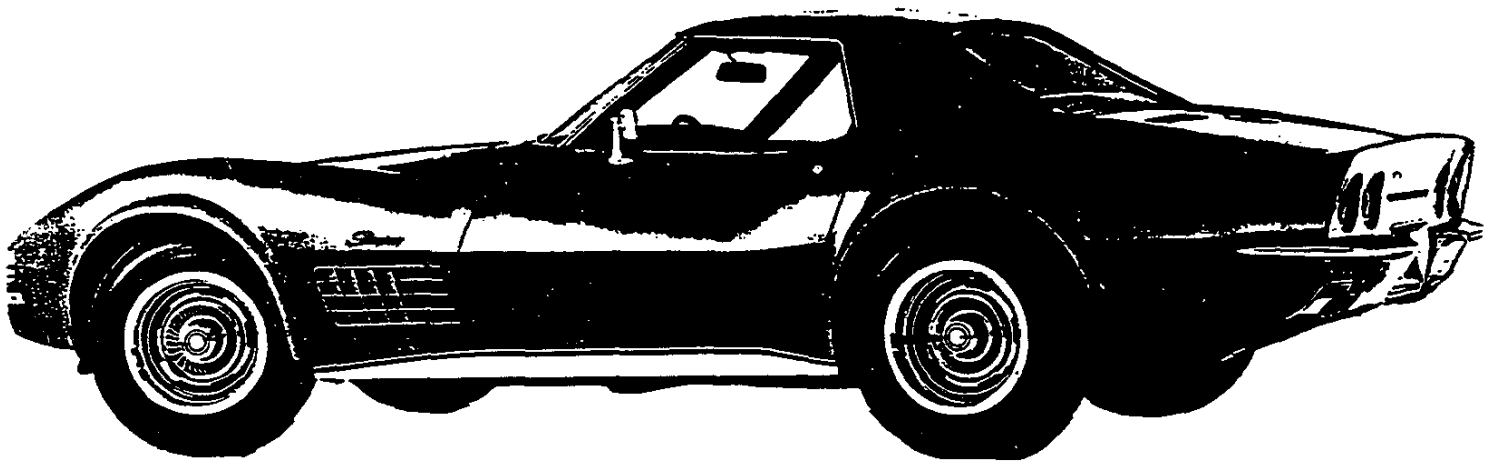
CHEVROLET

1970

CORVETTE

SPECIFICATIONS



GENUINE CHEVROLET™

1970 CORVETTE

Production: 10,668 coupe, 6,648 convertible, 17,316 total.

1970 NUMBERS

Vehicle: 194370S400001 through 194370S417316
- For convertibles, fourth digit is a 6.

Suffix:

CGW: 454ci, 390hp, at	CTM: 350ci, 300hp, at
CRJ: 454ci, 390hp, at, ig	CTN: 350ci, 350hp, mt
CRI: 454ci, 390hp, mt, ig	CTO: 350ci, 350hp, mt, ac
CTD: 350ci, 300hp, mt	CTP: 350ci, 350hp, mt, ig
CTG: 350ci, 300hp, at	CTQ: 350ci, 350hp, mt, ac, ig
CTH: 350ci, 350hp, mt	CTR: 350ci, 370hp, mt, ig
CTJ: 350ci, 350hp, mt, ac	CTU: 350ci, 370hp, mt, ig
CTK: 350ci, 370hp, mt, ig	CTV: 350ci, 370hp (ZR1), mt
CTL: 350ci, 300hp, mt	CZU: 454ci, 390hp, mt

- Some early 1970 models may have 1969 engine codes.

Block: 3970010: 350ci, 300hp, 350hp, 370hp
3963512: 454ci, 390hp

Head: 3927186: 350ci, 300hp, 350hp, 370hp
3927187: 350ci, 350hp
3964290: 454ci, 390hp
3973414: 350ci, 370hp

Carburetor: Rochester Q-jet #7040202: 350ci, 300hp, at, fd
Rochester Q-jet #7040203: 350ci, 300hp, mt, fd
Rochester Q-jet #7040204: 454ci, 390hp, at
Rochester Q-jet #7040205: 454ci, 390hp, mt
Rochester Q-jet #7040207: 350ci, 350hp, mt
Rochester Q-jet #7040212: 350ci, 300hp, at, sd
Rochester Q-jet #7040213: 350ci, 300hp, mt, sd
Rochester Q-jet #7040502: 350ci, 300hp, at, ec
Rochester Q-jet #7040503: 350ci, 300hp, mt, ec, fd
Rochester Q-jet #7040504: 454ci, 390hp, at, ec
Rochester Q-jet #7040505: 454ci, 390hp, mt, ec
Rochester Q-jet #7040507: 350ci, 350hp, mt, ec
Rochester Q-jet #7040513: 350ci, 300hp, mt, ec, sd
Holley R4489A #3972123: 350ci, 370hp, mt, ec
Holley R4555A #3972121: 350ci, 370hp, mt

Distributor:

1111464: 454ci, 390hp	1111493: 350ci, 350hp, ep
1111490: 350ci, 300hp, ep	1112020: 350ci, 300hp
1111491: 350ci, 370hp, ig	1112021: 350ci, 350hp

Alternator: 1100884: 350ci, 370hp or ac(all) 1100901: 350ci, 300hp
1100900: 350ci(350hp), 454ci(390hp)

Ending Vehicle:

Jan 70: 402261	Apr 70: 408314	Jul 70: 417316
Feb 70: 405183	May 70: 410652	
Mar 70: 407977	Jun 70: 413829	

Abbreviations: ac=air conditioning, at=automatic transmission, ci=cubic inch, ec=evaporative emission control, ep=early production, fd=first design, hp=horsepower, ig=transistor ignition, mt=manual transmission, sd=second design.

1970 FACTS

- Body design for 1970 was updated with fender swells to reduce wheel-thrown debris damage, a problem with 1968-69 models. New fender louvers replaced the four vertical slots of the 1968-69 models.
- Big block displacement increased to 454ci. Small block stayed 350ci, but a new solid-lifter version, the LT1, debuted.
- Interiors in 1970 had subtle refinements, including redesigned seats for additional headroom and easier access to rear storage.

1970 OPTIONS

RPO #	DESCRIPTION	QTY	RETAIL $
19437	Base Corvette Sport Coupe	10,668	$5,192.00
19467	Base Corvette Convertible	6,648	4,849.00
—	Custom Interior Trim	3,191	158.00
A31	Power Windows	4,813	63.20
A85	Custom Shoulder Belts (std with coupe)	475	42.15
C07	Auxiliary Hardtop (for convertible)	2,556	273.85
C08	Vinyl Covering (for auxiliary hardtop)	832	63.20
C50	Rear Window Defroster	1,281	36.90
C60	Air Conditioning	6,659	447.65
G81	Optional Rear Axle Ratio	2,862	12.65
J50	Power Brakes	8,984	47.40
L46	350ci, 350hp Engine	4,910	158.00
LS5	454ci, 390hp Engine	4,473	289.65
LT1	350ci, 370hp Engine	1,287	447.60
M21	4-Speed Man Trans, close ratio	4,383	0.00
M22	4-Speed Man Trans, close ratio, heavy duty	25	95.00
M40	Turbo Hydra-Matic Automatic Transmission	5,102	0.00
NA9	California Emissions	1,758	36.90
N37	Tilt-Telescopic Steering Column	5,803	84.30
N40	Power Steering	11,907	105.35
P02	Deluxe Wheel Covers	3,467	57.95
PT7	White Stripe Tires, F70x15, nylon	6,589	31.30
PU9	White Letter Tires, F70x15, nylon	7,985	33.15
T60	Heavy Duty Battery (std with LS5)	165	15.80
UA6	Alarm System	6,727	31.60
U69	AM-FM Radio	14,529	172.75
U79	AM-FM Radio, stereo	2,462	278.10
ZR1	Special Purpose Engine Package	25	968.95

• A 350ci, 300hp engine, 4-speed wide ratio manual transmission, vinyl interior trim, soft top (conv) or T-tops (cpe) 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). RPOs A31, C50, C60, N40, P02, UA6, U69 and U79 were not available. ZR1's also had metal fan shrouds.
• A ZR2 package like ZR1, but with a 460hp (also listed as 465hp), 454ci engine, was planned and advertised for 1970, but not delivered to retail customers. Suffix was to be CZL for manual, CZN for automatic.
• 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,.
• Previously optional tinted glass, Positraction axle, and 4-speed wide ratio manual transmission were included in the 1970 base price.

1970 COLORS

CODE	EXTERIOR	SOFT TOP	WHEELS	INTERIORS
972	Classic White	Bk-W-Bg	Silver	B-Bk-Br-G-R-S
974	Monza Red	Bk-W-Bg	Silver	Bk-Br-R-S
975	Marlboro Maroon	Bk-W-Bg	Silver	Bk-Br-S
976	Mulsanne Blue	Bk-W-Bg	Silver	B-Bk
979	Bridgehampton Blue	Bk-W-Bg	Silver	B-Bk
982	Donnybrooke Green	Bk-W-Bg	Silver	Bk-Br-G-S
984	Daytona Yellow	Bk-W-Bg	Silver	Bk-G
986	Cortez Silver	Bk-W-Bg	Silver	B-Bk-Br-G-R-S
991	Ontario Orange	Bk-W-Bg	Silver	Bk-S
992	Laguna Gray	Bk-W-Bg	Silver	B-Bk-Br-G-R-S
993	Corvette Bronze	Bk-W-Bg	Silver	Bk

• Suggested interiors shown. Other combinations were possible.
Interior Codes: 400=Bk/V, 403=Bk/L, 407=R/V, 411=B/V, 414=Br/V, 418=S/V, 422=G/V, 424=S/L.
Abbreviations: B=Blue, Bk=Black, Bg=Beige, Br=Brown, G=Green, L=Leather, R=Red, S=Saddle, V=Vinyl, W=White.

The Corvette Black Book

1953-1993

October 1992

Published by

Michael Bruce Associates, Inc.
Michael Antonick, President
Post Office Box 396
Powell, Ohio 43065

CONTENTS

Michael Bruce Associates, Inc. acknowledges with appreciation the following enthusiasts who contributed their expertise to this and previous editions of the *Corvette Black Book*: Noland Adams, Dan Aldridge, John Amgwert, Pat Baker, Jane Barthelme, Michele Boling, Kent Brooks, Barry Brown, David Burroughs, Steve Dangremond, Dr. M. F. Dobbins, Bob Eckles, the late Sam Folz, John Hibbert, Mike Hunt, Alan Kaplan, Paul Kitchen, Gary Konner, Ralph Kramer and staff, Jim Krughoff, Gary Lisk, Bill Locke, Bob Lojewski, Bob McDorman, Chip Miller, Bill Mock, Brian Pearce, John Poloney, Bill Rhodes, Jeffrey Smith, Mark & Dixie Smith, Lou Vitalle, Jerry Wadsworth, Jerry Welchers and Don Williams. Thanks also to Callaway Engineering, to Mercury-Marine, and to the Chevrolet Motor Division of General Motors Corporation.

Cover: Photo and design by Mike Antonick. 1963 Corvette owned by Bill Munzer; restored by Bill Munzer and Don Williams.

Printed and bound in the United States of America.

ISBN: 0-933534-35-3

BOOK TRADE DISTRIBUTION BY:
Motorbooks International
Publishers & Wholesalers Inc
Osceola, Wisconsin 54020, USA

SECTION 0

GENERAL INFORMATION AND LUBRICATION

CONTENTS OF THIS SECTION

GENERAL INFORMATION

MODEL IDENTIFICATION

Series	Model Number 6-Cyl.	Model Number V-8	Description
Biscayne	15369	15469	4-Door Sedan, 6-Pass.
Brookwood	—	15436	4-Door Station Wagon, 2-Seat
Bel Air	15569	15669	4-Door Sedan, 6-Pass.
Townsman	—	15636	4-Door Station Wagon, 2-Seat
	—	15646	4-Door Station Wagon, 3-Seat
Impala	16369	16469	4-Door Sedan, 6-Pass.
	16339	16439	4-Door Sport Sedan, 6-Pass.
	16337	16437	2-Door Sport Coupe, 5-Pass.
	—	16467	2-Door Convertible, 5-Pass.
Kingswood	—	16436	4-Door Station Wagon, 2-Seat
	—	16446	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	—	16636	4-Door Station Wagon, 2-Seat
	—	16646	4-Door Station Wagon, 3-Seat
Nomad	13136	13236	4-Door Station Wagon, 2-Seat.
300 Deluxe	13369	13469	4-Door Sedan, 6-Pass.
	13327	13427	2-Door Pillar Coupe, 5-Pass.
	13337	13437	2-Door Sport Coupe, 5-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.*
	—	13867	2-Door Convertible, 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 4-Cyl.			
11127	11327	11427	2-Door Sport Coupe, 5-Pass.
11169	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	215.9"	215.9"	215.9"	216.7"
Width Overall (Body)	79.6"	79.6"	79.6"	79.6"
Height Overall	55.5"	54.7"	54.6"	56.2"
Wheelbase	119.0"	119.0"	119.0"	119.0"
Tread-Front	62.5"	62.5"	62.5"	63.5"
Tread-Rear	62.5"	62.5"	62.5"	63.4"
Curb Weight: Approximately 3738 lbs. 4-Door Sedan with L-6 Engine; 3882 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"	207.2"	207.1"
Width Overall (Body)	75.4"	75.4"	75.4"	75.4"	75.7"
Height Overall	53.5"	52.8"	53.2"	54.4"	54.0"
Wheelbase	116.0"	112.0"	112.0"	116.0"	116.0"
Tread-Front	59.0"	59.0"	59.0"	59.0"	59.0"
Tread-Rear	59.0"	59.0"	59.0"	59.0"	59.0"
Curb Weight: Approximately 3297 lbs. 4-Door Sedan with L-6 Engine 3430 lbs. with V-8 Engine.					

MONTE CARLO

Model	Custom Coupe	Convertible
Length Overall	205.8"	
Width Overall (Body)	75.6"	
Height Overall	52.9"	
Wheelbase	116.0"	
Tread-Front	59.0"	
Tread-Rear	59.0"	
Weight: Custom Coupe 3564 lbs.		

NOVA

Model	Sedan	2-Door Sport Coupe
Length Overall	189.4"	189.4"
Width Overall (Body)	70.5"	70.5"
Height Overall	53.9"	52.5"
Wheelbase	111.0"	111.0"
Tread-Front	59.0"	59.0"
Tread-Rear	58.9"	58.9"
Curb Weight: Approximately 2920 lbs. 4-Door Sedan with L-4 Engine; 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

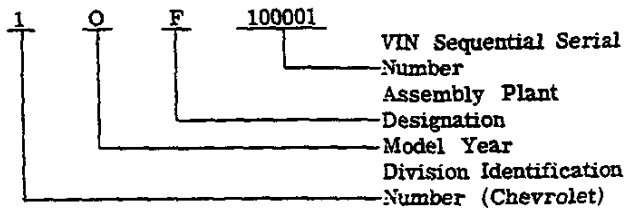
For the convenience of servicemen when writing up certain business papers, such as Warranty Claims Product Information Reports, or reporting product failures in any way, we are showing on a chart, the location of various unit numbers. These unit numbers and their prefixes and suffixes are necessary on 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 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 door hinge pillar
Engine and Transmission Vehicle Identification Number	4 & 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 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[1]	Body Style[2]	Model Year[3]	Assembly Plant[4]	Unit Number[5]
1	5645	O	F	100025

[1] Manufacturers identity number assigned to all Chevrolet built vehicles.
[2] See Model Identification in this section.
[3] Last number of model year (1970).
[4] F-Flint
[5] 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.

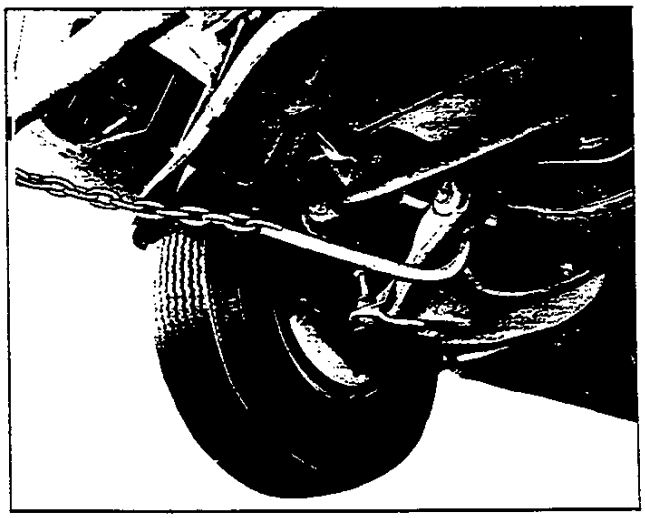


Fig. 1—Placing Hooks Through Lower Control Arms

TOWING THE CORVETTE

IMPORTANT: Due to the body overhang on the Corvette, it is recommended that the front or rear wheel be raised no more than three inches off the ground during towing, unless dollies are used. A height of 3" should provide the needed clearance for any road irregularities while still maintaining the needed clearance between the lowest portion of the body overhang and the ground.

Towing with Front End Raised (Figures 1 & 2)

The vehicle may be towed on its rear wheels with the selector lever in "N" (Neutral) position at speeds of 35 MPH or less under most conditions. The drive shaft must be disconnected if:

1. Tow speeds in excess of 35 MPH are necessary.
2. Car must be towed for extended distances (over 50 miles).

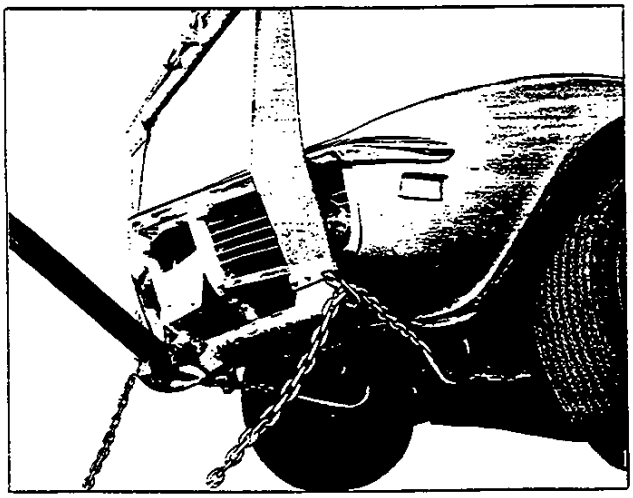


Fig. 2—Rest Lower Sling Bar Against Vertical Bars

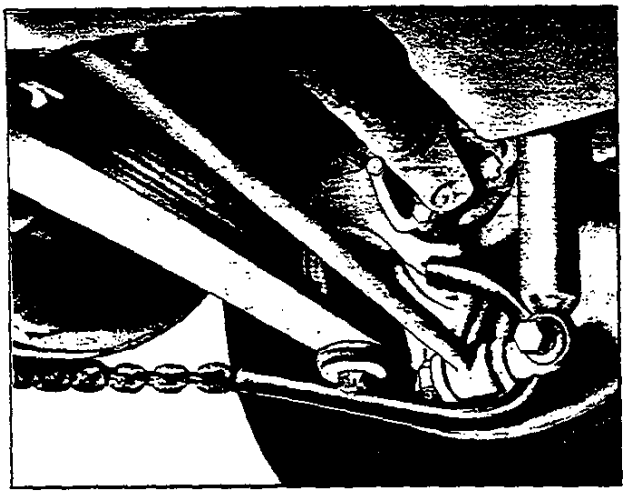


Fig. 3—Connect Hooks Outboard of Shock Bracket

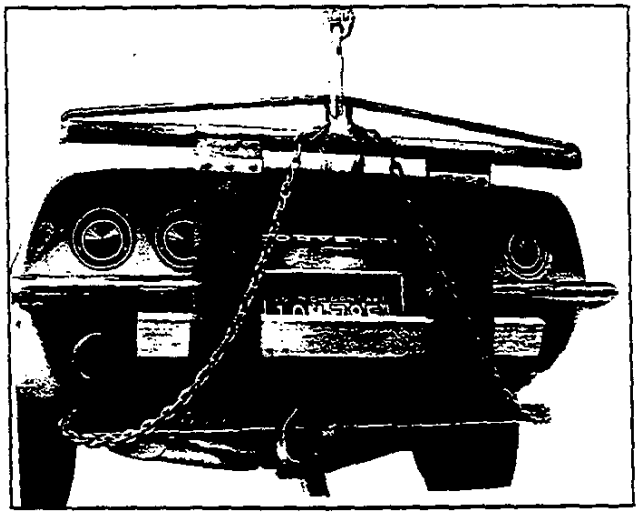


Fig. 4—Attaching Sling Assembly

3. Transmission is not operating properly.

Connect standard chain hook ends around opening in front lower control arm near front inner bushing. The chain should be attached to the lower lifting sling bar so that it rests against the front bumper vertical bars.

Towing with Rear End Raised (Figure 3 & 4)

Secure steering wheel to maintain a straight ahead position. Connect standard chain hook ends around torque control arms just outboard of shock mounting bracket. Wire a 2 inch x 4 inch x 38 inch board securely to the rear bumper vertical bars as shown. Attach chains to lower lifting sling bar so that bar is underneath and just forward of rear valance panel. Slings should be adjusted on upper and lower sling bars so that they bear on bumper vertical bars.

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 5 through 8 the shaded areas indicate areas recommended for hoist contact.

LIFTING THE CORVETTE

Shaded areas in Figure 8 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 adaptors 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 9 are necessary to allow beam to clear exhaust system.

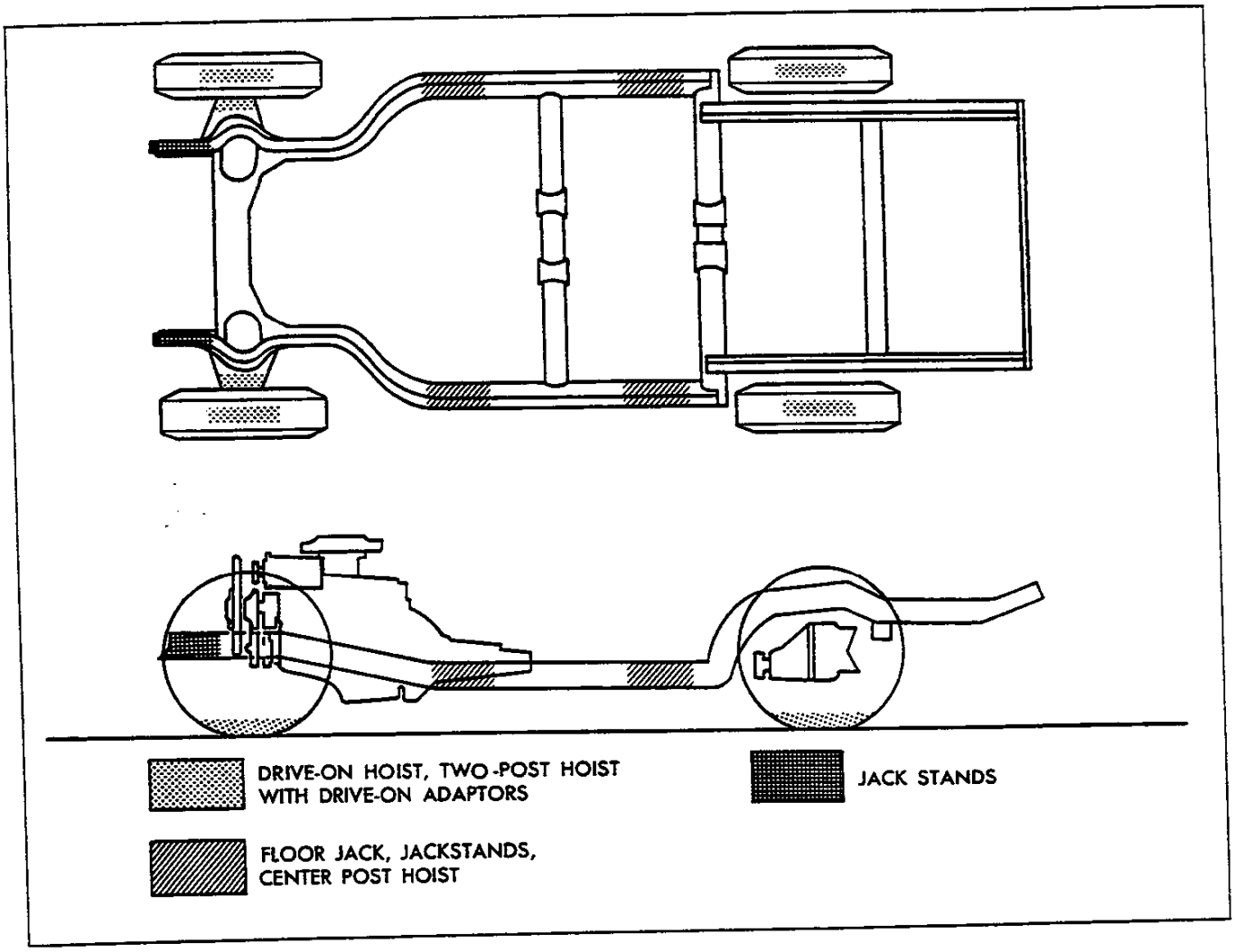


Fig. 8—Vehicle Lifting Points—19000 Series

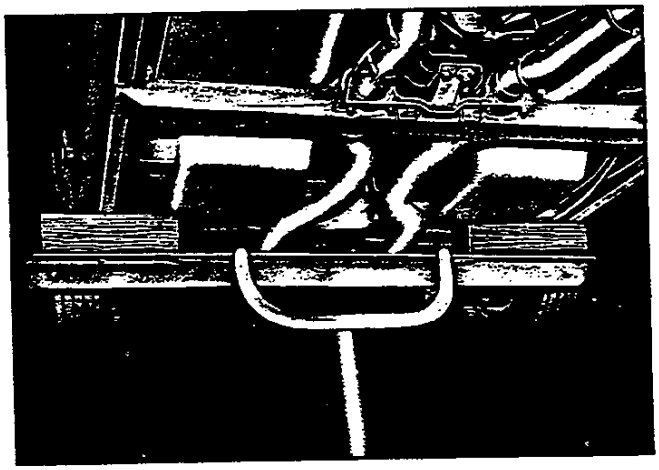


Fig. 9—Frame Lift Adapters—19000 Series

LUBRICATION

INDEX

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

4 Cylinder	4 qt.
6 Cylinder	4 qt.
8 Cylinder (302)	4 qt.
8 Cylinder (307)	4 qt.
8 Cylinder (350)	4 qt.
8 Cylinder (400)	4 qt.
8 Cylinder (396)	4 qt.
8 Cylinder (454)	4 qt.
8 Cylinder (427) Corvette	5 qt.

For 4 Cyl. Add .5 qt. with filter change;
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.

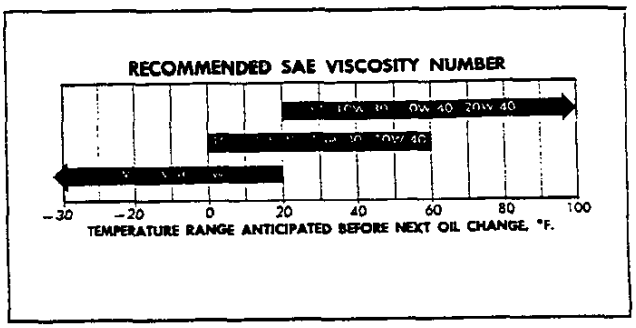
SAE VISCOSITY OILS

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 20W, 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 5-10W, SAE 5W-20, SAE 10W-20W, 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 and 5W-20 oils are not recommended for sustained high speed driving.
- SAE 30 oils may be used at temperatures above 60°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 12,000 miles or 12 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 A.I.R. pump filter serviced and 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, 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.

Polyurethane Type—

Every 12,000 miles clean element in solvent, squeeze out solvent, then soak in engine oil and squeeze not excess.

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

4 and 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 80-90 "Multi-Purpose" gear lubricant meeting requirements of U.S. Army Ordnance Spec. MIL-L-2105B.

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 80-90 "Multi-Purpose" gear lubricant meeting requirements of U.S. Army Ordnance Spec. MIL-L-2105B.

"Multi-Purpose" Gear Lubricants

Gear lubricants that will satisfactorily lubricate hypoid rear axles have been developed and are commonly referred to as "Multi-Purpose" gear lubricants meeting U.S. Army Ord. Spec. MIL-L-2105B.

These lubricants can also be satisfactorily used in manual transmissions.

CAUTION: With Positraction rear axles use special Positraction lubricant.

"Multi-Purpose" gear lubricants must be manufactured under carefully controlled conditions and the lubricant manufacturer must be responsible for the satisfactory performance of his product. His reputation is the best indication of quality.

Lubricant Additions

The lubricant level in the axle and transmission housings should be checked periodically. (Every 6,000 miles.)

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.

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 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. Recheck fluid level and again add a small amount of fluid if needed to bring level to full mark. DO NOT OVERFILL.

General Motors DEXRON® 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® are also recommended.

Every 24,000 miles (every 12,000 miles 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 (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.

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 (6 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 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, 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 at operating temperature in pump reservoir. Add GM Power Steering Fluid, or, if this is not available, use Dexron® Automatic Transmission Fluid to bring level to full mark on dip stick.

ELECTRICAL

BATTERY CARE (ENERGIZER)

Every 6000 miles—Clean terminals and oil felt washer.

Check the fluid level in each cell of your battery regularly. The electrolyte level indicator in the cap of one cell will glow if the fluid level is low. In this case each cell should be checked. Keep filled with distilled water to the bottom of the split ring in the vent tube.

DUAL ACTION SAFETY HOOD LATCHES

Every 12,000 miles or 12 months, whichever occurs first, apply Lubriplate or its equivalent to the hood catch and lock plate.

AIR CONDITIONING

Every 6,000 miles 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.

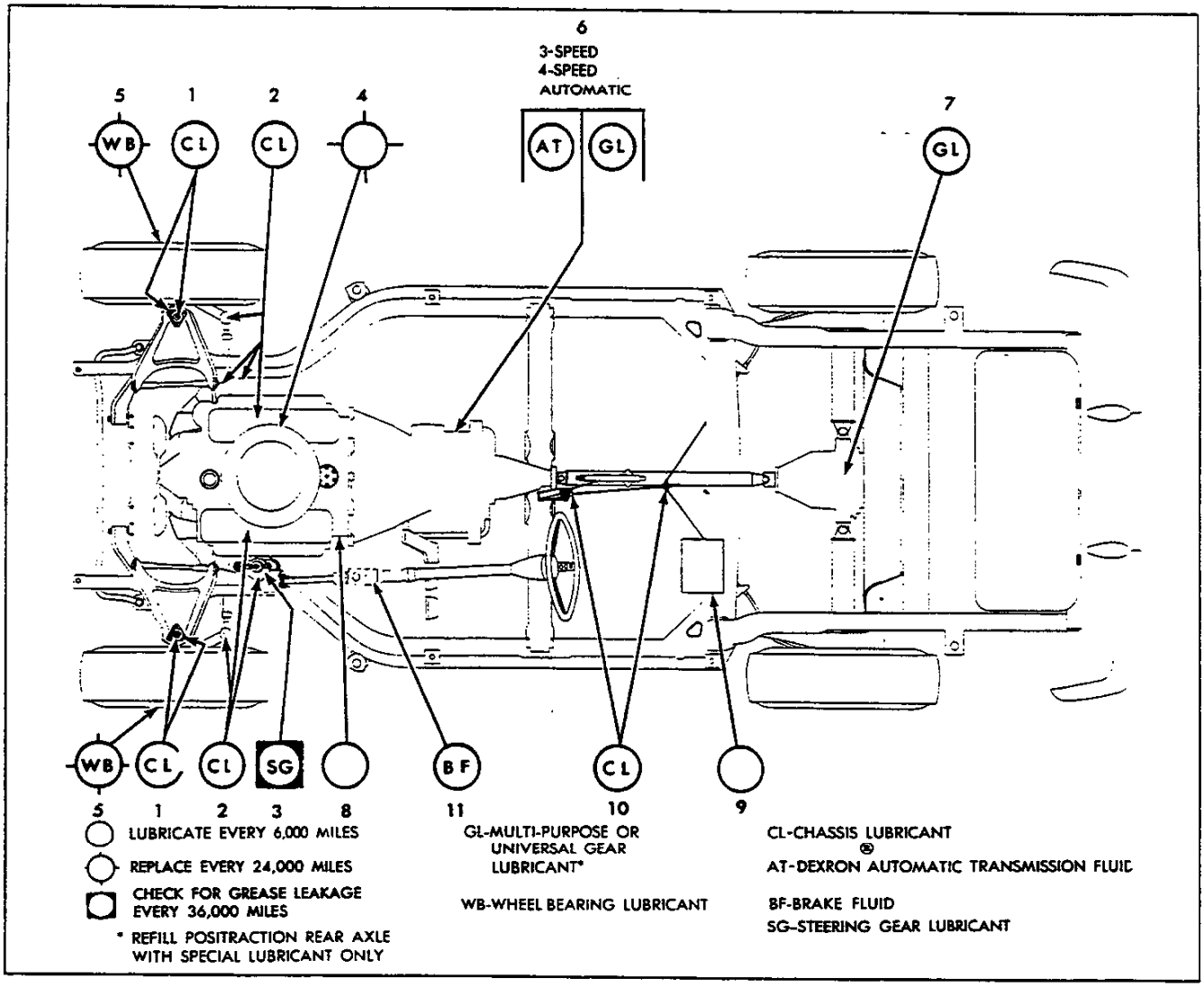


Fig. 13—Lubrication Diagram—19000 Series

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

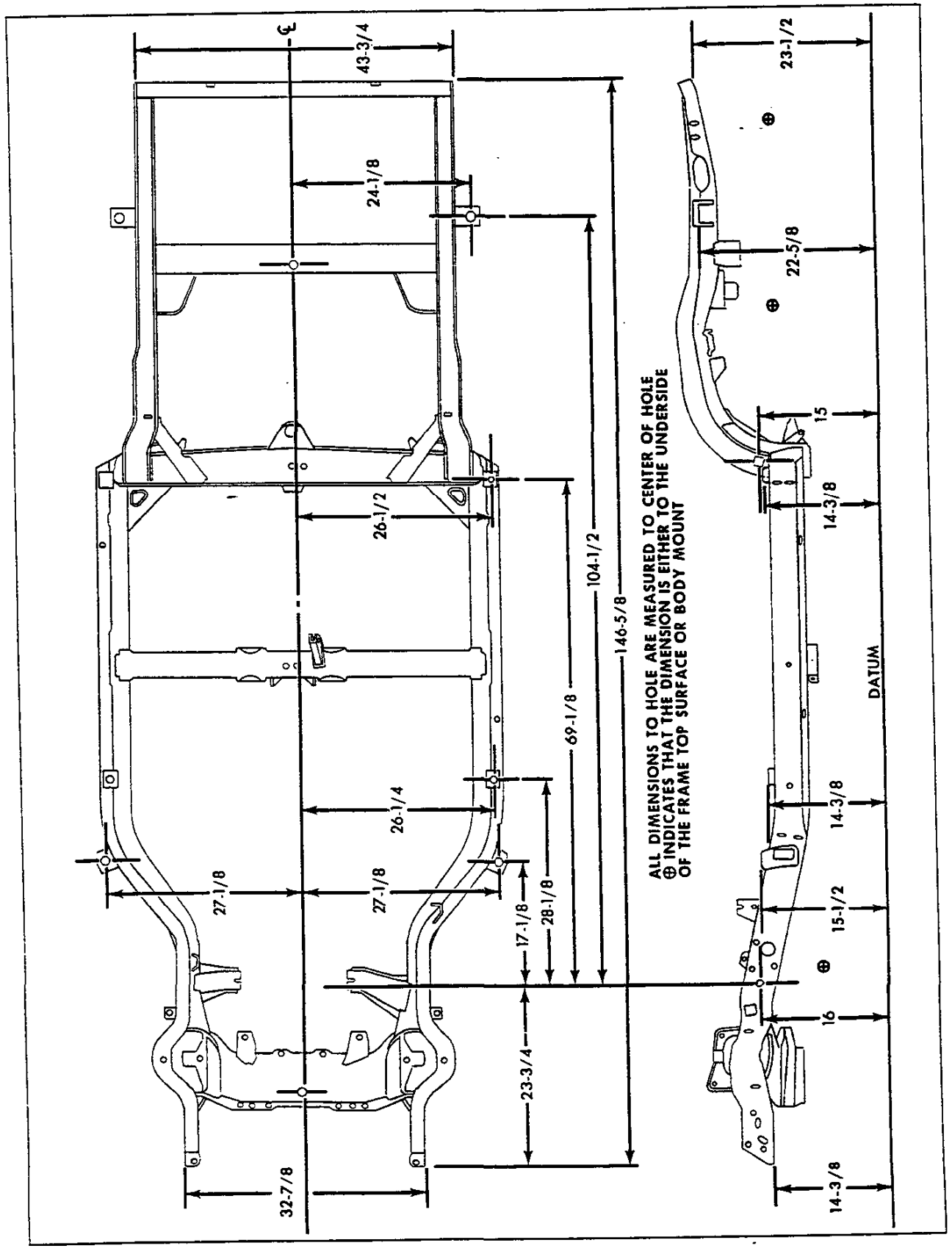


Fig. 5—Frame Dimensions—Corvette

BODY MOUNTS

The various type of body mounts and their application are shown in Figures 5 and 6. Torque specifications are listed in the following chart.

