	
Front	1.875
Rear	1.375
Foot pedal travel	5.75

## PARKING BRAKE

Type	Drum; cast integral with each rear rotor. Internal expanding shoes, mechanically actuated
Control	Lever; floor mounted in center console
Drum diameter	6.5
Brake lining	
Number	2 shoes per each rear wheel
Size (L x W x T)	6.78 x 1.25 x .175
Gross lining area (sq.in.)	33.9

# BULBS AND LAMPS

BULBS AND LAMPS	NUMBER REQUIRED AND TRADE NUMBER	CANDLE POWER PER LAMP
Back-up	2-1156	32
Cigarette lighter	1-1445	1
Clock	1-1895	2
Courtesy		
Instrument panel	2-631	6
Rear compartment	1-90	6
Direction signal indicator	2-1895	2
Headlamp     Outer	2-4002	High beam 37.5W Low beam 55.0W
Inner	2-4001	High beam 37.5W
Headlamp hi-beam indicator	1-1895	2
Headlamp warning indicator	1-1895	2
Heater or air conditioning control	1-1816	2.5
Instrument cluster	12-1895	2
License plate rear	1-97	4
Parking		
Park		3
Turn	2-1157	32
Parking brake alarm & warning light	1-1895	2
Radio	1-1893	2
Compartment Storage Box	1-1895	2
Side Marker - Front	2-168	3
Side Marker - Rear	2-168	3
Spot lamp, portable	1-4416	30W
Tail		
Stop and turn		32
Tail	2-1157	3
Stereo indicator	1-2182	0.3
Door ajar indicator	1-1895	2
Seat belt warning indicator	1-194	2
Transmission indicator	1-1895	2
Washer fluid level indicator	1-168	3

# POWER TRAINS

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# POWER TEAM COMBINATIONS

ENGINE	TRANSMISSION	MODEL APPLICATION	AXLE RATIOS (A)						
			2.73:1	3.08:1	3.36:1	3.55:1	3.70:1	4.11:1	4.56:1
Turbo-Fire 350 350 Cu.In. V-8 270 HP Standard	4-Spd (2.52:1 low)	All Models		(Econ.)	(Std.)				
	Turbo Hydra-Matic			(Std.)	(Perf.)				
Turbo-Fire 350 350 Cu.In. V-8 330 HP RPO LT1	4-Spd (2.52:1 low)	All Models			Econ.	Std.	Perf.		
	4-Spd (2.20:1 low)				Econ.	Std.	Perf.		
	H.D. 4-Spd (2.20:1 low)			Econ.	Std.	Perf.	Spcl.	Spcl.	Spcl.
Turbo-Jet 454 454 Cu.In. V-8 365 HP RPO L55	4-Spd (2.52:1 low)	All Models			(Std.)	Perf.			
	4-Spd (2.20:1 low)			Econ.	Std.	Perf.	Spcl.		
	Turbo Hydra-Matic		Econ.	(Std.)	Perf.				
Turbo-Jet 454 454 Cu.In. V-8 425 HP RPO LS6	4-Spd (2.20:1 low)	All Models	Econ.	Std.	Perf.				
	H.D. 4-Spd (2.20:1 low)			Econ.	Std.	Perf.	Spcl.	Spcl.	
	Turbo Hydra-Matic		Econ.	Std.	Perf.				

(A) Air conditioning available only with combination, as indicated by parenthesis ( ).  
 Std.—Standard Econ.—Economy (optional) Perf.—Performance (optional) Spcl.—Special (optional)

## MULTIPLICATION FACTORS

### WITH MANUAL TRANSMISSION

ENGINE	CARBURETION	TRANSMISSION	TOTAL GEAR REDUCTION					AXLE RATIO
			1st	2nd	3rd	4th	Rev	
350 Cu.In. V-8 270 HP Standard	4-Barrel	4-Speed (2.52:1)	8.47	6.32	4.91	3.36	8.70	3.36
		4-Speed (2.52:1)	8.95	6.67	5.18	3.55	9.19	3.55
350 Cu.In. V-8 330 HP RPO LT1	4-Barrel	4-Speed (2.20:1)	8.14	6.07	4.70	3.70	8.36	3.70
		H.D. 4-Spd (2.20:1)	7.39	5.51	4.27	3.36	7.59	3.36
		4-Speed (2.52:1)	7.76	5.79	4.50	3.08	7.98	3.08
454 Cu.In. V-8 365 HP RPO L55	4-Barrel	4-Speed (2.20:1)	7.39	5.51	4.27	3.36	7.59	3.36
		4-Speed (2.20:1)	7.39	5.51	4.27	3.36	7.59	3.36

### WITH AUTOMATIC TRANSMISSIONS

ENGINE	TRANSMISSION	SELECTOR POSITION	TOTAL TORQUE* MULTIPLICATION	AXLE RATIO
350 Cu.In. V-8 Standard and 454 Cu.In. V-8	Turbo Hydra-Matic	Drive	16.05:1 - 3.08:1	3.08:1
		Low	16.05:1 - 7.64:1	
		Second	16.05:1 - 4.56:1	
		Reverse	13.46:1 - 6.41:1	

\*—Axle ratio x transmission ratio

# ENGINE DATA AND RATINGS

## GENERAL DATA

Engine Type	V-8 OHV				
Piston Displacement (Cu.In.)	350		454		
Availability	Standard	RPO LT1	RPO LS5	RPO LS6	
Number of cylinders	Eight				
Bore and Stroke (nominal)	4.00 x 3.48		4.251 x 4.00		
Compression Ratio	8.5:1	9.00:1	8.5:1	9.00:1	
Taxable (SAE) Horsepower	51.2		57.8		
Firing Order	1-8-4-3-6-5-7-2				
Idling	Manual Trans. (In Neutral)	600	700	600	700
Speed	Automatic Trans. (In Drive)	550		600	700
Compression Press. (PSI) @ Cranking Speed, Engine Hot	150		160		
Power Plant Mounting	Two front and one rear, compression type				
Measurements	Fan to rear of engine block	30.16		33.96	
	Top air cleaner to bottom oil pan	26.79		27.62	
	Exhaust manifold to generator (width)	27.97		30.00	

## ADVERTISED ENGINE RATING

Engine	350 Cu.In.		454 Cu.In.	
	270 HP	330 HP	365 HP	460 HP
Availability	Standard	RPO LT1	RPO LS5	RPO LS6
Gross Brake HP @ RPM	270 @ 4800	330 @ 5600	365 @ 4800	425 @ 5600
Gross Torque @ RPM (lb-ft)	360 @ 3200	360 @ 4000	465 @ 3200	475 @ 4000
Net Brake HP @ RPM	210 @ 4400	275 @ 5600	285 @ 4000	325 @ 5600
Net Torque @ RPM (lb-ft)	300 @ 2800	300 @ 4000	390 @ 3200	390 @ 3600

## ENGINE SPEED AND PISTON TRAVEL

Engine	350 Cu.In. Std.		350 Cu.In. LT1		454 Cu.In.			
Transmission	4-Speed	Trb/Hyd.	4-Speed		4-Speed		Trb/Hyd	
Rear Axle Ratio	3.36:1	3.08:1	3.55:1	3.70:1 (a)	3.36:1 (a)	3.08:1 (a)	3.08:1	
Tire Size	F70 x 15B							
Crankshaft Revolutions per Mile	2580.5	2365.4	2726.4	2841.6	2580.5	2365.4		
Crankshaft RPM @ MPH	Low	108.4	97.8	114.5	104.2	94.8	99.4	97.7
	Second	80.9	58.4	85.4	77.7	70.6	74.1	58.4
	Third	62.8	39.4	66.3	60.2	54.7	57.6	39.4
	Fourth	43.0		45.4	47.4	43.0	39.4	
	Reverse	111.4	82.0	117.8	107.0	97.4	102.1	82.0
Piston Travel (Ft/Mile)	1496.7	1371.9	1581.3	1648.1	1720.3	1576.9		

(a) Available with close ratio (2.20:1) transmission

# VEHICLE PERFORMANCE FACTORS

ENGINE	BASE 350 CU.IN. 270 HP	RPO LT1 350 CU.IN. 330 HP	RPO LS5 454 CU.IN. 365 HP	RPO LS6 454 CU.IN. 425 HP
--------	------------------------------	---------------------------------	---------------------------------	---------------------------------

## 4-SPEED TRANSMISSION

Performance Weight (pounds)	3592	3654	3812	
Pounds per Gross Horsepower	13.30	11.07	10.44	
Pounds per Cu.In. Displacement	10.26	10.44	8.40	
Gross HP per Cu.In. Displacement	.771	.943	.804	
Power Displacement (cu.ft./mile)	261.33	276.11	310.73	
Displacement Factor (cu.ft./ton mile)	145.18	150.88	162.68	

## 4-SPEED TRANSMISSION - CLOSE RATIO

Performance weight (pounds)		3654	3812	3674
Pounds per Gross Horsepower		11.07	10.44	8.64
Pounds per Cu.In. Displacement		10.44	8.40	8.09
Gross HP per Cu.In. Displacement		.943	.804	.956
Power Displacement (cu.ft./mile)		287.78	338.99	338.99
Displacement Factor (cu.ft./ton mile)		157.26	177.48	167.06

## TURBO HYDRA-MATIC

Performance Weight (pounds)	3680		3860	3724
Pounds per Gross Horsepower	13.63		10.57	8.76
Pounds per Cu.In. Displacement	10.51		8.50	8.20
Gross HP per Cu.In. Displacement	.771		.804	.956
Power Displacement (cu.ft./mile)	239.55		310.73	310.73
Displacement Factor (cu.ft./ton mile)	130.19		161.00	184.23

## GLOSSARY

Performance Weight	Curb Weight plus 300 Lb (weight of two 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	
V8-350 Cu.In.	3.9995-4.0025
V8-454 Cu.In.	4.2496-4.2524
Bore Spacing (Centerline to Centerline)	
V8-350 Cu.In.	4.4
V8-454 Cu.In.	4.84
Bearing Caps (Number, material & attachment)	
V8-350 Cu.In.	5, cast iron; 2-bolt
V8-350 (LT1)	No. 1 & 5, cast iron; 2-bolt
	No. 2, 3 & 4, nodular iron; 4-bolt
V8-454 (LS5)	5, cast iron; 2-bolt
V8-454 (LS6)	5, cast iron; 4-bolt
Water Jackets	Full length around each cylinder

## CYLINDER HEAD

Material	High chrome cast alloy iron Cast aluminum with (LS6)
Bolt Number	34 (350 Cu.In.); 32 (454 Cu.In.)
Bolt Size	.4375 dia.; 14 threads/inch

## COMBUSTION CHAMBER VOLUME

(Total chamber volume of assembled engine with piston at top center)	
V8-350 Cu.In. (Base)	6.08 Cu.In.
V8-350 Cu.In. (LT1)	5.54 Cu.In.
V8-454 Cu.In. (LS5)	7.79 Cu.In.
V8-454 Cu.In. (LS6)	7.28 Cu.In.

## INLET MANIFOLD

Material	Cast alloy iron Cast aluminum with RPO LS6 & LT1
Type	8 port, double deck

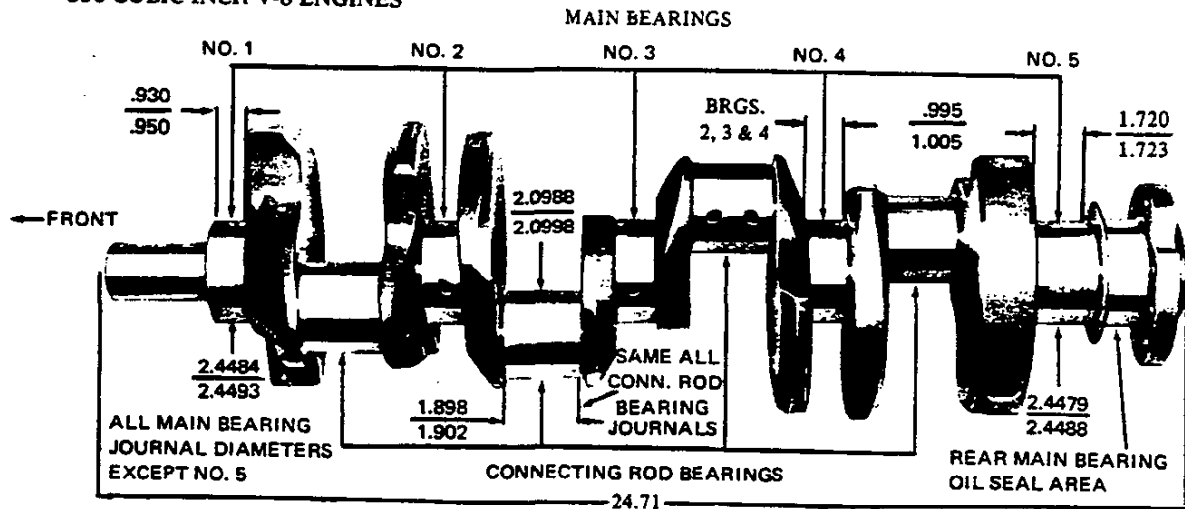
## EXHAUST MANIFOLD

Material	Cast alloy iron
Type	
V8-350 Cu.In.	Dual, 4 port, exhaust emission to a single runner with center takedown collector
V8-454 Cu.In.	Dual, 4 port, extended runners from each port converging to a rear takedown collector
Outlet Diameter (Nominal)	
V8-350 Cu.In.	2.00
V8-454 Cu.In.	2.50

## CRANKSHAFT

Material	
V8-350 Cu.In.	Nodular iron
V8-350 (LT1)	Forged steel
V8-454 Cu.In.	Forged steel
End Play	
V8-350 Cu.In.	.002-.006
V8-454 Cu.In.	.006-.010
Counter Weights	6
Crank Arm Length	
V8-350 Cu.In.	1.74
V8-454 Cu.In.	2.00
Torsional Damper	Rubber mounted inertia
Timing Gear	Steel; sprocket & chain
Pulley Pitch Diameter	6.64

## 350 CUBIC INCH V-8 ENGINES





# PRINCIPAL COMPONENTS

## MAIN BEARINGS

Material . . . . . Premium aluminum  
 Type . . . . . Precision removable  
 Thrust Against Bearing No. . . . . 5  
 Clearance  
 V8-350 Cu.In. . . . . (No. 1) .0008-.0020;  
 (No. 2, 3 & 4) .0011-.0023; (No. 5) .0017-.0033  
 V8-454 Cu.In. . . . . (No. 1) .0007-.0019  
 (No. 2-3-4) .0013-.0025 (No. 5) .0019-.0035

Dimensions	Theoretical	Effective	Projected
	Inner Dia.	Length	Area
V8-350 Cu.In.			
Bearing No. 1	2.4502	.752	1.8425
Bearing No. 2-4	2.4502	.752	1.8425
Bearing No. 5	2.4508	1.177	2.8846
V8-454 Cu.In.			
Bearing No. 1	2.7509	.992	2.7289
Bearing No. 2-4	2.7505	.992	2.7285
Bearing No. 5	2.7505	1.2525	3.4450

## CAMSHAFT

Material . . . . . Cast alloy iron  
 Drive . . . . . Sprocket & chain; steel  
 Lobe Lift  
 V8-350 Cu.In. (Base) . . . . . .2600 Inlet; .2733 Exhaust  
 V8-350 (LT1) Cu.In. . . . . .3057 Inlet; .3234 Exhaust  
 V8-454 (LS5) Cu.In. . . . . .2714 Inlet; .2824 Exhaust  
 V8-454 (LS6) Cu.In. . . . . .3057 Inlet & Exhaust  
 Bearings . . . . . 5; steel backed babbitt

## VALVE LIFT

V8-350 Cu.In. (Base) . . . . . .3900 Inlet; .4100 Exhaust  
 V8-350 (LT1) Cu.In. . . . . .4586 Inlet; .4850 Exhaust  
 V8-454 (LS5) Cu.In. . . . . .4614 Inlet; .4800 Exhaust  
 V8-454 (LS6) Cu.In. . . . . .5197 Inlet & Exhaust

## VALVE TRAIN

Type . . . . . Individually mounted  
 . . . . . overhead rocker arms, push rod actuated  
 Lifters . . . . . Hydraulic  
 V8-350 (LT1) Cu.In. . . . . Mechanical  
 V8-454 (LS6) Cu.In. . . . . Mechanical  
 Push Rods  
 Type . . . . . Hollow steel  
 Ends  
 V8-350 (Base) . . . . . Hardened  
 V8-350 (LT1) Cu.In. . . . . Hardened  
 . . . . . steel insert on rocker arm ends  
 V8-454 Cu.In. . . . . Hardened steel inserts  
 Rocker Arms  
 Material . . . . . Stamped steel  
 Ratio  
 V8-350 Cu.In. . . . . 1.50:1  
 V8-454 Cu.In. . . . . 1.70:1

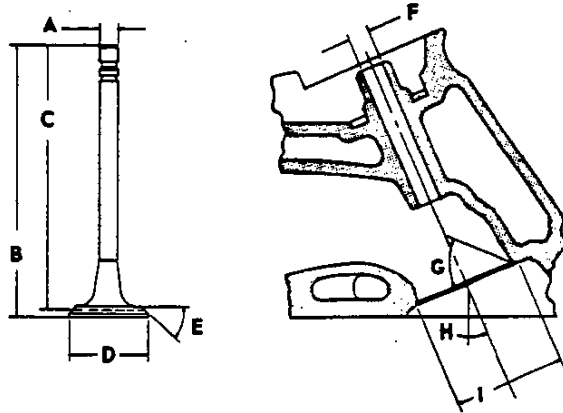
## VALVE SPRINGS

Diameter (I.D.)  
 V8-350 Cu.In. . . . . .868-.884  
 V8-454 (LS5) Cu.In. . . . . 1.080-1.094  
 V8-454 (LS6) Cu.In. . . . . 1.080-1.094  
 Installed Length (lb. @ in.)  
 Valves Closed  
 V8-350 Cu.In. . . . . 76-84 @ 1.70  
 V8-454 Cu.In.  
 Outer spring . . . . . 69-81 @ 1.88  
 Inner spring . . . . . 26-34 @ 1.78  
 Valves Opened  
 V8-350 Cu.In. . . . . 194-206 @ 1.25  
 V8-454 Cu.In.  
 Outer spring . . . . . 228-252 @ 1.38  
 Inner spring . . . . . 81-99 @ 1.28  
 Free Length  
 V8-350 Cu.In. . . . . 2.03  
 V8-454 Cu.In.  
 Outer spring . . . . . 2.12  
 Inner spring . . . . . 2.06  
 Valve Spring Damper  
 V8-350 Cu.In. . . . . Flat steel, 4 coils

# PRINCIPAL COMPONENTS

## VALVES - INLET

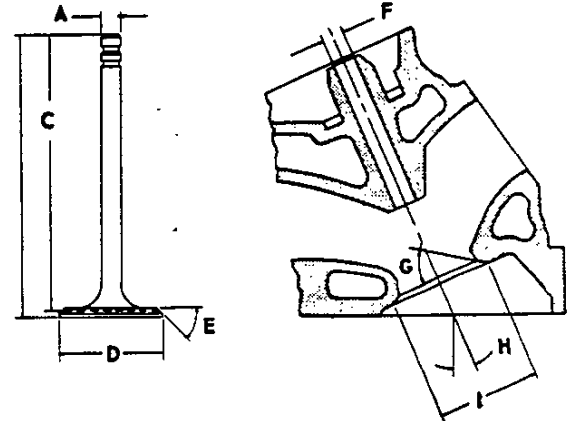
Material	Alloy steel
Coating	
V8-350 Cu.In.	None
V8-454 Cu.In.	Face and head aluminized
Valve Guide Inserts (V8-454)	Cast alloy iron



<b>A - Stem Diameter</b>	
V8-350 Cu.In.	3.410-3.417
V8-454 Cu.In.	.3715-.3722
<b>B - Overall Length</b>	
V8-350 Cu.In.	4.870-4.889
V8-454 (LS5) Cu.In.	5.215-5.235
V8-454 (LS6) Cu.In.	5.204-5.224
<b>C - Gage Length</b>	
V8-350 Cu.In.	4.785-4.795
V8-454 Cu.In.	5.115-5.125
<b>D - Overall Head Diameter</b>	
V8-350 Cu.In.(Base)	1.935-1.945
V8-350 (LT1) Cu.In.	2.017-2.023
V8-454 (LS5) Cu.In.	2.060-2.070
V8-454 (LS6) Cu.In.	2.185-2.195
<b>E - Angle of Face</b>	45°
<b>F - Guide Diameter</b>	
V8-350 Cu.In.	.3427-.3437
V8-454 Cu.In.	.3732-.3742
<b>G - Angle of Seat</b>	46°
<b>H - Valve Angle</b>	
V8-350 Cu.In.	23°
V8-454 Cu.In.	4°
<b>I - Valve Seat (Cutter) Diameter</b>	
V8-350 Cu.In. (Base)	1.990-2.019
V8-350 (LT1) Cu.In.	2.080
V8-454 (LS5) Cu.In.	2.150
V8-454 (LS6) Cu.In.	2.228

## VALVE - EXHAUST

Material	High alloy steel
Coating	
V8-350 Cu.In.	Aluminum face
V8-454 Cu.In.	Face and head aluminized
Valve Guide Inserts (V8-454)	Cast alloy iron



<b>A - Stem Diameter</b>	
V8-350 Cu.In.	.3410-.3417
V8-454 Cu.In.	.3713-.3720
<b>B - Overall Length</b>	
V8-350 Cu.In. (Base)	4.913-4.933
V8-350 (LT1) Cu.In.	4.891-4.910
V8-454 Cu.In.	5.345-5.365
<b>C - Gage Length</b>	
V8-350 Cu.In.	4.781-4.791
V8-454 Cu.In.	5.235-5.245
<b>D - Overall Head Diameter</b>	
V8-350 Cu.In. (base)	1.495-1.505
V8-350 (LT1) Cu.In.	1.595-1.605
V8-454 (LS5) Cu.In.	1.715-1.725
V8-454 (LS6) Cu.In.	1.875-1.885
<b>E - Angle of Face</b>	45°
<b>F - Guide Diameter</b>	
V8-350 Cu.In.	.3427-.3437
V8-454 Cu.In.	.3732-.3742
<b>G - Angle of Seat</b>	46°
<b>H - Valve Angle</b>	
V8-350 Cu.In.	23°
V8-454 Cu.In.	4°
<b>I - Valve Seat (Cutter) Diameter</b>	
V8-350 Cu.In. (Base)	1.550-1.570
V8-350 (LT1) Cu.In.	1.600
V8-454 (LS5) Cu.In.	1.625
V8-454 (LS6)-Insert	1.942

# PRINCIPAL COMPONENTS

## PISTONS

<b>Material</b>	
V8-350 Cu.In. (Base)	Cast aluminum alloy
V8-350 (L46) Cu.In.	Alum. impact extruded
V8-454 (LS5) Cu.In.	Cast aluminum alloy
V8-454 (LS6) Cu.In.	Alum. impact extruded
<b>Head Type</b>	
V8-350 Cu.In. (Base)	Sump
V8-350 (LT1) Cu.In.	Flat, notched
V8-454 (LS5) Cu.In.	Flat head, valve cutout
V8-454 (LS6) Cu.In.	Domed head, notched
<b>Skirt Type</b> . . . . . Slipper	
<b>Top Land Clearance</b>	
V8-350 Cu.In. (Base)	.0235-.0325
V8-350 (LT1) Cu.In.	.0305-.0395
V8-454 (LS5) Cu.In.	.0350-.0410
V8-454 (LS6) Cu.In.	.0320-.0380
<b>Skirt Clearance</b>	
V8-350 Cu.In. (Base)	.0007-.0013
V8-350 (LT1) Cu.In.	.0036-.0046
V8-454 (LS5) Cu.In.	.0024-.0034
V8-454 (LS6) Cu.In.	.0040-.0050
<b>Compression Ring Groove Depth</b>	
V8-350 Cu.In.	.2218-.2284
V8-454 (LS5) Cu.In.	.2348-.2412
V8-454 (LS6) Cu.In.	.2375-.2435
<b>Oil Ring Groove Depth</b>	
V8-350 Cu.In.	.2038-.2103
V8-454 (LS5) Cu.In.	.2183-.2247
V8-454 (LS6) Cu.In.	.2160-.2170
<b>Pin Bore Offset</b>	
V8-350 Cu.In. (Base)	.055-.065
V8-350 (LT1) Cu.In.	On center
V8-454 (LS6) Cu.In.	On center
<b>Compression Height</b>	
V8-350 Cu.In. (Base)	1.558-1.562
V8-350 (LT1) Cu.In.	1.553-1.567
V8-454 (LS5) Cu.In.	1.691-1.699
V8-454 (LS6) Cu.In.	1.643-1.657