Model	Mount	Torque
Chevrolet & 119" W.B. Sta. Wgn.	Radiator Support to Frame	35 ft. lbs.
	#1 thru #7	35 ft. lbs.
Monte Carlo, Chevelle & 116" W.B. Sta. Wgn.	Radiator Support to Frame	35 ft. lbs.
	#1 thru #7	35 ft. lbs.
Nova	#1	35 ft. lbs.
	#2 and #3	80 ft. lbs.
Corvette	All	45 ft. lbs.

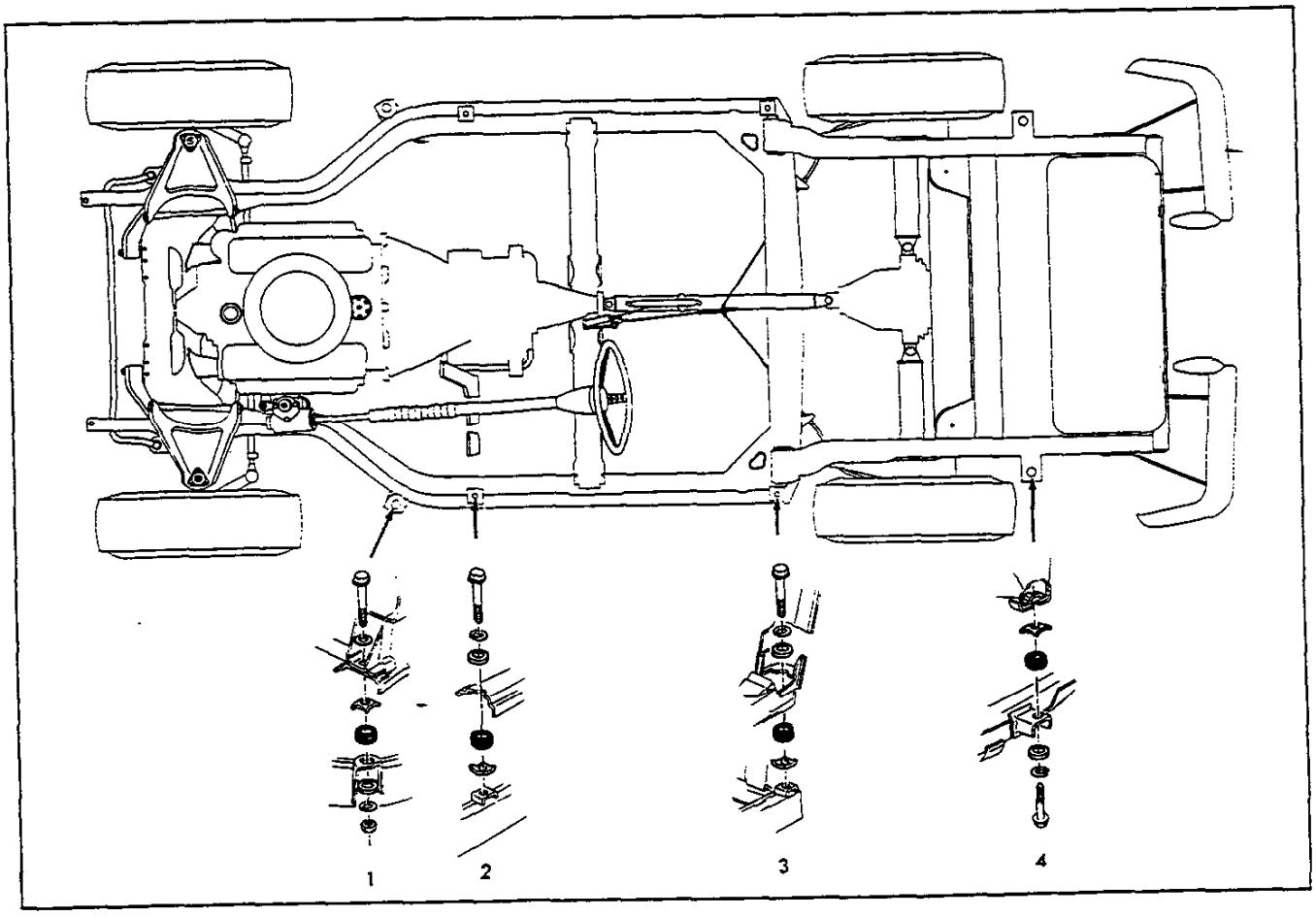


Fig. 6—Body Mount Application—Corvette

SECTION 1B
CORVETTE BODY

INDEX

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 2)

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

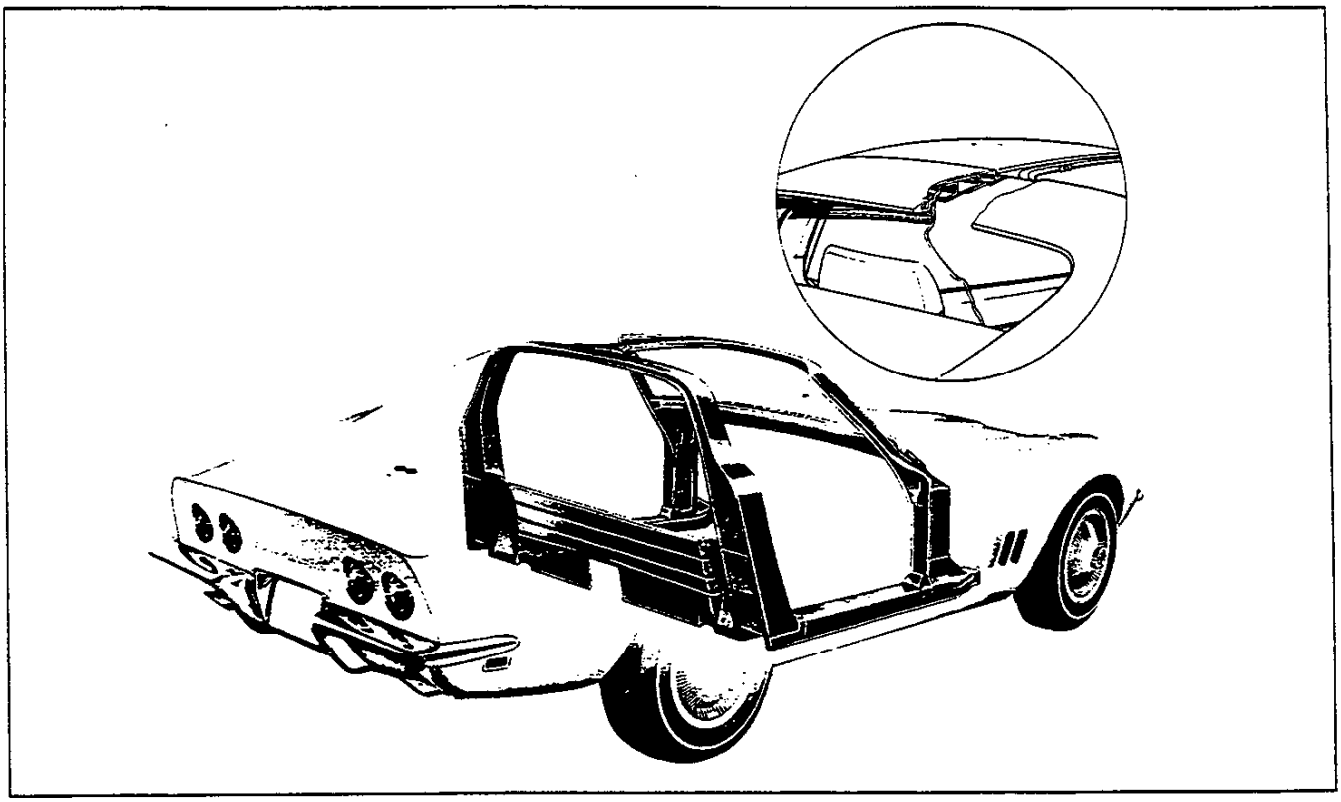


Fig. 1—Steel Reinforcing Members

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 3 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 4.
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.

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.

COWL AREA TRIM

Figure 5 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.

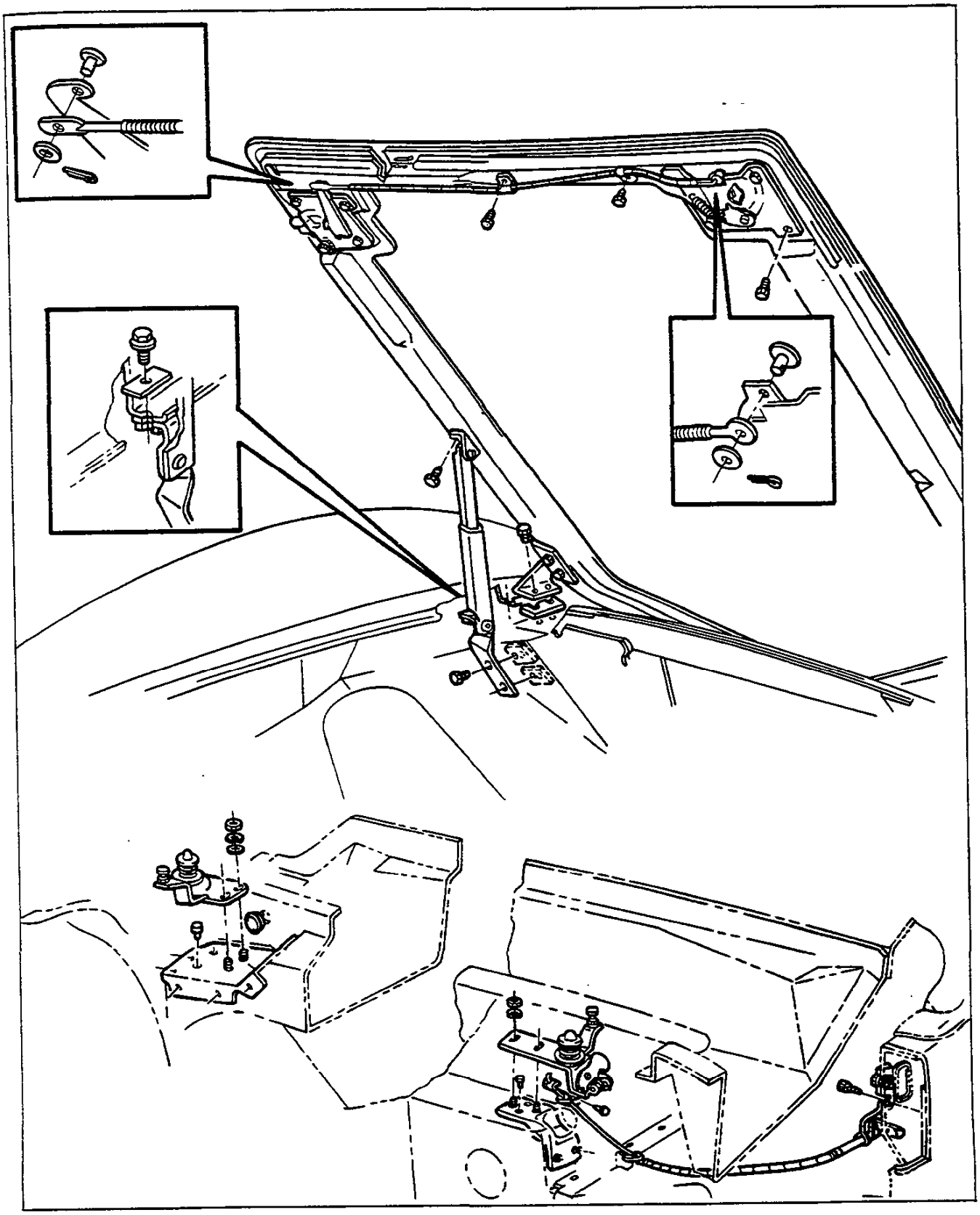


Fig. 2—Hood Hinge and Catch

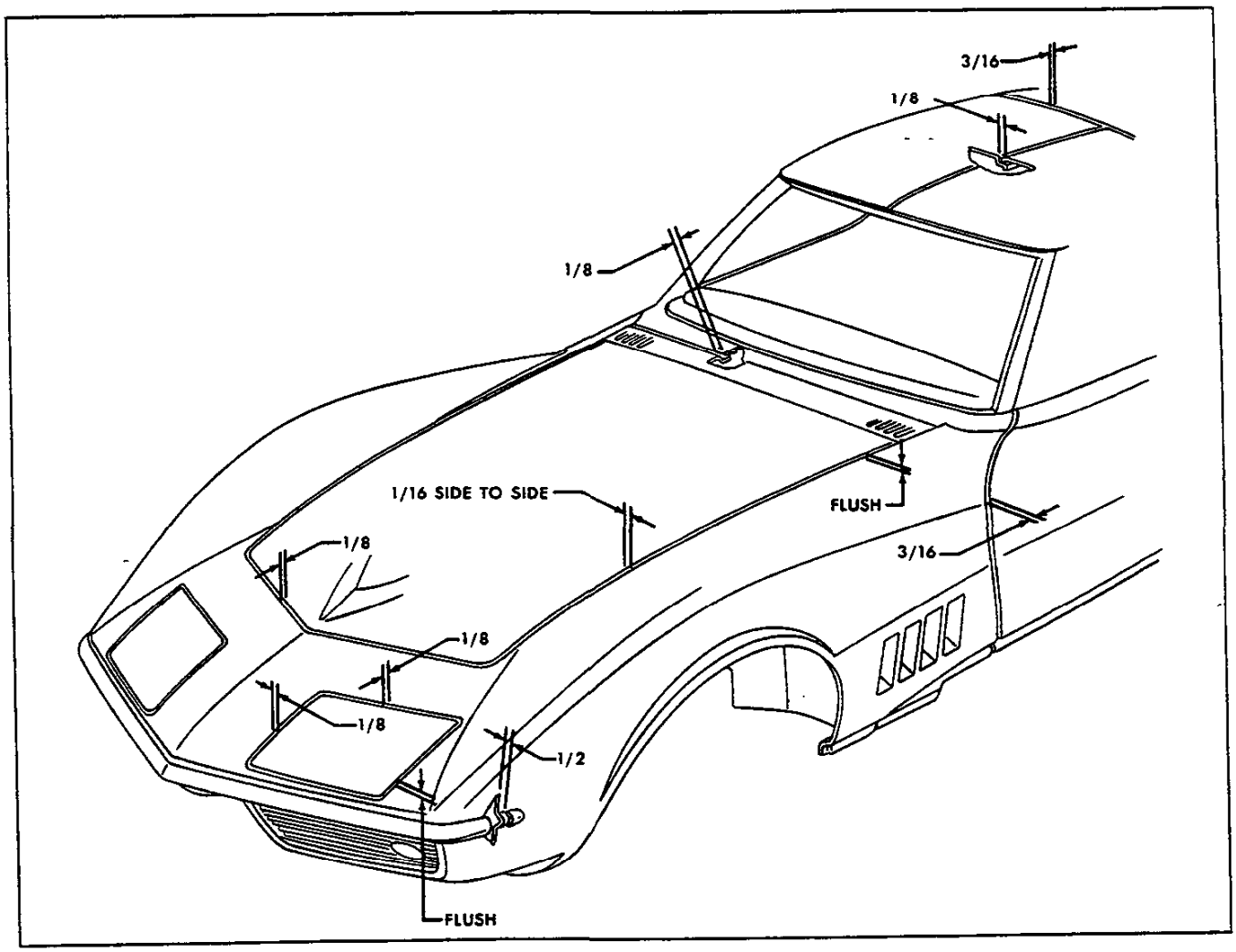


Fig. 3—Hood Spacing

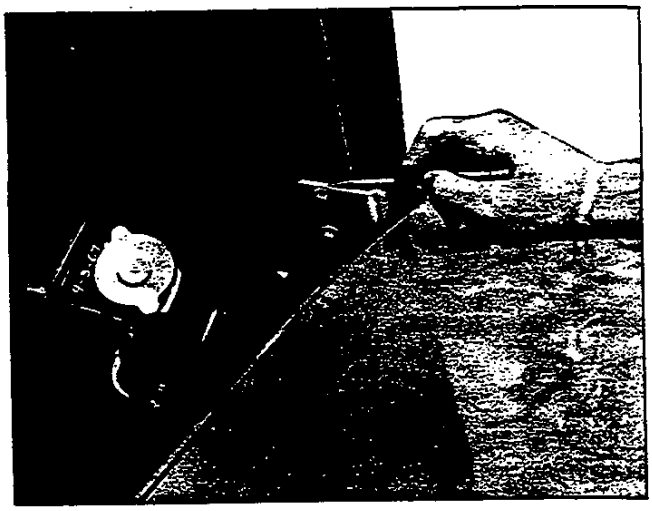


Fig. 4—Scribing Line Around Hood Hinge

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 6)

Because of overlap design, it is necessary that the rear 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:

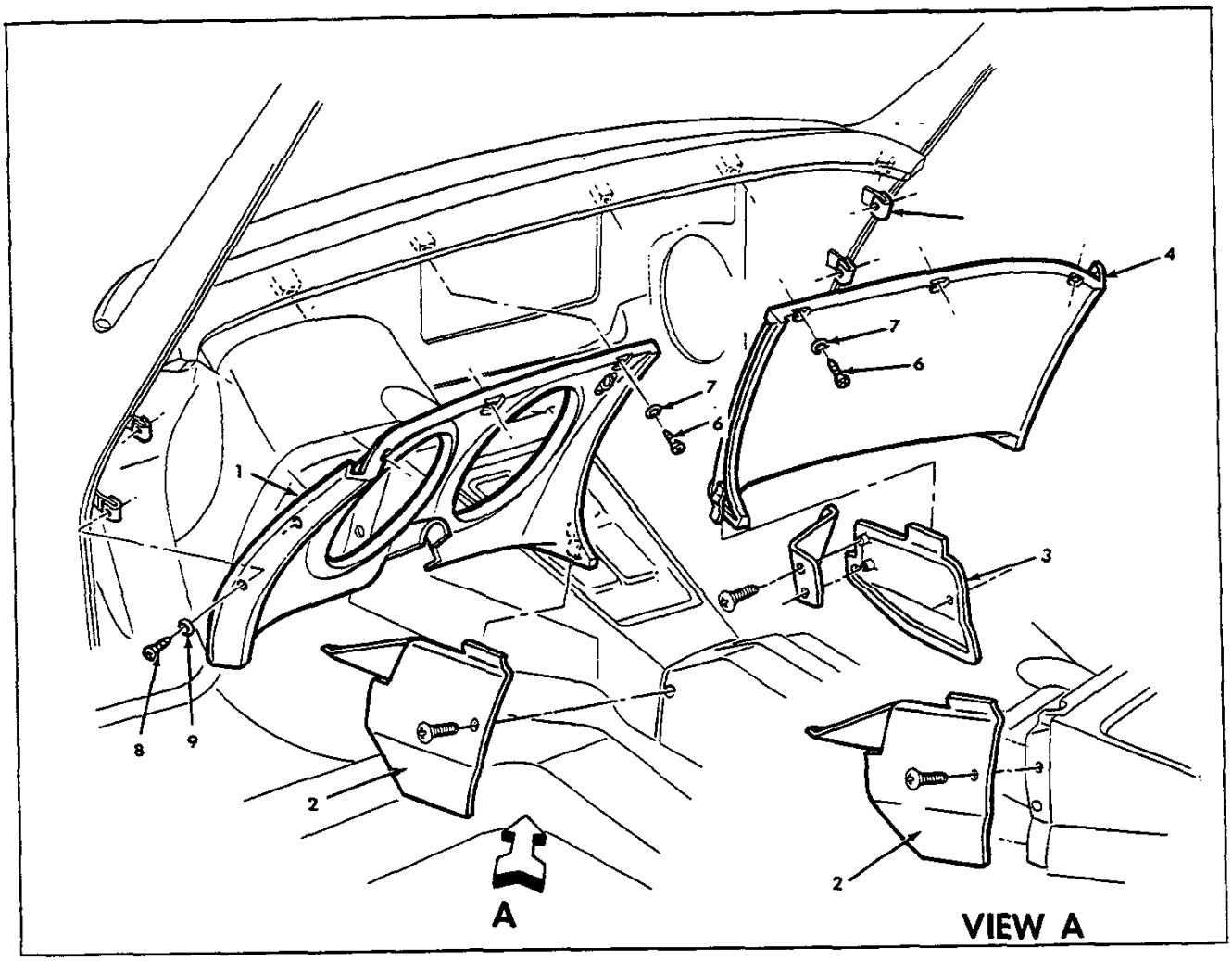


Fig. 5—Cowl Area Trim

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. Screw
9. Special Washer

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

Under Dash Brace Rods (Figure 8)

Convertible style bodies have added reinforcements beneath the dash; two on the right and three on the left

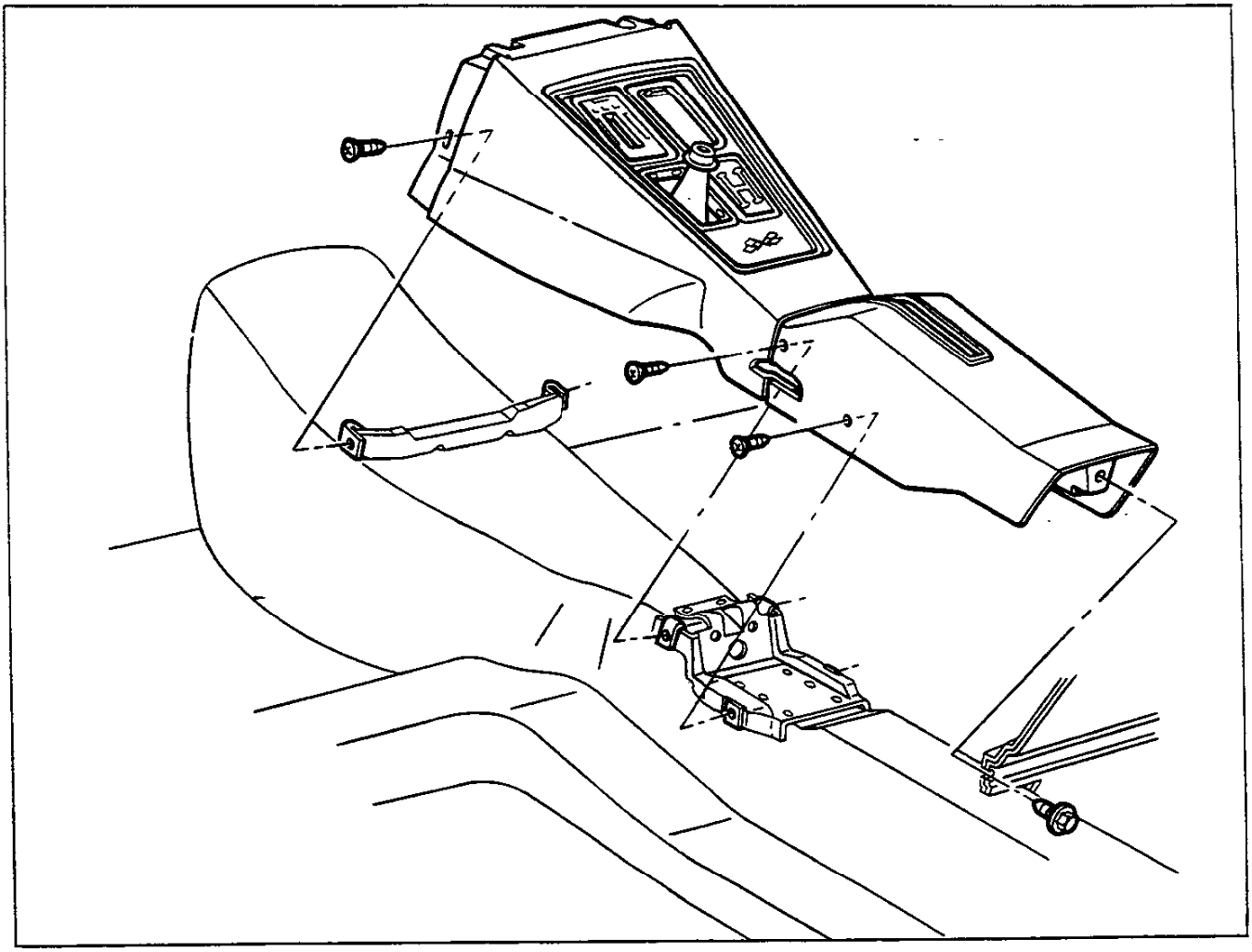


Fig. 6—Front and Rear Console Assemblies

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 must be removed first. See Figure 8 for assembly sequence.

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. 9).

Installation

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

Inside

Installation of inside mirror is illustrated in Figure 10. Tension of mirror stud is increased by tightening adjusting screw.

SUN VISOR

Attachment of sun visor assembly to windshield header is made as shown in Figure 10. Turning of adjusting screw clockwise increases friction.

WINDSHIELD

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.

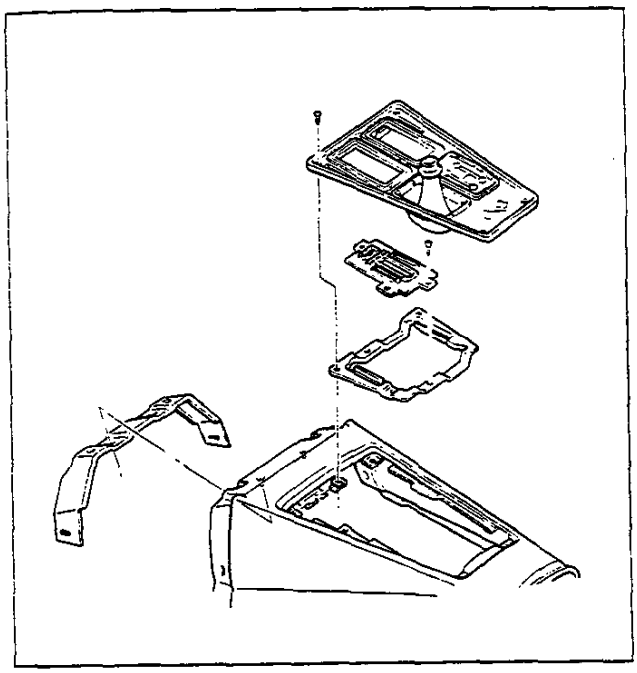


Fig. 7—Front Console Assembly

Additional materials required:

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

Removal

(Refer to Figure 11 for parts identification.)

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 as shown in Figure 13.
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 (fig. 14). 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 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

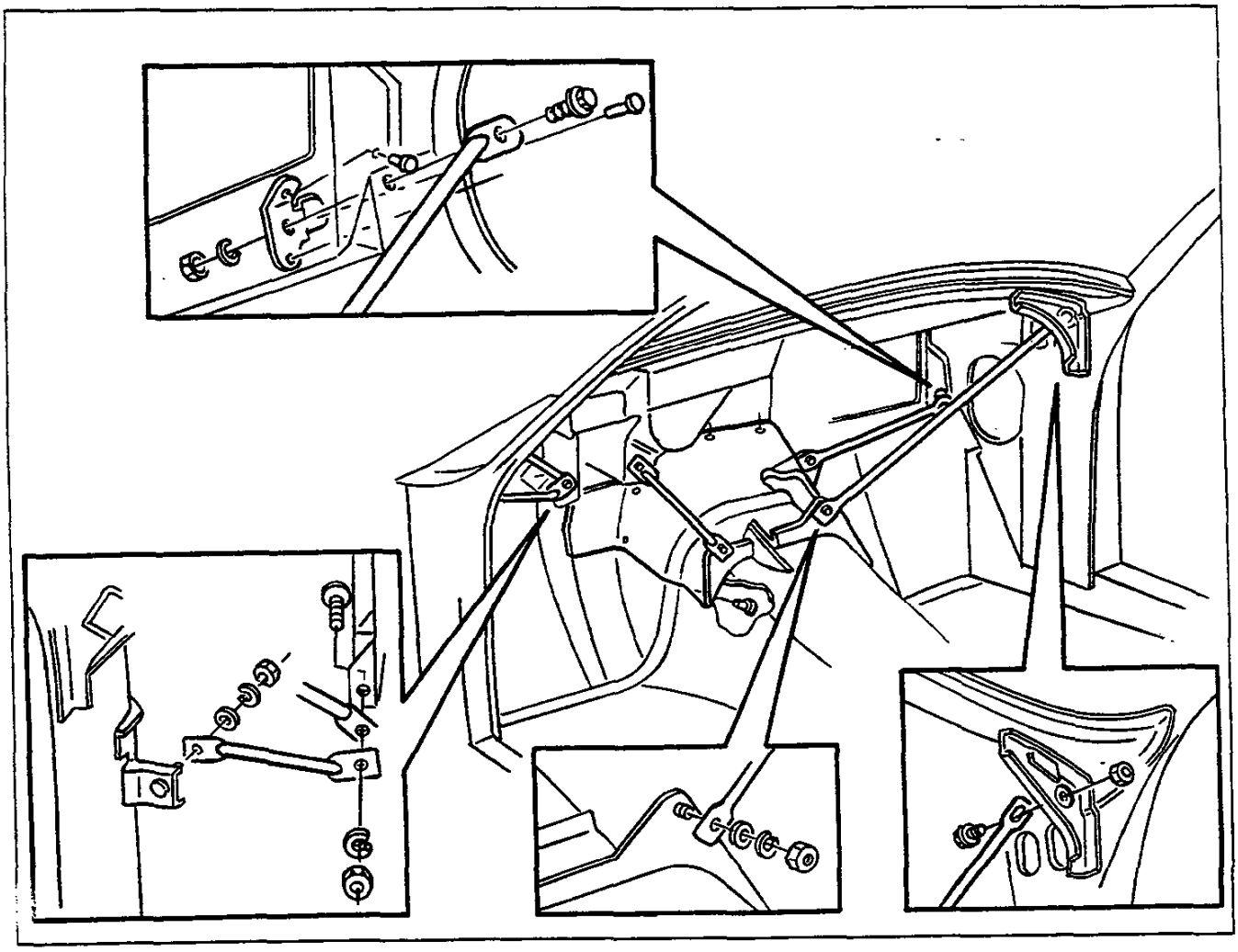


Fig. 8—Under Dash Braces

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.

COWL VENTILATOR ASSEMBLY

The following procedure includes either the left or right-hand side. Refer to Figure 15.

Adjustment

Turn plastic adjustment link, located at middle of control cable underneath dash panel, in order to attain desired adjustment. Ventilator valve should be completely closed when knob is at forward position.

Removal

1. Remove cowl 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

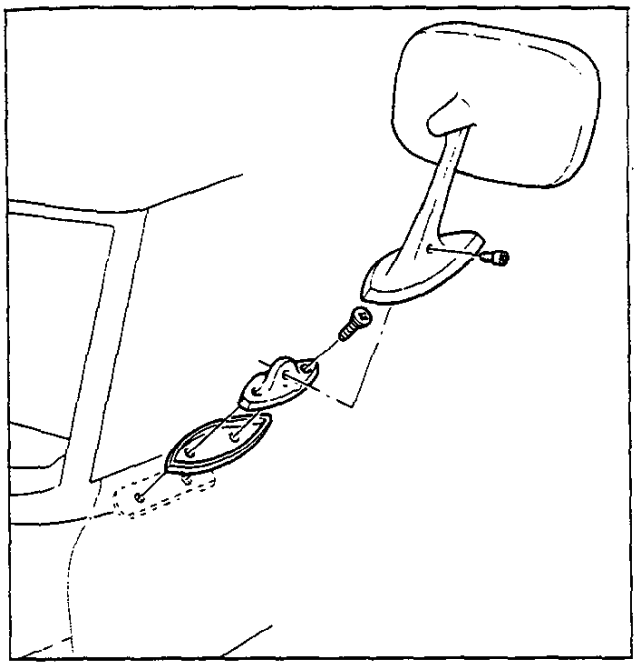


Fig. 9—Outside Rearview Mirror

reverse order. Check operation and adjust accordingly.

DOORS

ADJUSTMENTS

Door Lock Striker

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 as shown in Figure 16.
   c. Close door only as far as necessary for striker bolt to form an impression as shown in Figure 16.

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 16 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

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

1. Mark position of striker on body lock pillar using a pencil.
2. Insert a 5/16" wrench into hex-head fitting in 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.

DOOR WINDOW ADJUSTMENT (Figure 17)

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).