## PISTON PINS

<b>Material</b>	Chromium steel
<b>Length</b>	
V8-350 Cu.In.	2.990-3.010
V8-454 Cu.In.	2.930-2.950
<b>Diameter</b>	
V8-350 Cu.In.	.9270-.9273
V8-454 Cu.In.	.9895-.9898
<b>Clearance in Piston</b>	
V8-350 Cu.In. (Base)	.00015-.00025
V8-350 (LT1) Cu.In.	.00045-.00055
V8-454 Cu.In.	.00030-.00040
<b>Pin Mounting</b>	Locked in rod by shrink fit

## VALVE TIMING (Crankshaft Degrees)

V8-350 Cu.In. - Base	Excluding Ramps	Including Ramps
<b>Inlet Valve (Zero lash)</b>		
Opens - BTC	28°	38°
Closes - ABC	72°	92°
Duration	280°	310°
<b>Exhaust Valve (Zero lash)</b>		
Opens - BBC	78°	88°
Closes - ATC	30°	52°
Duration	288°	320°

V8-350 Cu.In. (LT1)	Excluding Ramps
<b>Inlet Valve (opens with .020 lash)</b>	
Opens - BTC	42°40'
Closes - ABC	94°20'
Duration	317°
<b>Exhaust Valve (opens with .025 lash)</b>	
Opens - BBC	112°50'
Closes - ATC	53°23'
Duration	346°13'

V8-454 Cu.In. (LS5)	Excluding Ramps
<b>Inlet Valve (Zero lash)</b>	
Opens - BTC	56°
Closes - ABC	114°
Duration	350°
<b>Exhaust Valve (Zero lash)</b>	
Opens - BBC	110°
Closes - ATC	62°
Duration	352°

V8-454 Cu.In. (LS6)	Excluding Ramps
<b>Inlet Valve (opens with .024 lash)</b>	
Opens - BTC	44°
Closes - ABC	92°
Duration	316°
<b>Exhaust Valve (opens with .028 lash)</b>	
Opens - BBC	86°
Closes - ATC	36°
Duration	302°

## COMPRESSION RING – UPPER

Material	Cast alloy iron
Type	Straight edge inside of ring
Face	Barrel
Coating	
V8-350 Cu.In. (Base)	Chrome plate
V8-350 (LT1) Cu.In.	Molybdenum inlay
V8-454 Cu.In.	Molybdenum inlay
Width	
V8-350 Cu.In. (Base)	.0775-.0780
V8-350 (LT1) Cu.In.	.0770-.0775
V8-454 Cu.In.	.0770-.0775
Wall Thickness	
V8-350 Cu.In.	.190-.200
V8-454 Cu.In.	.202-.212
Gap	.010-.020

## COMPRESSION RINGS – LOWER

Material	Cast alloy iron
Type	Inside bevel (top of ring 30 degrees to piston vertical axis for V8-350; 28° – 52° for V8-454)
Face	Tapered
Coating	
V8-350 Cu.In. (Base)	Wear resistant
V8-350 (LT1) Cu.In.	Chrome plate
V8-454 Cu.In.	Chrome plate
Width	
V8-350 Cu.In. (Base)	.0770-.0775
V8-350 (LT1) Cu.In.	.0775-.0780
V8-454 Cu.In.	.0770-.0775
Wall Thickness	
V8-350 Cu.In.	.190-.200
V8-454 Cu.In.	.202-.212
Gap	
V8-350 Cu.In. (Base)	.013-.025
V8-350 (LT1) Cu.In.	.013-.028
V8-454 Cu.In.	.010-.020

## OIL CONTROL RINGS

Type	Multi-piece (two rails and one spacer)
Material	
Rails	Steel
Spacer	Alloy steel
Width (assembled)	
V8-350 Cu.In.	.1870-.1890
V8-454 Cu.In.	.1870-.1890
Wall Thickness	
V8-350 Cu.In.	.150-.156
V8-454 Cu.In.	.137-.143
Gap	
V8-350 Cu.In.	.015-.055
V8-454 Cu.In.	.010-.030
Rail Coatings	Chrome plated

## CONNECTING RODS

Material	Drop forged steel
Length (center to center)	
V8-350 Cu.In.	5.695-5.705
V8-454 Cu.In.	6.130-6.140

## CONNECTING ROD BEARINGS

Material	Premium aluminum
Type	Precision removable
Clearance	
V8-350 Cu.In.	.0013-.0035
V8-454 Cu.In.	.0009-.0025
Theoretical I.D.	
V8-350 Cu.In.	2.1019
V8-454 Cu.In.	2.2012
Effective Length	
V8-350 Cu.In.	.797
V8-454 Cu.In.	.847
End Play	
V8-350 Cu.In.	.008-.014
V8-454 Cu.In.	.015-.023

# FUEL SYSTEM

## FUEL SYSTEM

### FUEL TANK

Capacity (Gal)	18 (approximately)
Location	In body cavity at rear of deck area
Filler Location	Center of rear deck area

### FUEL FILTERS, DUAL

In Fuel Tank	Mesh strainer
Carburetor Inlet	Paper
V8-454 Cu.In. (addition)	In-line paper element with vacuum return fuel line

### FUEL PUMP

Type	
V8-350 (Base) & 454 (LS1)	Deep cover with vapor return lines.
V8-350 (LT1) & 454 (LS6)	Diaphragm
Drive	Camshaft eccentric
Location	Lower right front of engine
Pressure Range (shut off pressure at 1800 RPM)	
All Engines	7.50-9.00 PSI at pump outlet

### AIR CLEANER

Type	
V8-350 (Base) & 454 (LS5)	Dual snorkel chrome plated.
V8-350 (LT1) & 454 (LS6)	Full circle intake, chrome plated.
Filter Element	Oil-wetted paper

### CHOKE

Type	Automatic
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### CARBURETORS

Make & Type	
V8-350 Cu.In. (Base)	Rochester, Quadrajet
V8-350 (LT1) Cu.In.	Holley, 4-barrel
V8-454 (LS5) Cu.In.	Rochester, Quadrajet
V8-454 (LS6) Cu.In.	Holley, 4-barrel
SAE Flange Size	1.50
Throttle Bore	
V8-350 Cu.In. (Base)	
Primary	1.38
Secondary	2.25
V8-350 (LT1) Cu.In.	
Primary & Secondary	1.69
V8-454 (LS5) Cu.In.	
Primary	1.38
Secondary	2.25
V8-454 (LS6) Cu.In.	
Primary & Secondary	1.69
Venturi	
V8-350 Cu.In. (Base)	
Primary	1.04
Secondary	.625
V8-350 (LT1) Cu.In.	
Primary	1.38
Secondary	1.44
V8-454 (LS5) Cu.In.	
Primary	1.04
Secondary	.625
V8-454 (LS6) Cu.In.	
Primary	1.38
Secondary	2.25
Secondary Throttle Actuation	By linkage approximately when primary valves are opened half between closed and open

## EXHAUST AND VENTILATION SYSTEM

### MUFFLERS

Type	Dual, reverse flow
Construction	Heads and body joined by rolled lock seam construction
Shell	
Right Hand	.036 stainless steel
Left Hand	.036 sheet steel aluminum coating
Wrap	.030 indented asbestos sheet
Cover	.018 sheet steel aluminum coating
Heads	.060 sheet steel aluminum coating
Baffles	3; .036 sheet steel aluminum coating
Length, Body	17.00
Width (I.D.)	9.25
Height (I.D.)	5.00

### EXHAUST PIPES

Type	Two piece; front and rear assemblies
Material	Seamless steel tubing

### DIMENSIONS - O.D. & WALL THICKNESS

Front Pipes	
V8-350 Cu.In. (Base)	2.00 x .067-.081
V8-350 (LT1) & 454 Cu.In.	2.50 x .072-.092
Rear Pipes - Laminated	
V8-350 Cu.In. (Base)	2.00 x .072-.092
V8-350 (LT1) & 454 Cu.In.	2.50 x .084-.104

### TAIL PIPES

Type	Two inch tube with rectangular chrome plated extensions.
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### EXHAUST EMISSION CONTROLS

Positive Crankcase Ventilation	Utilizes manifold vacuum to draw off engine crankcase vapors through a metered PCV valve and ultimately to the intake system for engine reburn
Controlled Combustion System	(except RPO LT1 & LS6) Increases combustion efficiency through leaner carburetor adjustments and revises distributor calibration
Combination Emission Control Valve	Controls vacuum supply to the distributor vacuum spark advance and positions the carburetor throttle blade during vehicle deceleration.
Air Injection Reactor	(RPO LT1 & LS6) Air pump injects air into exhaust manifold which burns unburned portion of exhaust fumes.

# LUBRICATION SYSTEM

## GENERAL

Type	Controlled full pressure
Main Bearings	Pressure
Connecting Rods	Pressure
Piston Pins	Splash
Cylinder Walls	Pressure, jet cross sprayed
Camshaft Bearings	Pressure
Valve Lifters	Pressure
Rocker Arms	Pressure
Timing Gears	Centrifugally oiled from front camshaft bearing
Oil Pressure Sending Unit	Electric
Oil Filler	
Cap	Positive seal
Location	
V8-350 Cu.In.	Top rear of left rocker cover
V8-454 Cu.In.	Top center of right rocker cover

## OIL PUMP

Type	Gear
Normal Oil Pressure	
V8-350 Cu.In.	40 PSI @ 2000 RPM
V8-454 Cu.In.	40 PSI @ 2000 RPM
Intake Type	Fixed
Capacity (GPM @ Eng. RPM)	
V8-350 Cu.In.	4.3 @ 2000
V8-454 Cu.In.	6 @ 2000
Regulator Valve	Opens between 40-45 lbs

## OIL DIP STICK - LOCATION

V8-350 Cu.In.	Left side, rear of engine block
V8-454 Cu.In.	Right side, center, direct to oil pan

## OIL PAN CAPACITY (Quarts)

Refill	
V8-350 Cu.In.	4.0
V8-454 Cu.In.	5.0
Refill with Filter Change	
V8-350 Cu.In.	4.5
V8-454 Cu.In.	5.5

## OIL FILTER

Type	Full flow, throwaway canister
Location	Left rear underside of engine
Capacity	One pint
By-pass Valve	Opens between 9 to 11 PSI drop in pressure

## LUBRICANT GRADES AND TEMPERATURES

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

## OIL PAN

Type of Drain Plug	Hex head
Location	Lower rear face of oil pan sump
Size Hex Head	.860-.875
Thread	1/2-20 UNF 2A
Length	0.81
Diameter	.410-.430

# COOLING SYSTEM

## GENERAL

Type	Liquid, pressurized
V8-350 Cu.In.	Internal by-pass
V8-454 Cu.In.	External by-pass
Capacity (with Heater)	
V8-350 Cu.In. (Base)	15 Qts.
V8-350 (LT1) Cu.In.	18 Qts.
V8-454 (LS5) Cu.In.	22 Qts.
V8-454 (LS6) Cu.In.	20 Qts.

## RADIATOR

Type	
V8-350 Cu.In. (Base)	Aluminum, cross-flow
V8-350 (LT1) & 454	Copper-brass, cross-flow
Core Constant and Thickness	
Distance between Fins	
V8-350 Cu.In. (Base)	.18 Syn.; .16 auto.
V8-350 (LT1) Cu.In.	.16
V8-454 Cu.In.	.16
Distance between Tubes	
	.55
Thickness of Core	
V8-350 Cu.In. (Base)	2.88 Syn.; 2.70 auto.
V8-350 (LT1) Cu.In.	2.70
V8-454 Cu.In.	2.70
Frontal Area (Sq.In.)	
V8-350 Cu.In. (Base)	315 Syn.; 441 auto.
V8-350 (LT1) Cu.In.	441
V8-454 Cu.In.	467

## SURGE TANK (350 Cu.In. Base engine only)

Location	Right side engine compartment connected by hosing to top of radiator
Capacity	2.3 Qts.
Fill Requirements	Half full when weather is cold

## RADIATOR CAP RELIEF VALVE

Opens at	Approximately 15 PSI
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## FAN

● Number of Blades	5, staggered
● Diameter	17.50
Fan Pulley Pitch Diameter	7.00
Fan Cutout	Thermomodulated fluid coupling

## THERMOSTAT

Type	Pellet
Begins to Open at	
V8-350 (Base) & 454 (LS5)	192°-198°
V8-350 (LT1) & 454 (LS6)	177°-183°
Fully opened at	
V8-350 (Base) & 454 (LS5)	227°
V8-350 (LT1) & 454 (LS6)	202°
Thermostat By-Pass Hose (V8-454)	.745 I.D.

## RADIATOR HOSE

Outlet, Lower (Radiator to Water Pump)	
V8-350 Cu.In.	1.75 I.D.
V8-454 Cu.In.	1.88 I.D.
Inlet, Upper (Thermostat Housing to Radiator)	
V8-350 Cu.In.	1.50 I.D.
V8-454 Cu.In.	1.50 I.D.

## BELTS; CRANKSHAFT, FAN AND GENERATOR

Number Used	Two
Angle of "V"	38°-42°
Pitch Line	
Fan, Generator and Water Pump Belt	
V8-350 Cu.In. (Base)	54.25
V8-350 (LT1) Cu.In.	52.75
V8-454 Cu.In.	53.75
Fan and Water Pump Belt	
V8-350 Cu.In. (Base)	35.14
V8-350 (LT1) Cu.In.	32.46
V8-454 Cu.In.	31.86
Width	.380

## WATER PUMP

Type	Centrifugal
Capacity (GPM @ Engine RPM)	
V8-350 Cu.In.	23 @ 2000
V8-454 Cu.In.	25 @ 2000
Bearing	Permanently lubricated double row ball
Drive	Fan belt
Ratio (Pump to Engine RPM)	.949:1

## DRAIN LOCATIONS AND TYPE

Radiator	Left hand, rear lower face
Engine Block	Plug; right and left center





# CLUTCHES AND TRANSMISSIONS

## ● CLUTCHES

Engine	Type	V8-350 Cu.In.		V8-454 Cu.In.		
	Availability	Standard	RPO LT1	RPO LS5	RPO LS6	
Clutch for	4-Speed					
Type	Single dry disc centrifugal			Dual dry disc centrifugal		
Clutch cover & pressure plate	Eff. plate load, lbs.	2450-2750			1600-1800	
	Press. plate matl.	Nodular iron				
	Clutch spring type	Circular plate diaphragm, bent finger design				
	Clutch spring matl.	Heat treated spring steel				
Driven plate	Type	Single disc with two friction surfaces			Dual disc, alum. back facing	
	Cushions	Flat spring steel between friction rings				
	Dampers	10 coil springs (5 sets of two) each plate				
	Friction rings	OD	11.00			10.00
		ID	6.50			6.00
		Total area sq. in.	123.70			201.06
	Material	Woven type asbestos				
Flywheel	Flywheel	Material				
		Nodular iron				
	Ring gear	Material				
		Heat treated HR steel				
	No. of teeth	168				
	PD	14.00				
	Attachment	Shrink fit				
Bearings	Release	Type	Single row ball			
		Lubrication	None, prepacked			
	Pilot	Type	Bronze bushing			
		Lubrication	None, sintered and oil impregnated			
Controls	Clutch fork	Drop forged steel, pivot mounted on ball				
	Pedal mounting	Pendant, from brace on dash				
	Lubrication	Crossover shaft				
Clutch housing material	Aluminum alloy					

## 4-SPEED TRANSMISSIONS

Transmission Type		4-Speed RPO M20		4-Speed RPO M21 & M22		
Engine	Type	V8-350 Cu.In.	V8-454 Cu.In.	V8-350 Cu.In.	V8-454 Cu.In.	
Application	Availability	Base & LT1	LS5	LT1	LS5 & LS6	
Case material	Aluminum					
Gear Shift	Type	Remote				
	Control	Lever				
	Location	Floor, mounted between seats				
Gears	Type	Helical				
	Material	Forged steel, hardened				
	Synchronization	All forward gears				
	Constant mesh gear	All forward gears				
	Sliding gears	Reverse				
	Ratios	First	2.52		2.20	
		Second	1.88		1.64	
		Third	1.46		1.27	
Fourth		1.00		1.00		
Reverse		2.59		2.26		
Lubricant	Type	Meeting Military Specification M1L-L-2105-B				
	Capacity (pts)	3				
Extension	Material	Aluminum				
	Oil Seal	Steel encased double seal of spring loaded rubber or felt				

# TRANSMISSIONS

## TURBO HYDRA-MATIC

<b>General Data</b>	Type		Automatic hydraulic torque converter with compound planetary gear system - three forward speeds and reverse.
	Selector lever	Location	Floor mounted
		Operation	Actuates controls by a hydraulic system from pressurized gear type pump
		Quadrant pattern	P-R-N-3-2-1
	Parking Lock	Type	Locking pawl
		Operation	Applied by selector lever through manual linkage
	Method of cooling		Water
	Flywheel assembly		Steel stamping with welded on ring gear
Oil pressure pump		Supplies hydraulic pressure from an engine driven gear type pump	
<b>Hydraulic System</b>	Type		Steel spool
	Valves	Manual	Establishes range of transmission operation
		Pressure Reg.	Controls 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 that varies with torque to transmission
	Accumulator		To obtain greater flexibility in attaining desired shift curve for various engine requirements
	Pressure @ Idle (a)	3	70
		2	150
		1	150
Reverse		107.5	
<b>Converter Assembly</b>	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		2.10
	Stall speed (RPM)		2110
	Diameter (nominal)		12.20
<b>Planetary Gear Set</b>	Reaction carrier assembly		4 steep pinion gears
	Output carrier assembly		4 steel pinion gears
	Front band		Circular steel with organic lining
	Rear band		Double wrap circular steel
	Range	D (2.48 1st)	2.48:1 - 1.48:1 - 1.00:1
		L2 (1.48 2nd)	2.48:1 - 1.48:1
		L1 (1.00 3rd)	2.48:1
R (2.08 Reverse)		2.08:1	
Servo Unit		Piston with release spring and inner cushion spring	
<b>Case</b>	Material		Aluminum
<b>Clutches</b>	Type		Three, multiple disk
	Material	Drive plates	Steel with bonded organic facings
		Driven plates	Flat steel
	Forward Clutch		5 each drive & driven plates
	Direct clutch		5 each drive & driven plates
	Intermediate clutch		3 each drive & driven plates
	Release spring		Radial row steel coil
<b>Torque Multiplication</b>	Drive (maximum)		5.21:1 to 1.00
	Low 2		5.21:1 to 1.48
	Low 1		5.21:1 to 2.48
	Reverse		4.37:1 to 2.08
<b>Governor</b>	Type		Cross-axis centrifugal
	Operation		Regulates a pressure proportional to car speed which acts upon the (1-2) (2-3) shift and modulator valves
<b>Lubricant</b>	Type		A suffix A
	Capacity (pints)	Dry	22
		Refill	8

(1) 450 RPM input @ 25 in. Hg. vacuum



engines:

description	RPO number
330-hp Turbo-Fire 350; available only when 4-Speed wide-range or 4-Speed close-ratio transmission is ordered. Includes full-transistor ignition system	L11
365-hp Turbo-Jet 454; available only when 4-Speed wide-range, 4-Speed close-ratio or Turbo Hydra-matic transmission is ordered. Includes HD battery	L55
425-hp Turbo-Jet 454; available only when 4-Speed close-ratio, special 4-Speed close-ratio or Turbo Hydra-matic transmission is ordered. Includes HD battery	L57
<b>Transmissions:</b>	
Replacing standard 4-Speed wide-range transmission: Turbo Hydra-matic; available only when 270-, 365-, or 425-hp engine is ordered	M40
4-Speed close-ratio; available only when 330-hp, 365-hp, or 425-hp engine is ordered	M21
Special 4-Speed close-ratio; available only when 425-hp engine is ordered	M22
<b>Axle ratio, rear: replacing standard positraction rear axle ratio</b>	
<b>Economy ratio</b>	ZQ8
<b>Performance ratio</b>	ZQ9
3.70 ratio	YE1
4.11 ratio	YE2
4.56 ratio	YE3

**Power Assists**

description	RPO number
<b>Brakes, power</b>	J50
<b>Steering, power: (power brakes recommended)</b>	N40
<b>Windows, power</b>	A31

description

description	RPO number
Air conditioning, Four-Season: available only when 4-Speed wide-range or Turbo Hydra-matic transmission with standard or 365-hp engine is ordered	C60
Alarm system, audio	UA6
Battery, heavy-duty: included when 365- or 425-hp engine is ordered	T60
Belts, shoulder Custom Deluxe: Convertible model only	A85
Driver and passenger	
Destructor, rear window	C50
Radio equipment—includes 30" fixed height rear antenna	
AM/FM Radio	U69
AM/FM/Stereo Radio	U69/U79
Roof cover, vinyl: black; convertible model with auxiliary top only	C08
Steering wheel, tilt-telescopic	N37
Top, auxiliary: hard top; convertible model only. In addition to folding top	C07
Top, folding: manually operated. Convertible model only. All tops available with all exterior colors	
Black	BB
White	AA
Trim, Custom: includes leather seat trim, special cut pile carpeting, door trim panels with wood-grained accents and lower carpeting plus console with wood-grained accents	...
Wheel covers, Custom	P02

**Factory Installed Regular Production Tubeless Tires**

description	RPO number
Replaces (5) F70 x 15 special nylon blackwall	PU9
(5) F70 x 15 special nylon white lettered blackwall	
(5) F70 x 15 special nylon white stripe	PT7

# 1971 Corvette options



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*Extra*

# 1971 AMA SPECIFICATIONS FORM ... Passenger Car

MANUFACTURER  Chevrolet Motor Division General Motors Corporation	CAR NAME  CORVETTE	
MAILING ADDRESS  - -	MODEL YEAR  1971	ISSUED 9/70 REVISED (●) 12/70

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# AMA 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.

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MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (\*)

BODY MODEL	Body type, number of passengers, and style names; use manufacturer's code for series & body style.
<u>CORVETTE</u>	V-8 <u>Engine</u>
2-Door Sport Coupe, 2-Passenger	19437
2-Door Convertible, 2-Passenger	19467



MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (a)

**CAR AND BODY DIMENSIONS**

See Pages 27, 28 for SAE Dimension Definitions  
(All dimensions in inches unless otherwise indicated)

All dimensions to ground are for comparative purposes only. Dimensions are to be shown for:  
4-Dr. Sedan, 2-Dr. H.T., 4-Dr. H.T., Convertible and Station Wagon.

MODEL	SAE Ref. No.	Sport Coupe	Convertible
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**WIDTH**

Track - Front	W101	58.7	
Track - Rear	W102	59.4	
Maximum overall car width	W103	69.0	
Body width at No. 2 pillar	W117	66.2	

**LENGTH**

Body "O" to front of dash	L 30	-1.7	
Wheelbase	L101	98.0	
Overall car length	L103	182.5	
Overhang - front	L104	40.6	
Overhang - rear	L105	43.9	
Body upper structure length	L123	55.6	
Body "O" line to $\phi$ of rear wheel	L127	72.0	
Body "O" line to w. s. cowl point	L130	13.1	

**HEIGHT**

Passenger Distribution (front & rear)		2 - 0	
Trunk/Cargo load (lbs.)			
Overall height	H101	47.8	47.9
Cowl height	H114	26.6	
Deck height	H138		
Rocker panel - front	H112	To ground	6.7
		From front wheel $\phi$	21.0
Rocker panel - rear	H111	To ground	6.7
		From rear wheel $\phi$	16.6
Windshield slope angle	H122	57.0	

**GROUND CLEARANCE**

Bumper to ground - front	H102	19.2	
Bumper to ground - rear	H104	13.2	13.0
Angle of approach	H106	22.0	
Angle of departure	H107	21.0	
Ramp breakover angle	H147	22.0	
Min. running clearance (Specify)	H156	4.8 (a)	4.5 (a)

(a) Exhaust system to ground.