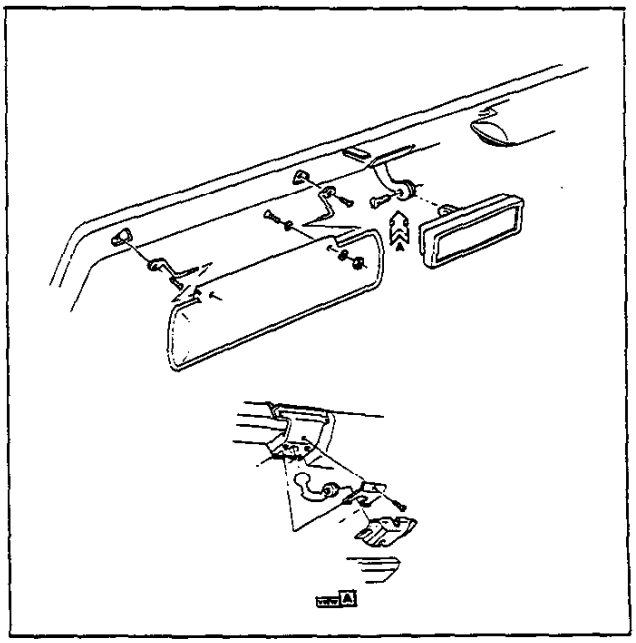


Fig. 10—Sun Visor and Inside Rearview Mirror

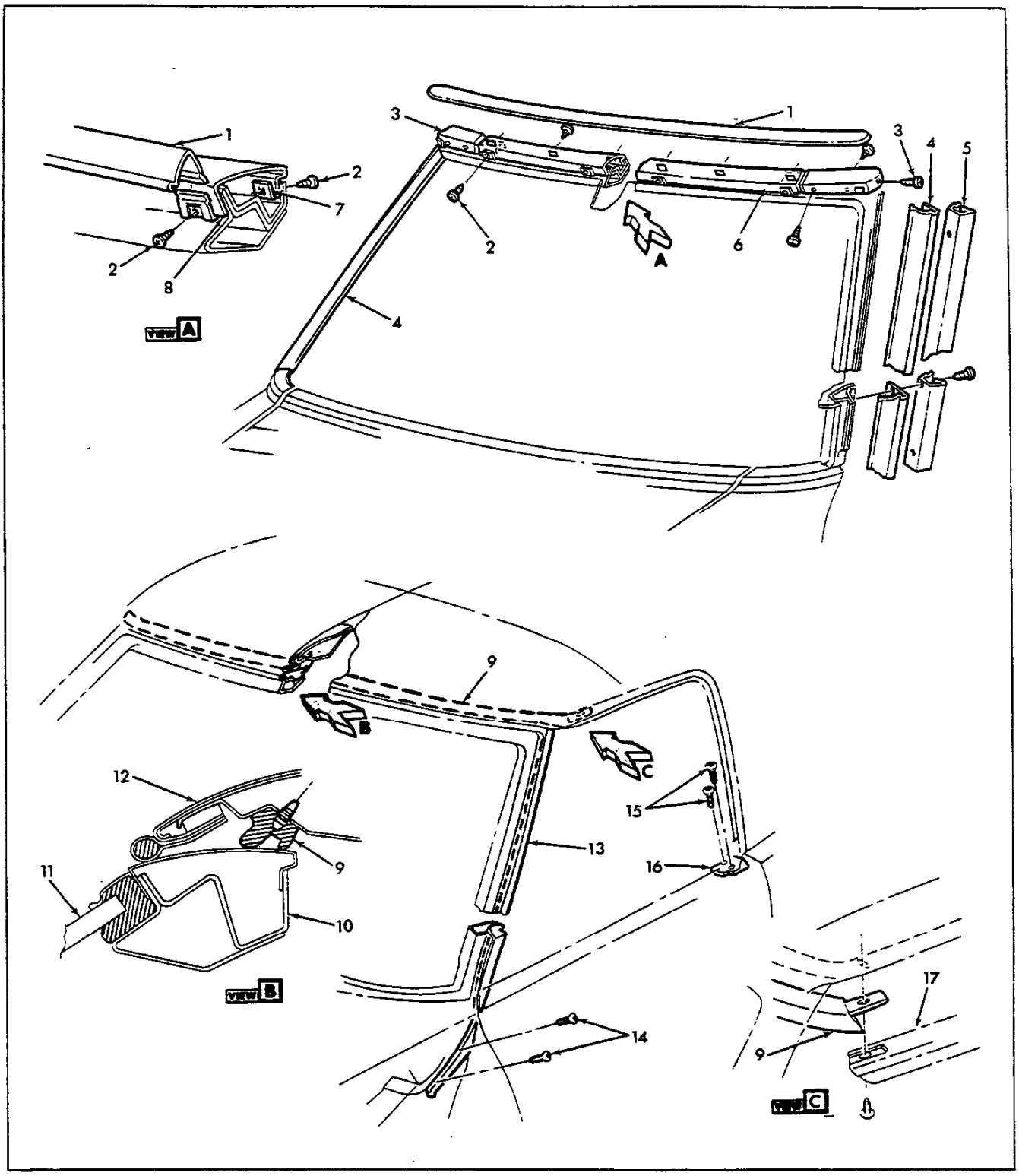


Fig. 11—Windshield Moldings and Weatherstrips

1. Header Molding
2. Screw
3. Header Corner
4. Reveal Molding
5. Retainer Molding
6. Upper Retainer Molding
7. Nut
8. Clip
9. Front Weatherstrip
10. Windshield Header Assembly
11. Windshield Glass
12. Folding Top Assembly
13. Windshield Pillar Weatherstrip
14. Screw
15. Screw
16. Weatherstrip
17. Front Rail Weatherstrip

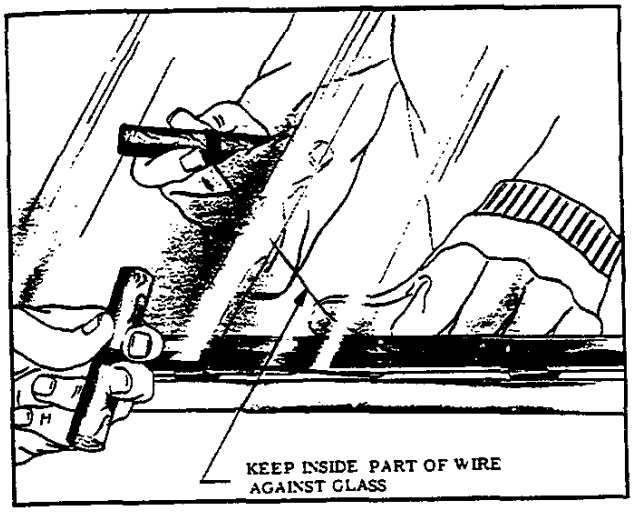


Fig. 12—Removing Old Glass From Opening

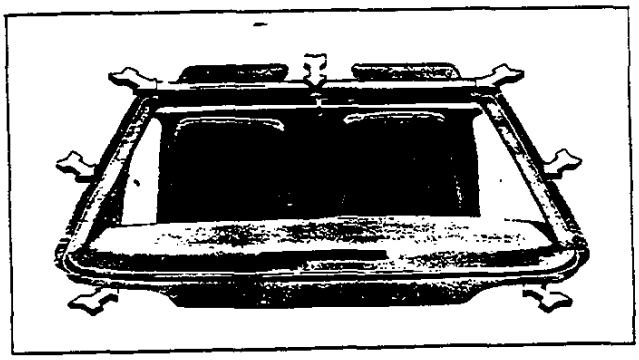


Fig. 13—Windshield Rubber Spacers

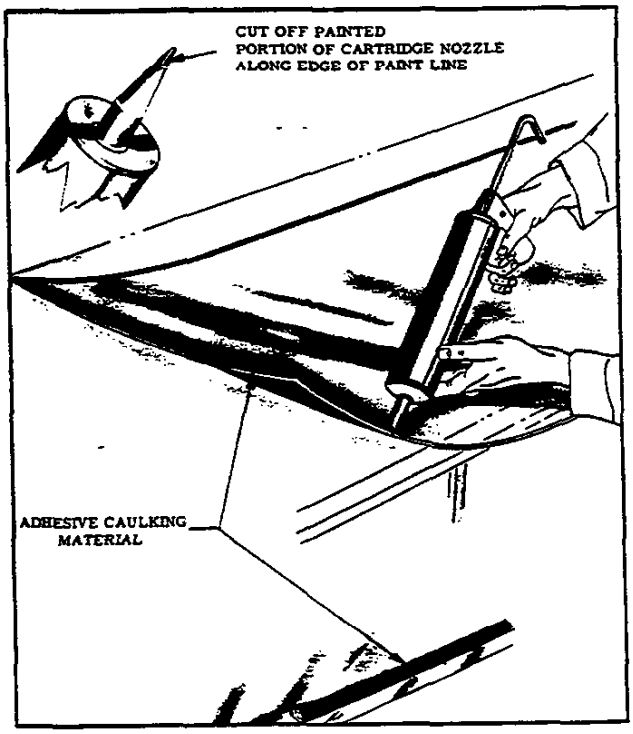


Fig. 14—Applying Caulking Material to Glass

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

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

Glass Too Far Outboard or Inboard

4. Loosen bolts (D & E) and nuts (F). Back off adjusting screws (G). Move top edge of glass inboard

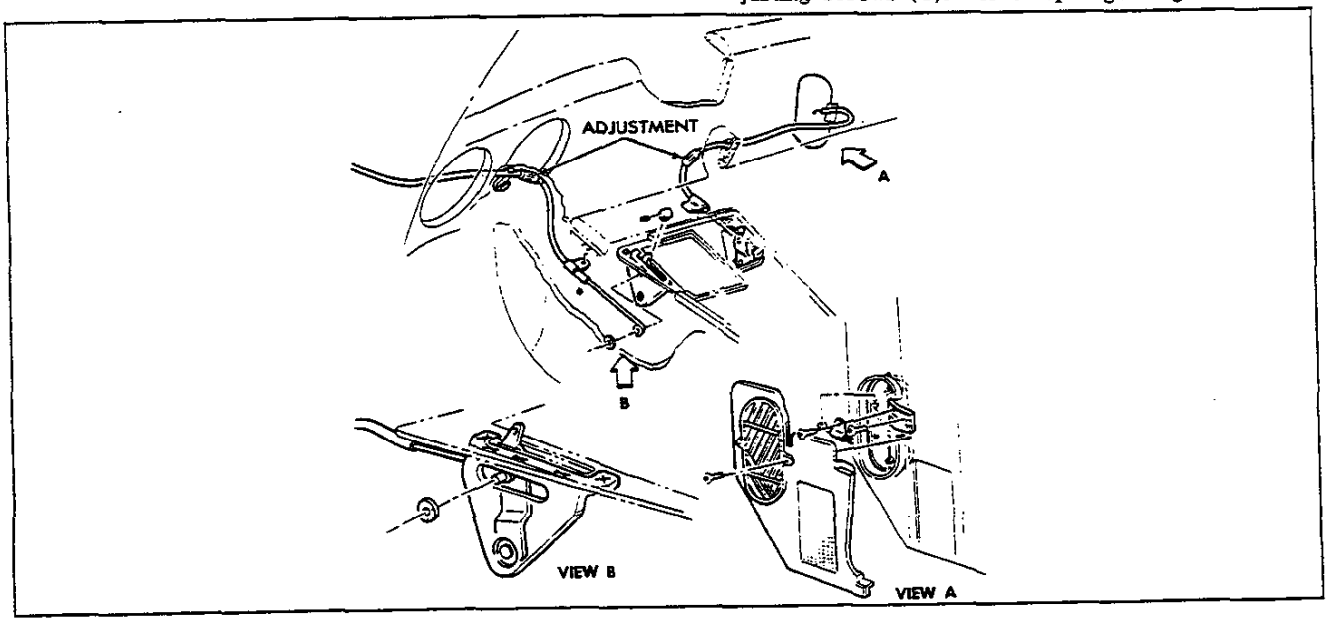


Fig. 15—Cowl Ventilator and Controls

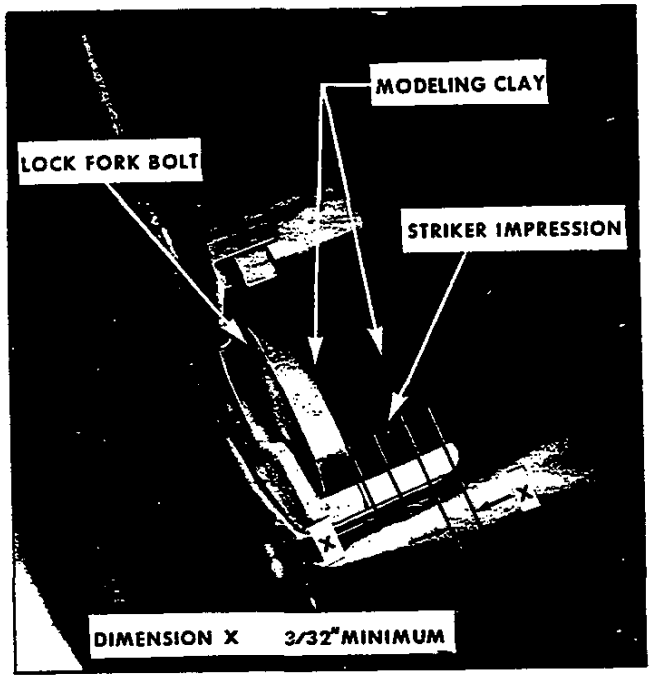


Fig. 16—Checking Adjustment of Striker

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

Window Rolls Down Too Far

5. 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 18)

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:

1. Remove door trim panel as outlined in this section.
2. Remove lock striker bolt after first scribing line on lock pillar surface following circular flange. This enables proper installation position.
3. For up-and-down adjustment, remove hinge cover (2 screws) for access to upper hinge retaining screws.

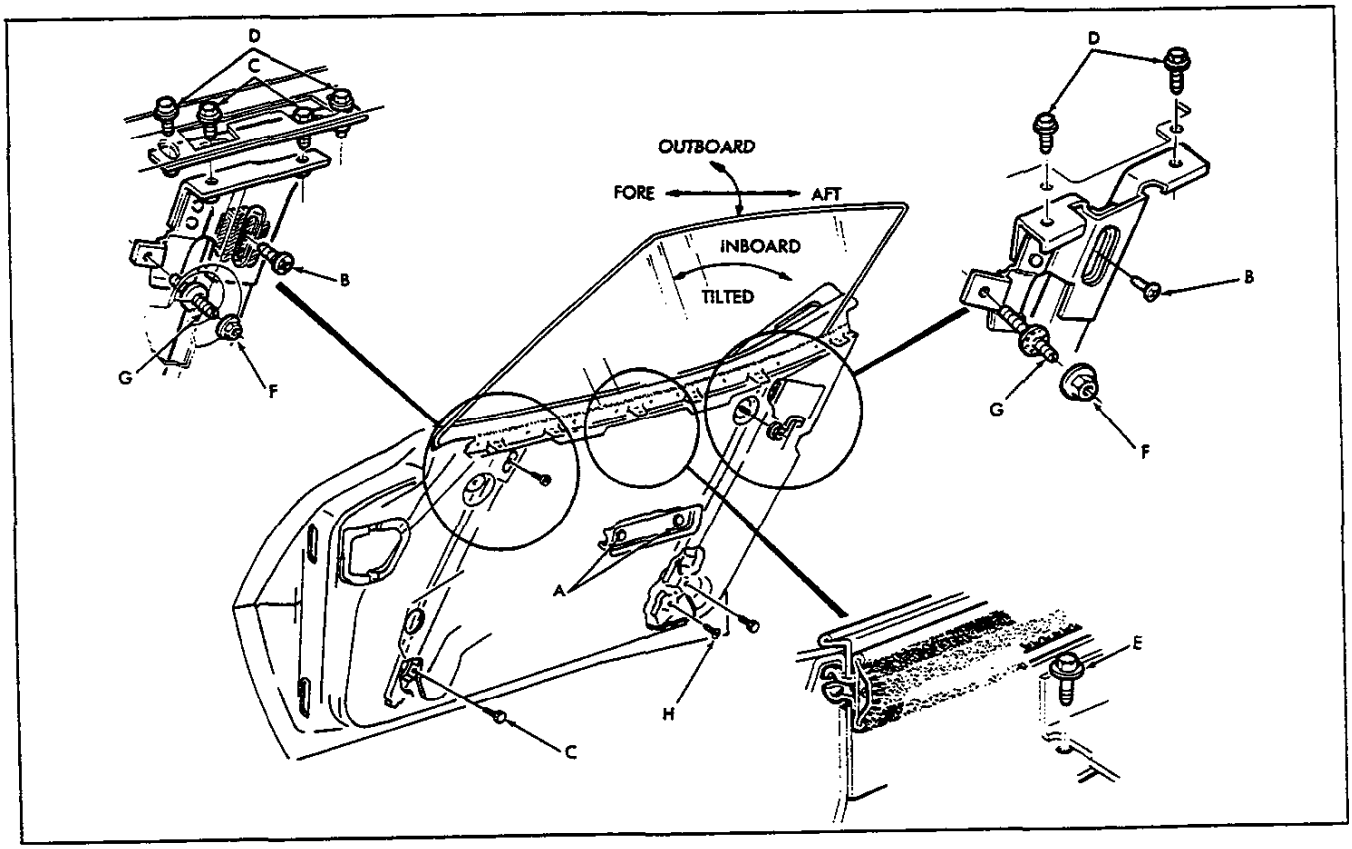


Fig. 17—Door Glass Adjustments

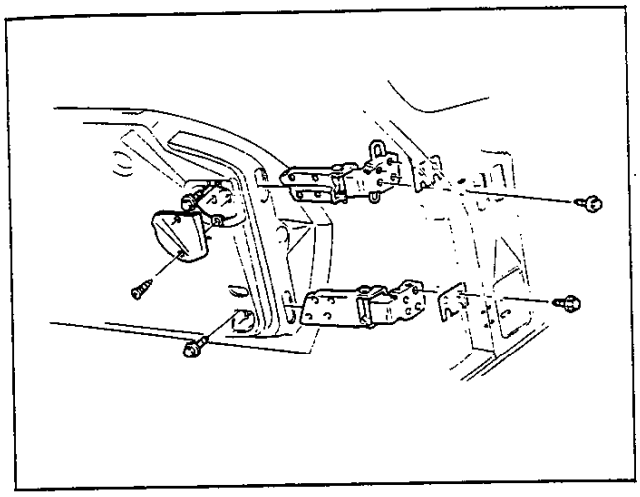


Fig. 18—Side Door Hinges

4. 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.
5. Adjust door as required. (Do not allow doors to hang on one hinge without support.)
6. Install previously removed striker assembly, trim pads and panels and lubricate door hinges with lubriplate or equivalent.

NOTE: After performing any door adjustment, 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

(Refer to Figure 19)

1. Using Tool J-7797, remove clips retaining window crank and lock control as shown in Figure 20.

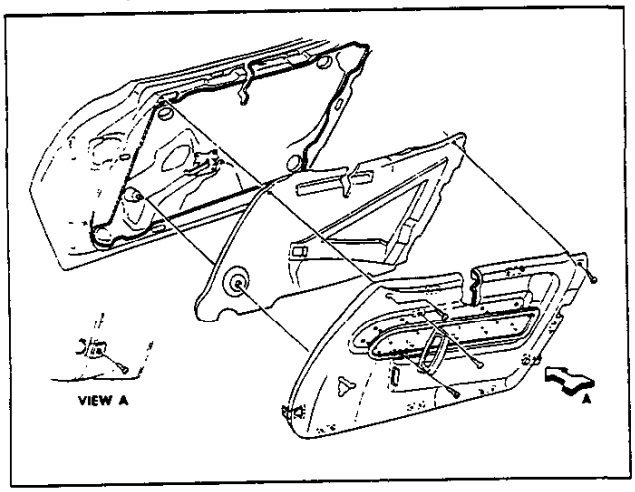


Fig. 19—Door Trim Panel Assembly

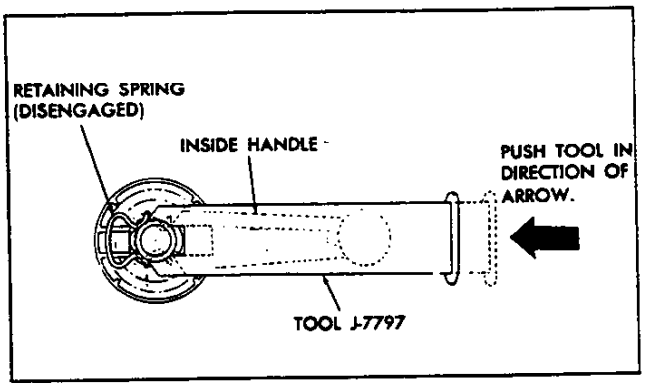


Fig. 20—Removing Window Crank With J-7797

2. Remove four (4) screws securing trim panel located at inside corners of inner door panels.
3. Remove trim panel by carefully prying out at plastic fastener clips located around perimeter of panel.
4. Remove door lock handle by removing one (1) screw and sliding handle forward (fig. 21).
5. Remove formed plastic cover by peeling along edge at adhesive bead.
6. For installation follow above steps in reverse order making sure trim panel is properly aligned.

DOOR LOCK AND REMOTE CONTROLS

For parts identification, refer to Figure 21.

Removal

1. Raise window fully up.
2. Remove door trim panel as outlined in this section.
3. Disengage upper control rod assembly by removing, first, plastic guide clip, releasing carburetor type clips at both ends, and removing rod through access hole.
4. Disengage lock control rods by releasing clips at both ends and lifting outward.
5. Remove remote control assembly by removing four (4) screws to inner door panel.
6. Remove "crank link" (intermediate pivot) by removing two (2) screws to inner panel.
7. 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.

WEATHERSTRIP

Figure 22 illustrates weatherstrip mounting location on door. 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.

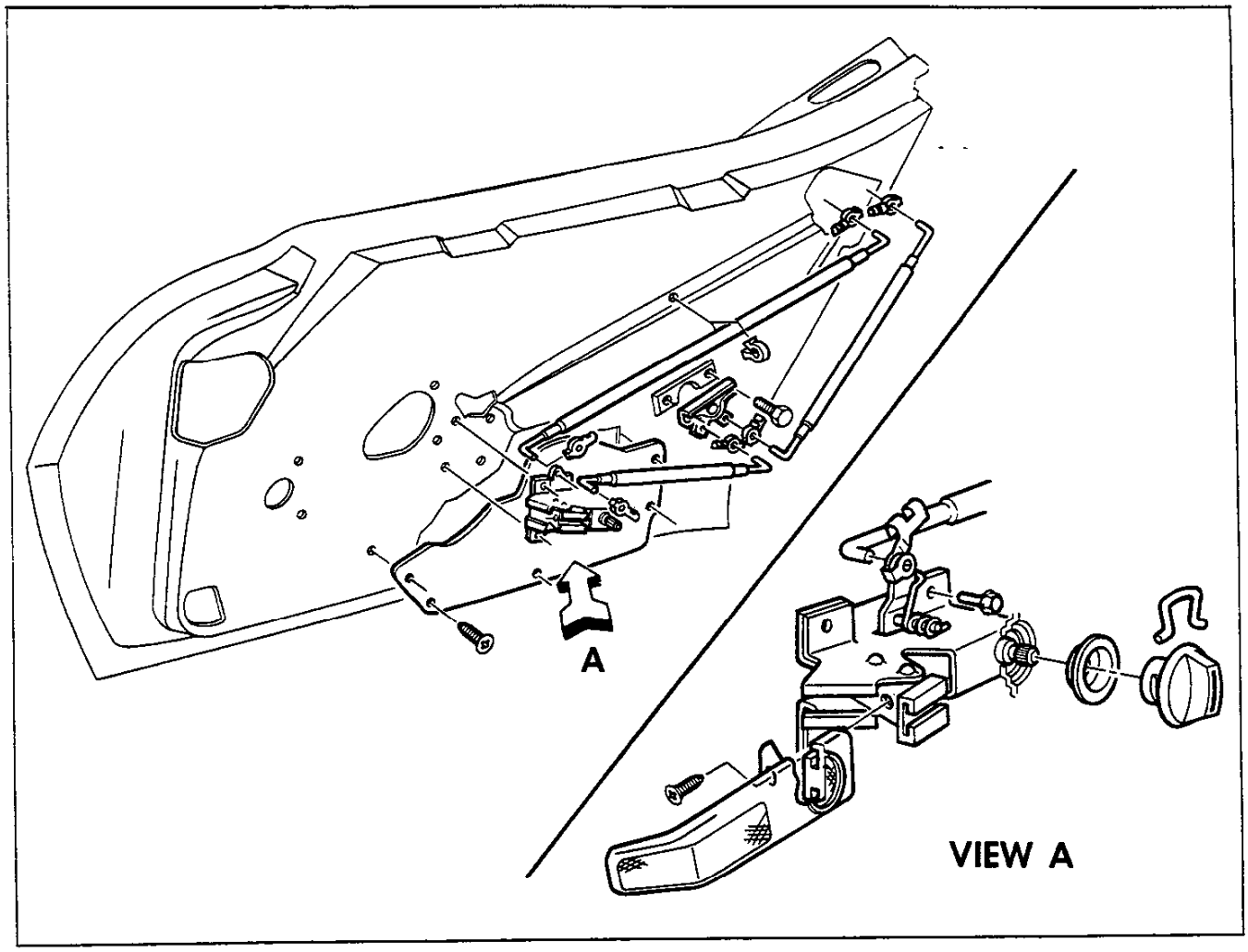


Fig. 21—Door Lock and Remote Control

WINDOW OUTER SEAL ASSEMBLY (Fig. 23)

1. Lower window all the way down.
2. Remove trim panel.
3. Remove two (2) screws one located at each end of seal (fig. 23).
4. Carefully pry out at six (6) retaining clips.
5. Lift seal assembly outward and upward.
6. For installation, secure clips and install the two screws.

WINDOW ANTI-RATTLE (Fig. 23)

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.
3. Position window all the way up to line up two (2) sash screws through access holes.
4. Remove two (2) sash screws on horizontal guide channel while holding nut with other hand (fig. 24).
5. Disengage stop by removing one (1) Phillips head screw at top of channel assembly.
6. Adjust front and rear channel assemblies to extreme outboard position to allow ample clearance for window removal.
7. 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:

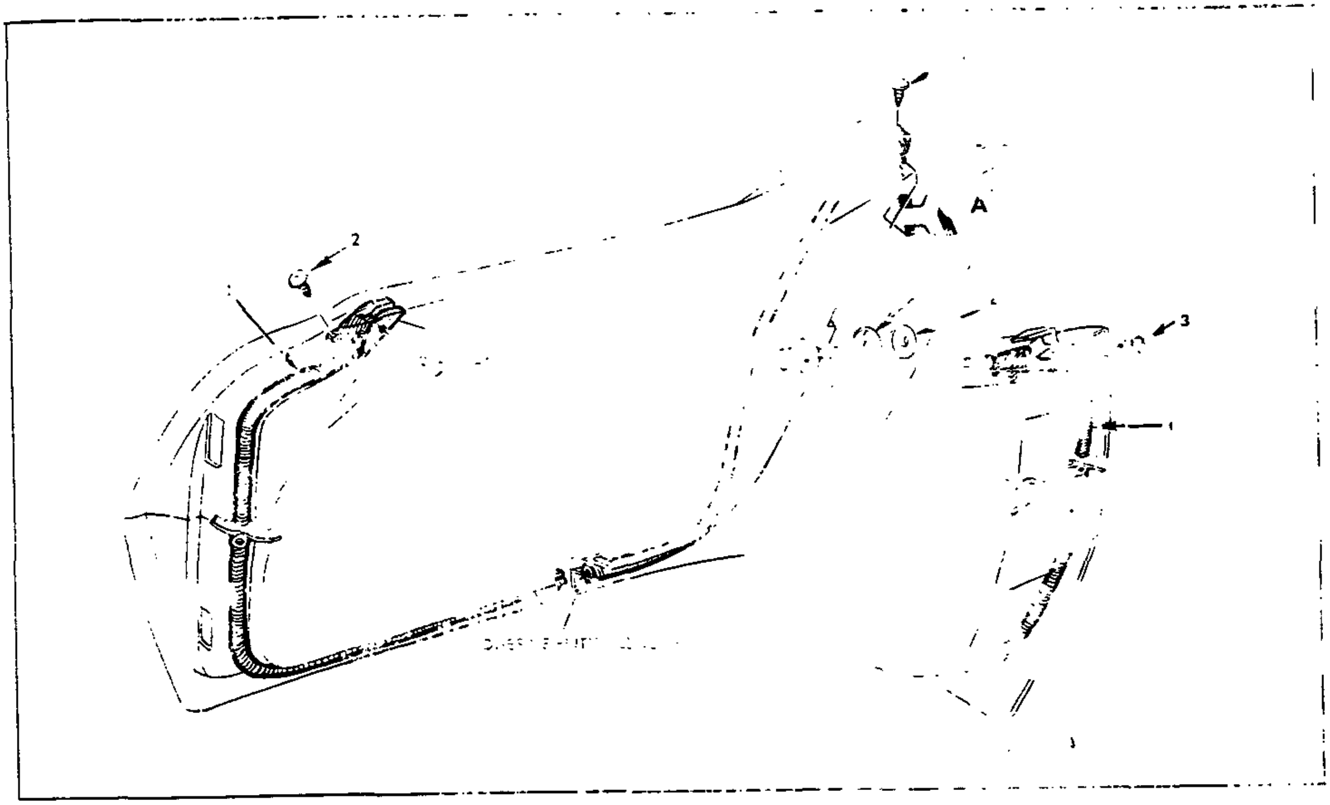


Fig. 27—Door Weatherstrip

1. Weatherstrip
2. Screw

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

GLASS RUN CHANNELS

Removal

For parts identification, refer to Figure 26. Removal of either front or rear channel involves the following steps.

1. Remove door trim assembly as outlined in this section.
2. Remove window glass assembly as outlined in this section.
3. Remove retaining screw at lower end of channel and two (2) screws retaining channel to top surface of door inner panel.
4. Remove two (2) screws retaining stationary horizontal guide channel
5. Remove nut from adjusting stud.
6. Adjust stud to extreme clockwise position to allow proper removal clearance.
7. Carefully lift channel through upper slot as shown in Figure 27 making certain to clear opening.

Installation

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

WINDOW REGULATOR—MANUAL

For parts identification refer to Figure 28.

Removal

1. Remove trim panel as outlined in this section.
2. Position window at the full up.
3. Remove two (2) bolt and nut assemblies retaining window glass.
4. Remove two (2) screws securing stationary horizontal channel.
5. Remove window crank handle by removing (3) screws.
6. Remove crank shaft, inner 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.

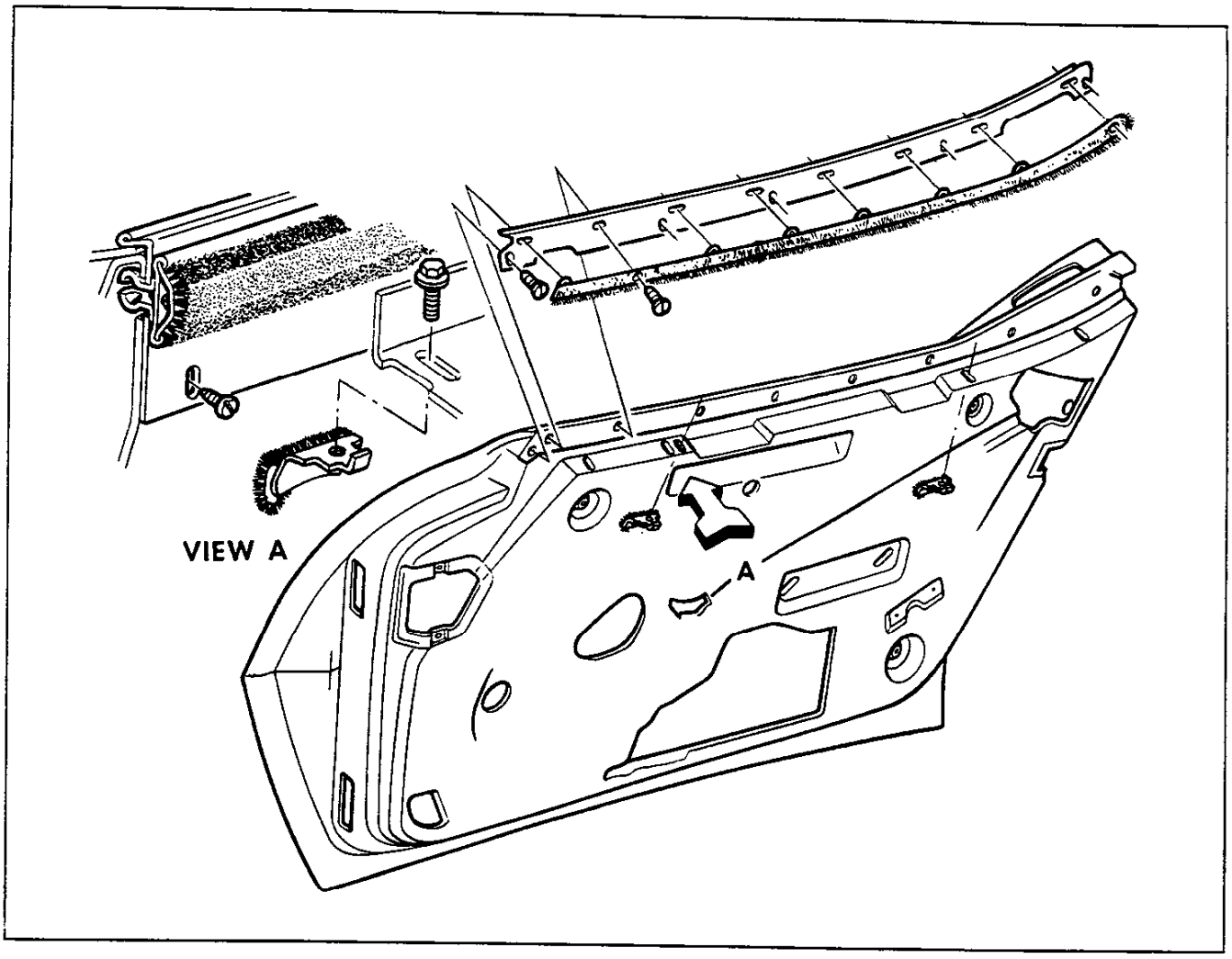


Fig. 23—Window Glass Seals and Molding

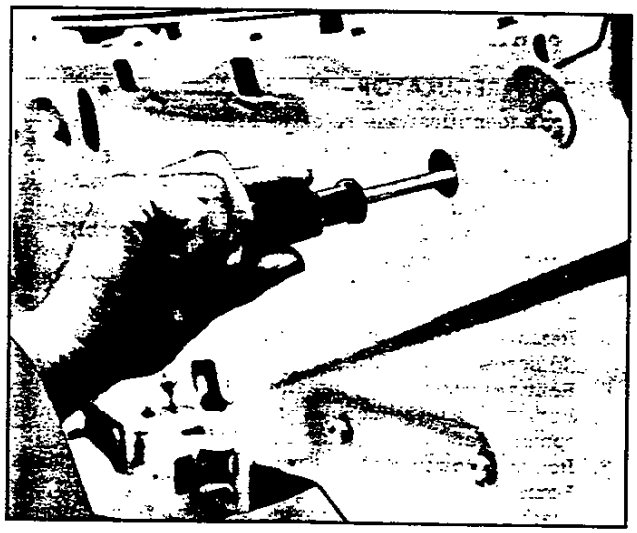


Fig. 24—Removing Sash Screws

11. While depressing front channel outward, slide regulator assembly forward and rearward to remove through access hole as shown in Figure 29.

Installation

Regulator may be installed by following removal procedure 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 30 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 30 illustrates location of regulator on door and wiring.

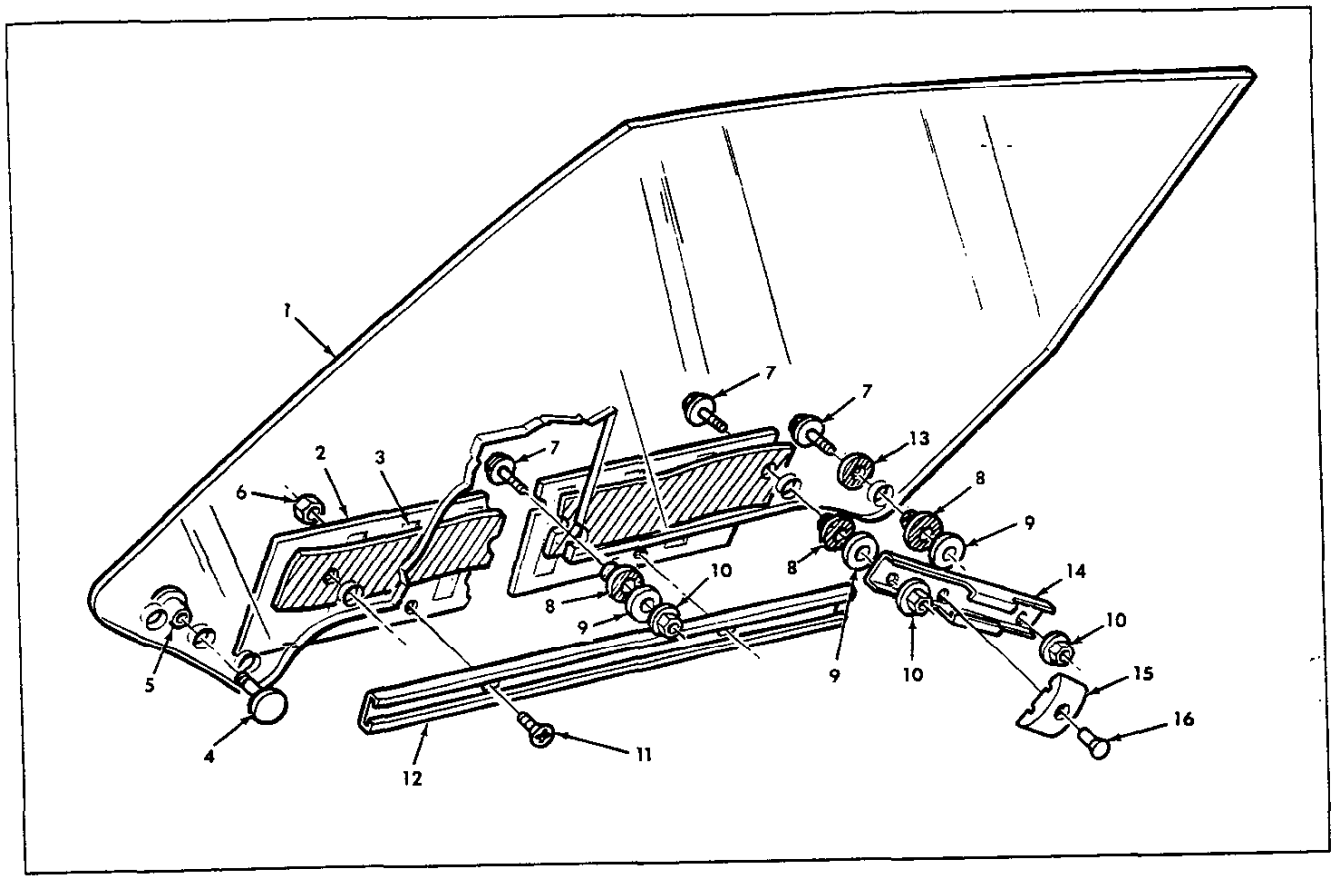


Fig. 25—Glass and Frame Assembly

1. Glass	5. Pad	9. Washer	13. Washer
2. Frame	6. Nut	10. Nut	14. Cam Idler
3. Filler	7. Bolt	11. Screw	15. Pad
4. Fastener	8. Bushing	12. Channel	16. Rivet

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 31.

1. Place regulator assembly in vise.
2. Using jumper leads to 12 volt DC source, operate motor until semi-circular hole in sector gear centers over one of two weld nuts on mounting plate.
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. 32)

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.
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.