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (0)

## CAR AND BODY DIMENSIONS

See Pages 27, 28 for SAE Dimension Definitions  
(All dimensions in inches unless otherwise indicated)

MODEL	SAE Ref. No.	Sport Coupe	Convertible
<b>FRONT COMPARTMENT</b>			
Effective head room	M61	37.2	38.3
Max. eff. leg room - accelerator	L34		43.0
H Point to Heel point	H30		6.8
H Point travel	L17		4.5
Shoulder room	W 3		46.9
Hip room	W 5		48.8
Upper body opening to ground	M50		43.6
<b>REAR COMPARTMENT</b>			
H Point couple distance	L50		
Effective head room	M63		
Min. effective leg room	L51		
H Point to Heel point	H31		
Min. knee room	L48		
Rear Compartment room	L 3		
Shoulder room	W 4		
Hip room	W 6		
Upper body opening to ground	M51		
<b>LUGGAGE COMPARTMENT</b>			
Usable luggage capacity	V 1	6.1	5.0
Liftover height	H195		---
Position of spare tire storage		In well under body at rear	
Method of holding lid open			---
<b>STATION WAGON - THIRD SEAT</b>			
Shoulder Room	W85		
Hip room	W86		
Effective leg room	L86		
Effective head room	M86		
Seat facing direction			
<b>STATION WAGON - CARGO SPACE</b>			
Cargo length at floor - front seat	L202		
Cargo length at belt - front seat	L204		
Cargo width - Wheelhouse	W201		
Opening width at belt	W204		
Maximum cargo height	H201		
Rear opening height	H202		
Cargo volume index (cu. ft.) $\frac{W4 \times L204 \times H201}{1728}$	V2		

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## POWER TEAMS

(Indicate whether standard or optional)

(Gross bhp (brake horsepower) and gross torque corrected to 60° F and 29.92 in. Hg atmospheric pressure.)

(Net bhp (brake horsepower) and net torque corrected to 85° F and 29.00 in. Hg atmospheric pressure.)

MODEL AVAILABILITY	ENGINE							TRANSMISSION		AXLE RATIO ** (Std. first)			
	Displ. cu. in.	Cyls	Compr. Ratio	BHP @ RPM		Torque @ RPM				(Indicate A/C ratio)			
				Gross	Net	Gross	Net	"A"	"B"	"C"	"D"		
Turbo Fire 350V8 (base)	One; 4-bbl	8.5:1	270	210	360	300	4-Speed Manual (2.52:1 low)	Base and A/C	3.36	3.08	--	--	
			@ 4800	@ 4400	@ 3200	@ 2800							
Turbo Fire 350V8 (LT1)*	One 4-bbl	9.0:1	330	275	360	300	4-Speed Manual (2.52:1 low)	Base only	3.55	3.36	3.70	--	
			@ 5600	@ 5600	@ 4000	& 4000	4-Speed Manual* (2.20:1 low)	Base only	3.70	3.55	4.11	--	
							H. D. 4-Spd Manual* (2.20:1 low)	Base only	3.36	3.08	3.55	4.11	3.70 4.56
Turbo Jet 454V8 (LS5)*	One; 4-bbl	8.5:1	365	285	465	390	4-Speed Manual* (2.52:1 low)	Base A/C	3.08	--	3.36	--	
			@ 4800	@ 4000	@ 3200	@ 3200	4-Speed Manual* (2.20:1 low)	Base only	3.36	3.08	3.55	3.70	
							3-Speed Automatic	Base A/C	3.08	2.73	3.36	--	
Turbo Jet 454V8 (LS6)*	One; 4-bbl	9.0:1	425	325	475	390	4-Spd. Manl (2.20:1 low)	Base only	3.36	3.08	3.55	--	
			@ 5600	@ 5600	@ 4000	@ 3600	H. D. 4-Spd. Manual (2.20:1 low)	Base only	3.36	3.08	3.55	3.70 4.11	
							3-Speed Automatic*	Base only	3.08	2.73	3.36	--	

\* - Optional.

\*\* - Positraction standard with all axle applications.

A - Standard.

B - Economy option.

C - Performance option.

D - Special option.

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MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED <sup>(\*)</sup>

MODEL TURBO-FIRE 350 | TURBO-JET 454  
V8 - 270 HP | V8 - 330 HP | V8 - 365 HP | V8 - 425 HP

## ENGINE—GENERAL

Type, no. cyls., valve arr.	90° V-8 OHV			
Bore and stroke (nominal)	4.00 x 3.48		4.251 x 4.00	
Piston displacement, cu. in.	350		454	
Bore spacing (C to C)	4.40		4.84	
No. system (front to rear)	L. Bank	1-3-5-7		
	R. Bank	2-4-6-8		
Firing order	1-8-4-3-6-5-7-2			
Compres. ratio (nominal)	8.5:1	9.00:1	8.5:1	9.00:1
Cylinder Head Combustion Chamber Volume (cc)	99.61	90.82	127.60	119.09
Cylinder Head Material	Cast alloy iron			Cast aluminum
Cylinder Block Material	Cast alloy iron			
Cyl. Sleeve-Wet, dry, none	None			
Number of mtg. points	Front	Two		
	Rear	One		
Engine installation angle	3°			
Taxable horsepower $\frac{Dio^2 \times No. Cyl.}{2.5}$	51.2		57.8	
Recommended fuel regular - premium	Regular			

## ENGINE—PISTONS

Material	Cast alum. alloy	(a)	Cast alum. alloy	(a)
Description and finish	Sump head slipper skirt	Flat head notched, slipper skirt	Flat head valve cutout	Domed head notched
Weight (piston only) oz.	21.50	25.68	25.92	23.28
Clearance (limits)	Top land	.0235-.0325	.0305-.0395	.0350-.0410
	Skirt	Top	.0007-.0017(b)	.0024-.0034(c)
		Bottom	.0036-.0046(b)	.0040-.0050(d)
Ring groove diameter	No. 1 ring	3.546-3.556	3.770-3.780	3.765-3.775
	No. 2 ring	3.546-3.556	3.770-3.780	3.765-3.775
	No. 3 ring	3.582-3.592	3.803-3.813	3.816-3.826
	No. 4 ring			

- (a) - Aluminum impact extruded.  
 (b) - Measured 1.878 from top of piston.  
 (c) - Measured 1.69 from top of piston.  
 (d) - Measured 1.65 from top of piston.

# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (a)

	V8 - 350	V8 - 454	
MODEL	V8 - 270 HP	V8 - 330 HP	V8 - 365 HP
			V8 - 425 HP

## ENGINE - RINGS

No. 1, oil or comp.	Compression			
	Compression			
	Oil			
	None			
Description - Upper material, coating, etc.	Cast alloy iron; barrel face (a)			
	Cast alloy iron; inside bevel; tapered face.(b)			
	Width	(c)	(d)	Upper & lower .0770-.0775
	Gap	(e)	(f)	.010-.020
Description - material, coating, etc.	Multi-piece (2 rails and 1 spacer expander)			
	Rails-steel, chrome plated OD; Expander-stainless steel			
	Width	.1870-.1890 (assembled)		
	Gap	.015-.055	.010-.030	
In oil ring assembly				

## ENGINE - PISTON PINS

Material	Chromium steel				
Length	2.990-3.010	2.930-2.950			
Diameter	.9270-.9273	.9895-.9898			
Type	Locked in rod				
	Bushing	None			
Clearance	In piston	.00015-.000251	.00045-.00055	.00030-.00040	.00045-.00055
	In rod				
Reaction & amount offset in piston		Major thrust side .060		On center	

## ENGINE - CONNECTING RODS

Material	Drop forged steel		
Weight (oz.)	20.80	27.84	
Length (center to center)	5.695-5.705	6.130-6.140	
Clearance	Premium aluminum		
	Overall length	.797	.847
	Clearance (limits)	.0013-.0035	.0009-.0025
	End play	.008-.014	.015-.023

- (a) Chrome plate on V8-350 (270 HP) molybdenum inlay all other engines.
- (b) Wear resistant coating V8-350 (270 HP) chrome plate all other engines.
- (c) Upper .0775-.0780; Lower .0770-.0775.
- (d) Upper .0770-.0775; Lower .0775-.0780.
- (e) Upper .010-.020; Lower .013-.025.
- (f) Upper .010-.020; Lower .013-.028.

## AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (a)  
 MODEL V8 - 270 HP | V8 - 330 HP | V8 - 365 HP | V8 - 425 HP  
 V8 - 350 V8 - 454

## ENGINE - CRANKSHAFT

Material		Cast			
		nodular iron	Forged steel		
Vibration damper type		Rubber mounted inertia			
End thrust taken by bearing (No.)		5			
Crankshaft end play		.002-.006	.006-.010		
Material & type		Premium aluminum			
Clearance		(a)	(b)		
Main bearing	Journal dia. and bearing overall length	No. 1	2.4502 x .752	2.4502 x .752	2.7509 x .992
		No. 2	2.4502 x .752	2.4502 x .752	2.7505 x .992
		No. 3	2.4502 x .752	2.4502 x .752	2.7505 x .992
		No. 4	2.4502 x .752	2.4502 x .752	2.7505 x .992
		No. 5	2.4508 x 1.177	2.4508 x 1.177	2.7505 x 1.2525
	No. 6	None			
	No. 7	None			
Dir. & amt. cyl. offset		None			
No. bolts/main brg. cap		10 & 5	16 & 5	10 & 5	20 & 5
Crankpin journal diameter		2.099-2.100		2.199-2.200	

## ENGINE - CAMSHAFT

Location		In block above crankshaft	
Material		Cast alloy iron	
Bearings	Material	Steel backed babbitt	
	Number	5	
Type of Drive	Gear or chain	Chain	
	Crankshaft gear or sprocket material	Steel sprocket	
	Camshaft gear or sprocket material	Nylon teeth with aluminum hub	
	Timing chain	No. of links	46
Width		.740	.740
Pitch		.500	.500

(a) - No. 1 - .0008-.0020  
 No. 2, 3 & 4 - .0011-.0023  
 No. 5 - .0017-.0033

(b) - No. 1 - .0007-.0019  
 No. 2, 3 & 4 - .0013-.0025  
 No. 5 - .0019-.0035

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MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (a)

MODEL	V8 - 350		V8 - 454	
	V8 - 270 HP	V8 - 330 HP	V8 - 365 HP	V8 - 425 HP

## ENGINE - VALVE SYSTEM

Hydraulic lifters (Std., opt., NA)	Standard	NA	Standard	NA
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Valve rotator, type (intake, exhaust)	None			
---------------------------------------	------	--	--	--

Rocker ratio	1.50:1		1.70:1	
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Operating tappet clearance (indicate hot or cold)	Intake	Zero	.020	Zero	.024
	Exhaust	Zero	.025	Zero	.028

Timing based on top of amp points	Intake	Opens (°BTC)	28°	42°40'	56°	44°
		Closes (°ABC)	72°	94°20'	114°	92°
		Duration - deg.	280°	317°	350°	316°
	Exhaust	Opens (°BBC)	78°	112°50'	110°	86°
		Closes (°ATC)	30°	53°23'	62°	36°
		Duration - deg.	288°	346°13'	352°	302°

Valve opening overlap	58°	96°3'	118°	80°
-----------------------	-----	-------	------	-----

Intake	Material	Alloy steel		Alloy steel; aluminized faced head		
	Overall length	4.870-4.889		5.215-5.235	5.204-5.224	
	Actual overall head dia.	1.935-1.945	2.017-2.023	2.060-2.070	2.185-2.195	
	Angle of seat & face	46° (seat); 45° (face)				
	Seat insert material	None				
	Stem diameter	.3410-.3417		.3715-.3722		
	Stem to guide clearance	.0010-.0027				
	Lift (- zero lash)	.3900	.4586	.4614	.5197	
	Outer spring press. & length	Valve closed (lb. in.)	76-84 @ 1.70		69-81 @ 1.88	
		Valve open (lb. in.)	194-206 @ 1.25		228-252 @ 1.38	
	Inner spring press. & length	Valve closed (lb. in.)	Spring damper		26-34 - 1.78	
		Valve open (lb. in.)	Spring damper		81-99 - 1.28	