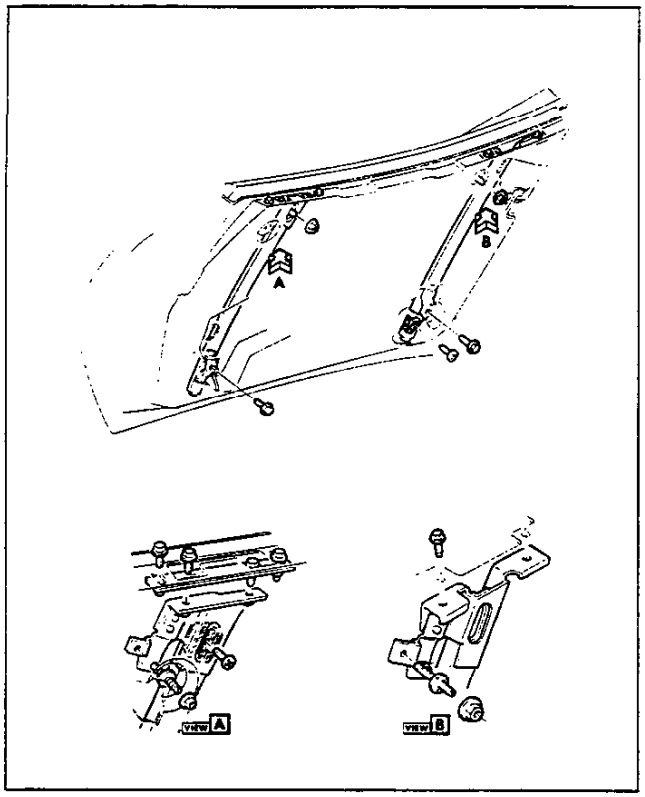


Fig. 26—Window Run Adjustment Points

HINGES—DOOR ASSEMBLY

(Refer to Figure 33)

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 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 34 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 35.

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.

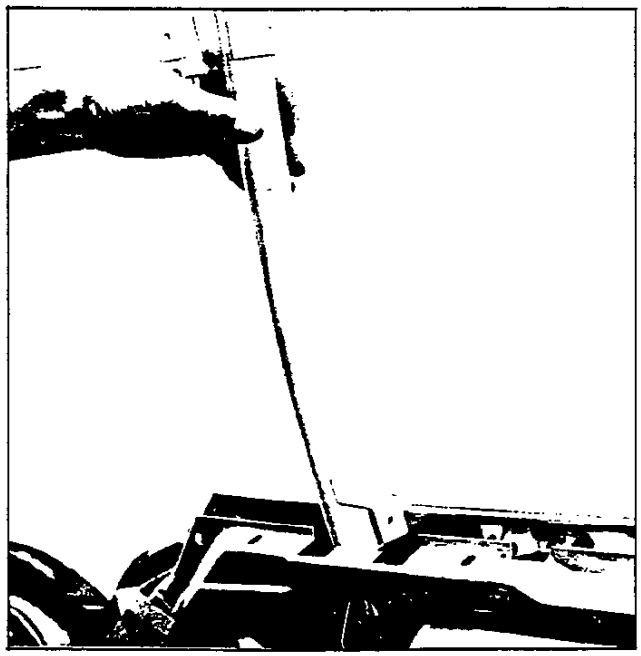


Fig. 27—Removing Front Glass Channel

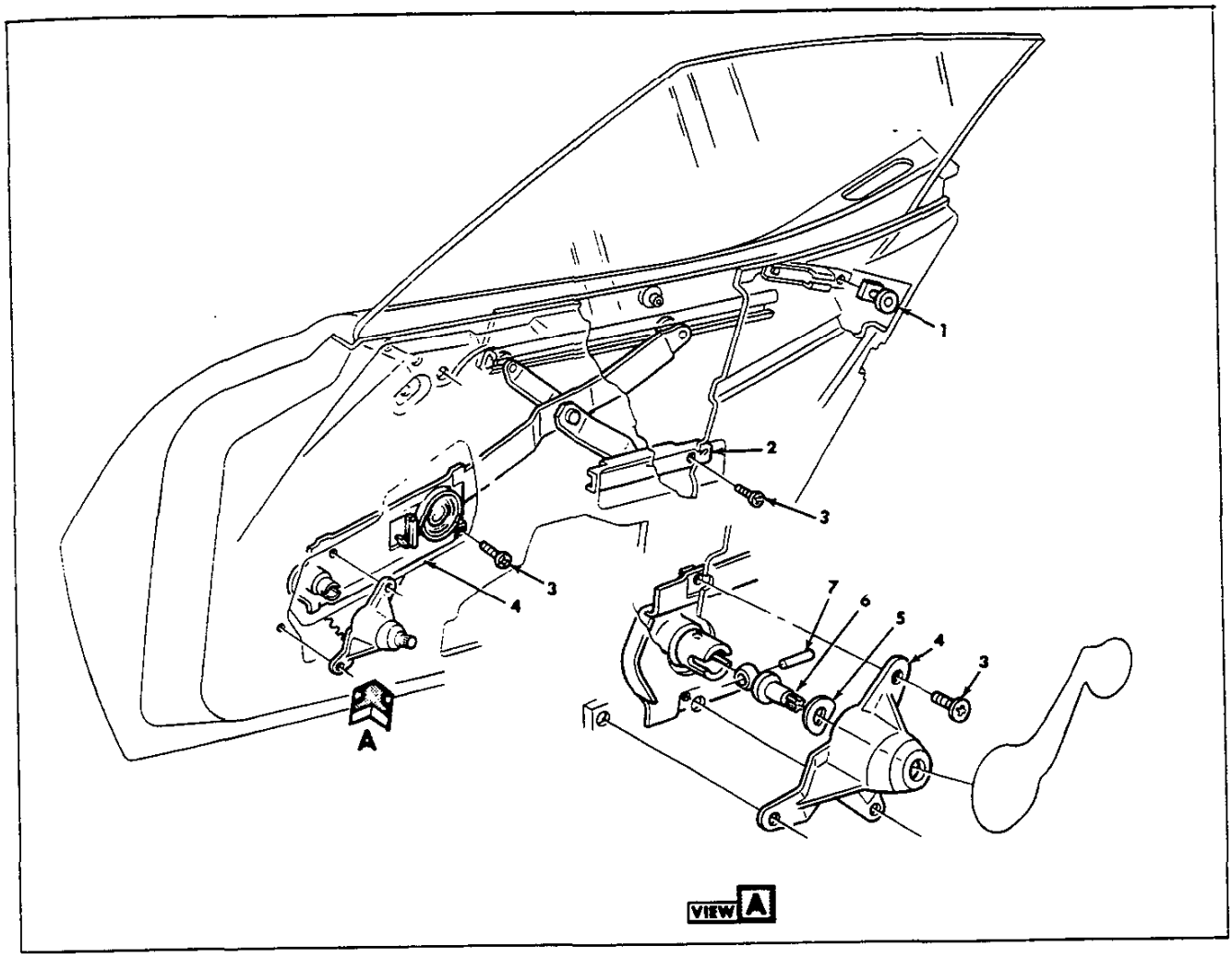


Fig. 28—Manual Window Regulator

1. Roller and Slide Assembly
2. Channel Assembly
3. Screw
4. Housing
5. Washer-Spring
6. Shaft
7. Pin

REAR END

FOLDING TOP COMPARTMENT LID

(Refer to Figure 36 for parts identification.)

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. 37).
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.

Hinges

Removal

1. Scribe around hinge as shown in Figure 37.
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

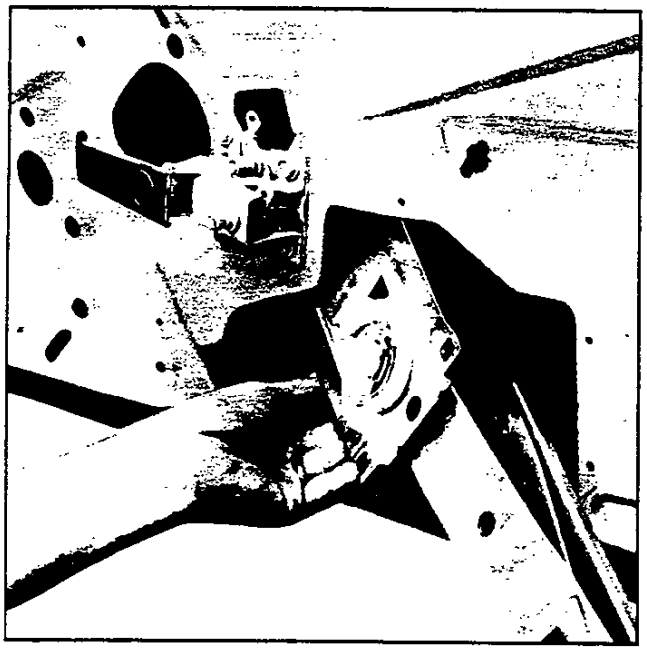


Fig. 29—Removing Window Regulator

Tool J-9559 between expanded coils in spring. Opening top compartment lid fully allows removal of spring as shown in Figure 38.

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 "cherry picker", as shown in Figure 39.
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 40 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.

The holding force of door latch mechanism is adjusted by removing assembly and turning individual lock pins with allen head wrench.

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

REAR FILLER PANEL

1. Remove rear license plate and housing as explained in Section 14.
2. Remove tail pipes from mufflers.
3. Remove eight (8) mounting screws retaining filler panel to body (fig. 40).
4. For installation, follow above steps in reverse order.

SPARE TIRE MOUNT

Refer to Figure 41.

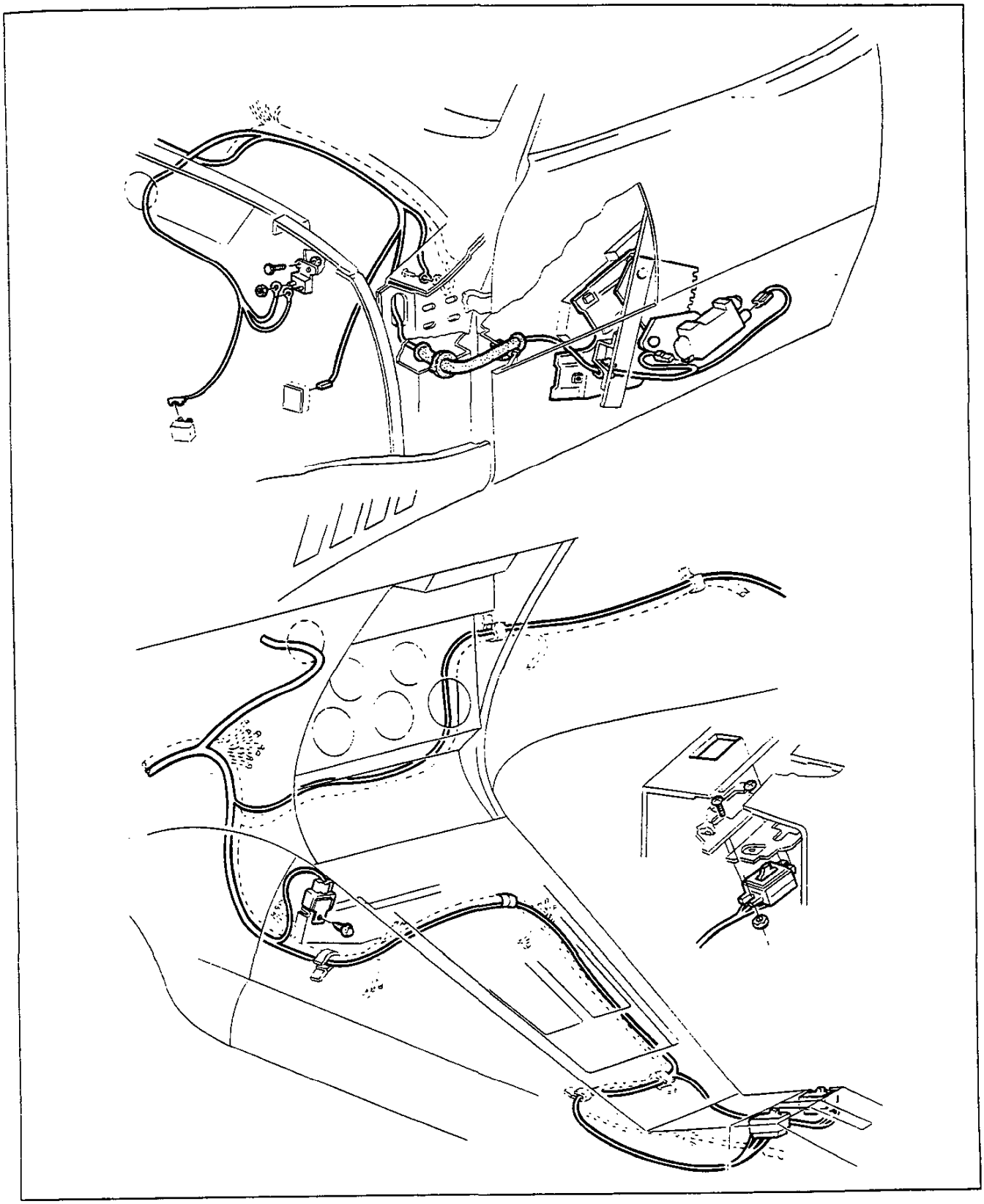


Fig. 30—Power Window Regulator Wiring

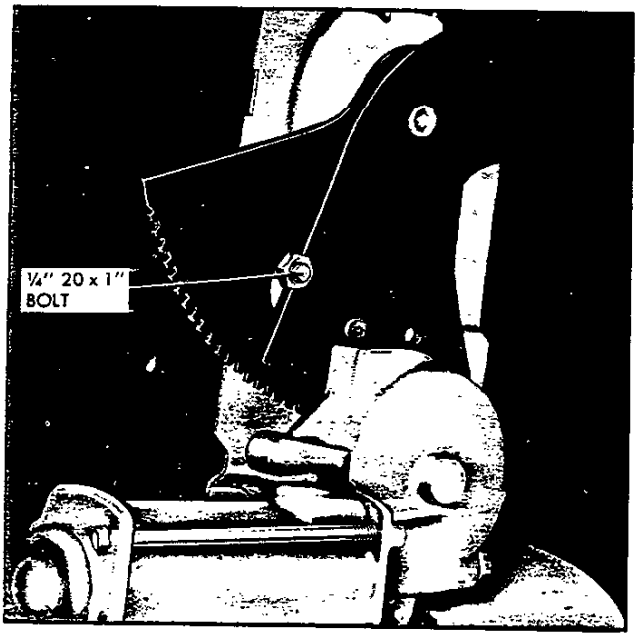


Fig. 31—Locking Arm in Place

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.

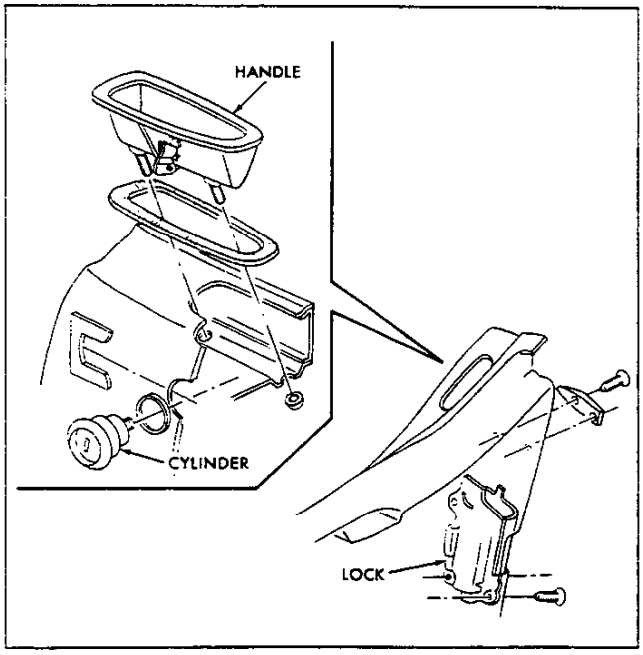


Fig. 32—Door Handle and Lock Cylinder

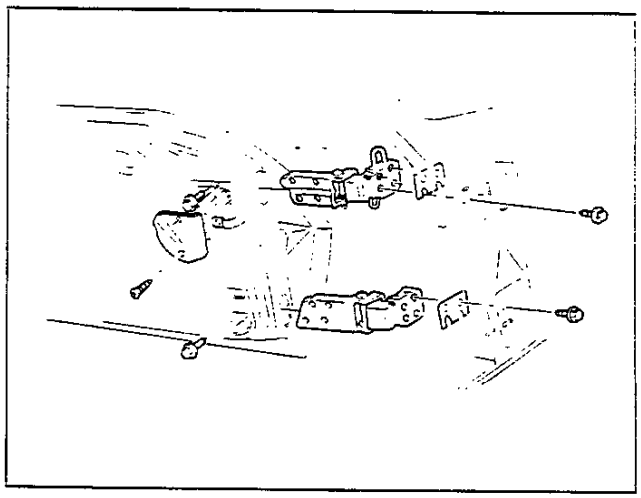


Fig. 33—Side Door Hinges

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. 42)

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.

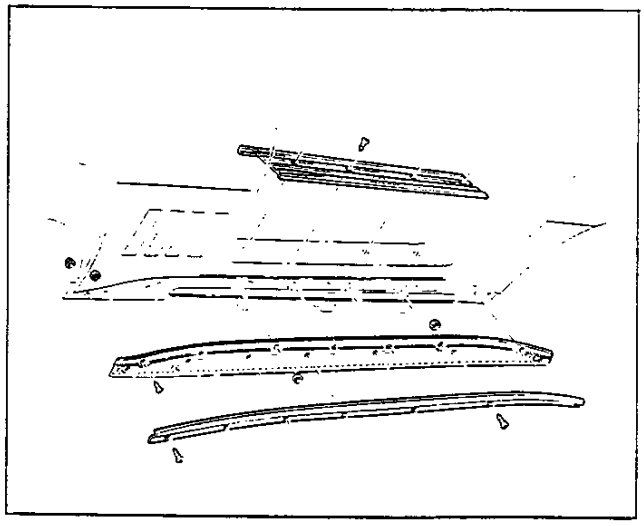


Fig. 34—Sill Plate and Trim Molding

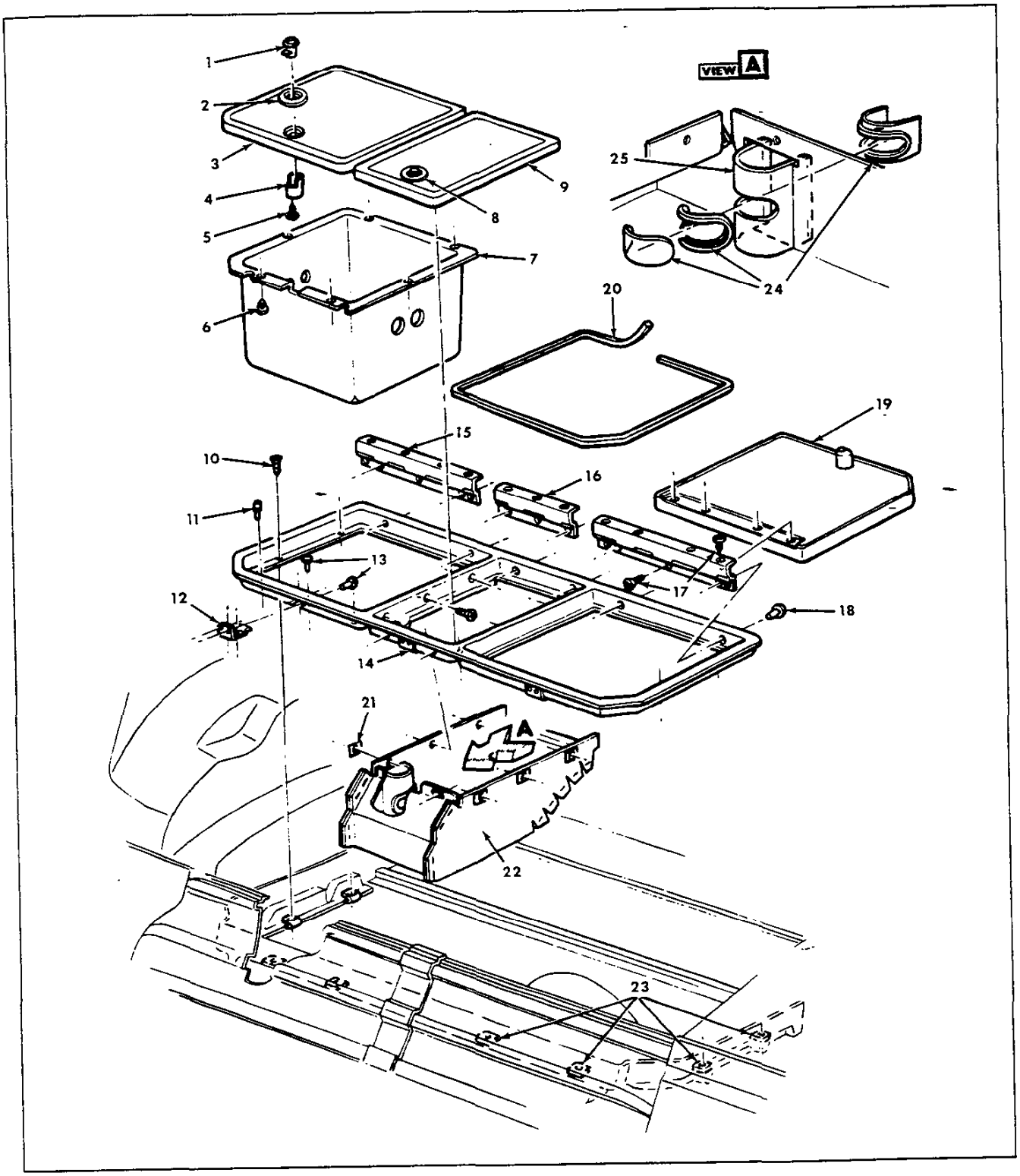


Fig. 35—Under Body Storage Compartment

1. Cylinder and Case Assembly
2. Escutcheon
3. Door
4. Retainer
5. Screw
6. Bumper
7. Cover
8. Cylinder and Case Assembly
9. Center Door
10. Screw
11. Bumper
12. Striker
13. Rivet
14. Striker
15. Hinge
16. Hinge
17. Screw
18. Rivet
10. Door
20. Seal
21. Nut
22. Center Compartment
23. Spring Nut
24. Lens Assembly
25. Shield

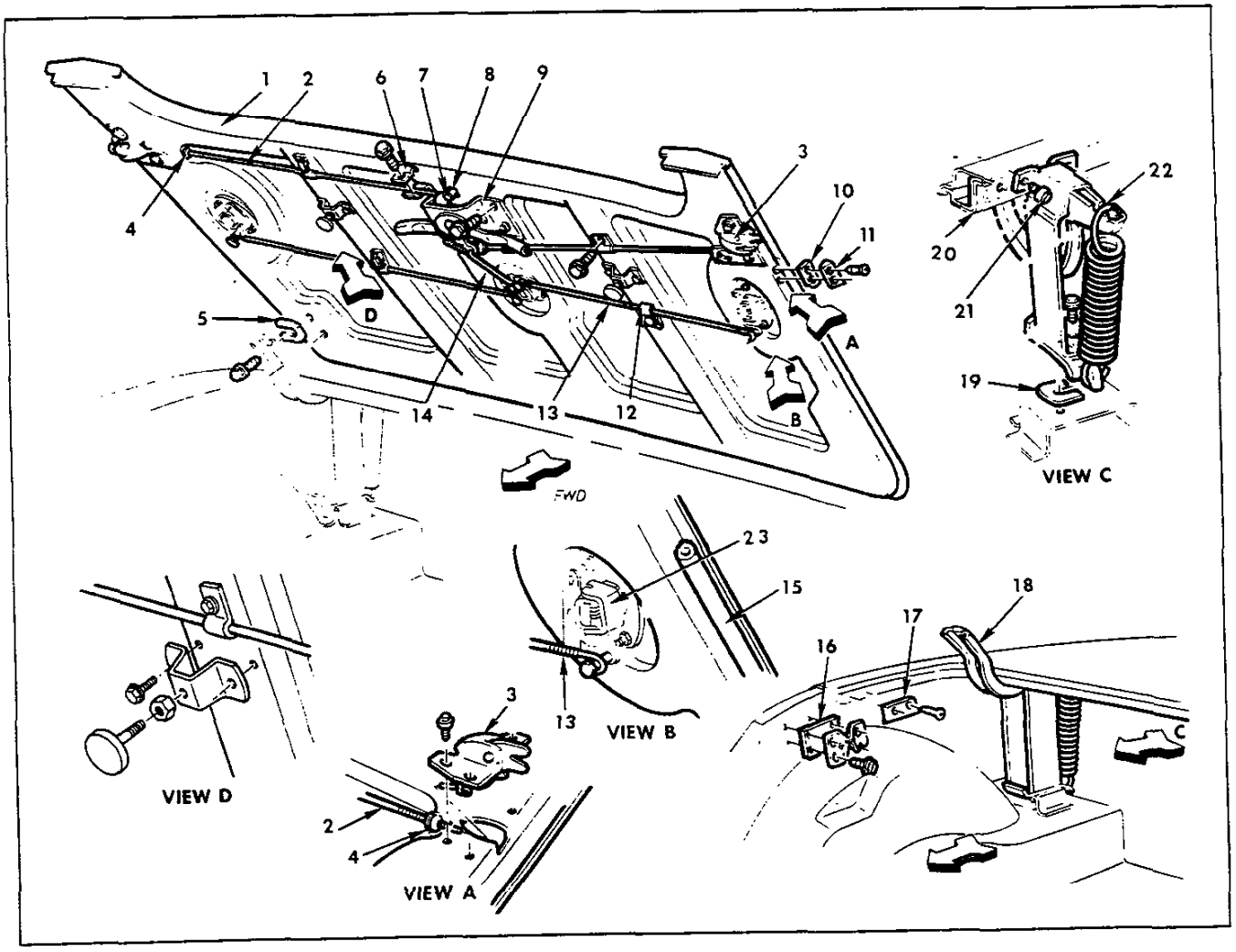


Fig. 36—Folding Top Lid Assembly

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

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.

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:

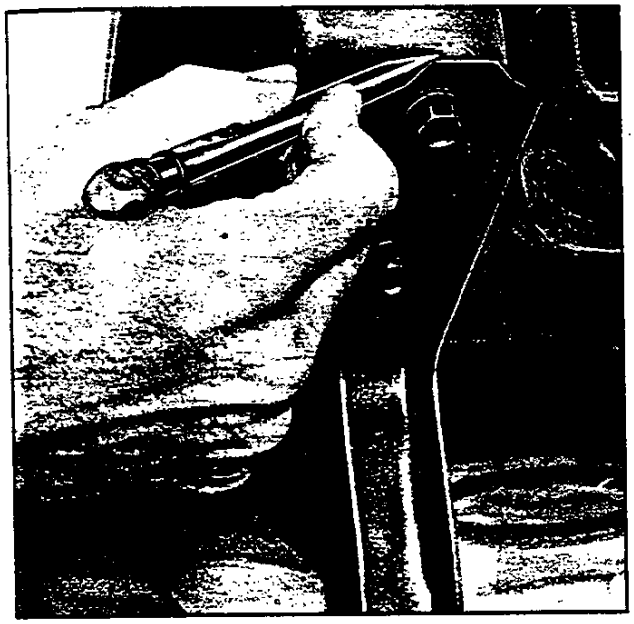


Fig. 37—Marking Hinge Position

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.

Fig. 38—Removing Hinge Spring

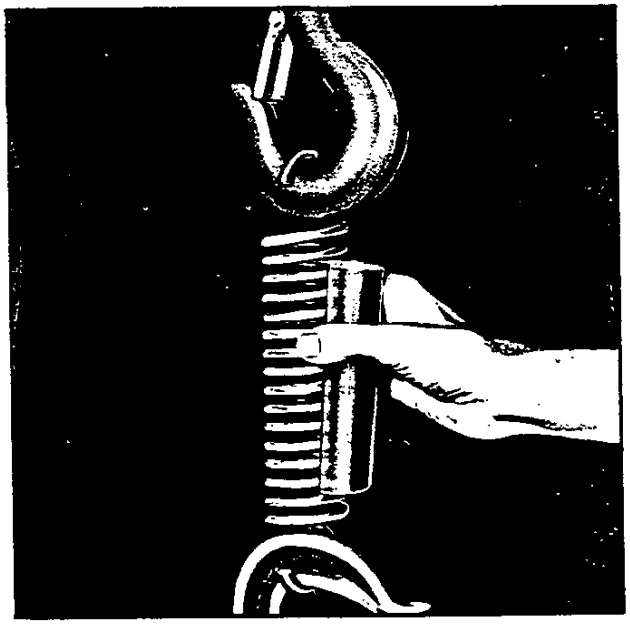


Fig. 39—Installing Tool J-9559 in New Spring

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.

Procedure for Cleaning Carpet

Thoroughly brush or vacuum the floor carpet. In many

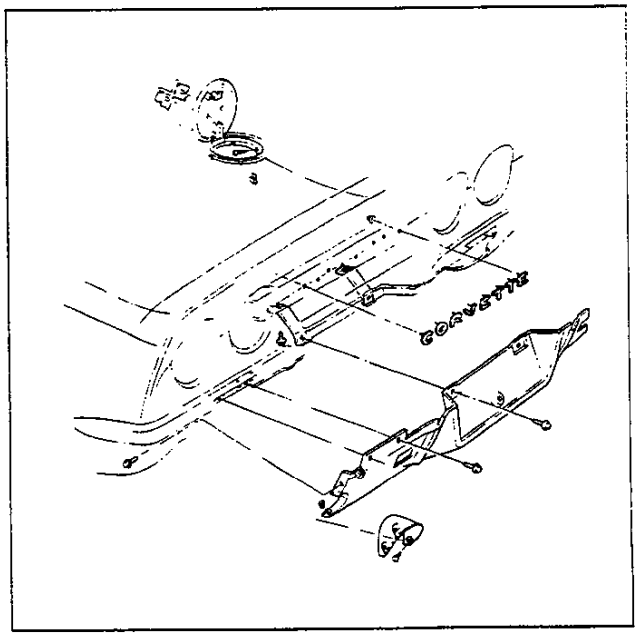


Fig. 40—Gas Tank Door and Rear Trim

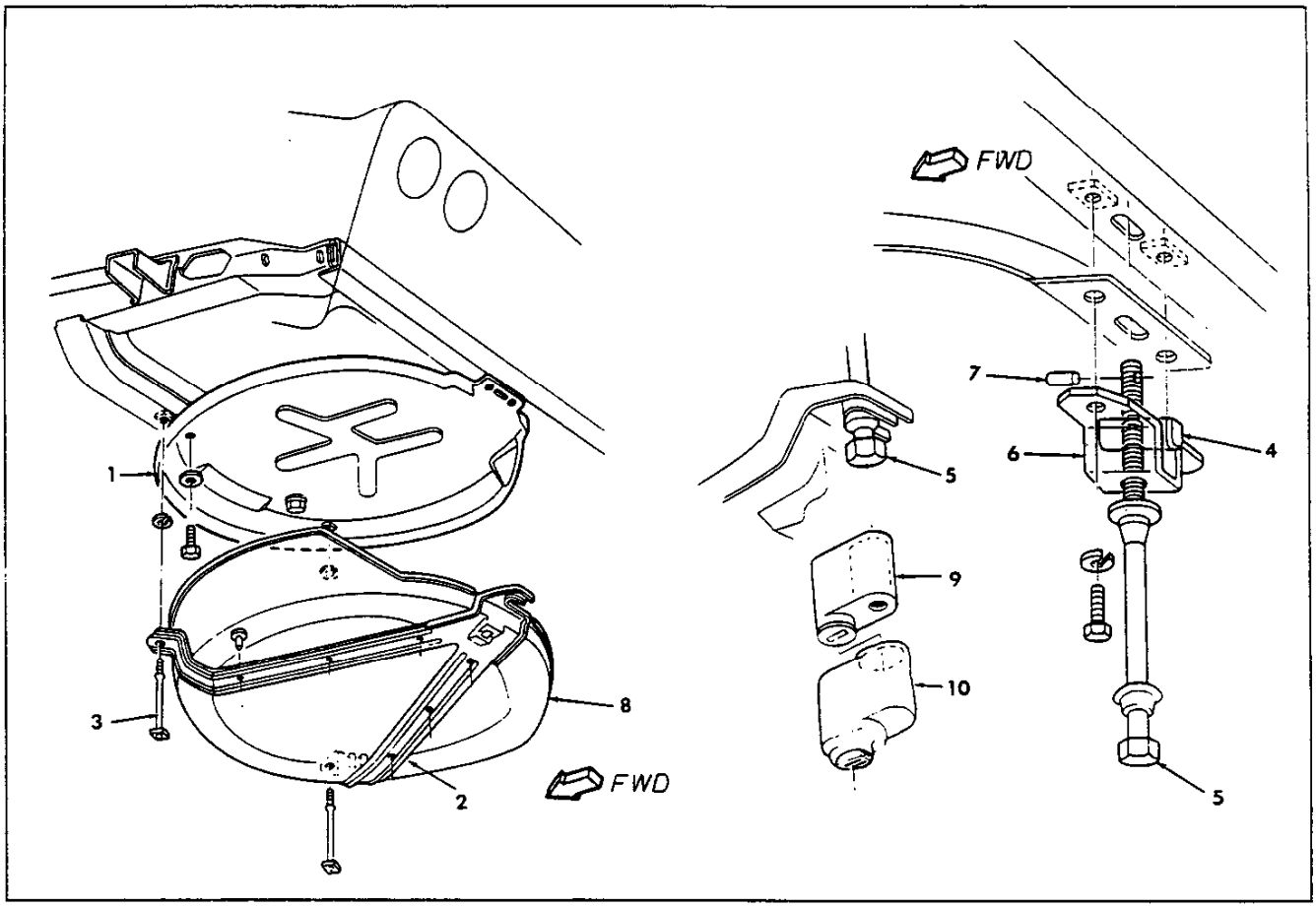


Fig. 41—Spare Tire Mount

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

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 approximately 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 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.

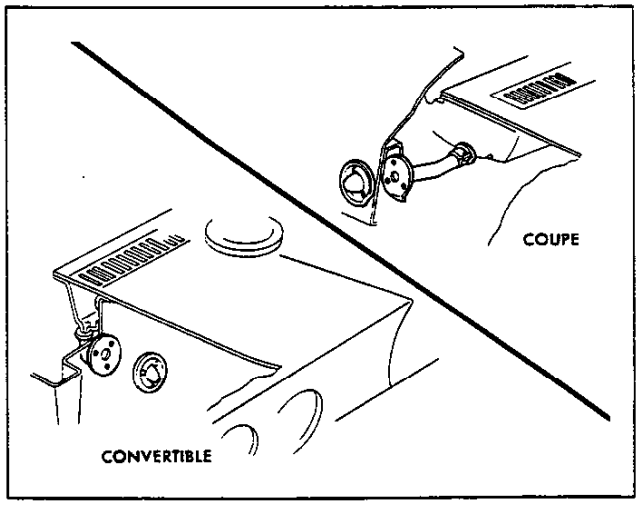


Fig. 42—Rear Plenum Drain

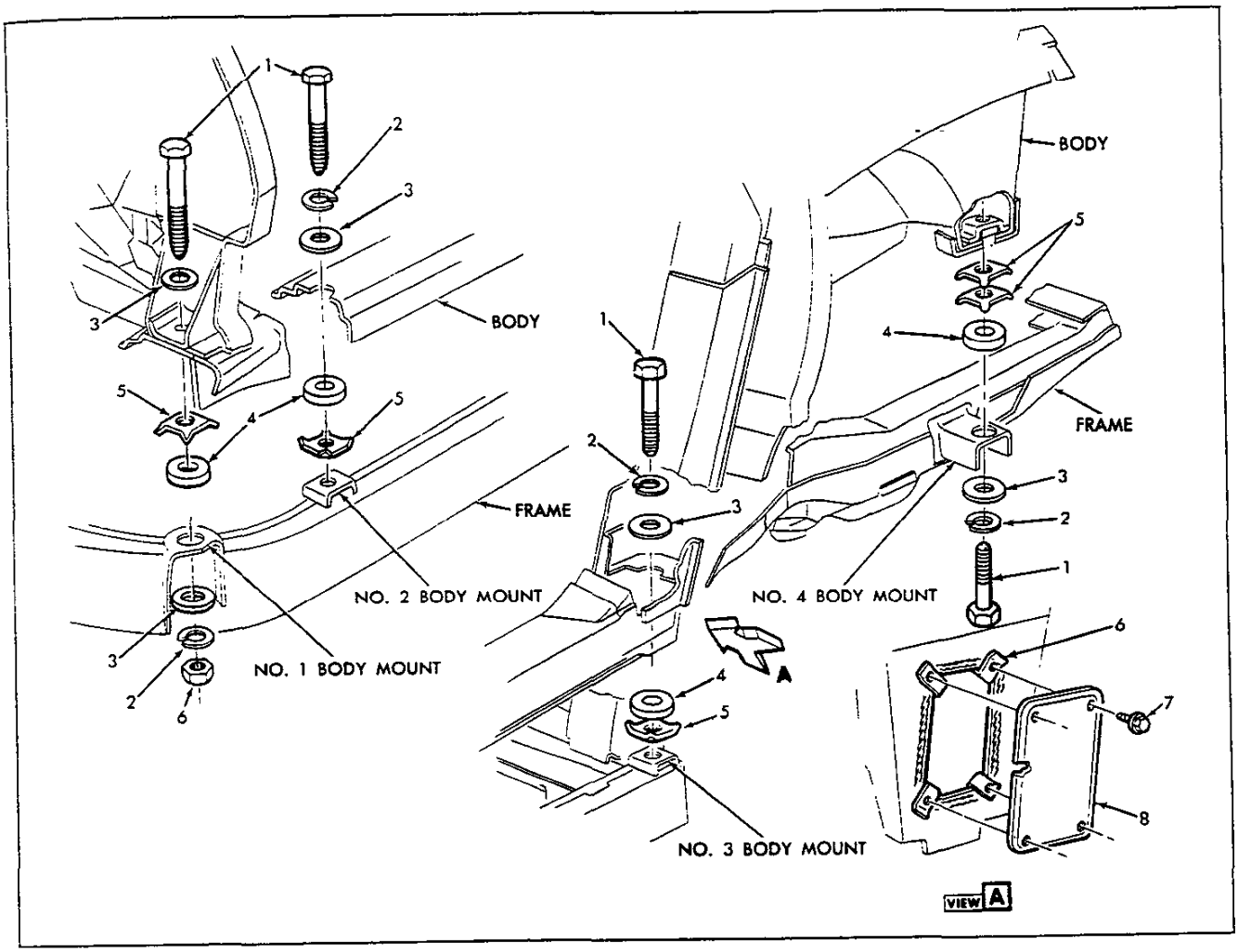


Fig. 43—Body Mounts

1. Bolt
2. Lockwasher
3. Washer
4. Spacer
5. Shim
6. Nut
7. Screw
8. Access Cover

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.

Adjustment

Height of seats is adjustable at both front and rear by means of shims or washers.

Angle of seat backrest may be changed by adjusting stops located on lower edge of seat back.

BODY MOUNTING

Figure 43 illustrates underbody attachment-to-frame body mounting brackets. Shims which are shown on rear crossmember are cemented in place.

The torque of all body mounting bolts should be checked periodically as an aid to preventing annoying squeaks and rattles. All bolts shown in Figure 43 should be torqued 40 to 50 lb. ft.

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.

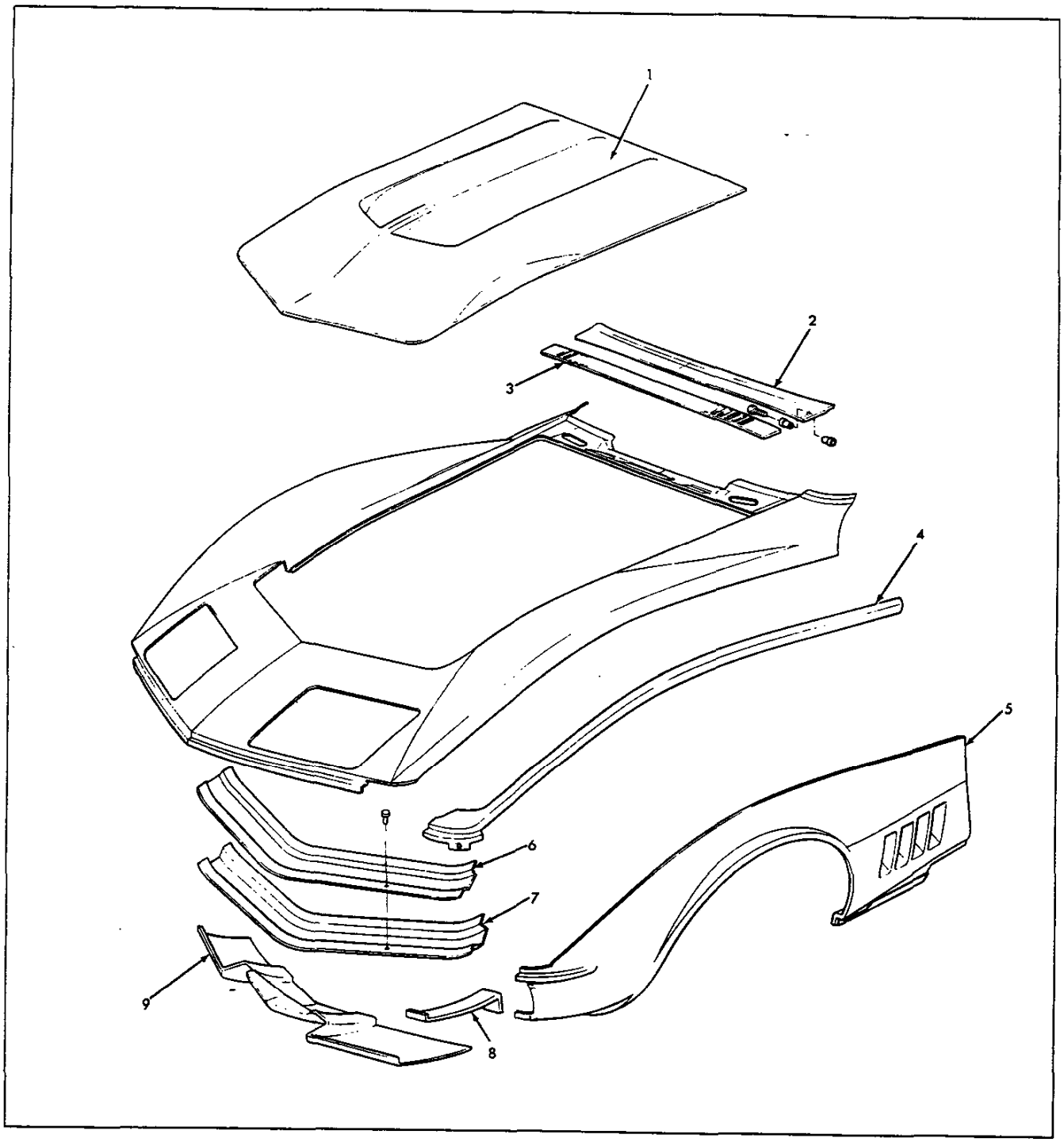


Fig. 44—Front Body Construction

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

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

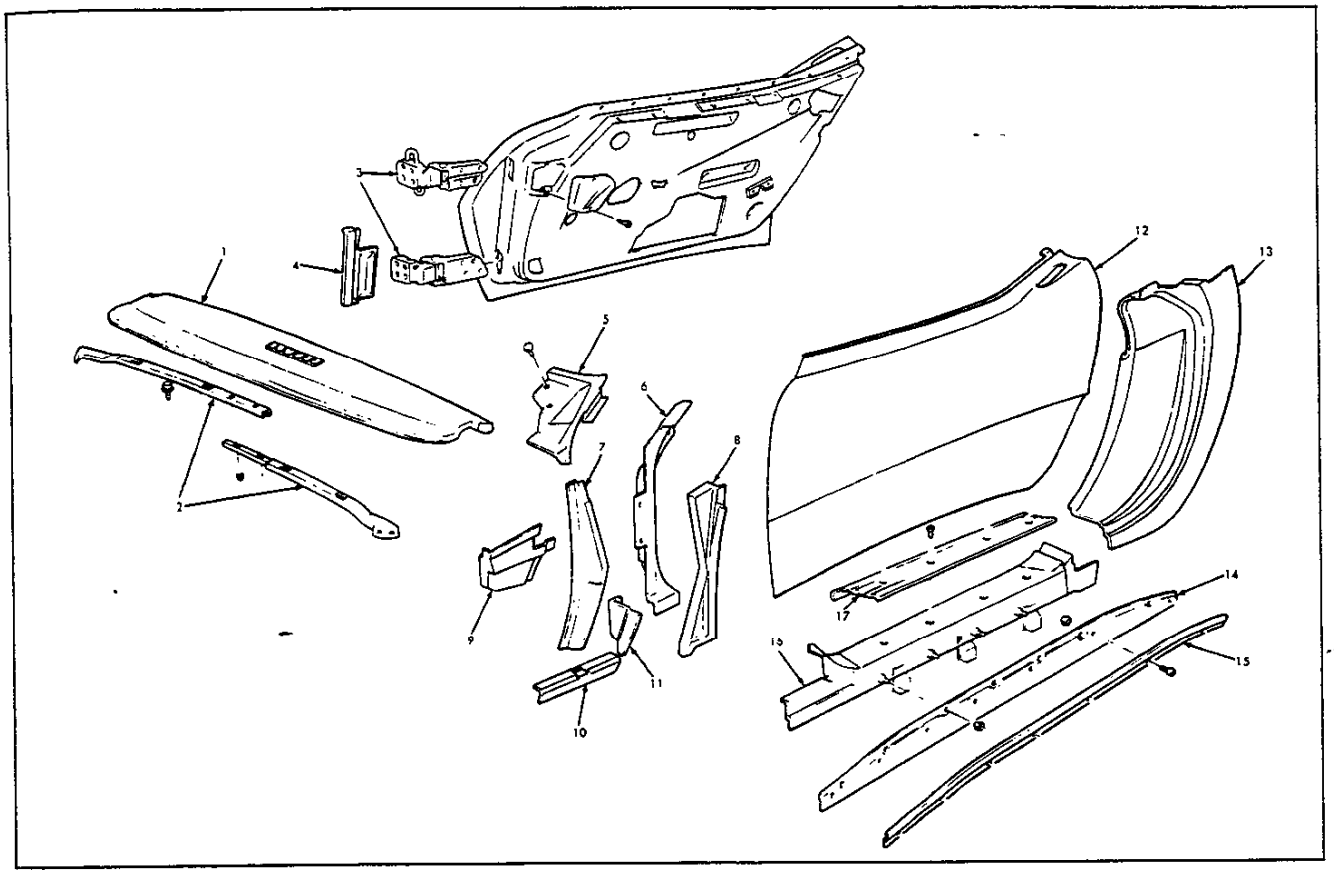


Fig. 45—Center Body Construction

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

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 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.

REPAIR PANELS

Body repair panels are illustrated in Figures 44 through 47. 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 48 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 Kit materials are used. Generally, the cream is not required when the plastic 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.

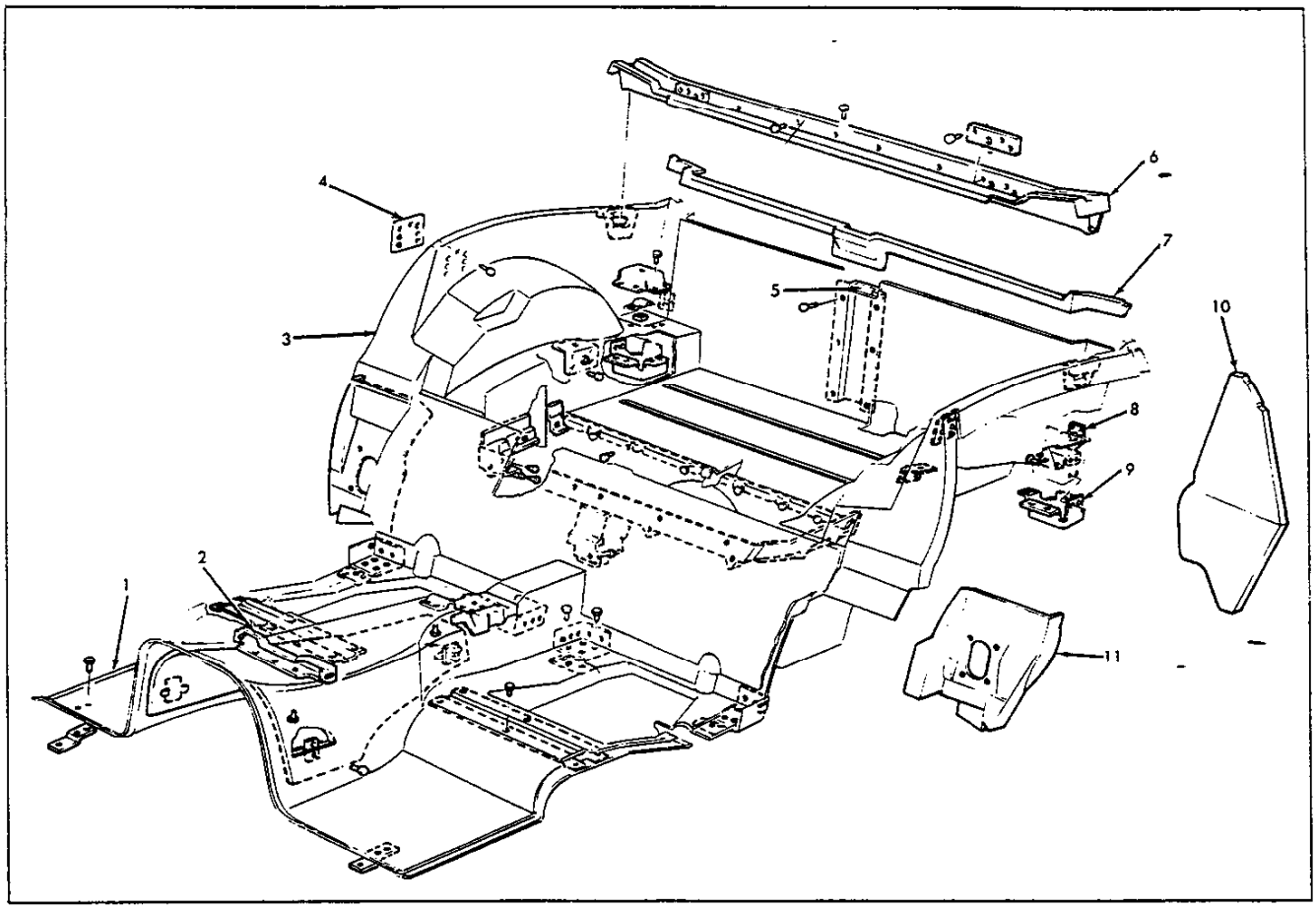


Fig. 46—Under Body Construction

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

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 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 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

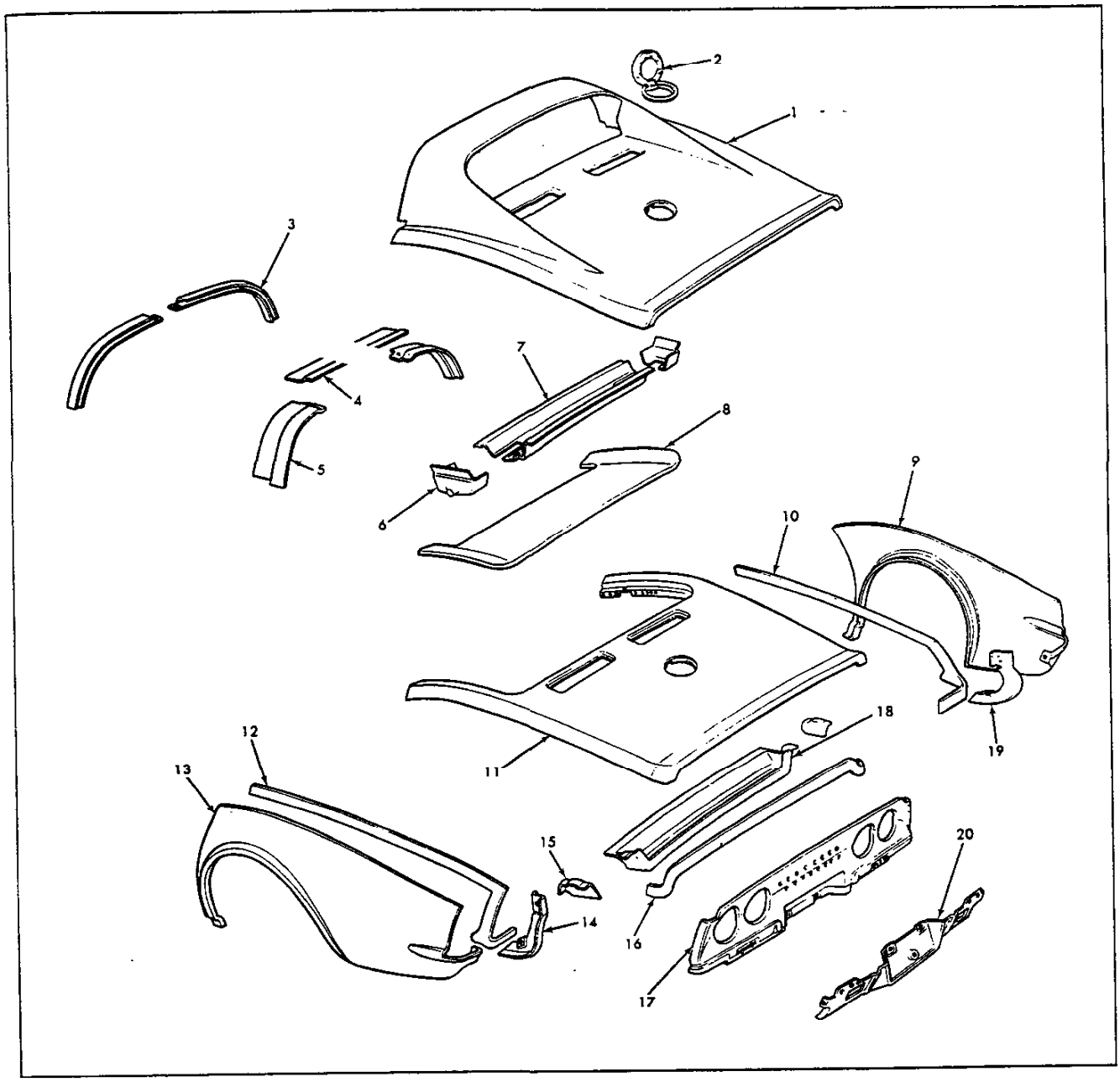


Fig. 47—Rear Body Construction

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

finish from damaged area. Carefully inspect for other areas requiring repair.

2. Mix the materials (fig. 49).
3. Apply the material, using a putty knife or rubber squeegee, Figure 50. Work the material into the repair and build the material up to the desired

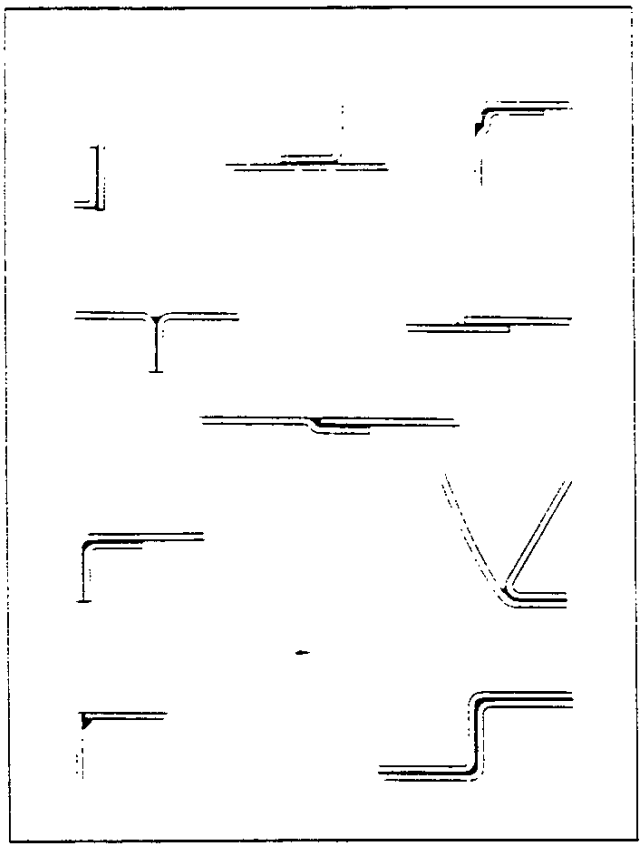


Fig. 48—Typical Body Bonds

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 51.

RESIN KIT

The Resin Repair Kit, for major repairs, contains resin, hardener, Thixatrope, 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.

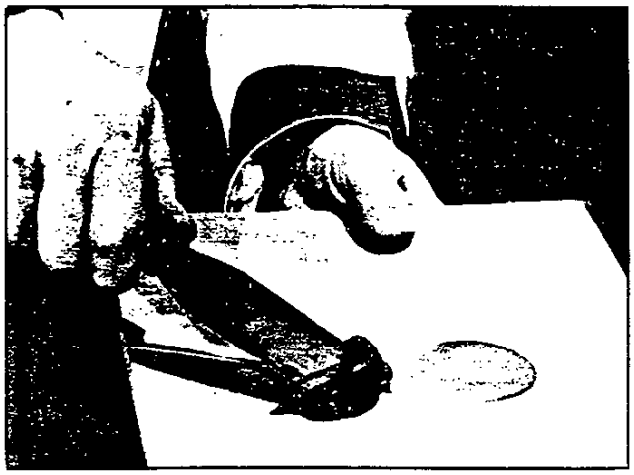


Fig. 49—Mixing Plastic Solder Material

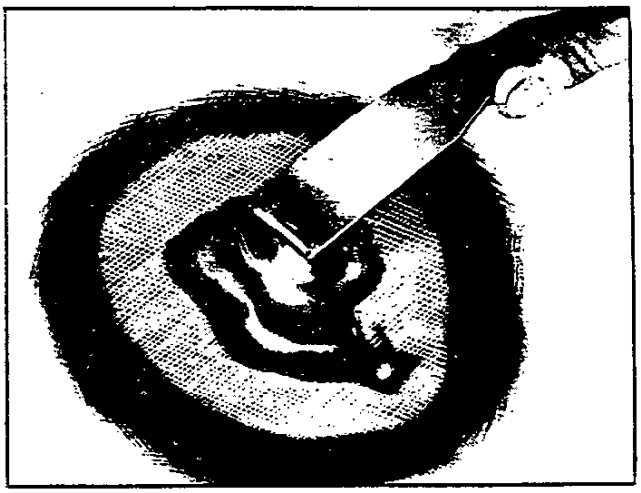


Fig. 50—Applying Plastic Solder

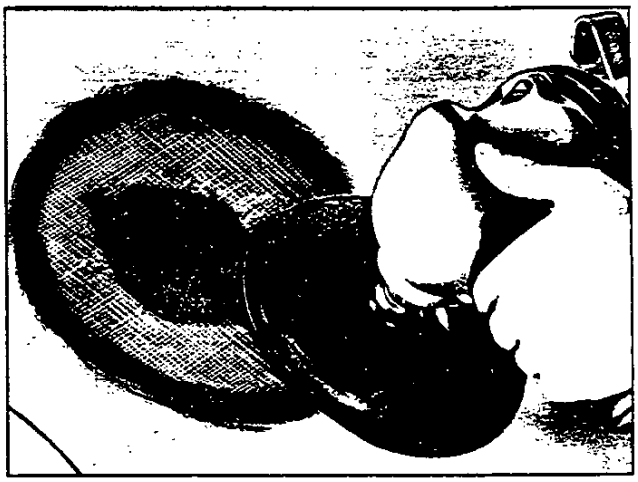


Fig. 51—Finishing Plastic Solder Repair

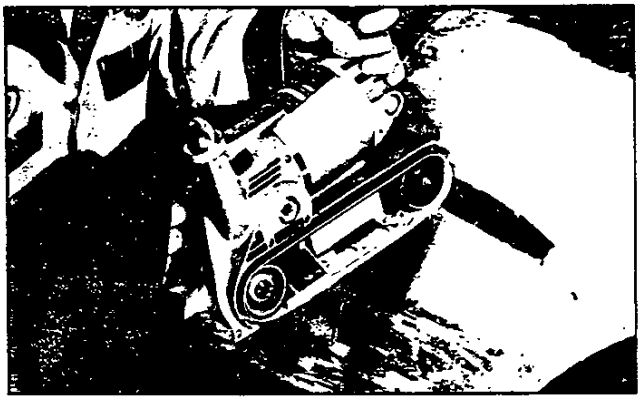


Fig. 52—Grinding "V" at Damaged Area

Fig. 53—Applying Resin Mixture to Fiberglass

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.
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 52.
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 Thixatrope to the mix to give the mix body and reduce the "runniness" of the material.

   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. 53). Place laminate over damage area. Smooth out wrinkles, and make sure general contour of area is maintained, Figure 54.
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 Solder Repair Kit.

Fig. 54—Applying Laminate to Body

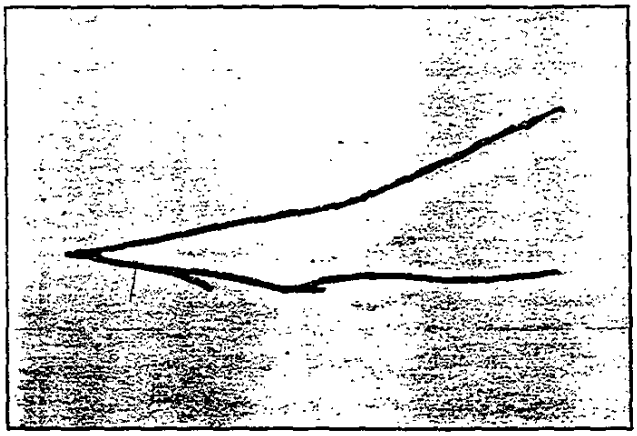


Fig. 55—Typical Scratched Panel

SPECIFIC REPAIRS

Scratched Panels, Spot Refinishing

In many instances, a scratched panel will involve only a paint refinishing job. Figure 55 shows the top of a fender panel which has been scratched through to the plastic.

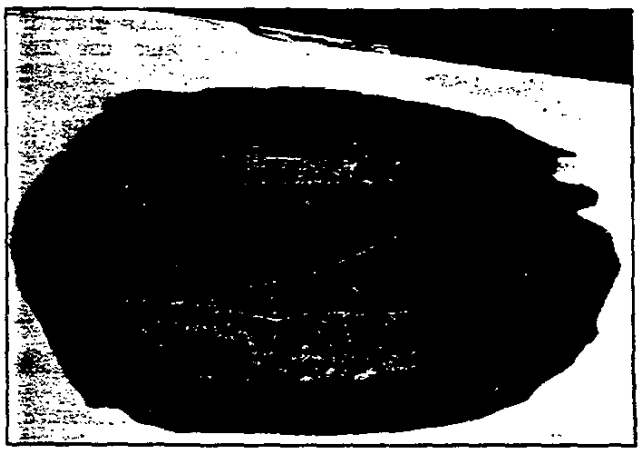


Fig. 56—Repair Area Finish Sanded

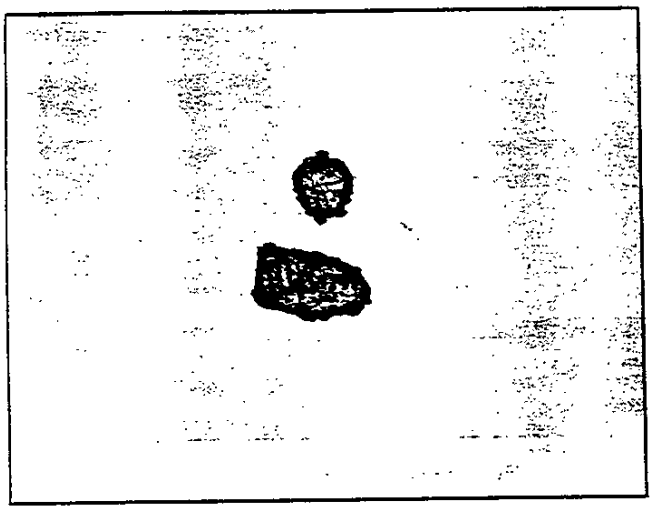


Fig. 57—Typical Pitted Panel

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 56.

   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.

Dents or Pits in Panels, Cracks in Glaze Coat

Figure 57 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.
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.

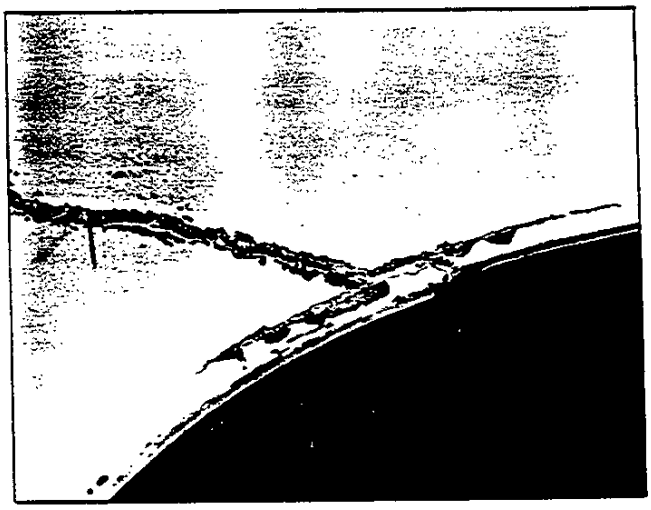


Fig. 58—Typical Cracked Panel

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 58, 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.

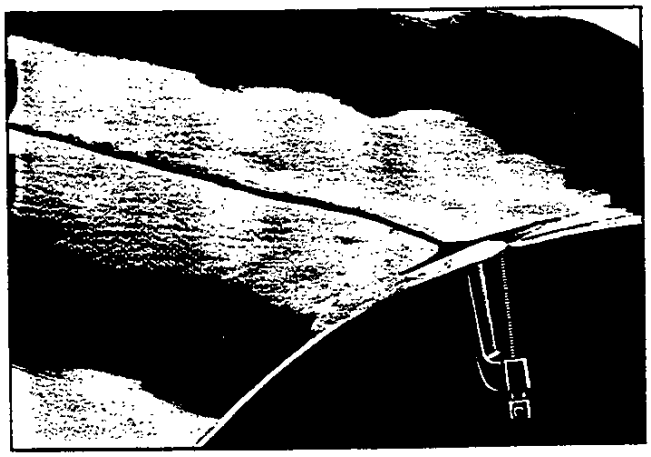


Fig. 59—Cracked Panel Preparation

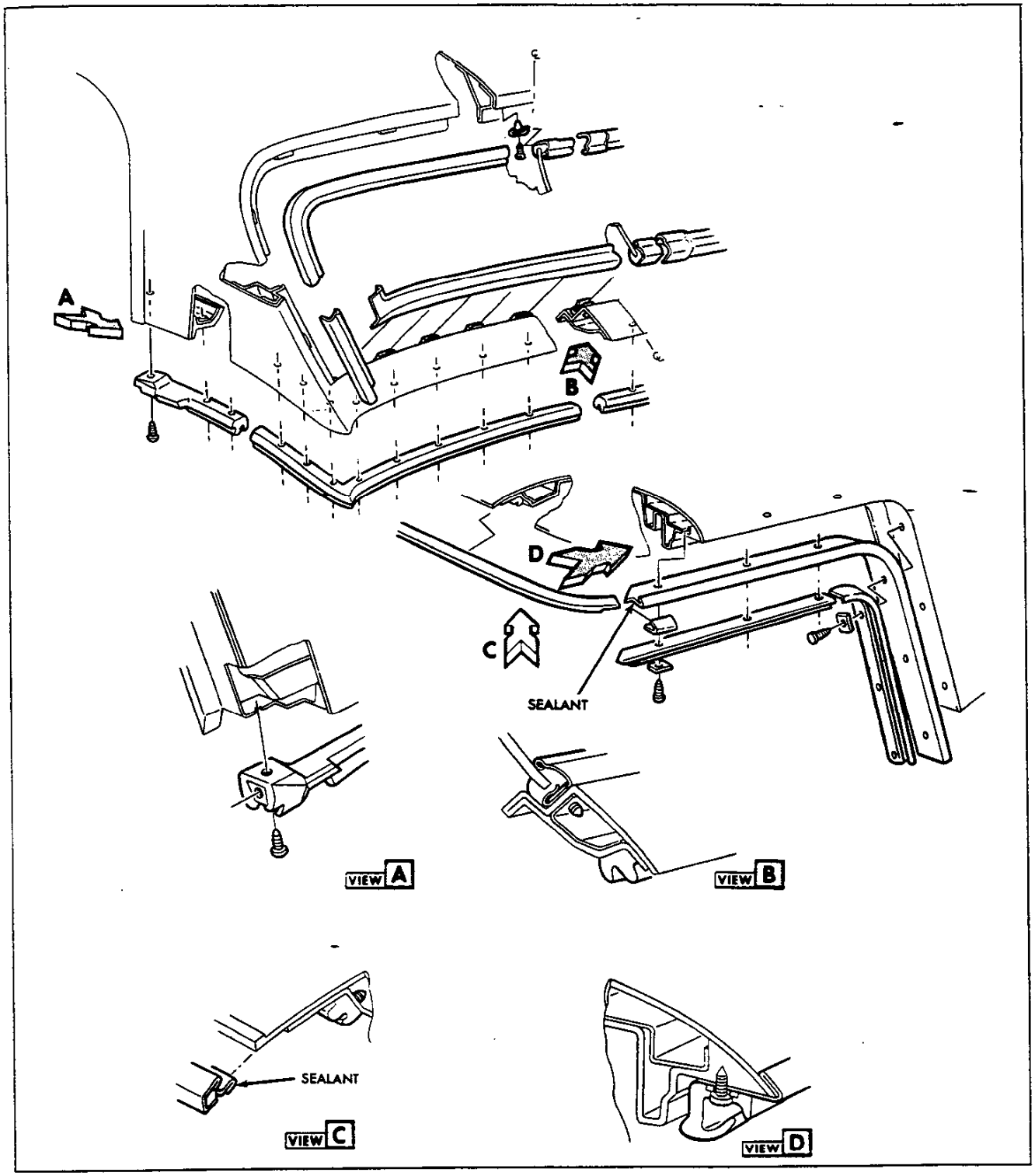


Fig. 60—Molding and Weatherstrip (Convertible Hardtop)

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 59.

6. Cut two pieces of woven glass fiber cloth for backup of sufficient size to overlap the fracture by approximately two inches.

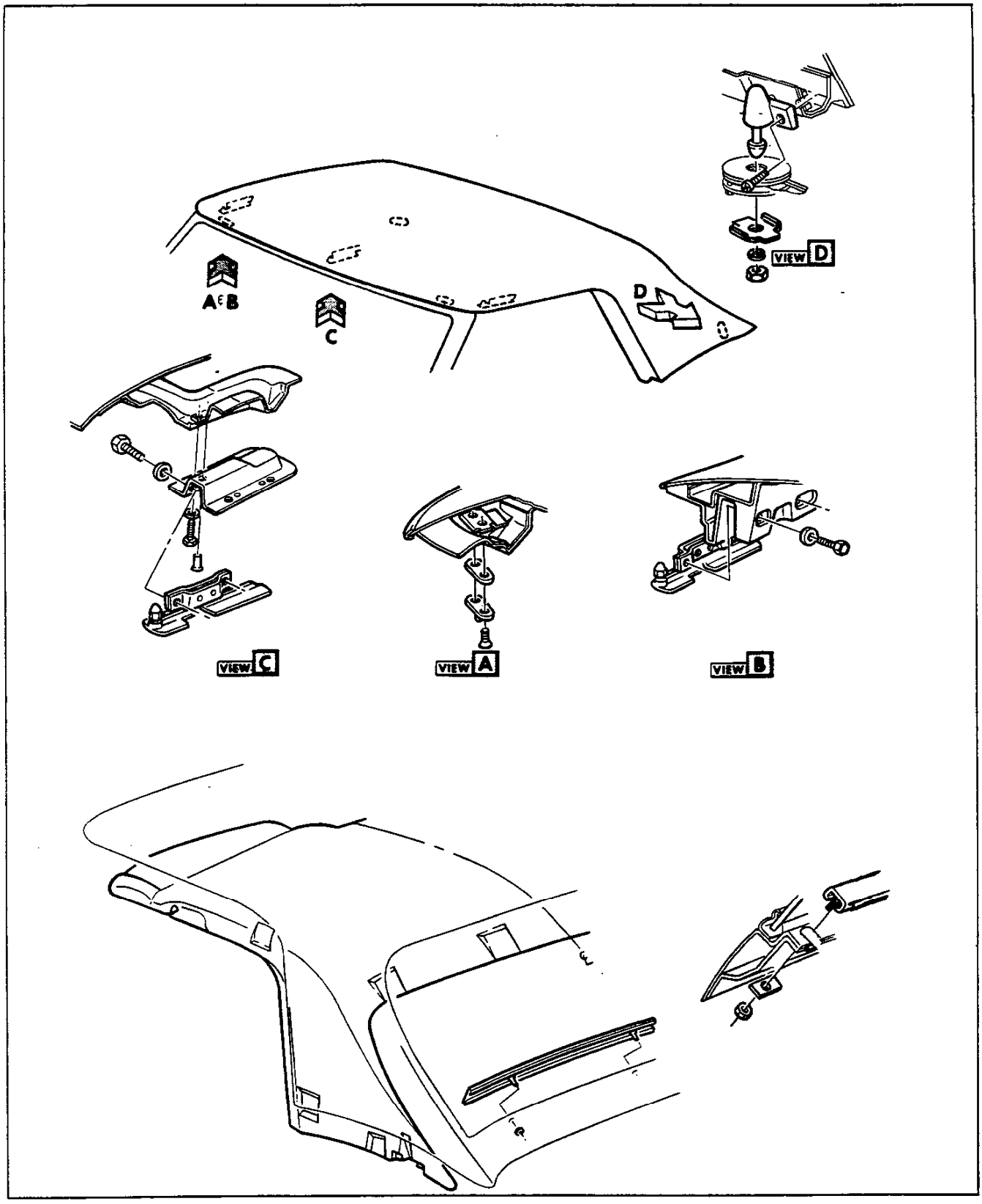


Fig. 61—Top Attachments and Headlining (Convertible Hardtop)

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.