Exhaust	Material	High alloy steel, aluminized face (a)				
	Overall length	4.913-4.933	4.891-4.910	5.345-5.365		
	Actual overall head dia.	1.495-1.505	1.595-1.605	1.715-1.725	1.875-1.885	
	Angle of seat & face	46° (seat); 45° (face)				
	Seat insert material	None				
	Stem diameter	.3410-.3417		.3713-.3720		
	Stem to guide clearance	.0010-.0027				
	Lift (- zero lash)	.4100	.4850	.4800	.5197	
	Outer spring press. & length	Valve closed (lb. in.)	76-84 @ 1.70		69-81 @ 1.88	
		Valve open (lb. in.)	194-206 @ 1.25		228-252 @ 1.38	
	Inner spring press. & length	Valve closed (lb. in.)	Spring damper		26-34 - 1.78	
		Valve open (lb. in.)	Spring damper		81-99 - 1.28	

(a) Head also aluminized on V8 - 454

## AMA Specifications Form—Passenger Car

MAKE OF CAR	CORVETTE	MODEL YEAR	1971	DATE ISSUED	9/70	REVISED (a)	
MODEL		V8 - 350		V8 - 454			
		270 HP		330 HP		365 HP	425 HP

## 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	Centrifugally oiled from camshaft bearing
	Cylinder walls	Pressure jet cross sprayed
Oil pump type	Gear	
Normal oil pressure (lb. - engine rpm)	40 PSI @ 2000 RPM	
Oil press. sending unit (elect. or mech.)	Electric	
Type oil intake (floating, stationary)	Stationary	
Oil filter system (full flow, part., other)	Full flow	
Filter replacement (element, complete)	Complete	
Capacity of oil case, less filter-refill (qt.)	4	5
Oil grade recommended (SAE viscosity and temperature range)	20° and above - 20W, 10W-30, 10W-40, 20W-40 0° to 60°F - 10W, 5W-30, 10W-40 Below 20°F - 5W, 5W-20, 5W-30	
Engine Service Reqmt. (MM, MS, etc.)	MS	

## ENGINE - EXHAUST SYSTEM

Type (single, single with cross-over, dual, other)	Dual		
Muffler No. & type (reverse flow, straight thru, separate resonator)	Two, reverse flow		
Exhaust pipe dia. (O.D., wall thick.)	Branch	2.00 x .074	2.50 x .082
	Main	2.00 x .082 (a)	2.50 x .092 laminated
Tail pipe dia. (O.D. & wall thickness)	Chrome plated extension; 2.00 at connection - .048		

(a) Laminated



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	V8 - 350	V8 - 454
MODEL	270 HP	330 HP
	365 HP	425 HP

## 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.)	18 approximately				
Fuel Tank	Filler location	Center of rear deck				
Fuel Pump	Type (elec. or mech.)	Mechanical				
Fuel Pump	Locations	Lower right front of engine				
Fuel Pump	Pressure range	7.50 - 9.00 PSI				
Vacuum booster (std., optional, none)		None				
Fuel Filter	Type	Fine mesh plastic strainer in gas tank				
Fuel Filter	Locations	and paper filter element in carburetor inlet				
Choke type		Automatic				
Intake manifold heat control (exhaust or water)		Exhaust				
Carburetor	Air cleaner type	Standard	Oil wetted paper element			
		Optional				
	Idle speed (spec. neutral or drive)	Manual (N)	600	700	600	700
		Automatic (D)	550		600	700
	Idle A/F mix.	Not specified				

## CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetors		No. Used and Type	Barrel Size
			Make	Model		
All Models	350 270hp	Manual	Rochester	7041213	One; 4-bbl.	1.38 Prim.
		Automatic		7041212		2.25 Sec.
	350 330hp	Manual	Holley	3989014	One; 4-bbl.	1.686 Prim. & Sec.
		Automatic	Rochester	7041205	One; 4-bbl.	1.38 Prim.
	365hp	7041204		2.25 Sec.		
	454 425hp	Manual	Holley	3986195	One; 4-bbl.	1.686 Prim. & Sec.
Automatic		3986196				

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MODEL	V8 - 350	V8 - 454	
	270 HP	330 HP	365 HP

## ENGINE - COOLING SYSTEM

Type system (pressure, pressure vented, atmospheric, other)	Pressure					
Radiator cap relief valve pressure	15 ± 1 PSI					
Circulation thermostat	Type (choke, bypass)	Choke				
	Starts to open at (°F)	192°-198°	177°-183°	192°-198°	177°-183°	
Water pump	Type (centrifugal, other)	Centrifugal				
	GPM 1000 pump rpm	23 @ 2000		25 @ 2000		
	Number of pumps	One				
	Drive (V-belt, other)	V-belt				
	Bearing type	Permanently lubricated double row ball				
By-pass recirculation type (inter., ext.)	Internal		External			
Radiator core type (cellular, tube and fin, other)	Aluminum	Tube and center Copper - brass				
Cooling system capacity	With heater (qt.)	15	18	22	20	
	Without heater (qt.)	14	17	21	21	
	Opt. equipment-specify (qt.)	18	18	-	-	
Water jackets full length of cyl. (yes, no)	Yes					
Water all around cylinder (yes, no)	Yes					
Radiator hose	Lower	Number and type (molded, straight)	1.75	1.88		
		Inside diameter	One, molded			
	Upper	Number and type (molded, straight)	1.50			
		Inside diameter	One, molded			
	By-pass	Number and type (molded, straight)	None	One, molded		
		Inside diameter	None	.725-.765		
Fan	Number of blades & spacing	5-staggered				
	Diameter	17.50				
	Ratio-fan to crankshaft rev.	1.15:1	.949:1			
	Fan cutout type	Thermo-modulated viscous				
Bearing type	Double row ball					
*Drive belts (indicate belt used by letter)	Fan	A B	E F	H I		
	Generator or alternator	A	E	H		
	Water Pump	A B	E F	H I		
	Power Steering	C	-	J		
	Air Conditioning	D	-	K	-	
	Air Injection	-	G	-		L

Drive Belt Dimensions	L	A	B	C	D	E	F	G	H	I	J	K
Angle of V												
Nominal length (SAE)	30.75	54.25	35.14	32.25	58.00	52.75	32.46	32.50	53.75	31.86	43.50	46.21
Width												

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MODEL \_\_\_\_\_ V8 - 350 - 270 HP V8 - 350 - 330 HP  
 V8 - 454 - 365 HP V8 - 454 - 425 HP

**VEHICLE EMISSION CONTROL**

		Type (Air injection, engine modifications, other)	Engine modifications	Air injection
Exhaust Emission Control	Air Injection Pump	Type	<b>NOT APPLICABLE</b>	Semi-articulated vane type
		Displacement		19.3 cubic inch
		Drive ratio		1.15:1
		Drive type		Crankshaft pulley
		Relief valve (type)		Diverter valve
	Filter (describe)	Centrifugal air cleaner		
	Air Injection System	Air distribution (head, manifold, etc.)		Manifold
		Point of entry		Exhaust ports
		Injection tube i.d.		.2565
		Check valve type		Pressure plate type
	Backfire protection (type)	Diverter valve		
Crankcase Emission Control	Type (ventilates to atmos., induction system, other)		Induction system	
		Standard	--	
		Optional	AC Spark Plug	
	Control Unit	Make and model	Left front of rocker cover	
		Location	Manifold vacuum	
		Energy source (manifold vacuum, carburetor, other)	Variable orifice	
	Complete system	Control method (variable orifice, fixed orifice, other)	Intake manifold	
		Discharges (to intake manifold, other)	Carburetor air cleaner	
		Air inlet (breather cap, other)	Screen	
		Flame arrestor (screen, other)		
Evaporative Emission Control	Fuel Tank	Refill Capacity (U.S. gallons)	18 approximately	
		Thermal expansion volume (cu. ft.)		
		Pressure relief location (lbs.)	25 to 35" of Water	
		Vacuum relief location (lbs.)	7 to 14" of Water	
		Vapor-liquid separator type		
	Vapor vented to (crankcase, cannister, other)		Cannister	
	Carburetor	Vapor vented to (crankcase, cannister, other)		
Vapor Storage	Storage provision (crankcase, cannister, other)			
	Volume (cu. ft.) or capacity (grams)			
	Control valve type	Stage Valve		

# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (\*)12/70

MODEL	V8 - 350		V8 - 454	
	270 HP	330 HP	365 HP	425 HP

## ELECTRICAL - SUPPLY SYSTEM

Battery	Make and Model		Delco-Remy 1980147		Delco-Remy 1980150	
	Voltage Rtg. & Total Plates		12 volts - 78 plates		12 volts - 90 plates	
	SAE Designation & Amp. Hr. Rtg.		62 amp. hr. @ 20 hr. rate		80 amp. hr. @ 20 hr. rate	
	Location		Behind drivers seat in storage compartment			
Terminal grounded		Negative				
Generator or Alternator	Make		Delco-Remy			
	Model		1100901		1100950	
	Type and rating		Diode rectified with integral regulator - 42 amps.			
	Output at engine idle (neutral)		13 amps.			
	Ratio-Gen. to Cr. s rev.		2.53:1	2.15:1	2.53:1	2.15:1
Regulator	Make		Delco-Remy			
	Model		---			
	Type		Micro circuit unit; integral with generator			
	Cutout relay	Closing voltage generator rpm	None			
		Reverse current to open	None			
	Regulated	Voltage	13.8-14.8 @ 85°F			
		Current	---			
Voltage test conditions	Temperature	Operating				
	Load	3-8 amperes				
	Other	None				

## ELECTRICAL - STARTING SYSTEM

Starting Motor	Make		Delco-Remy			
	Model		1108338		1108400	
	Rotation (drive end view)		Clockwise			
Motor control	Switch (solenoid, manual)		Solenoid			
	Starting procedure		Manual - place gearshift in neutral and depress clutch Automatic - place control lever in "N" or "P" position Initial start - press accelerator to floor and release. Turn ignition to START, release as soon as engine starts			
	Engagement type		Positive shift solenoid			
Motor Drive	Pinion meshes (front, rear)		Rear			
	Number of teeth	Pinion	9		9	
		Flywheel	Manual	153		168
	Auto.		153		168	
	Flywheel tooth face width	Manual	.4010-.4130		.4100-.4220	
Auto.		.4010-.4130		.4100-.4220		

# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (\*)

	V8 - 350		V8 - 456
MODEL	270 HP	330 HP	365 HP 425 HP

**ELECTRICAL - IGNITION SYSTEM - DISTRIBUTOR**

Breaker gap (in.)	.019	Transist- orized	.019	Transist- orized
Cam angle (deg.)	29-31		28-30	
Breaker arm tension	19-230		28-32	
Distributor	Manual	1112050	1112038	1112051 1112076
	Automatic	1112050	--	1112051 1112053
Timing (RPM)	Manual	8°BTC @ 600	8°BTC @ 700	8°BTC @ 600 8°BTC @ 700
	Automatic	8°BTC @ 550	--	8°BTC @ 600 12°BTC @ 700

Distributor Model	CENTRIFUGAL ADVANCE Crankshaft Degrees at Engine RPM			VACUUM ADVANCE Crankshaft Deg. In. of Mercury	
	Start	Intermediate	Max.	Start	Max.
	1112038	1330	16 @ 2250	24 @ 5000	8.00
1112050	1335	11 @ 2400	18 @ 4200	8.00	15 @ 15.5
1112051	1145	14 @ 2000	22 @ 3000	8.00	20 @ 17
1112053	1310	21 @ 2350	28 @ 5000	7.00	12 @ 12
1112076	1300	25 @ 2350	31 @ 6000	7.00	12 @ 12

## AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (a) 12/70

	V8 - 350	V8 - 454	
MODEL	270 HP	330 HP	365 HP   425 HP

## ELECTRICAL - IGNITION SYSTEM

Type	Conventional - Std., Opt., N.A.	Standard			
	Transistorized - Std., Opt., N.A.	Not available			
	Other (specify)	None			
Coil	Make	Delco-Remy			
	Model	1115270	1115272	1115287	1115263
	Amps	Engine stopped	4.0		
		Engine idling	1.8		
Spark Plug	Make	AC Spark Plug			
	Model	● AC R44TS	AC R43TS	AC R43TS	AC R44XL
	Thread (mm)	14			
	Tightening torque (lb. ft.)	25			
	Gap	.033-.038			
Cable	Conductor type	Linen core impregnated with electrical conducting material			
	Insulation type	Rubber with neoprene jacket			
	Spark plug protector	Neoprene			