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 Kit 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 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.

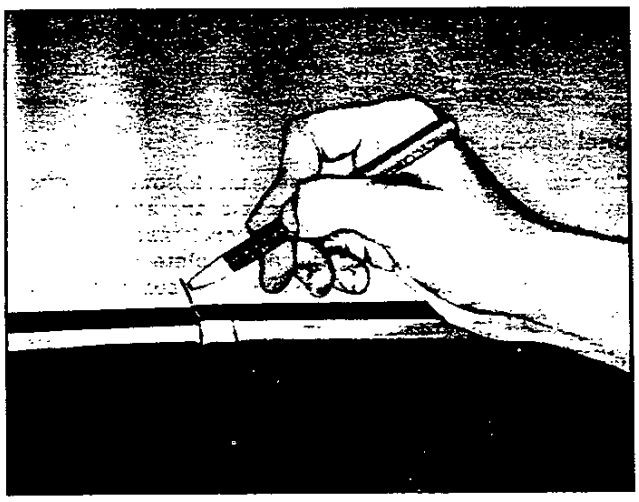


Fig. 62—Marking Molding Position

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 settling on headlining and outside surface.

REAR WINDOW

Refer to Figures 60 and 61 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. 62) 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.

   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 61 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 tighten ing 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 60, 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 loose 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.
2. Where possible, install new cover at room temperature (approximately 72°) to permit easier fitting and removing of wrinkles from the cover assembly.
3. 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").
4. 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.
5. 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 mohair 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.

6. Apply cement to entire fabric roof cover.

   NOTE: Allow approximately 15 minutes for cement to dry.

7. Fold vinyl cover back to contact adhesive on roof panel. Vinyl cover seam must be parallel to centerline of vehicle.
8. Repeat above steps for opposite side of roof.
9. Use suitable spatula or roller to remove wrinkles and/or bubbles from vinyl cover.
10. 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.
11. 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:

1. Obtain a scrap piece of fabric roof cover material, or material from a hidden area directly on complaint car (such as under reveal moldings).
2. 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.

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

Wrinkles, Blisters and Bubbles

1. Pierce each wrinkle, blister and bubble on fabric roof cover with a small needle.
2. Completely saturate a clean shop towel with water and wring out.
3. Apply cloth to wrinkle or blistered area.
4. 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.

5. Remove towel and inspect area. If slight wrinkles or blisters are still present, perform the following steps:
6. Using a syringe and hypodermic needle filled with clear water, inject sufficient water into wrinkle or bubble to dampen fabric backing.
7. 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.

1. 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.
2. 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.

3. When removing frost, snow or ice from the plastic window, DO NOT USE A SCRAPPER. In an emergency, warm water may be used. Use care that the

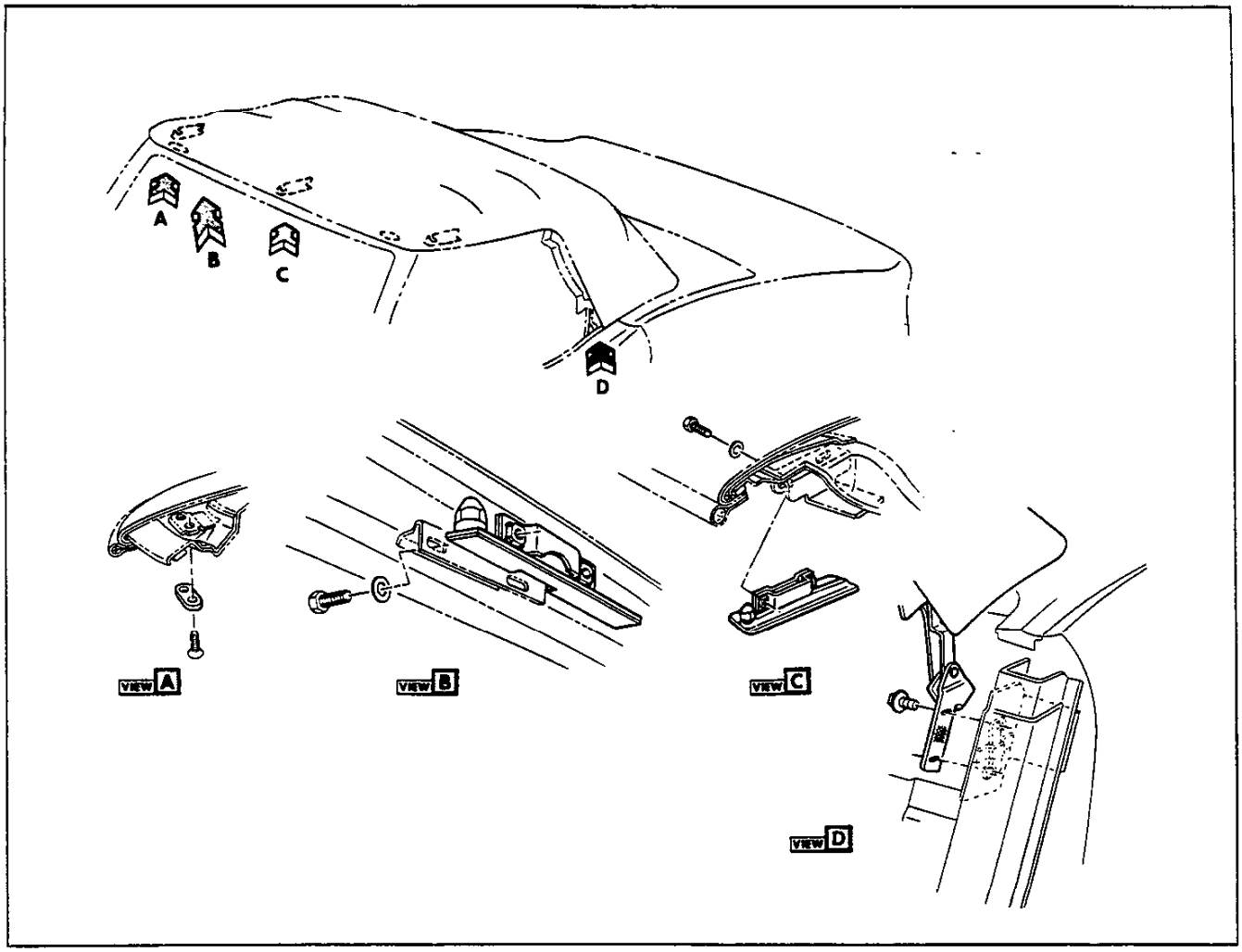


Fig. 63—Folding Top Adjustments

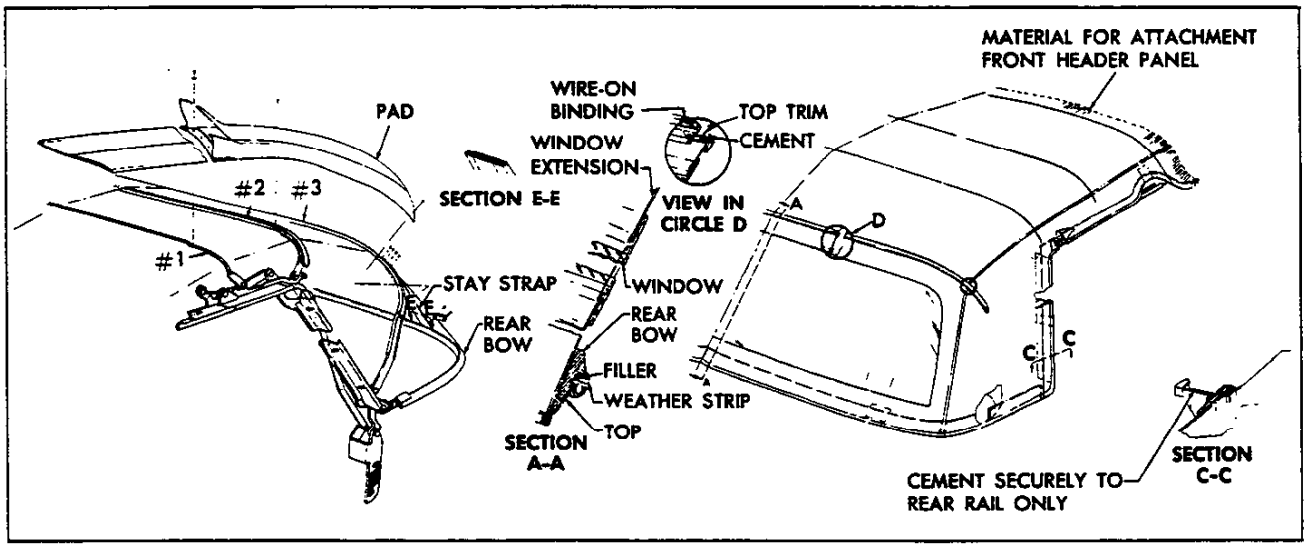


Fig. 64—Folding Top Trim Installation

warm water does not contact the glass windows or windshield.

ADJUSTMENTS

To correct variations in the top fit, adjustments are made at three locations shown in Figure 63. 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

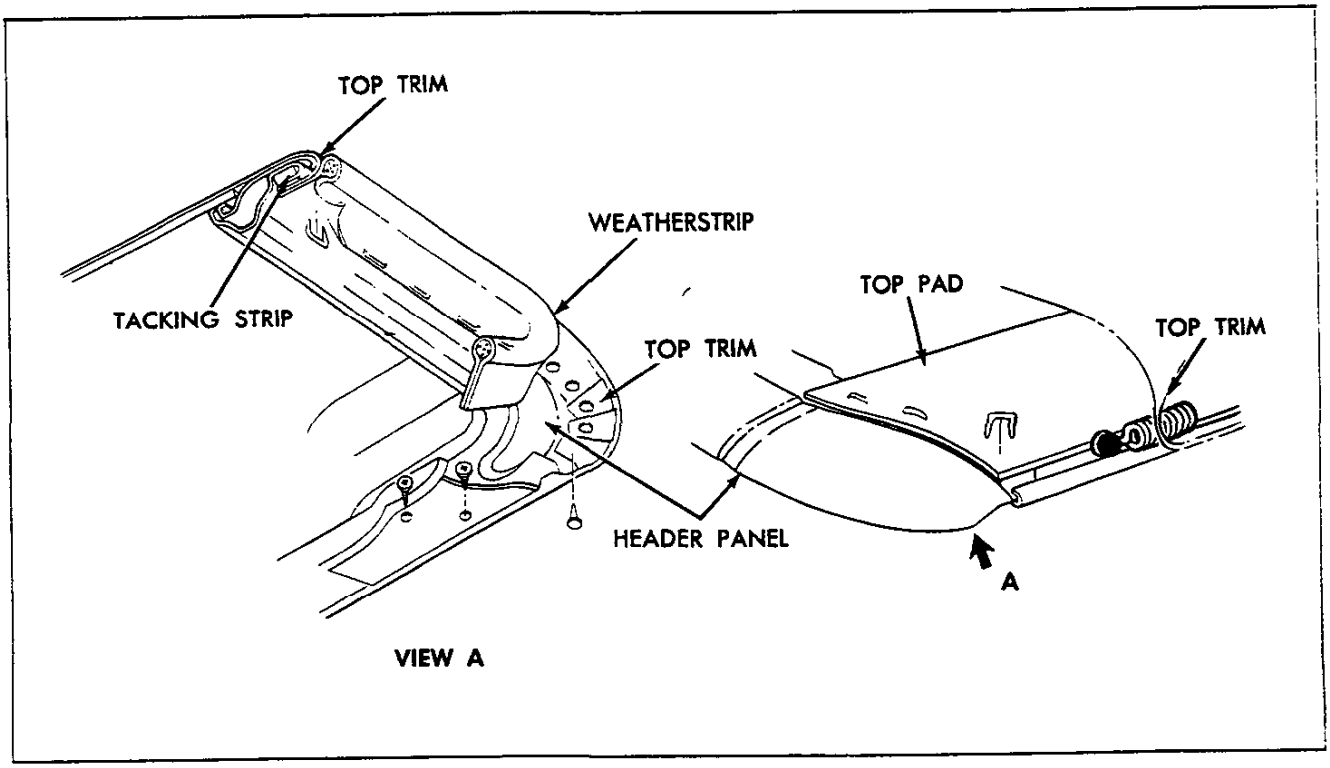


Fig. 65—Trim at Header

complete. Figure 64 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 71. 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. 65).
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 retain at each side Figure 66.
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.

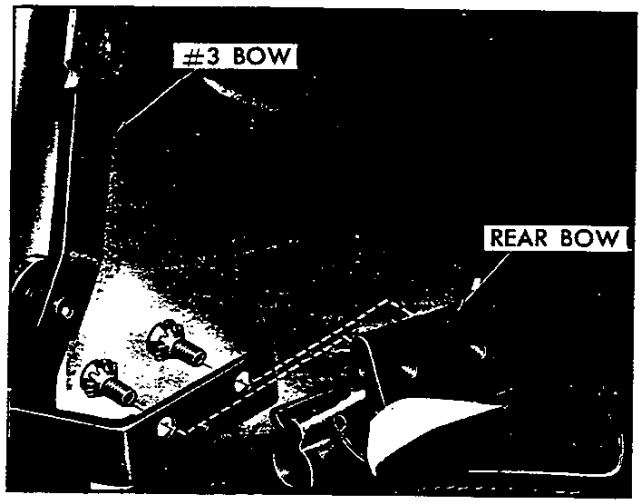


Fig. 66—Rear Bow Retaining Screws

Section A-A shows installed position of these components. Refer also to Figure 67.

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 67. 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 68 shows pad construction; Figure 69 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. 70).
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 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 64. 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

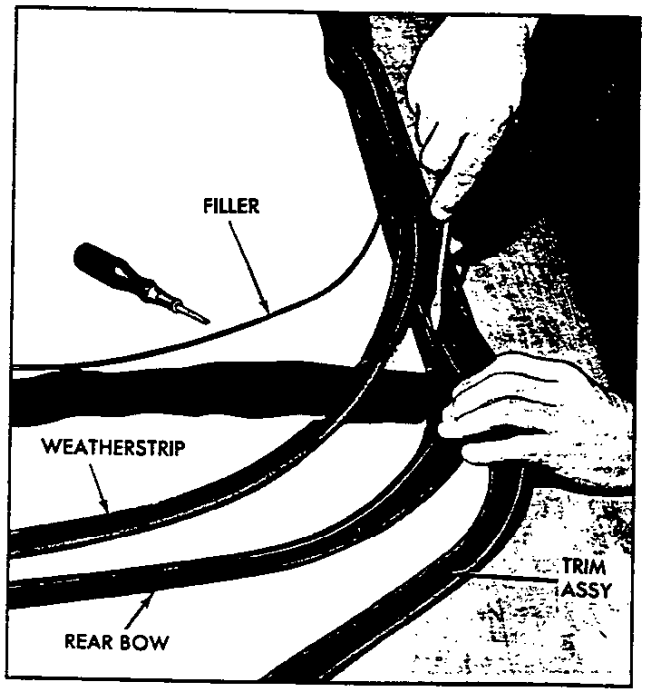


Fig. 67—Installing Trim and Weatherstrip to Rear Bow

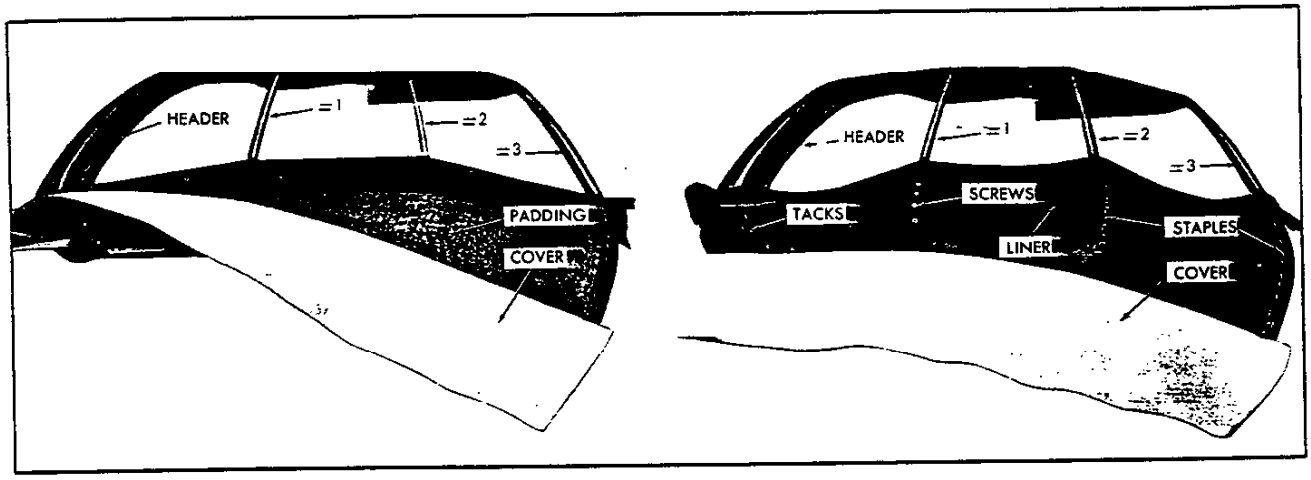


Fig. 68—Pad Construction

as shown in Figure 71 and View D of Figure 64. 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. 65).
15. Apply trim to rear side frame, previously cemented.
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.

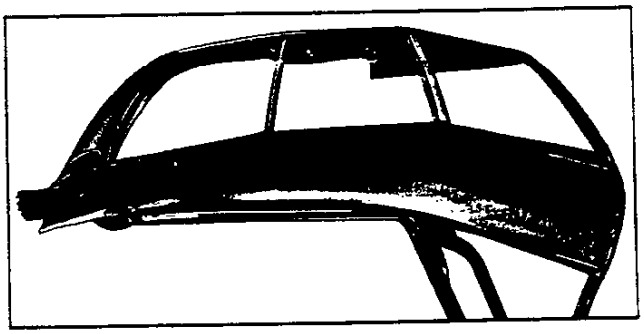


Fig. 69—Pad Installed

FRAME AND LINKAGE

Figure 72 illustrates construction features of the folding top frame and linkage. Various cross sections in Figure 72 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.

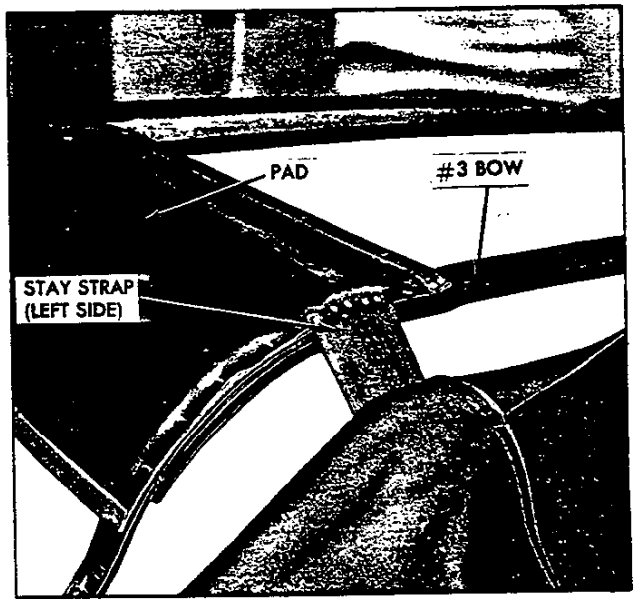


Fig. 70—Installing Stay Strap

WEATHERSTRIP

Side Rail Weatherstrip

Figure 73 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

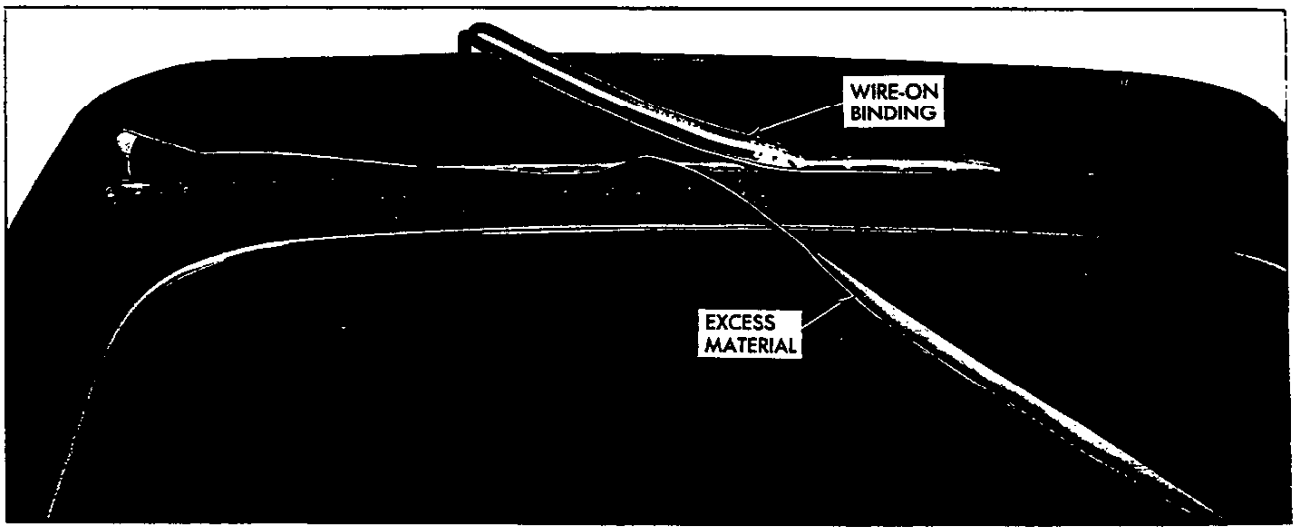


Fig. 71—Installing Binding

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 74 along with neoprene base weatherstrip cement.

SPORT COUPE MODEL 19437

ROOF PANEL ADJUSTMENT (Fig. 75)

Each roof panel is adjusted in relationship to the other

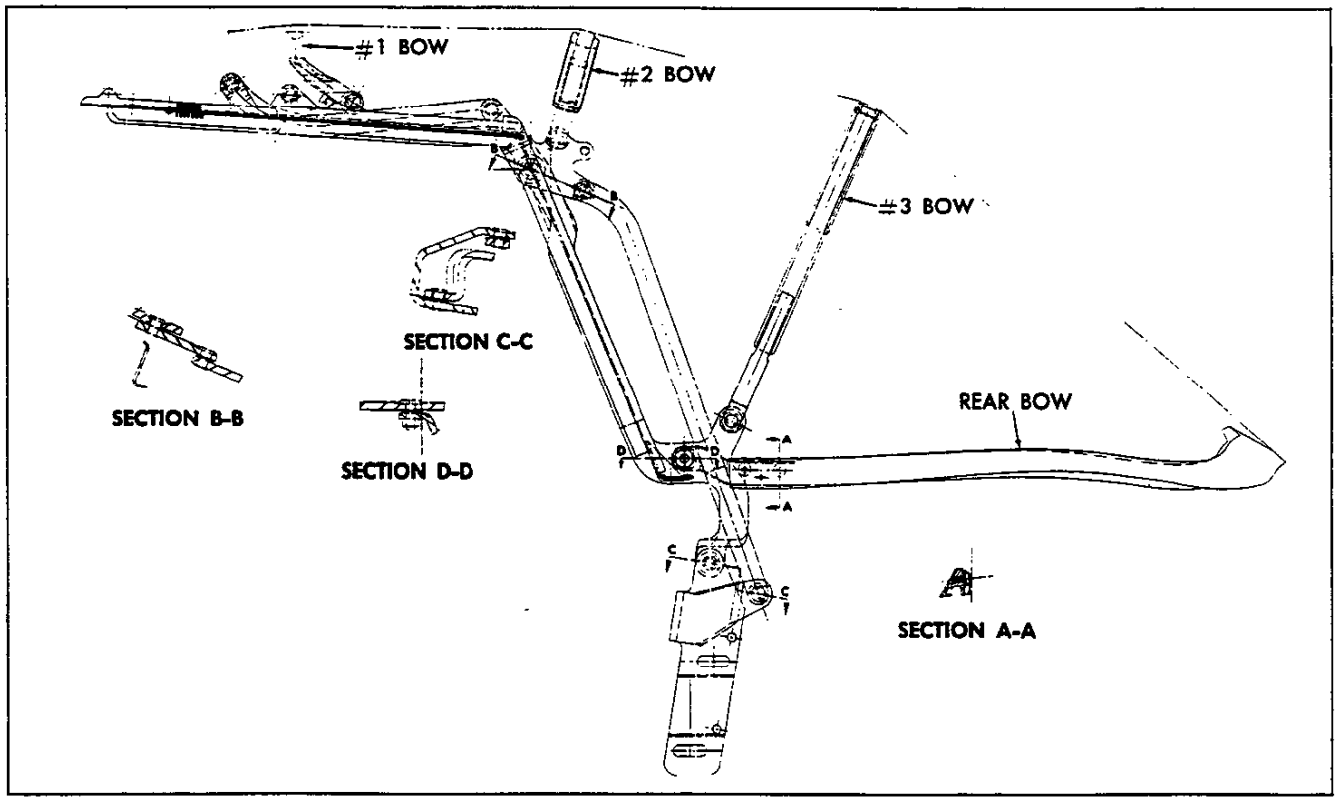


Fig. 72—Top Frame and Linkage

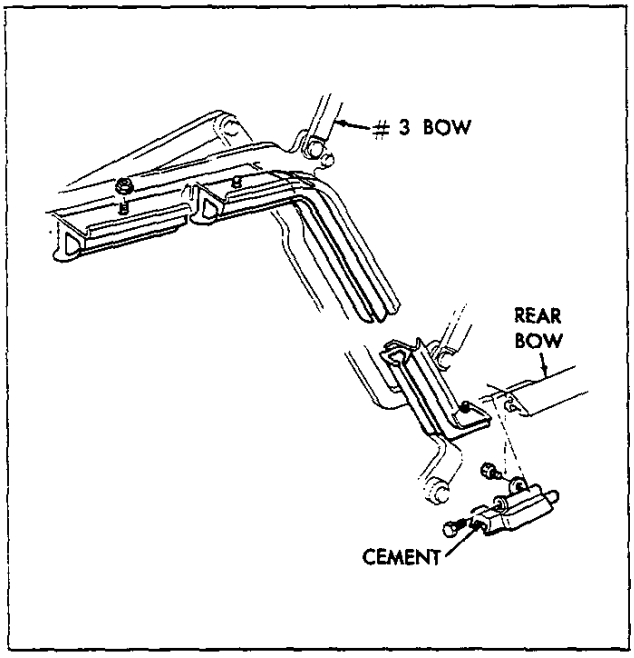


Fig. 73—Side Rail Weatherstrip

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.

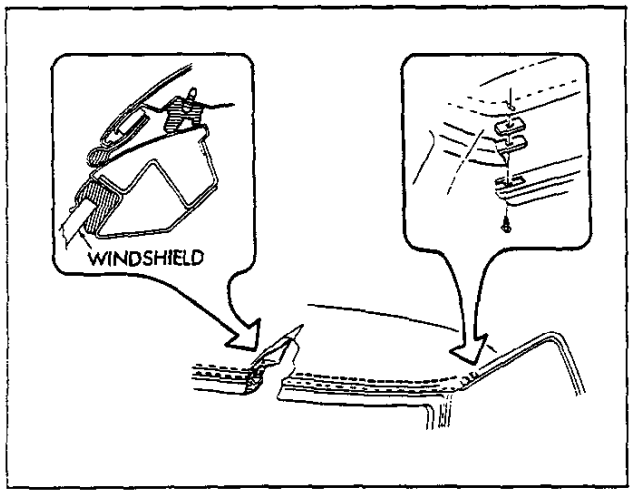


Fig. 74—Header Weatherstrip

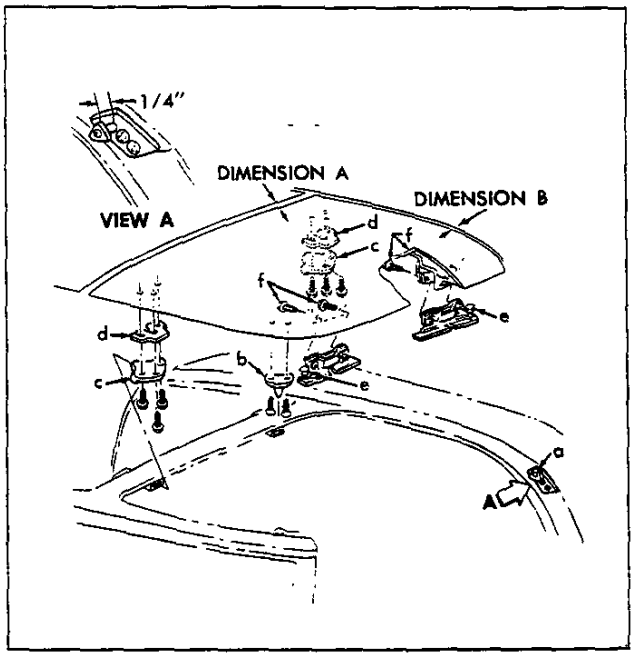


Fig. 75—Roof Panel Alignments

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. 76)

1. Remove roof panel and place upside down on soft clean surface.

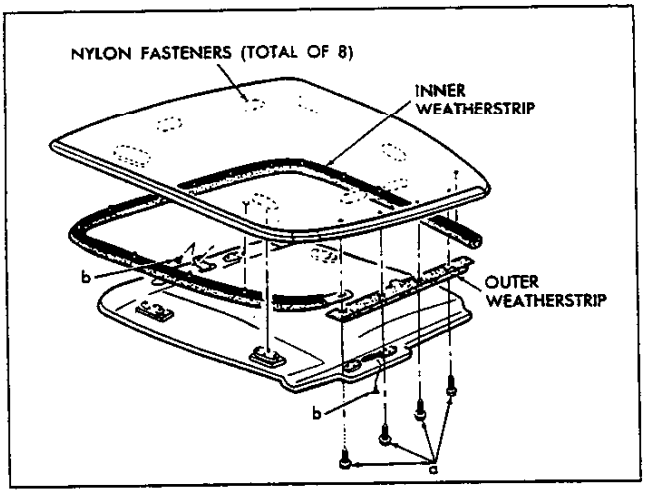


Fig. 76—Roof Panel Weatherstrips

2. Remove four (4) screws (a) retaining outer weatherstrip. Remove weatherstrip.

   NOTE: Butt joints are rubber cemented to inner weatherstrip. Use care when separating.

3. If inner weatherstrip is to be removed, proceed as follows:
   a. Remove screw (b) on each side of headliner panel.
   b. Pry headliner loose from nylon retainers at eight (8) locations. Remove headliner.
   c. Pry out plastic buttons retaining weatherstrip to roof panel. Remove weatherstrip.
4. Clean old sealer off roof panel.
5. If inner weatherstrip was removed, perform the following:
   a. Apply sealer to roof panel along the entire periphery of the roof panel where the inner strip is to lie.
   b. Install new weatherstrip starting at screw attachment end engaging all plastic retainers. Push down along strip to uniformly spread the sealer. Apply rubber cement to butt joint ends.

   NOTE: It may be necessary to cut the rearward end of weatherstrip to have it properly butt against outer weatherstrip.

   c. Reinstall headliner panel.
6. Apply a 3/16" bead of sealer on the roof panel where outer weatherstrip will lie.
7. Apply rubber cement to butt ends of the new outer weatherstrip and reinstall to roof panel with four (4) screws.
8. Reinstall roof panel.

INTERIOR QUARTER PANEL TRIM REMOVAL (Fig. 77)

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.

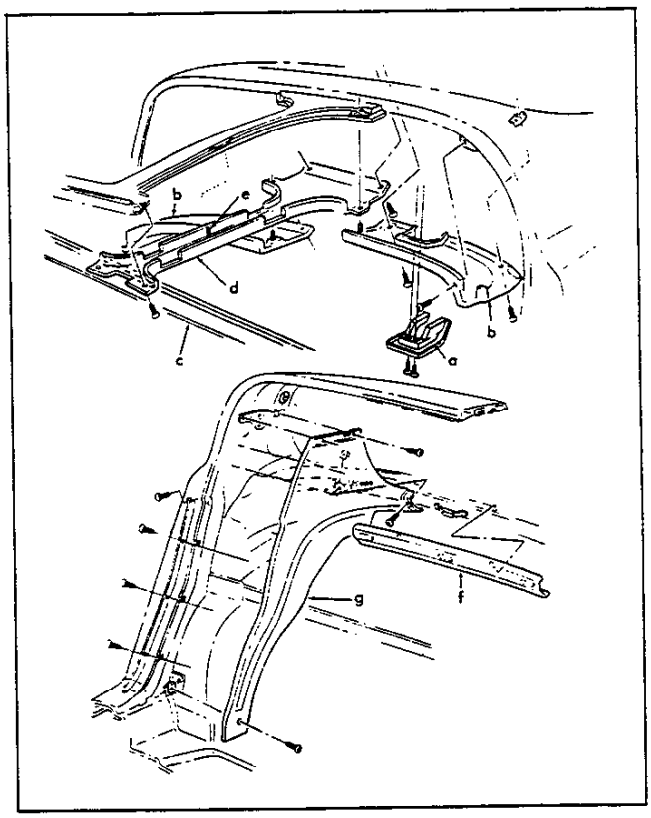


Fig. 77—Interior Quarter Trim

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.

SPECIAL TOOLS

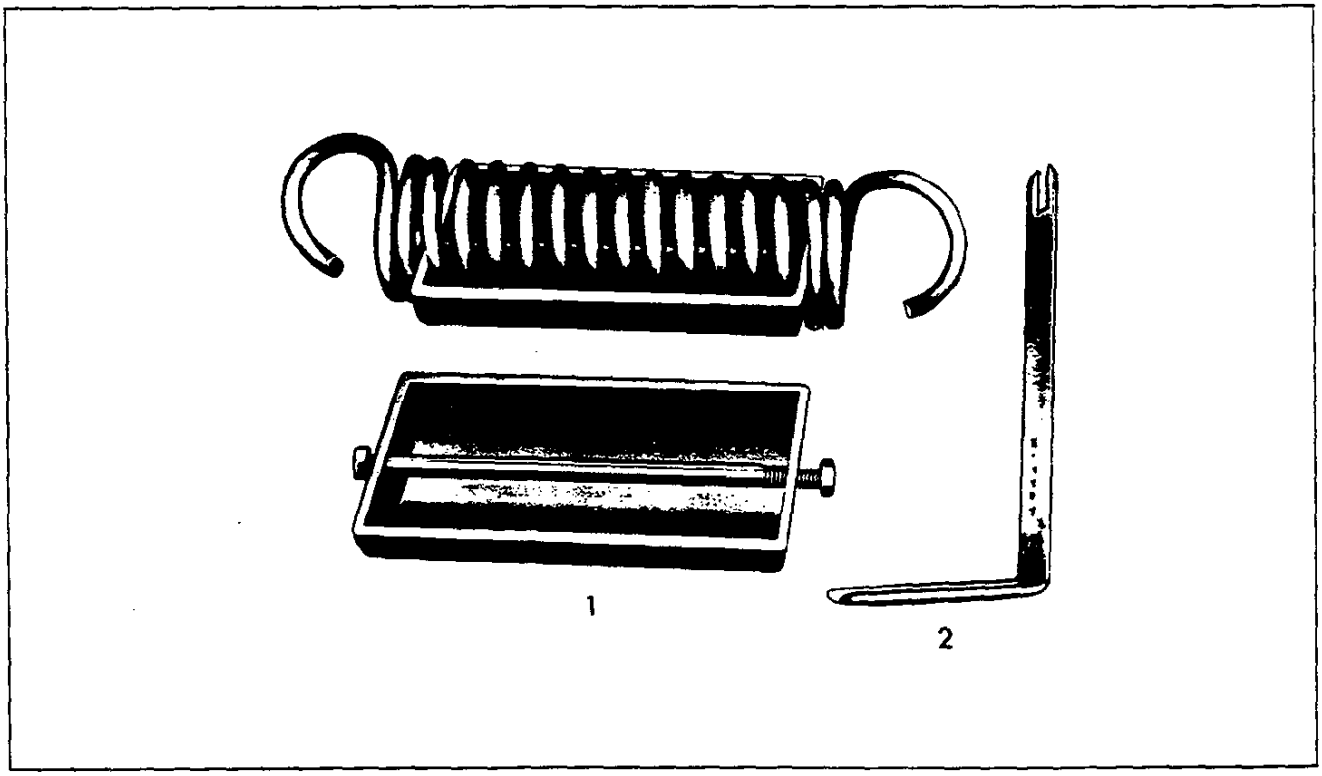


Fig. 78—Special Tools

1. J-9559 Hood Spring Tool
2. J-7797 Door Handle Clip Remover


PROMPT DEPENDABLE QUALITY
SUPER
CHEVROLET
SERVICE

AMA–40A
197J

AMA Specifications—Passenger Car

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

MANUFACTURER Chevrolet Motor Division General Motors Corporation		CAR NAME CORVETTE	
MAILING ADDRESS [redacted]		MODEL YEAR 1970	ISSUED: 2-70 REVISED (e)

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.