## ELECTRICAL - SUPPRESSION

Locations & type	
------------------	--

## ELECTRICAL - INSTRUMENTS AND EQUIPMENT

Speedometer	Type	Circular dial with pointer
	Trip odometer (std. opt., N.A.)	Yes
Charge indicator - type		Ammeter
Temperature indicator - type		Electric gauge
Oil pressure indicator - type		Bourdon tube gauge
Fuel indicator - type		Electric gauge
Windshield wiper	Type - Standard	Electric, two-speed
	Type - Optional	None
Windshield washer	Type - Standard	Push-button
	Type - Optional	None
Horn	Type	Vibrator
	Number used	One
	Amp draw (each)	4.5-6.5 @ 12.5 V (low note)
Other		Mechanical tachometer

# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (\*)12/70

MODEL	V8-350 270 & 330 HP	V8-454 365 HP	V8-454 425 HP
-------	------------------------	------------------	------------------

## DRIVE UNITS - CLUTCH (Manual Transmission)

Make & type	Chevrolet, single dry - disc semi-centrifugal	Chevrolet, dual dry disc Centrifugal
Type pressure plate springs	Circular plate diaphragm, bent finger design	
Total spring load (lb.)	2450 - 2750	1600 - 1800
No. of clutch driven discs	One	Two
Clutch facing	Material	Woven type asbestos
	Outside & inside dia.	11.00 x 6.50
	Total eff. area (sq.in.)	123.70
	Thickness	.135 each
Engagement cushioning method	Flat spring steel between cushions	
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.)	Not available
Manual 4-speed (std., opt. N.A.)	Standard
Automatic (std., opt. N.A.)	Optional*

## DRIVE UNITS - MANUAL TRANS.

Number of forward speeds	4-Speed (a)	4-Speed (b)	
Transmission ratios	In first	2.52:1	2.20:1
	In second	1.88:1	1.64:1
	In third	1.46:1	1.27:1
	In fourth	1.00:1	1.00:1
	In reverse	2.59:1	2.26:1
Synchronous meshing, specify gears	All forward gears		
Shift lever location	Floor mounted with console		
Lubricant	Capacity (pt.)	3	
	Type recommended	Meeting Military Specs. MIL-L-2105B	
	SAE viscosity number	Summer	SAE 80
		Winter	SAE 80
Extreme cold		SAE 80	

(a) Available all engine combinations except V8 - 454 (425 HP)

(b) Available all engine combinations except V8 - 350 (300 HP)

\* Not available with V8-350 330 HP

## AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED<sup>(\*)</sup>

MODEL \_\_\_\_\_

DRIVE UNITS—AUTOMATIC TRANSMISSION - (Available all engines except V8 - 350 (370 HP))

Trade name	Turbo Hydra-Matic	
Type describe	Torque converter with compound planetary gear set	
Selector location	Lever (floor mounted)	
List gear ratios Selector Pattern and indicate which are used in each selector position	P - Park R - 2.08 N - Neutral 3 - 2.48-1.48-1.00 2 - 2.48-1.48 1 - 2.48	
Max. upshift speed—drive range	*	
Max. kickdown speed—drive range	*	
Torque converter	Number of elements	3
	Max. ratio at stall	2.10
	Type of cooling (air, liquid)	Water
Lubricant	Nominal diameter	12.20
	Capacity—refill (pt.)	8
	Type recommended	A suffix A
Special transmission features		

## 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.	Not available
	Manual 4-speed trans.	2.00 x 29.90 x 0.120
	Overdrive transmission	Not available
	Automatic transmission	2.00 x 29.50 x 0.095

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

(Continued)

\* Upshift: V8-350 300 HP (1-2 45; 2-3 82) V8 454 365 HP (1-2 46; 2-3 82)  
V8 454 425 HP (1-2 51; 2-3 94)  
Kickdown: V8-350 306 HP (2-1 37; 3-2 76) V8 454 365 HP (2-1 38; 3-2 76)  
V8 454 425 HP (2-1 34; 3-2 86)



# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (\*)

MODEL \_\_\_\_\_

## DRIVE UNITS – PROPELLER SHAFT (cont.)

Inter-mediate bearing	Type (plain, anti-friction)	None
	Lubrication (fitting, prepack)	--
Slip Yoke	Type	Yoke
	Number of teeth	27
	Spline O.D.	1.1750
Universal joints	Make and Mfg. No.	Chevrolet
	Number used	Two
	Type (ball and trunnion, cross)	Cross
	Rear attach. (u-bolt, clamp, etc.)	U-bolt
	Bearing	Type (plain, anti-friction)
Lubric. (fitting, prepack)		Prepack
Drive taken through (torque tube or arms, springs)		Torque control arms
Torque taken through (torque tube or arms, springs)		Torque control arms

## DRIVE UNITS – AXLE

Type (front, rear)	Rear		
Description	Semi-floating, overhung pinion gear		
Limited Slip differential, type	Dual disc clutches		
Drive Pinion Offset	1.5		
No. of differential pinions	2		
Pinion adjustment (shim, other)	None		
Pinion bearing adj. (shim, other)	Shim		
Wheel bearing type	Taper roller		
	4.0		
Lubricant	Capacity (pt.)	Meeting Military Specs. MIL-L-2105B	
	Type recommended		
	SAE vis-cosity number		SAE-80
			SAE-80
	Extreme cold	SAE-80	

## AXLE RATIO TOOTH COMBINATIONS

(See page 3 for axle ratio usage)

Axle ratio	2.73	3.08	3.36	3.55	3.70	4.11	4.56
No. of teeth	Pinion	15	12	11	9	10	9
	Ring gear	41	37	37	32	37	41
Ring Gear O.D.	8.375						

# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (a)

MODEL \_\_\_\_\_

### DRIVE UNITS - WHEELS

Type & material		Short spoke spider, steel	
Rim (size & flange type)	Std.	15 x 8JJ	
	Opt.	None	
Attachment	Type (bolt or stud)	Stud	
	Circle diameter	4.75	
	Number and size	5 Hex nuts - 7/16-20 UNF 2-B	

MODEL \_\_\_\_\_

### DRIVE UNITS - TIRES

Standard	Size, ply rating, & ply		F70-15B-2 ply (4 ply rating)	
	Type (bias, radial, etc.)		Nylon	
	Full rated Inflation Press.	Front	Cold - 24; Hot - 30	
		Rear	Cold - 24; Hot - 30	
	Rev./Mile at 50 MPH		772	
Optional	Size, ply rating, & ply		None	

### BRAKES - PARKING

Type of control		Grip handle control
Location of control		In floor console between seats
Operates on		Rear wheels
If separate from service brakes	Type (internal or external)	Internal
	Drum diameter	6.5
	Lining size (length x width x thickness)	6.78 x 1.25 x 0.175

# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (a)

MODEL \_\_\_\_\_

## BRAKES – SERVICE

Type (drum) or (disc & no. of pistons)		Caliper disc, 4 per wheel, hydraulic		
Self adjusting (std., opt., N.A.)		Standard		
Special Valving	Type (proportion, delay, metering, other)	Metering		
Power brake make & type (remote, int., etc.)	Std.	-		
	Opt.	Delco Moraine; vacuum power unit; integral		
Effective area (sq. in.) *		78.1		
Gross lining area (sq. in.) **		86.3		
Swept area (sq. in.) ***		461.2		
Front to Rear Effectiveness Relationship				
Drum	Diameter (nominal)	Front		
		Rear		
Type and material				
Disc	Outer working diameter		11.75	
	Inner working diameter		8.0	
	Working width		1.25	
	Material & type (vented/solid)		Cast iron, vented	
Wheel cylinder bore	Front	1.875		
	Rear	1.375		
Master Cylinder	Bore	1.00		
	Stroke			
Pedal arc ratio		5.23		
Line pressure at 100 lb. pedal load		576		
Shoe Clearance	Front	Self adjusting		
	Rear	Self adjusting		
Anti-skid device type (std., opt., N.A.)		N. A.		
Brake lining	Bonded or riveted		Riveted	
	Front Wheel	Material	Molded asbestos	
		Size (length x width x thickness)	Prim. or out-board	5.96 x 2.21 x 0.41
			Second. or in-board	5.96 x 2.21 x 0.41
		Segments per shoe		One
	Rear Wheel	Material	Molded asbestos	
		Size (length x width x thickness)	Prim. or out-board	5.96 x 2.21 x 0.41
			Second. or in-board	5.96 x 2.21 x 0.41
Segments per shoe		One		

\* Excludes rivet holes, grooves, chamfers, etc. \*\* Includes rivet holes, grooves, chamfers, etc.  
 \*\*\* Total swept area for four brakes. (Widest lining contact width for each brake x its contact circumference.)

## AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (\*)

## MODEL \_\_\_\_\_

## 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 and telescopic steering wheel; 3" adjustment	
	(std., opt., NA)	Optional	
Wheel diameter	Manual	15.0	
	Power	15.0	
Turning diameter (feet)	Outside front	Wall to wall (l. & r.)	39.0
		Curb to curb (l. & r.)	37.0
	Inside rear	Wall to wall (l. & r.)	
		Curb to curb (l. & r.)	
Manual	Gear	Type	Semi-reversible, recirculating ball nut
		Make	Saginaw Steering
		Ratios	16.0:1
	Overall	20.2:1	
		No. wheel turns (stop to stop)	3.4
Power	Type (coaxial, linkage, etc.)		Linkage, power pump assisted
	Make		Saginaw Steering
	Gear	Type	Same as manual
		Ratios	16.0:1
		Overall	17.6:1
	Pump driven by		Crankshaft pulley
No. wheel turns (stop to stop)		2.9	
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.)		$7^{\circ} \pm 1/2^{\circ}$
	Bearings (type)	Upper	Ball stud with non-metallic bearing surface
		Lower	Ball stud with non-metallic bearing surface
		Thrust	None
Whl. Align. (range at curb wt. & preferred)	Caster (deg.)		Standard: $+1^{\circ} \pm 1^{\circ}$ ; Power Steering $+2-1/4^{\circ} \pm 1^{\circ}$
	Camber (deg.)		$+3/4^{\circ} \pm 3/4^{\circ}$ (a)
	Toe-in (outside track inches)		$3/16 - 5/16$ (a)
Steering spindle & joint type		Steering knuckle with spherical joint	
Wheel Spindle	Diameter	Inner bearing	$1.37455 \pm .00025$
		Outer bearing	$0.84305 \pm .00025$
	Thread size		27/32-20 NEF-3 (modified)
	Bearing type		Taper roller

(a) Rear wheel alignment: Camber  $-7/8^{\circ} \pm -1/2^{\circ}$   
 Toe-in  $1/32$  to  $3/32$

# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED <sup>(a)</sup>

MODEL \_\_\_\_\_

## SUSPENSION - GENERAL

(See Supplement page for details on Air Suspension)

Provision for car leveling	Front stabilizer bar
Provision for brake dip control	Mounting angle of front upper control arm
Provision for acc. squat control	None
Special provisions for car jacking	Front: 5" forward of front door opening, under frame Rear: 3" forward of wheel opening, under frame
Shock absorber front & rear	Type Direct double acting hydraulic
	Make Delco
	Piston dia. 1.00
Other special features	

## SUSPENSION - FRONT

Type and description	Independent: SLA with coil springs and concentric shock absorber, and spherically jointed steering knuckle for each wheel
Spring	Type Coil
	Material Steel alloy
	Size (coil design height & I.D., bar length x dia.) 15.85 x 3.80; 138.25 x 0.600 with 350 V8 engines 15.77 x 3.80; 138.75 x 0.618 with 454 V8 engines
	Spring rate (lb. per in.) 250 with 350 engines; 284 with 454 engines
	Rate at wheel (lb. per in.) 89 with 350 engines; 97 with 454 engines
Stabilizer	Type (link, linkless, frameless) Link
	Material & bar diameter 0.75 with 350 engines; 0.9375 with 454 engines

## SUSPENSION - REAR

Type and description	(a)
Drive and torque taken through	Torque control arms
Spring	Type Multi-leaf
	Material Chrome carbon steel
	Size (length x width, coil design height & I.D.; bar length & dia.) 46.36 x 2.25
	Spring rate (lb. per in.) 85
	Rate at wheel (lb. per in.) 121
	Mounting insulation type Rubber mounted at differential, vertical loading only at shackle
Stabilizer	If leaf No. of leaves 9
	Shackle (comp. or tens.) Tension
	Type (link, linkless, frameless) Link (b)
	Material 0.5625
Track bar type	None

(a) Full independent with fixed differential, transverse multi-leaf spring, lateral struts and universally jointed axle shafts.

(b) With 454 CID engine.

# AMA Specifications Form—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED <sup>(\*)</sup> \_\_\_\_\_

MODEL Coupe Convertible

FRAME \_\_\_\_\_

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

All welded, full length, ladder constructed frame with (5) cross members

### BODY - MISCELLANEOUS INFORMATION

Drs. hinged. Front doors (front, rr.)		Front
Rear doors		--
Type of finish (lacquer, enamel, other)		Lacquer
Hood counterbalanced (yes, no)		No
Hood release control (internal, external)		Internal
Vehicle Ident. No. location		Left hand windshield pillar
Engine No. location		Front right side of cylinder block
Theft protection - type		Lock mounted on steering column: locks steering wheel, transmission shift lever and ignition
Vent window control method (crank, friction pivot)	Front	None
	Rear	--
Seat cushion type	Front	Bucket, polyurethane padding
	Rear	--
	3rd seat	--
Seat back type	Front	Bucket, polyurethane padding
	Rear	--
	3rd seat	--
Windshield glass type (i.e., single curved - laminated plate)		Curved - laminated plate-tinted
Side glass type (i.e., curved - tempered plate)		Curved - tempered plate-tinted
Backlight glass type (i.e., compound curved - tempered plate, three piece)	Flat, tempered plate, removable-tinted	Vinyl plastic (soft top) curved tempered plate (aux. H. T.)
Windshield glass exposed surface area		977.4
Side glass exposed surface area		800.8
Backlight glass exposed surface area	392.3	418.0 (a)
Total glass exposed surface area	2170.7	2196.2

(a) Removable auxiliary hardtop - 620.1

# AMA Specifications Form—Passenger Car

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MAKE OF CAR CORVETTE MODEL YEAR 1971 DATE ISSUED 9/70 REVISED (\*)

MODEL

## CONVENIENCE EQUIPMENT

(Indicate whether standard, optional or NA on each series)

Lower windows	Side windows	Optional
	Vent windows	NA
	Backlight or tailgate	NA
Lower seats (specify type as available)		NA
Reclining front seat back (R-L or both)		NA
Front seat head restraint (R-L or both)		Standard-integral
Radios (specify type as available)		Optional-AM-FM Push-button, AM-FM Stereo
Car seat speaker		NA
Lower antenna		NA
Lock		Standard
Air conditioner (specify type as available)		Optional - Four-season (manual control)
Speed warning device		NA
Speed control device		NA
Ignition lock lamp		NA
Time lamp		Standard Coupes, NA - Convertible
Glove compartment lamp		Standard
Gauge compartment lamp		Standard
Underhood lamp		NA
Courtesy lamp		Standard
Map lamp		Standard
Auto. trans. quad. lamp		NA
Trailing light lamp		NA

## LAMP HEIGHT AND SPACING

Height above ground to center of bulb marker	Headlamp	Highest *	25.4
		Lowest	--
	Tail	Highest	27.1
		Lowest	--
Sidemarker	Front	18.0	
	Rear	19.0	
Distance from L of car to center of bulb	Headlamp	Inside	11.3
		Outside *	18.0
	Tail	Inside	13.95
		Outside	21.22
	Directional	Front	22.52
		Rear	21.22

If single headlamps are used enter here.



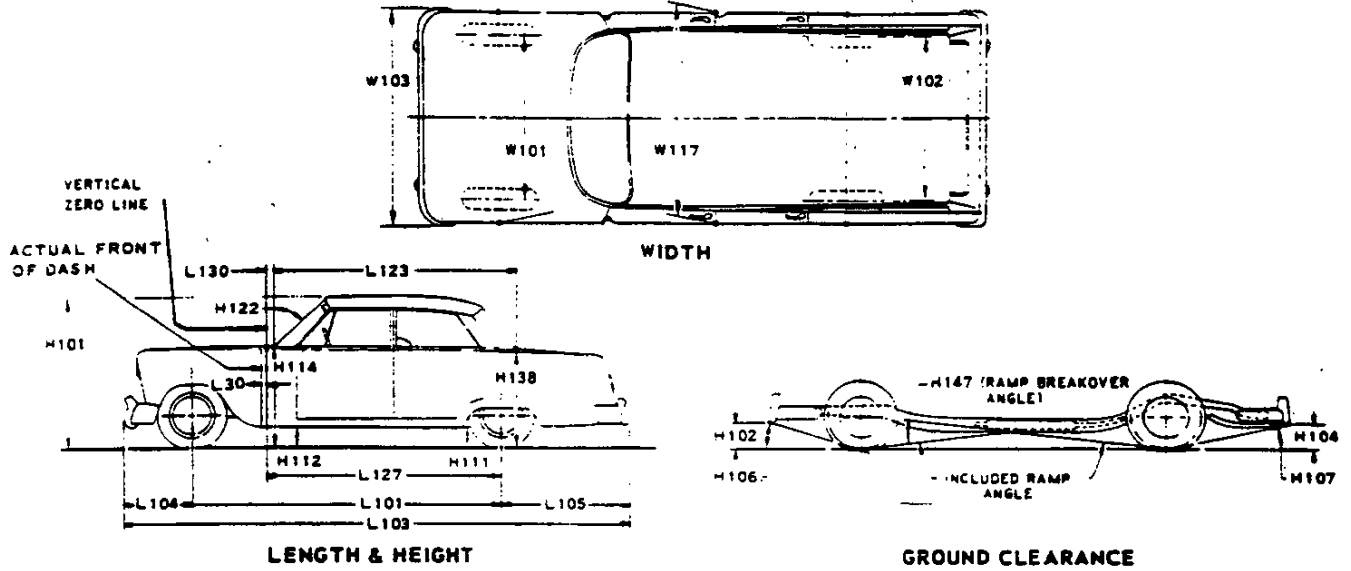




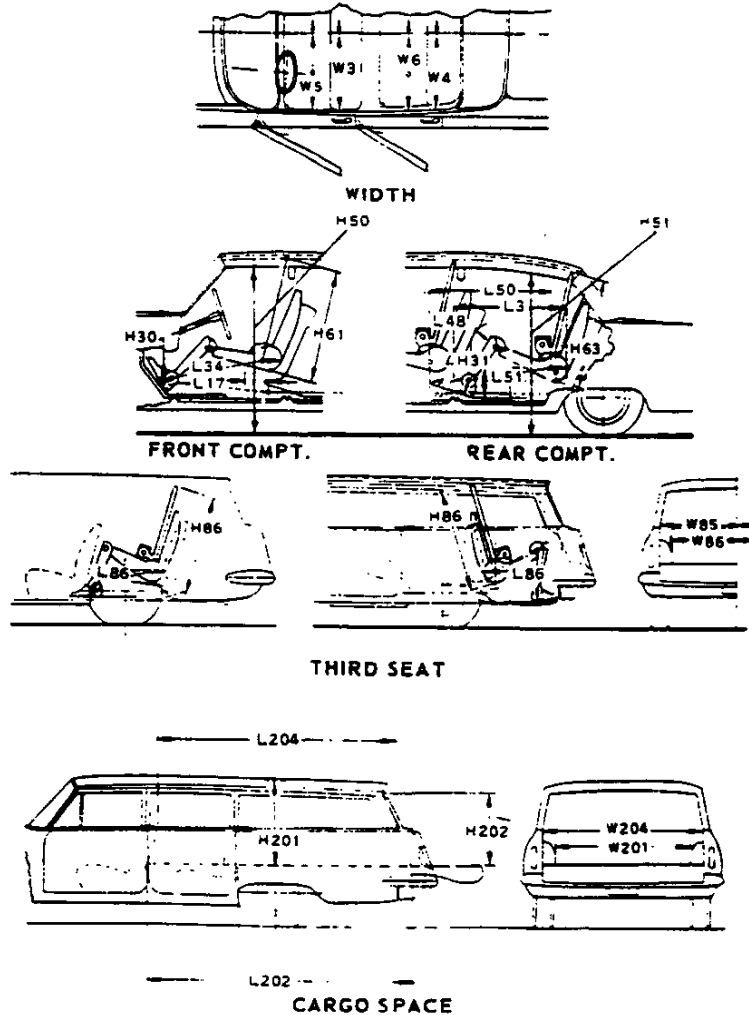
## CAR AND BODY DIMENSIONS

### KEY SHEET

#### EXTERIOR CAR AND BODY DIMENSIONS



#### INTERIOR CAR AND BODY DIMENSIONS



## CAR AND BODY DIMENSIONS

## KEY SHEET

## DIMENSION DEFINITIONS

## EXTERIOR 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  $\pm 2$  PILLAR. Measured across body at  $\pm 2$  pillar, excluding hardware and applied moldings.

## EXTERIOR LENGTH DIMENSIONS

- L 30 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 Cowi Point to the Deck Point.
- L127 VERTICAL ZERO LINE TO CENTERLINE OF REAR WHEELS. A horizontal dimension.
- L130 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.

## EXTERIOR 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.
- 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.
- 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.

## 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.
- H156 MINIMUM RUNNING GROUND CLEARANCE. Location of measurement on the car is to be clearly recorded.

## FRONT COMPARTMENT DIMENSIONS

- H 61 EFFECTIVE HEAD ROOM - FRONT. The dimension from H Point to the headlining, plus a constant of 4.0 inches, measured along a line  $8^\circ$  to rear of vertical.
- L 34 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  $87^\circ$  and the shoe touching the pedal.
- H 30 H POINT TO HEEL POINT - FRONT. The vertical dimension from the H Point to the Accelerator Heel Point.
- L 17 H POINT TRAVEL. The horizontal dimension between the H Point in the most forward and rearward seat positions.

## FRONT COMPARTMENT DIMENSIONS (Cont.)

- W 3 SHOULDER ROOM - FRONT. The minimum lateral dimensions between the door garnish moldings or nearest interference, measured at the H Point station.
- W 5 HIP ROOM - FRONT. The lateral dimension through the H Point to trimmed body surfaces. Depress loose side wall cloth to trim foundation or other obstruction if such construction exists.
- H 50 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.

## REAR COMPARTMENT DIMENSIONS

- L 50 H POINT COUPLE DISTANCE. The horizontal dimension from the front seat H Point to the rear seat H Point.
- H 63 EFFECTIVE HEAD ROOM - REAR. The dimension from the H Point to the headlining, plus a constant of 4.0 inches, measured along a line  $8^\circ$  to rear of vertical.
- L 51 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.
- H 31 H POINT TO HEEL POINT - REAR. The vertical dimension from the H Point to the Manikin Heel Point on the depressed floor covering.
- L 48 MINIMUM KNEE ROOM - REAR. The minimum dimension from the Manikin knee pivot to the top of the front seat back.
- L 3 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.
- W 4 SHOULDER ROOM - REAR. The minimum lateral dimension between the door garnish moldings or nearest interference. Measured at H Point station.
- W 6 HIP ROOM - REAR. The lateral dimension through the H Point to trimmed body surfaces. Depress loose side wall cloth to trim foundation or other obstruction when such construction exists.
- H 51 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

- V 1 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

- W 85 SHOULDER ROOM - THIRD SEAT. The minimum lateral dimension between the door garnish moldings or nearest interference. Measured at H Point station.
- W 86 HIP ROOM - THIRD SEAT. The lateral dimension through H Point to trimmed surfaces.
- L 86 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.
- H 86 EFFECTIVE HEAD ROOM - THIRD SEAT. The dimension from H Point to the headlining, plus a constant of 4.0 inches, measured along a line  $8^\circ$  to rear of vertical.

## 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 wheelhouses 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.
- V 2 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.

$$W4 \times L204 \times H201$$

1728