TABLE OF CONTENTS

BODY – TYPES AND STYLE NAMES –

Body type, style names; use manufacturer's code for series & body style.

2-Door Sport Coupe, 2-Passenger	19437
2-Door Convertible, 2-Passenger	19467

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

CAR AND BODY DIMENSIONS

See Pages 25, 26 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
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		
Body "O" line to ℄ of rear wheel		L127	72.0	
Body "O" line to w. s cowl point		L130		
HEIGHT				
Passenger Distribution (front & rear)			2 - 0	
Trunk/Cargo load (lbs.)				
Overall height		H101	47.4	47.5
Cowl height		H114	26.6	
Deck height		H138		
Rocker panel – front	To ground	H112	7.3	
	From front wheel ℄		21.0	
Rocker panel – rear	To ground	H111	7.1	
	From rear wheel ℄		16.6	
Windshield slope angle		H122	57.0	
GROUND CLEARANCE				
Bumper to ground – front		H102	20.3	
Bumper to ground – rear		H104	19.3	
Angle of approach		H106	22.0	
Angle of departure		H107	21.0	
Ramp breakover angle		H147	22.0	
Min. running clearance (Specify)		H156	4.5 (a)	

(a) Exhaust system to ground

Auxiliary removable hardtop (convertible). Black vinyl roof covering for auxiliary hardtop. Wheel covers. Shoulder belts and retractors (convertible). Rear-window defroster. Four-Season air conditioning. Tilt-telescopic steering wheel. AM/FM pushbutton radio. AM/FM/Stereo pushbutton radio. Power brakes. Power steering. Power windows. White-lettered tires. White-stripe tires. Audio alarm system.

All Corvette engines for 1970 have transmission-controlled spark advance for improved emission control. New slim-line gasketless spark plugs for Turbo-Jet V8 engine. High-performance and special-performance camshafts and mechanical valve lifters as listed.

***300-hp* Turbo-Fire 350 V8, *standard*.** Four-barrel carburetor, premium fuel, general-performance camshaft. Compression ratio—10.25:1. Hydraulic valve lifters. **Transmissions:** 4-Speed, Turbo Hydra-matic.

***350-hp* Turbo-Fire 350 V8, *extra cost*.** Four-barrel carburetor, premium fuel, high-performance camshaft. Compression ratio—11.0:1. Hydraulic valve lifters. **Transmission:** 4-Speed.

***370-hp* Turbo-Fire 350 V8, *extra cost*.** NEW. Four-barrel carburetor, premium fuel, special-performance camshaft. Compression ratio—11.0:1. Mechanical valve lifters. **Transmission:** 4-Speed.

***390-hp* Turbo-Jet 454 V8, *extra cost*.** NEW. Four-barrel carburetor, premium fuel, high-performance camshaft. Compression ratio—10.25:1. Hydraulic valve lifters. **Transmissions:** 4-Speed, Turbo Hydra-matic.

***460-hp* Turbo-Jet 454 V8, *extra cost*.** NEW. Large four-barrel carburetor, premium fuel, high-performance camshaft. Compression ratio—11.25:1. Mechanical valve lifters. **Transmissions:** 4-Speed, Turbo Hydra-matic.

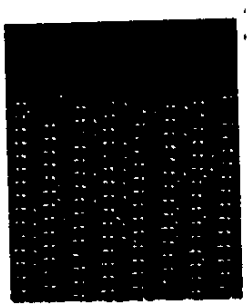
Transmissions: 4-Speed, *standard*. Wide range, fully synchronized. Console-mounted shift lever. Gear ratios: first—2.52:1, second—1.88:1, third—1.47:1, fourth—1.00:1. Also available in close ratio version: first—2.20:1, second—1.64:1, third—1.27:1, fourth—1.00:1 (close ratio not available with 300-hp engine; wide range not available with 460-hp engine). **Turbo Hydra-matic, *extra cost*.** Console-mounted shift. Can be shifted manually through three forward ranges, or left in "drive" for automatic shifting.

For performance: Special-purpose engine, suspension and chassis components, such as a special power brake system, are included with specific engine/transmission option packages.

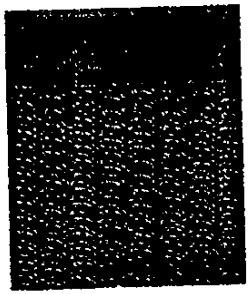
New: Corvette for '70 accentuates its aerodynamic look. There's a bright new precision-cast grille, new bright accents on fender side louvers, and new stainless steel body sill moldings.

Also new for '70: New wider flared wheel openings front and rear. New improved windshield wiper cowl panel operation. New faster headlight positioning control. New improved hood locking system. New improved door latching system for convertible. New parking lights. New side marker lights, front and rear. New rectangular exhaust pipe extensions. New instrument cluster. New high-back bucket seats with built-in head restraints.

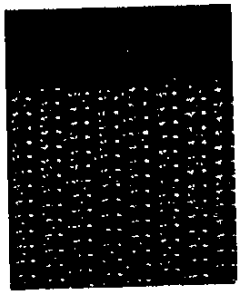
Others you'll like: Steel-reinforced fiberglass body. High-rise fenders with functional louvers. Power-operated retractable dual headlights. Front and rear air spoilers. Removable roof panel sections and rear window (coupe). Concealed outside door handles. Keyless door locking. Full door-glass styling without ventipanes. Hide-A-Way windshield wipers with integral washers (under power-operated cowl panel). Twin rear-deck air exhaust grilles. Wheel trim rings and center caps. Four-wheel disc brakes—self-adjusting. Positraction rear axle. All-welded ladder-type frame. Dual master cylinder brake system with warning light. Wide 15 x 8-inch wheels with safety rims. F70 x 15 wide-oval tires. Ball-race steering. Side-terminal energizer-type Delco-eye battery. Aircraft-type instrumentation. Astro Ventilation. Folding seat back latches. Seat belt retractors. Center console. Day-night inside rearview mirror. Console-mounted parking brake control. Sport-styled steering wheel. Tachometer. Trip odometer. Rally-type electric clock. Ammeter, oil pressure, fuel, temperature gauges. Courtesy light with automatic door switches. Light monitoring system. Tinted glass. Suspended accelerator pedal. Rear compartment stowage wells. Warning lights for door and seat belts. Delcotron generator with integral micro-switch regulator.



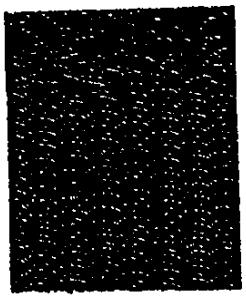
*Black



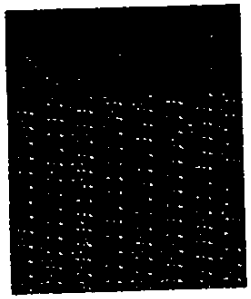
*Saddle



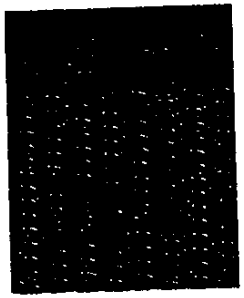
Red



Blue



Dark Brown



Dark Green

*Also available with leather seat trim in Custom Interior option described below.

Standard:

All-vinyl bucket-seat interior luxury for the '70 Corvette comes in six color choices: black, saddle, red, blue, dark brown, dark green.

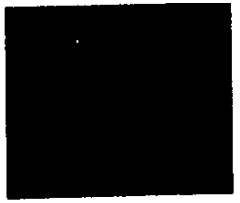
Custom interior:

A new Custom Interior option in black or saddle, includes leather seat trim, plush cut-pile carpeting, special door trim with carpeted lower panels, plus wood-grain accents on doors and console.

Classic White

Mulsanne Blue

Bridgehampton Blue



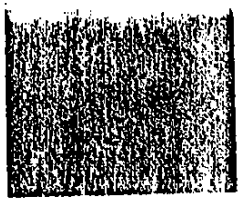
Donnybrooke Green

Laguna Gray

Marlboro Maroon

Ontario Orange

Monza Red



Cortez Silver

Daytona Yellow

Choice of 10 exterior colors for '70: • Mulsanne Blue • Bridgehampton Blue • Donnybrooke Green • Laguna Gray • Marlboro Maroon • Ontario Orange • Monza Red • Cortez Silver • Classic White • Daytona Yellow.

Convertible soft top available in white, black or sandalwood with any exterior color.

Wheelbase	98″
Length, overall	182.5″
Width, overall	69.0″
Height, overall—coupe	47.8″
convertible	47.9″
Tread, front 58.7″; rear	59.4″
Tire size	F70 x 15
Fuel tank capacity (approximate)	20 gals.

	MODEL NUMBER	DESTINATION GROUP NO.	MFR'S SUGGESTED RETAIL PRICE*
V8 MODELS (300-hp Turbo-Fire 350 V8)			
Corvette			
Coupe	19437	42	$5192.00
Convertible	19467	42	4849.00
With manually-operated folding top			
DESTINATION CHARGE:			
GROUP 42			

*Manufacturer's suggested retail price including federal excise tax and suggested dealer new car preparation charge. Destination charges, state and local taxes and optional equipment additional.

DESCRIPTION	RPO NUMBER	MFR'S SUGGESTED RETAIL PRICE
POWER TEAMS		
Engines:		
350-hp Turbo-Fire 350. Available only when standard 4-Speed wide-range or 4-Speed close-ratio transmission is ordered	L46	$158.00
370-hp Turbo-Fire 350. Available only when standard 4-Speed wide-range or 4-Speed close-ratio transmission is ordered. Includes full-transistor ignition system	LT1	447.65
390-hp Turbo-Jet 454. Available only when standard 4-Speed wide-range, 4-Speed close-ratio or Turbo Hydra-matic transmission is ordered. Includes HD battery	LS5	289.65
460-hp Turbo-Jet 454. Available only when 4-Speed close-ratio, 4-Speed special close-ratio or Turbo Hydra-matic transmission is ordered. Includes HD battery, full-transistor ignition system, aluminum cylinder heads, special hood and ornamentation	LS7	——
Transmissions:		
Turbo Hydra-matic:		
With 300-hp or 390-hp engine	M40	N.C.
With 460-hp engine	M40	95.05
4-Speed (Close-Ratio)	M21	N.C.
4-Speed (Special Close-Ratio) Available only when 460-hp engine is ordered	M22	95.05
Axle, Positraction Rear:		
Economy Ratio	ZQ8	12.65
Performance Ratio	ZQ9	12.65

(Continued of Page 43) N.C.—No charge

DESCRIPTION	RPO NUMBER	MFR'S SUGGESTED RETAIL PRICE
3.70 Ratio	YE1	$12.65
4.11 Ratio	YE2	12.65
4.56 Ratio	YE3	12.65
POWER ASSISTS		
Brakes, Power	J50	47.40
Steering, Power (Power brakes recommended) Not available when 370-hp engine is ordered	N40	105.35
Windows, Power	A31	63.20
OTHER OPTIONS		
Air Conditioning, Four-Season: Available only when 4-Speed wide-range transmission with standard, 350-hp or 390-hp engine or Turbo Hydra-matic transmission with standard or 390-hp engine is ordered	C60	447.65
Alarm System, Audio	UA6	31.60
Battery, Heavy-Duty: Included when 390-hp or 460-hp engine is ordered	T60	15.80
Belts, Shoulder Custom Deluxe: (Convertible only) Driver and passenger	A85	42.15
Defroster, Rear Window	C50	36.90
Radio: (Includes fixed height rear antenna) AM-FM pushbutton control	U69	172.75
AM-FM stereo pushbutton control	U69/U79	278.10
Roof Cover, Vinyl: Black; Convertible with auxiliary top only	C08	63.20
Steering Wheel, Tilt-Telescopic	N37	84.30
Top, Auxiliary: Hard top; Convertible only In addition to folding top	C07	273.85
Top, Folding: Convertible only. All tops available with all exterior colors		
Black	BB	N.C.
White	AA	N.C.
Sandalwood	EE	N.C.
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	——	158.00
Wheel Covers: Special	P02	57.95
FACTORY-INSTALLED REGULAR PRODUCTION TUBELESS TIRES		
Replaces (5) F70 x 15 Special Nylon Blackwall		
(5) F70 x 15 Special Nylon White Lettered Blackwall	PU9	33.15
(5) F70 x 15 Special Nylon White Stripe	PT7	28.10

N.C.—No charge

1970 Corvette

	V8
Coupe	19437
Convertible	19467

Index

Corvette models and index / 1

NEW CORVETTE FEATURES FOR 1970 . . .

- New bright precision-cast grille with new larger parking/turn signal lights
- New body sill moldings
- New bright outlined front fender louvers
- New wider flared wheel openings front and rear
- New rectangular exhaust outlets with bright accents
- New side marker lights front and rear
- New taillight and back-up light styling
- New interior trim styling and colors
- New high-backed slim-tapered bucket seat styling with integral head restraints
- New unitized seat and shoulder belt buckle design
- New Custom Interior option
- Tinted glass now standard in all windows
- New 370-horsepower 350-cu.-in. V8 option
- New large displacement 454-cu.-in. V8 option rated 390 horsepower with quiet hydraulic valve lifters and 10.25:1 compression ratio
- New top-output 460-hp includes aluminum cylinder heads, special camshaft with mechanical lifters, and 11.0:1 compression ratio
- 4-Speed fully synchronized transmission standard equipment
- Positraction rear axle standard with choice of ratios available
- Special high-domed hood included with 370-, 390- and 460-hp engines
- New improved windshield wiper cowl panel operation
- Faster headlight positioning control
- New improved hood locking system
- Improved door latching system for Convertible
- Side-terminal energizer battery

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
- 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
- Tire tread wear indicators
- Dual master cylinder brake system with warning light
- Starter safety switch

Anti-Theft Features

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

Traditional quality features . . .

- Dramatic aerodynamic styling with long sloping hood and short rear deck with flared air spoiler
- Power-operated retractable dual headlights with built-in headlight washers
- High-rise fenders with functional louvers
- Unique Coupe roof styling with removable roof panel sections and rear window
- Removable hardtop styling for Convertible
- Concealed outside door handles
- Full door-glass styling without ventipanes
- Flush-mounted windshield wipers hidden beneath power-operated cowl panel
- Twin rear deck air exhaust grilles
- Bright license plate frames
- Wheel trim rings and center caps
- Instrument panel and console with aircraft-type instrumentation
- Astro Ventilation with adjustable vent-ports in instrument panel
- Console-mounted parking brake control
- Deep-twist floor carpeting
- All-vinyl interior trim
- 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
- Rear compartment stowage wells
- Warning lights for seat belt and door ajar
- Armrests designed to shield door handles and lock buttons
- Efficient valve-in-head engine design
- Positive-shift starter
- Automatic choke
- Controlled pressure lubrication system with full-flow oil filter
- Full dual exhaust system
- Exhaust emission control system standard on all engines
- Suspended accelerator pedal with cable-type linkage
- High-output Delcotron generator
- High-capacity energizer-type battery
- Magic-Mirror acrylic lacquer finish
- Steel-reinforced fiberglass body
- Curved side windows
- Built-in blended-air heater and defroster system
- Carpeted luggage compartment behind front seats
- Color-matched seat belts
- Keyless door locking
- Concealed Convertible top stowage
- Separate spare tire stowage with key lock
- Front lower air spoiler
- Rear deck air spoiler
- Full independent suspension system
- 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
- Tire safety rim
- Built-in control of acceleration and braking forces
- Rayon-reinforced front and rear brake hoses
- 6000-mile or four-month chassis lubrication
- Rubber-mounted front stabilizer bar

Interior Trim

models	seat style	Black vinyl	Black leather	Blue vinyl	Brown vinyl	Green vinyl	Red vinyl	Saddle vinyl	Saddle leather
Coupe & Convertible	bucket	400	403	411	414	422	407	418	424

Exterior Colors

	code						
Mulsanne Blue	26	•	•				
Bridgehampton Blue	27	•	•				
Donnybrooke Green	44	•		•	•		•
Laguna Gray	15	•	•	•	•	•	•
Marlboro Maroon	77	•		•			•
Ontario Orange	62	•					
Monza Red	72	•		•		•	•
Cortez Silver	14	•	•	•	•	•	•
Classic White	10	•	•	•	•	•	•
Daytona Yellow	51	•			•		

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 white, black or sandalwood convertible top available with all exterior colors.

Seat and Shoulder Belt Colors

interior trim color	belt colors
Black	Black
Blue	Dark Blue
Green	Green
Red	Red
Brown	Dark Brown
Saddle	Saddle

Engines, Transmissions and Axle Ratios

engines	transmissions and positraction rear axle ratios											
	4-speed (2.52:1 low)				4-speed (2.20:1 low)				Turbo Hydra-matic			
	std.	econ.*	perf.*	spec.*	std.	econ.*	perf.*	spec.*	std.	econ.*	perf.*	spec.*
Standard V8 300-hp Turbo-Fire 350 V8	3.36	3.08							3.08		3.36	
(RPO L46) 350-hp Turbo-Fire 350 V8	3.36		3.55		3.70		4.11					
(RPO LT1) 370-hp Turbo-Fire 350 V8	3.55	3.36	3.70		3.70	3.55	4.11					
(RPO LS5) 390-hp Turbo-Jet 454 V8	3.08		3.36		3.36	3.08	3.55	3.70	3.08	2.73		
(RPO LS7) 460-hp Turbo-Jet 454 V8					3.36	3.08	3.55		3.08	3.36		

*Optional at extra cost.

Equipment Included With Optional* V8 Engines

Important equipment is included with optional* V8 engines, supplementing or replacing equipment included with the standard V8. Other specialized equipment is also available.

	350-hp Turbo-Fire 350	370-hp Turbo-Fire 350	390-hp Turbo-Jet 454	460-hp Turbo-Jet 454
Special high-domed hood		•	•	•
Heavier duty front springs		•	•	•
Heavier duty front stabilizer bar		•	•	•
Heavier duty rear wheel spindle support arms		•	•	•
Rear suspension stabilizer bar		•	•	•
Heavier duty clutch				•
Larger capacity radiator		•	•	•
Dual water pump and fan pulleys	•	•	•	•
Finned aluminum valve rocker covers	•	•		
Full-transistor ignition system		•		•
Chrome-finish valve rocker covers			•	•
Higher performance starting motor		•	•	•
Aluminum cylinder heads				•
Heavier duty battery			•	•

*Optional at extra cost.

Transmissions

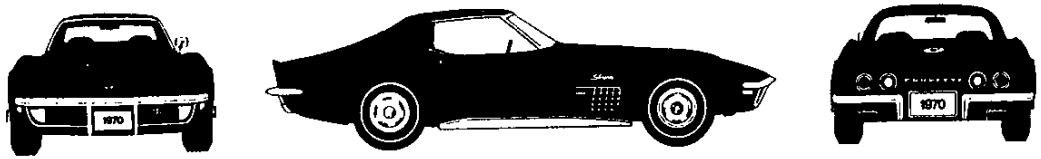
	engine	transmission gear ratios (:1)					shift selector location
		1	2	3	4	R	console
4-Speed Fully Synchronized (Standard)	300-hp V8 350-hp V8 370-hp V8 390-hp V8	2.52	1.88	1.46	1.00	2.59	•
4-Speed Fully Synchronized (RPO M21)	350-hp V8 370-hp V8 390-hp V8 460-hp V8	2.20	1.64	1.27	1.00	2.26	•
Turbo Hydra-matic (RPO M40)	300-hp V8 390-hp V8 460-hp 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					•

Clutches for Corvette 4-Speed Transmission Power Teams

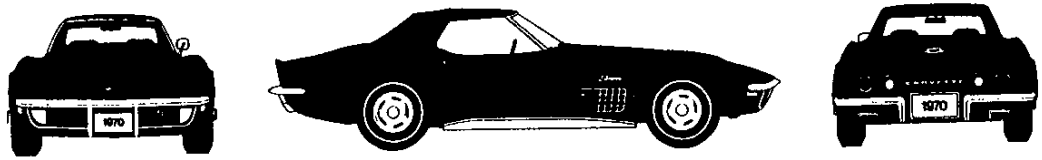
type	300- & 350-hp	370- & 390-hp	460-hp
	Semi-centrifugal bent-finger-design diaphragm spring with single dry disc—pearlitic or nodular iron pressure plate		
Disc Facing Material	Premium grade woven asbestos		
Disc Facing Outside Diameter	11.00		
Disc Facing Total Area (sq. in.)	123.70		
Spring Effective Plate Load (lbs.)	2450-2750		2600-2800

Stingray

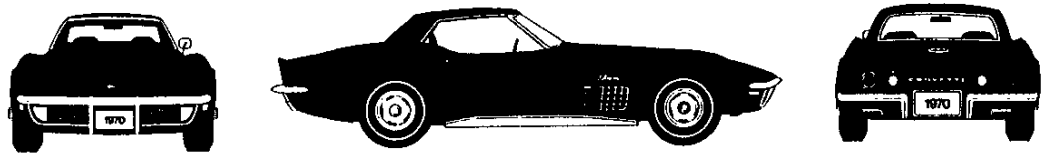
Corvette Coupe

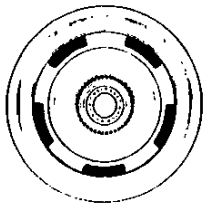


Corvette Convertible

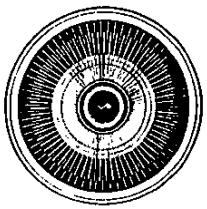


Corvette Convertible
with optional removable hardtop (RPO C07)





Corvette standard wheel trim
ring with center cap



Optional Corvette
full wheel cover (RPO P02)

12 / Corvette exterior features

Corvette Exterior Features

	Coupe	Convertible
Precision-cast bright grille	•	•
Concealed headlights with washers	•	•
Front bumper guards	•	•
White lenses over amber parking/direction signal lights	•	•
Bright license plate frames	•	•
Functional front fender louvers	•	•
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	•	•
Wheel trim rings 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	•	•
Bright outlined front fender louvers	•	•

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	•	•
Unitized seat and shoulder belt buckle design	•	•
Tinted glass in all windows	•	•
Molded door panels 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-keyed floor carpeting	•	•
Vinyl-covered molded headlining	•	
Courtesy lights with automatic door switches	•	•
Suspended accelerator pedal	•	•
Carpeted rear compartment storage wells	•	•
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

Interior Roominess

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

Luggage Compartment

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 (gallons)	20	20
Curb weight—standard V8 (lbs.)	3290	3304
Shipping weight—standard V8 (lbs.)	3184	3196

POWER TRAINS

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-8 300 HP Standard	4-Spd (2.52:1 low)	All Models		(Econ.)	(Std.)				
	Turbo Hydra-Matic			(Std.)	(Perf.)				
Turbo-Fire 350 350 Cu.In. V-8 350 HP RPO L46	4-Spd (2.52:1 low)	All Models			(Std.)	(Perf.)			
	4-Spd (2.20:1 low)						Std.	Perf.	
Turbo-Fire 350 350 Cu.In. V-8 370 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-8 390 HP RPO LS5	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.					
Turbo-Jet 454 454 Cu.In. V-8 460 HP RPO LS7	4-Spd (2.20:1 low)	All Models		Econ.	Std.	Perf.			
	Turbo Hydra-Matic			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 1st	2nd	3rd	4th	Rev	AXLE RATIO
350 Cu.In. V-8 300 HP Standard	4-Barrel	4-Speed (2.52:1)	8.47	6.32	4.91	3.36	8.70	3.36
350 Cu.In. V-8 350 HP RPO L46	4-Barrel	4-Speed (2.52:1)	8.47	6.32	4.91	3.36	8.70	3.36
		4-Speed (2.20:1)	8.14	6.07	4.70	3.70	8.36	3.70
350 Cu.In. V-8 370 HP RPO LT1	4-Barrel	4-Speed (2.52:1)	8.95	6.67	5.18	3.55	9.19	3.55
		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
454 Cu.In. V-8 390 HP RPO LS5	4-Barrel	4-Speed (2.52:1)	7.76	5.79	4.50	3.08	7.98	3.08
		4-Speed (2.20:1)	7.39	5.51	4.27	3.36	7.59	3.36
454 Cu.In. V-8 460 HP RPO LS7	4-Barrel	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

GENERAL DATA

Engine Type		V-8 OHV				
Piston Displacement (Cu.In.)		350			454	
Availability		Standard	RPO L46	RPO LT1	RPO LS5	RPO LS7
Number of Cylinders		Eight				
Bore and Stroke (nominal)		4.00 x 3.48			4.251 x 4.00	
Compression Ratio		10.25:1	11.00:1		10.25:1	11.25:1
Taxable (SAE) Horsepower		51.2			57.8	
Firing Order		1-8-4-3-6-5-7-2				
Idling Speed (RPM) (In neutral)		700 (a)	750	900	700 (a)	
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			33.97	
	Top air cleaner to bottom oil pan	26.79			27.62	
	Exhaust manifold to generator (width)	27.97			30.00	

(a) 600 for Automatic in drive

ADVERTISED ENGINE RATING

Engine	350 Cu.In.			454 Cu.In.	
	300 HP	350 HP	370 HP	390 HP	460 HP
Availability	Standard	RPO L46	RPO LT1	RPO LS5	RPO LS7
Gross Brake HP @ RPM	300 @ 4800	350 @ 5600	370 @ 6000	390 @ 4800	460 @ 5600
Gross Torque @ RPM (lb-ft)	380 @ 3200	380 @ 3600	380 @ 4000	500 @ 3400	490 @ 3600

ENGINE SPEED AND PISTON TRAVEL

Engine		350 Cu.In.				454 Cu.In.		
Transmission		4-Speed			Trb/HD (a)	4-Speed		Trb/Hyd
Rear Axle Ratio		3.36:1	3.70:1 (b)	3.55:1 (c)	3.08:1	3.36:1 (d)	3.08:1 (e)	3.08:1
Tire Size		F70 x 15B						
Crankshaft Revolutions per Mile		2593.9	2856.4	2740.6	2377.8	2593.9	2377.8	2377.8
Crankshaft RPM @ MPH	Low	108.9	104.7	115.1	98.3	95.1	99.8	98.3
	Second	81.3	78.1	85.9	58.7	70.9	74.5	58.7
	Third	63.1	60.5	66.7	39.6	54.9	57.9	39.6
	Fourth	43.2	47.6	45.7		43.2	39.6	
	Reverse	112.0	107.6	118.3	82.4	97.7	102.6	82.4
Piston Travel (Ft/Mile)		1504.5	1656.7	1589.5	1379.1	1729.3	1585.2	1585.2

(a) Available with 300 HP (Base) engine only
(b) Standard ratio for 350 HP (L46) & 370 HP (LT1) engine with 2.20:1 low transmission
(c) Standard ratio for 370 HP (LT1) engine with 2.52:1 low transmission
(d) Standard ratio with 2.20:1 low transmission
(e) Standard ratio 2.52:1 low transmission available with RPO LS5 only

VEHICLE PERFORMANCE FACTORS

ENGINE	BASE 350 CU.IN. 300 HP	RPO L46 350 CU.IN. 350 HP	RPO LT1 350 CU.IN. 370 HP	RPO LS5 454 CU.IN. 390 HP	RPO LS7 454 CU.IN. 460 HP
4-SPEED TRANSMISSION					
Performance Weight (pounds)	3586	3597	3577	3768	
Pounds per Gross Horsepower	11.95	10.28	9.67	9.66	
Pounds per Cu.In. Displacement	10.25	10.28	10.22	8.30	
Gross HP per Cu.In. Displacement	.857	1.00	1.06	8.59	
Power Displacement (cu.ft./mile)	262.69	262.69	277.55	312.36	
Displacement Factor (cu.ft./ton mile)	146.51	146.06	155.19	165.79	
4-SPEED TRANSMISSION – CLOSE RATIO					
Performance weight (pounds)		3597	3577	3768	3641
Pounds per Gross Horsepower		10.28	9.67	9.66	7.91
Pounds per Cu.In. Displacement		10.28	10.22	8.30	8.02
Gross HP per Cu.In. Displacement		1.00	1.06	.859	1.01
Power Displacement (cu.ft./mile)		289.28	289.28	340.75	340.75
Displacement Factor (cu.ft./ton mile)		160.84	161.74	180.87	170.38
TURBO HYDRA-MATIC					
Performance Weight (pounds)	3661			3837	3685
Pounds per Gross Horsepower	12.20			9.84	8.01
Pounds per Cu.In. Displacement	10.46			8.45	8.12
Gross HP per Cu.In. Displacement	.857			.859	1.01
Power Displacement (cu.ft./mile)	240.80			312.36	312.36
Displacement Factor (cu.ft./ton mile)	131.55			162.81	169.76

GLOSSARY

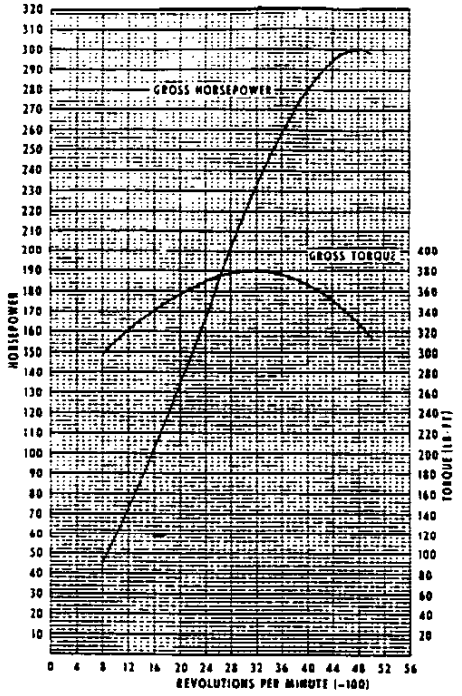
Performance Weight — Curb Weight plus 300 Lb (weight of two 150 lb passengers)

Power Displacement — $\frac{\text{Crankshaft Revs/Mi} \times \text{Piston Displacement}}{2 \times 1728}$

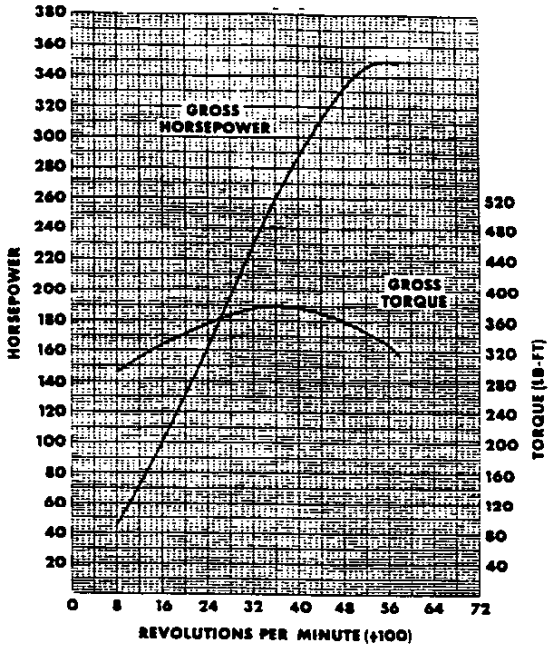
Displacement Factor — $\frac{\text{Power Displacement}}{\text{Performance Wt (tons)}}$

ENGINE OUTPUT CURVES

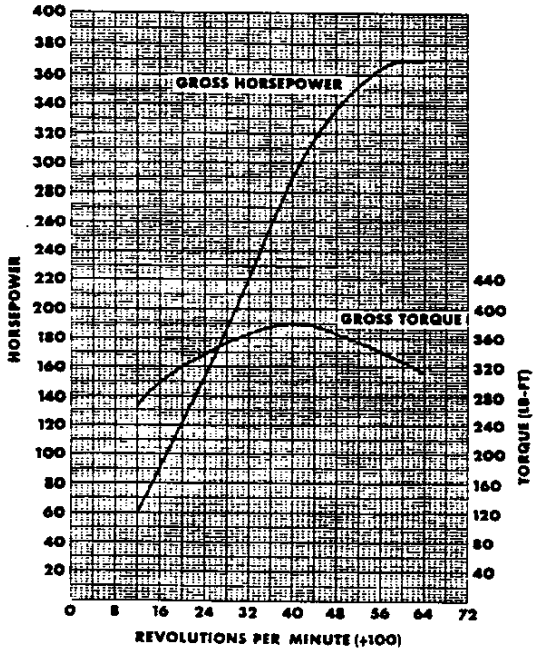
300 HP TURBO-FIRE V-8



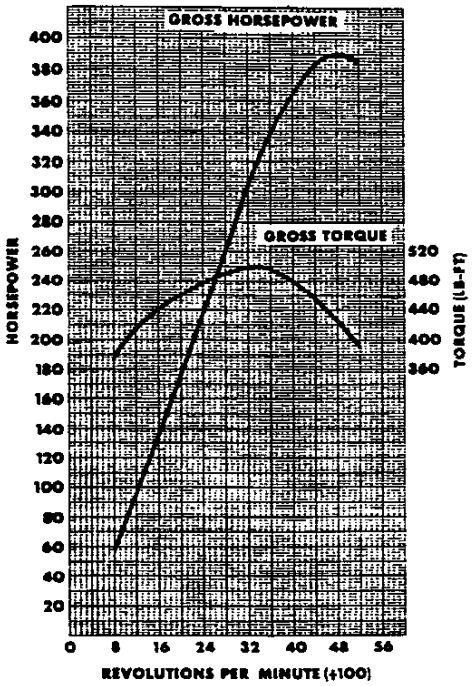
350 HP TURBO-FIRE V-8



370 HP TURBO-FIRE V-8



390 HP TURBO-JET V-8



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
Number of Bulkheads	5
Water Jackets	Full length around each cylinder
Cylinder Numbering Arrangement (Front to Rear)	
Left Bank	1-3-5-7
Right Bank	2-4-6-8

CYLINDER HEAD

Material	High chrome cast alloy iron Cast aluminum with RPO LS7
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)	4.83 Cu.In.
V8-350 Cu.In. (RPO L46 & LT1)	4.51 Cu.In.
V8-454 Cu.In. (RPO LS5)	6.31 Cu.In.
V8-454 Cu.In. (RPO LS7)	5.67 Cu.In.

INLET MANIFOLD

Material	Cast alloy iron Cast aluminum with RPO LS7 & LT1
Type	8 port, double deck

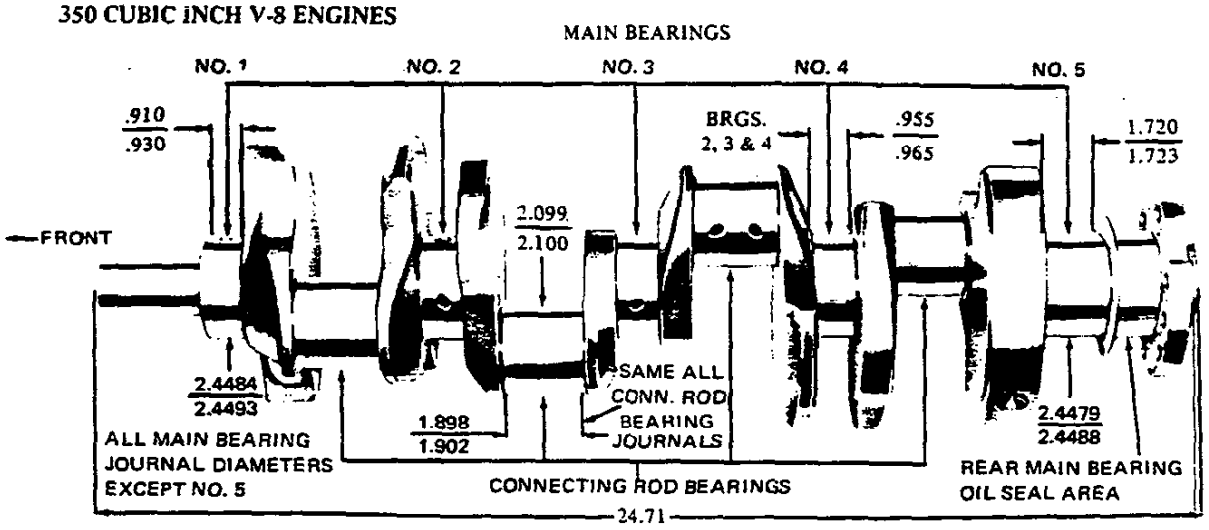
EXHAUST MANIFOLD

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 (RPO L46 & 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



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 Inner Dia.	Effective Length	Projected Area
V8-350 Cu.In.			
Bearing No. 1	2.4502	.752	1.8425
Bearing No. 2-4	2.4505	.752	1.8428
Bearing No. 5	2.4508	1.177	2.8846
V8-454 Cu.In. (RPO LS5)			
Bearing No. 1	2.7503	.992	2.7283
Bearing No. 2-3-4	2.7505	.992	2.7285
Bearing No. 5	2.7510	1.2525	3.4457
V8-454 Cu.In. (RPO LS7)			
Bearing No. 1	2.7492	.992	2.7272
Bearing No. 2-3-4	2.7498	.992	2.7764
Bearing No. 5	2.7500	1.2525	3.4444

CAMSHAFT

Material . . . . . Cast alloy iron
Drive . . . . . Sprocket & chain; steel
Lobe Lift
V8-350 Cu.In.
(Base) . . . . . .2600 Inlet; .2733 Exhaust
(RPO L46) . . . . . .3000 Inlet; .3067 Exhaust
(RPO LT1) . . . . . .3057 Inlet; .3234 Exhaust
V8-454 Cu.In.
(RPO LS5) . . . . . .2714 Inlet; .2824 Exhaust
(RPO LS7) . . . . . .3412 Inlet; .3647 Exhaust
Bearings . . . . . 5; steel backed babbitt

VALVE LIFT

V8-350 Cu.In. (Base) . . . .3900 Inlet & .4100 Exhaust
V8-350 Cu.In. (RPO L46) . .4500 Inlet; .4600 Exhaust
V8-350 Cu.In. (RPO LT1) . .4586 Inlet; .4850 Exhaust
V8-454 Cu.In. (RPO LS5) . .4614 Inlet; .4800 Exhaust
V8-454 Cu.In. (RPO LS7) . .5197 Inlet; .5498 Exhaust

VALVE TRAIN

Type . . . . . Individually mounted overhead rocker arms, push rod actuated
Lifters . . . . . Hydraulic
V8-350 Cu.In. (RPO LT1) . . . . . Mechanical
V8-454 Cu.In. (RPO LS7) . . . . . Mechanical
Push Rods
Type . . . . . Hollow steel
Ends
V8-350 (Base) . . . . . Hardened
V8-350 Cu.In. (RPO L46 & LT1) . . . . 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 Cu.In. (RPO LS5) 1.080–1.094
V8-454 Cu.In. (RPO LS7) 1.070–1.090
Installed Length (lb. @ in.)
Valves Closed
V8-350 Cu.In. . . . . 76-84 @ 1.70
V8-454 Cu.In. (RPO LS5)
Outer spring . . . . . 69-81 @ 1.88
Inner spring . . . . . 26-34 @ 1.78
V8-454 Cu.In. (RPO LS7)
Outer Spring . . . . . 69-81 @ 1.88
Inner Spring . . . . . 37-45 @ 1.78
Valves Opened
V8-350 Cu.In. . . . . 194-206 @ 1.25
V8-454 Cu.In. (RPO LS5)
Outer spring . . . . . 228-252 @ 1.38
Inner Spring . . . . . 81-99 @ 1.28
V8-454 Cu.In. (RPO LS7)
Outer Spring . . . . . 181-205 @ 1.32
Inner Spring . . . . . 92-110 @ 1.22
Free Length
V8-350 Cu.In. 2.03
V8-454 Cu.In. (RPO LS5)
Outer Spring 2.12
Inner Spring 2.06
V8-454 Cu.In. (RPO LS7)
Outer Spring 2.21
Inner Spring 2.12
Valve Spring Damper
V8-350 & 454 (LS7) Cu.In. . . . Flat steel, 4 coils

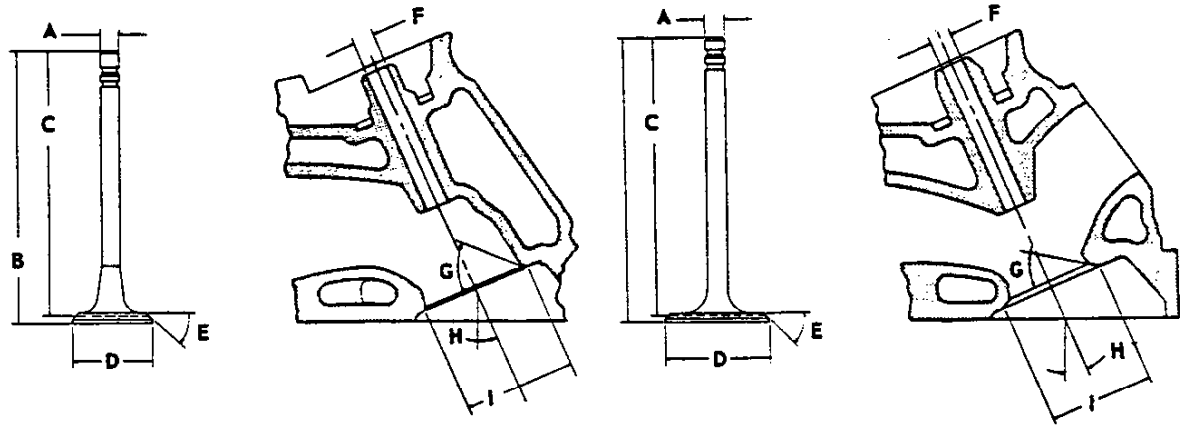
PRINCIPAL COMPONENTS

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
Valve Seat Inserts (RPO LS7) . . . . . High alloy steel

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
Valve Seat Inserts (RPO LS7) . . . . . High alloy steel



A – Stem Diameter
V8-350 Cu.In. 3.410-.3417
V8-454 Cu.In. 3715-.3722
B – Overall Length
V8-350 Cu.In. 4.870-4.889
V8-454 Cu.In. (RPO LS5) 5.215-5.235
V8-454 Cu.In. (RPO LS7) 5.226-5.251
C – Gage Length
V8-350 Cu.In. 4.785-4.795
V8-454 Cu.In. 5.115-5.125
D – Overall Head Diameter
V8-350 Cu.In.(Basc) 1.935-1.945
V8-350 Cu.In.(RPO L46 & LT1) 2.017-2.023
V8-454 Cu.In. (RPO LS5) 2.060-2.070
V8-454 Cu.In. (RPO LS7) 2.185-2.195
E – Angle of Face . . . . . 45°
F – Guide Diameter
V8-350 Cu.In. 3427-.3437
V8-454 Cu.In. 3732-.3742
G – Angle of Seat . . . . . 46°
H – Valve Angle
V8-350 Cu.In. . . . . 23°
V8-454 Cu.In. . . . . 4°
I – Valve Seat (Cutter) Diameter
V8-350 Cu.In.(Base) 1.990-2.010
V8-350 Cu.In. (RPO L46 & LT1) 2.020
V8-454 Cu.In. (RPO LS5) 2.150
V8-454 Cu.In. (RPO LS7)–Insert 2.228

A – Stem Diameter
V8-350 Cu.In. 3410-.3417
V8-454 Cu.In. 3713-.3720
B – Overall Length
V8-350 (Cu.In.(Base) 4.913-4.933
V8-350 Cu.In.(RPO L46 & LT1) 4.891-4.910
V8-454 Cu.In. (RPO LS5) 5.345-5.365
V8-454 Cu.In. (RPO LS7) 5.380-5.405
C – Gage Length
V8-350 Cu.In. 4.781-4.791
V8-454 Cu.In. 5.235-5.245
D – Overall Head Diameter
V8-350 Cu.In.(Base) 1.495-1.505
V8-350 Cu.In.(RPO L46 & LT1) 1.595-1.605
V8-454 Cu.In. (RPO LS5) 1.715-1.725
V8-454 Cu.In. (RPO LS7) 1.875-1.885
E – Angle of Face . . . . . 45°
F – Guide Diameter
V8-350 Cu.In. 3427-.3437
V8-454 Cu.In. 3732-.3742
G – Angle of Seat . . . . . 46°
H – Valve Angle
V8-350 Cu.In. . . . . 23°
V8-454 Cu.In. . . . . 4°
I – Valve Seat (Cutter) Diameter
V8-350 Cu.In.(Base) 1.550-1.570
V8-350 Cu.In.(RPO L46 & LT1) 1.600
V8-454 Cu.In. (EPO LS5) 1.625
V8-454 Cu.In. (RPO LS7)–Insert 1.942

PISTONS

Material
- V8-350 Cu.In. (Base) . . . . . Cast aluminum alloy
- V8-350 Cu.In.(RPO L46 & LT1) . . . . . Alum. impact extruded
- V8-454 Cu.In. (RPO LS5) . . . Cast aluminum alloy
- V8-454 Cu.In. (RPO LS7) . Alum. impact extruded

Head Type
- V8-350 Cu.In. (Base) . . . . . Flat, notched
- V8-350 Cu.In. (RPO L46 & LT1) . . . . . Domed
- V8-454 Cu.In. . . . . Domed

Skirt Type . . . . . Slipper

Top Land Clearance
- V8-350 Cu.In. (Base) 0235–.0325
- V8-350 Cu.In. (RPO L46 & LT1) 0305–.0395
- V8-454 Cu.In. (RPO LS5) 0306–.0314
- V8-454 Cu.In. (RPO LS7) 0306–.0394

Skirt Clearance
- V8-350 Cu.In. (Base) 0007–.0013
- V8-350 Cu.In. (RPO L46) 0020–.0026
- V8-350 Cu.In. (RPO LT1) 0036–.0042
- V8-454 Cu.In. (RPO LS5) 0020–.0028
- V8-454 Cu.In. (RPO LS7) 0058–.0066

Compression Ring Groove Depth
- V8-350 Cu.In. 2218–.2284
- V8-454 Cu.In. (RPO LS5) 2348–.2412
- V8-454 Cu.In. (RPO LS7) 2373–.2437

Oil Ring Groove Depth
- V8-350 Cu.In. 2038–.2103
- V8-454 Cu.In. (RPO LS5) 2183–.2247
- V8-454 Cu.In. (RPO LS7) 2133–.2197

Pin Bore Offset
- V8-350 Cu.In. (Base) & 454 (LS5) 055–.065
- V8-350 Cu.In. (RPO L46 & LT1) . . . . . On center
- V8-454 Cu.In. (RPO LS7) . . . . . On center

Compression Height
- V8-350 Cu.In. 1.558–1.562
- V8-350 Cu.In.(RPO L46 & LT1) . . . 1.658–1.662
- V8-454 Cu.In. 1.641–1.699

PISTON PINS

Material . . . . . Chromium steel

Length
- V8-350 Cu.In. 2.990–3.010
- V8-454 Cu.In. (RPO LS5) 2.930–2.950
- V8-454 Cu.In. (RPO LS7) 2.924–2.928

Diameter
- V8-350 Cu.In. 9270–.9273
- V8-454 Cu.In. 9895–.9898

Clearance in Piston
- V8-350 Cu.In. (Base) 00015–.00025
- V8-350 Cu.In. (RPO L46 & LT1) . . .00045–.00055
- V8-454 Cu.In. (RPO LS5) 00030–.00040
- V8-454 Cu.In. (RPO LS7) 00045–.00055

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

VALVE TIMING (Crankshaft Degrees)

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

V8-350 Cu.In. - RPO L46	Excluding Ramps
Inlet Valve (opens with .020 lash)	
Opens - BTC	52°
Closes - ABC	114°
Duration	346°
Exhaust Valve (opens with .025 lash)	
Opens - BBC	98°
Closes - ATC	62°
Duration	340°

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

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

V8-454 Cu.In. (RPO LS7)	Excluding Ramps
Inlet Valve (opens with .020 lash)	
Opens - BTC	62°
Closes - ABC	105°
Duration	347°
Exhaust Valve (opens with .020 lash)	
Opens - BBC	106°
Closes - ATC	73°
Duration	359°

PRINCIPAL COMPONENTS

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 Cu.In. (RPO L46 & LT1)	Molybdenum inlay
V8-454 Cu.In.	Molybdenum inlay
Width	
V8-350 Cu.In. (Base)	.0775–.0780
V8-350 Cu.In. (RPO L46 & LT1)	.0770–.0775
V8-454 Cu.In. (RPO LS5)	.0770–.0775
V8-454 Cu.In. (RPO LS7)	.0620–.0625
Wall Thickness	
V8-350 Cu.In.	.190–.200
V8-454 Cu.In.	.202–.212
Gap	.010–.020 .015–.025 for RPO LS7

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 LS5; straight edge for LS7
Face	Tapered; Barrel for RPO LS7
Coating	
V8-350 Cu.In. (Base)	Wear resistant
V8-350 Cu.In. (RPO L46 & LT1)	Chrome plate
V8-454 Cu.In. (RPO LS5)	Chrome plate
V8-454 Cu.In. (RPO LS7)	Molybdenum inlay
Width	
V8-350 Cu.In. (Base)	.0770–.0775
V8-350 Cu.In. (RPO L46 & LT1)	.0775–.0780
V8-454 Cu.In. (RPO LS5)	.0770–.0775
V8-454 Cu.In. (RPO LS7)	.0620–.0625
Wall Thickness	
V8-350 Cu.In.	.190–.200
V8-454 Cu.In.	.202–.212
Gap	
V8-350 Cu.In. (Base)	.013–.025
V8-350 Cu.In. (RPO L46 & LT1)	.013–.028
V8-454 Cu.In. (RPO LS5)	.010–.020
V8-454 Cu.In. (RPO LS7)	.015–.025

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.	.0007–.0027
V8-454 Cu.In. (RPO LS5)	.0009–.0025
V8-454 Cu.In. (RPO LS7)	.0014–.0034
Theoretical I.D.	
V8-350 Cu.In.	2.1019
V8-454 Cu.In. (RPO LS5)	2.2012
V8-454 Cu.In. (RPO LS7)	2.2019
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 TANK
- Capacity (Gal) . . . . . 20 (approximately); 18 for California usage.
- 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 & L46) & 454 (LS5) . . . Deep cover with vapor return lines.
  - V8-350 (LT1) & 454 (LS7) . . . . . 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 & L46) & 454 (LS5) . . Dual snorkel, chrome plated.
  - V8-350 (LT1) & 454 (LS7) . . . . . Full circle intake, chrome plated.
- Filter Element . . . . . Oil-wetted paper

CHOKE
- Type . . . . . Automatic

CARBURETORS
- Make & Type
  - V8-350 Cu.In. (Base & RPO L46) . . . . . Rochester, Quadrajet
  - V8-350 Cu.In. (RPO LT1) . . . . . Holley, 4-barrel
  - V8-454 Cu.In. (RPO LS5) . . Rochester, Quadrajet
  - V8-454 Cu.In. (RPO LS7) . . . . . Holley, 4-barrel
- SAE Flange Size 1.50
- Throttle Bore
  - V8-350 Cu.In. (Base & L46)
    - Primary 1.38
    - Secondary 2.25
  - V8-350 Cu.In. (RPO LT1)
    - Primary & Secondary 1.69
  - V8-454 Cu.In. (RPO LS5)
    - Primary 1.38
    - Secondary 2.25
  - V8-454 Cu.In. (RPO LS7)
    - Primary & Secondary 1.69
- Venturi
  - V8-350 Cu.In. (Base & L46)
    - Primary 1.04
    - Secondary 625
  - V8-350 Cu.In. (RPO LT1)
    - Primary 1.38
    - Secondary 1.44
  - V8-454 Cu.In. (RPO LS5)
    - Primary 1.04
    - Secondary 625
  - V8-454 Cu.In. (RPO LS7)
    - 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, aeverse 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 & L46) . . . 2.00 x .067-.081
    - V8-350 (LT1) & 454 Cu.In. . . . 2.50 x .072-.092
  - Rear Pipes - Laminated
    - V8-350 Cu.In. (Base & L46) . . . 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.

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 & LS7) Increases combustion efficiency through leaner carburetor adjustments and revises distributor calibration
- Transmission Controlled Spark . . . . . Retards engine spark advance by eliminating vacuum advance in all forward gears except Hi-gear.
- Air Injection Reactor . . . . . (RPO LT1 & LS7) 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

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 & RPO L46) . . . . . 15 Qts.
  - V8-350 Cu.In. (RPO LT1) . . . . . 18 Qts.
  - V8-454 Cu.In. . . . . 22 Qts.

RADIATOR
- Type
  - V8-350 Cu.In. (Base) . . . . . Aluminum, cross-flow
  - V8-350 (L46 &LT1) & 454 Copper-brass, cross-flow
- Core Constant and Thickness
  - Distance between Fins
    - V8-350 Cu.In. 18
    - V8-350 Cu.In. (RPO L46 & LT1) 16
    - V8-454 Cu.In. (RPO LS5) 16
    - V8-454 Cu.In. (RPO LS7) 18
  - Distance between Tubes 55
  - Thickness of Core
    - V8-350 Cu.In. 2.88
    - V8-350 Cu.In. (RPO L46 & LT1) 2.70
    - V8-454 Cu.In. (RPO LS5) 2.70
    - V8-454 Cu.In. (RPO LS7) 2.88
- Frontal Area (Sq.In.)
  - V8-350 Cu.In. 315
  - V8-350 Cu.In. (RPO L46 & LT1) 441
  - V8-454 Cu.In. (RPO LS5) 467
  - V8-454 Cu.In. (RPO LS7) 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

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
  - All engines but V8-350 (RPO LT1) . . . 192^{o}-198^{o}
  - V8-350 Cu.In. (RPO LT1) . . . . . 177^{o}-183^{o}
- Fully opened at
  - All engines but V8-350 (RPO LT1) . . . . . 227^{o}
  - V8-350 Cu.In. (RPO LT1) . . . . . 202^{o}
- 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^{o}-42^{o}
- Pitch Line
  - Fan, Generator and Water Pump Belt
    - V8-350 Cu.In. 54.25
    - V8-350 Cu.In. (RPO L46 & LT1) 52.75
    - V8-454 Cu.In. 53.75
  - Fan and Water Pump Belt
    - V8-350 Cu.In. 35.14
    - V8-350 Cu.In. (RPO L46 & LT1) 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

ELECTRICAL SYSTEM

SUPPLY SYSTEM
BATTERY
Type . . . . . Sealed side terminal
Voltage 12
Cranking Power @ 0° F
V8-350 Cu.In. . . . . 3250 watts
V8-454 Cu.In. . . . . 3750 watts
Total number of plates
V8-350 Cu.In. 78
V8-454 Cu.In. 90
Capacity (SAE) @ 20 hr. rate
V8-350 Cu.In. . . . . 62 amp. hr.
V8-454 Cu.In. . . . . 80 amp. hr.
Number of Cells 6
Terminal Grounded . . . . . Negative
Location . . . . . In passenger compartment behind driver

GENERATOR
Type . . . . . Diode rectified
Rating
Amps 42
Volts 10-15
Drive . . . . . By fan belt
Pulley Pitch Diameter 2.70
Ratio (Gen to Engine Speed) 2.46:1

REGULATOR
Type . . . . . Micro-circuit unit, integral with generator
Voltage Regulator
Voltage . . . . . 13.8-14.8 @ 85°F

STARTING SYSTEM
STARTING MOTOR
Rotation (Drive End View) . . . . . Clockwise
Test Conditions . . Engine at operating temperature
No Load Test
Amps 65-100 (350); 70-99 (454)
Volts 10.6
RPM 3600-5100 (350); 7800-12000 (454)
Motor Drive
Engagement . . . . . Solenoid
Pinion Meshes at . . . . . Rear
Pinion Tooth No. 9
Flywheel Tooth No. . . . . 153; V8-454 – 168
Mounting . . . . . Bolted to clutch housing

IGNITION SYSTEM
DISTRIBUTORS . . . . . Refer to chart below

COIL
Type . . . . . 12 Volt
Amperes Drawn
Engine Stopped 4.0
Engine Idling 1.8

SPARK PLUGS
Make & Type
V8-350 Cu.In. (Base & L46) ACR44
V8-350 Cu.In. (RPO LT1) ACR43
V8-454 Cu.In. (RPO LS5) ACR43T
V8-454 Cu.In. (RPO LS7) ACR43XL
Thread Size (mm) 14
Gap 033-.038
Torque . . . . . 25 lb. ft.

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

DISTRIBUTORS	V-8 350 Cu.In. Standard 300 HP	V-8 350 Cu.In. RPO L46 350 HP	V-8 350 Cu.In. RPO LT1 370 HP	V-8 454 Cu.In. RPO LS5 390 HP	V-8 454 Cu.In. RPO LS7 460 HP
Model	1111490	1111493	1111491	1111464	1112026
Type	Single breaker		Transistorized Magnetic Pulse	Single breaker	Transistorized Magnetic Pulse
Cam Angle	29-31			28-30	
Breaker Gap	.019 (new)			.019 (new)	
Breaker Arm Tension	19-23 oz.			28-32 oz.	
Centrifugal Advance Begins (RPM)	900	1150	1000	1085	1000
Max Degrees @ RPM	30 @ 5100	26 @ 5000	26 @ 5000	22 @ 3200	21 @ 2300
Vacuum Advance Begins (In. Hg)	8.00	8.00	8.00	7.00	
Max Degrees @ In. Hg	19 @ 17	19 @ 17	15 @ 15.5	12 @ 12	
Timing (Initial Design Setting) Crankshaft Degrees @ RPM (with vacuum spark line disconnected)	4 BTC @ 700 Manual 600 Automatic	8 BTC @ 750 Manual Only	8 BTC @ 900 Manual Only	6 BTC @ 700 Manual 600 Automatic	8 BTC @ 700 Manual 600 Automatic
Timing Mark Location	Torsional Damper				

TURBO HYDRA-MATIC

General Data	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
Hydraulic System	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
Converter Assembly	Pump (Drive member)		Multivane type, sheet metal blade spot welded to steel pump housing that is an integral part of the converter housing
	Turbine (Driven member)		Steel axial flow blades assembled between inner & outer steel shells
	Stator assembly		Aluminum multivane type blades mounted on a one way (overrunning) roller clutch
	Stall ratio		2.10
	Stall speed (RPM)		2110
	Diameter (nominal)		12.20
Planetary Gear Set	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
Case	Material		Aluminum
Clutches	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
Torque Multiplication	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
Governor	Type		Cross-axis centrifugal
	Operation		Regulates a pressure proportional to car speed which acts upon the (1-2) (2-3) shift and modulator valves
Lubricant	Type		A suffix A
	Capacity (pints)	Dry	22
		Refill	8

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

CLUTCHES

Engine	Type		V8-350 Cu.In.			V8-454 Cu.In.
	Availability		Standard	RPO L46	RPO LT1	LS5 & LS7
Clutch for			4-Speed			
Type			Single dry disc centrifugal			
Clutch cover & pressure plate	Eff. plate load, lbs.		2450-2750			
	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			
	Cushions		Flat spring steel between friction rings			
	Dampers		10 coil springs (5 sets of two)			
	Friction rings	OD	11.00			
		ID	6.50			
		Total area sq. in.	123.70			
		Material	Woven type asbestos			
Flywheel	Ring gear	Material	Heat treated HR steel			
		No. of teeth	153			168
		PD	12.75			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			

3-SPEED AND 4-SPEED TRANSMISSIONS

Transmission Type			4-Speed RPO M20		4-Speed RPO M21 & M22	
Engine Application	Type		V8-350 Cu.In.	V8-454 Cu.In.	V8-350 Cu.In.	V8-454 Cu.In.
	Availability		Base, L46 & LT1	LS5	L46 & LT1	LS5 & LS7
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 MIL-L-2105-B			
	Capacity (pts)		3			
Extension	Material		Aluminum			
	Oil Seal		Steel encased double seal of spring loaded rubber or felt			

CHASSIS

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 1.2493-1.2498
  - Outer bearing 7492-.7497
- Spindle thread size . . . . . 3/4-20 NEF-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) . . . . . P1/4 to P1-1/4
- Caster (degrees) . . . . . P1/2 to P1-1/2
- Toe-in (total) . . . . . 3/32 to 5/32
- 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	Deflection Rate (lbs per inch) @ 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

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, 16.0 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 SUPPLEMENTARY

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

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
Glove compartment	1-1895	2
Headlamp Outer	2-4002	High beam 37.5W Low beam 55.0W
Headlamp Inner	2-4001	High beam 37.5W
Headlamp hi-beam indicator	1-1895	2
Headlamp warning indicator	2-1895	2
Heater or air conditioning control	1-1816	2.5
Instrument cluster	12-1895	2
License plate rear	1-97	4
Parking		
Park	2-1157	3
Turn		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	2-1157	32
Tail		3
Underhood	1-93	15

CIRCUIT	TYPE PROTECTION	LOCATION AND CIRCUIT*
Air conditioning	AGC 25 fuse	In line
	AGC 25 fuse	Fuse panel (f)
Air conditioning lamp	AGC 4 fuse	Fuse panel (d)
Back-up lamps	AGC 20 fuse	Fuse panel (b)
Cigarette lighter	AGC 20 fuse	Fuse panel (c)
Cigarette lighter lamp	AGC 4 fuse	Fuse panel (d)
Clock	AGC 20 fuse	Fuse panel (c)
Clock lamps	AGC 4 fuse	Fuse panel (d)
Courtesy lamps	AGC 20 fuse	Fuse panel (c)
Defogger, rear window	AGC 20 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 20 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	15 amp CB	Light switch (g)
Heater	AGC 25 fuse	Fuse panel (f)
Heater lamp	AGC 4 fuse	Fuse panel (d)
Ignition switch lamp	AGC 4 fuse	Fuse panel (d)
Instrument cluster lamps	AGC 4 fuse	Fuse panel (d)
License plate, rear	AGC 20 fuse	Fuse panel (a)
Brake warning lamp	AGC 10 fuse	Fuse panel (b)
Parking lamps	15 amp CB	Light switch (g)
Power windows	40 ampCB	Hinge pillar (i)
Radio	AGC 10 fuse	Fuse panel (e)
Radio antenna	AGC 20 fuse	Fuse panel (c)
Radio lamp	AGC 4 fuse	Fuse panel (d)
Rear compartment vent motor	AGC 10 fuse	Fuse panel (f)
Speed warning device	AGC 20 fuse	Fuse panel (c)
Side Marker lamp - Front	AGC 20 fuse	Light switch
Side Marker lamp - Rear	AGC 20 fuse	Light switch
Spot lamp, portable	AGC 20 fuse	Fuse panel (c)
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	14 amp CB	Switch (j)

* Letter suffix indicates same circuit

DIMENSIONS AND WEIGHTS

INTERIOR DIMENSIONS

LENGTHS

CODE	DESCRIPTION	19437 COUPE	19467 SOFT TOP	19467 HARDTOP
H30	H point to heel point	6.6		
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*	36.1	37.1	36.0
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)	106.3		
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	8.8
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	47.9
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	4.3
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	12.6
L13	Brake pedal knee clearance	24.5
L52	Brake pedal to accelerator	3.9

LENGTHS

CODE	DESCRIPTION	19437 COUPE	19467 SOFT TOP	19467 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)	69.2
W106	Front fender overall width	69.0
W107	Rear fender overall width	68.8
W120	Overall car width, front doors open	107.4

HEIGHTS

H101	Overall height (design)	47.8	47.9
H102	Front bumper to ground	20.3	
H104	Rear bumper to ground	19.3	
H111	Rocker panel to ground - rear	7.1	
H112	Rocker panel to ground - front	7.3	
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	
H130	Step height - front (curb)	13.7	
H136	Body O line to ground - front	7.6	
H137	Body O line to ground - rear	7.6	
H158	Roof thickness	3.9	
H159	DLO 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

VEHICLE WEIGHTS

CORVETTE

Model Symbol	VEHICLE TYPE Description	SHIPPING WEIGHT Front	Rear	Total	CURB WEIGHT Front	Rear	Total
19437	2-Door Sport Coupe	1620	1560	3180	1598	1687	3285
19467	2-Door Convertible	1598	1598	3196	1574	1725	3299

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 300 HP engine & 3-spd. trans. & 350 HP eng.	+ 88
		With 300 HP engine & auto. trans.	+ 78
		With 390 HP engine & 4-spd. trans.	+ 99
C07	Auxiliary top	With folding top only	+ 53
A31	Power windows		+ 10
J50	Power brakes		+ 10
--	350 cu. in. V8 engine	With Turbo Hydra-Matic transmission	+ 85
L46	350 cu. in. V8 engine (350 HP)	With 4-speed transmission	+ 16
LT1	350 cu. in. V8 engine (370 HP)	With 4-speed transmission	+ 16
LS5	454 cu. in. V8 engine (390 HP)	With 4-speed transmission	+178
		With Turbo Hydra-Matic transmission	+229
LS7	454 cu. in. V8 engine (460 HP)	With H.D. 4-speed transmission	+ 81
		With Turbo Hydra-Matic transmission	+134
N40	Power steering	With 300 HP engine	+ 23
		with 350 & 370 HP engine	+ 25
		With 390 HP engine	+ 29
P02	Deluxe wheel covers		+ 18
U69	Radio, AM/FM Push Button	With 350 cu. in. engine	+ 16
		With 454 cu. in. engine	+ 13

BODY

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.

MODELS		TRIM	INTERIOR COLORS AND RPO NUMBERS					
			Black	Saddle	Red	Bright Blue	Green	Brown
37	67	Vinyl	Prod.	418	407	411	422	414
37	67	Deluxe *	403	424	–	–	–	–

RPO	EXTERIOR COLOR						
10	Classic White	X	X	X	X	X	X
14	Cortez Silver	X	X	X	X	X	X
15	Laguna Gray	X	X	X	X	X	X
26	Mulsanne Blue	X			X		
27	Bridgehampton Blue	X			X		
44	Donnybrooke Green	X	X			X	X
51	Daytona Yellow	X				X	
62	Ontario Orange	X					
72	Monza Red	X	X	X			X
77	Marlboro Maroon	X	X				X

Convertible folding top colors:

Black - Production
White - RPO
Sandalwood - RPO

RPO C08 Vinyl Roof Option - removable hardtop only.

Black - pebble grain

(*) – 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, with headlamp washers standard equipment. 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

	MODELS	
LOCATION	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.

GENERAL

MODEL IDENTIFICATION

CORVETTE 19437 SPORT COUPE

MODEL 19437 2-DOOR SPORT COUPE, 2-PASSENGER

CORVETTE 19467 CONVERTIBLE

MODEL 19467 2-DOOR CONVERTIBLE, 2-PASSENGER

ONLY BASIC DESIGNATIONS SHOWN

VEHICLE SERIAL NUMBER

8-Cylinder Example:

Model	Model Year	Assembly Plant	Unit Number
	1970	(St. Louis)	(1st Unit)
19437	0	S	400001

Thus: The 1st model built at St. Louis would be serial number 194370S400001

ASSEMBLY PLANTS

S – St. Louis

Starting unit number . . . . . 400001 and up at each assembly plant regardless of series

Location . . . . . Stamped on plate attached to left hand windshield pillar

TRANSMISSION IDENTIFICATION

Example: RJS9E01D

Type Designation	Source Designation	Model Year 1970	Production° Month & Date
RT	S (Muncie)	0	E01D*

RT	3-Speed	V-8 engine	S – Muncie
WO	4-Speed	V-8 engine	R – Muncie
CK	Turbo Hydra-Matic	V-8 engine	– – Ypsilanti

Location:

3-Speed & 4-speed . . . . . Stamped on right hand side of the case in the upper forward corner.

4-Speed . . . . . Stamped on the top right side of the case.

Turbo Hydra-Matic . . . . . Nameplate tag on right hand side of the case.

°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.

ENGINE IDENTIFICATION

Example: F1210CTL

Source Designation	Production* Month & Date	Type Designation
F (Flint)	1210	CTL

350 Cubic Inch 8-Cylinder

CTL - Regular engine, 3-speed & 4-speed, 4-bbl. carb.
CTM - Regular engine, Turbo Hydra-Matic

350 Cubic Inch 8-Cylinder (RPO L46)

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

350 Cubic Inch 8-Cylinder (RPO LT1)

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

454 Cubic Inch 8-Cylinder (RPO LS5)

CZU - Optional engine, 4-speed, 4-bbl. carb.
CGW - Optional engine, Turbo Hydra-Matic

454 Cubic Inch 8-Cylinder (RPO LS7)

CZL - Optional engine, 4-speed, 4-bbl. carb.
CZN - 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

	AERO COUPE 19437	CONVERTIBLE 19467
FRONT		
Radiator Grille - Die Cast Chrome Plated Aluminum	X	X
Parking Lamps - Clear Lens	X	X
License Plate Frame, Bright	X	X
Retractable Headlamps and Washers, 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

STANDARD INTERIOR EQUIPMENT

ROOF AND PILLARS	AERO COUPE 19437	CONVERTIBLE 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
Shift Lever Leather Boot	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		
Windshield, Laminated Safety Plate (Tinted)	X	X
Door Windows with "Astro-Ventilation" Monogram, Safety Solid Plate (Tinted)	X	X
Removable Rear Window, Safety Solid Plate (Tinted)	X	–
Rear Window, Vinyl Plastic	–	X

EQUIPMENT	RPO	ACC	MODELS
Air Conditioning			
Four-Season	C60		19400
Alarm-System, Audio	UA6		19400
Axle ratios (See Power Train Section)			
Belts, Deluxe Shoulder; Front	A85		19467
Compass, Auto		ACC	19400
Defogger, Rear Window (Forced Air)	C50		19400
Engines (See Power Train Section)			
Evaporative Emission Control (California only)	NA9		19400
Fire Extinguisher			
Dry Chemical Extinguisher		ACC	19400
Recharge Kit		ACC	19400
Highway Emergency Kit		ACC	19400
Lock, Gas Cap		ACC	19400
Luggage Carrier, Deck Lid		ACC	19400
Mats Floor; Vinyl Twin		ACC	19400
Power Assists			
Power Brakes	J50		19400
Power Disc Brakes, Heavy Duty	J56		19400
Power Steering	N40		19400
Power Windows	A31		19400
Radio Equipment			
AM-FM Pushbutton Radio	U69	ACC	19400
AM-FM Stereo Radio	U79	ACC	19400
Rear FM Antenna		ACC	19400
FM Stereo Multiplex		ACC	19400
Roof Cover, Vinyl	C08		19467
Seat, Child Safety		ACC	19400
Spotlight, Portable		ACC	19400
Steering Wheel, Tilt Telescopic	N37		19400
Suspension, Special Purpose Front and Rear	F41		19400
Tires			
F70-15-4pr tire-special nylon-white lettering	PU9		19400
F70-15-4pr tire-special nylon-white stripe	PT7		19400
Tissue Dispenser and Litter Box		ACC	19400
Tops			
Auxiliary	C07		19467
Convertible (Colors – Black, White & Sandalwood)	C05		19467
Transmissions			
4-Speed, Close Ratio	M21		19400
Heavy duty 4-speed transmission	M22		19400
3-Speed Automatic, Turbo Hydra-matic	M40		19400
Wheel Cover, Deluxe	P02	ACC	19400

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

AMA Specifications—Passenger Car

Page 2

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (#)

CAR AND BODY DIMENSIONS

See Pages 25, 26 for SAE Dimension Definitions

(All dimensions in inches unless otherwise indicated)

MODEL	SAE Ref. No.	Sport Coupe	Convertible
FRONT COMPARTMENT			
Effective head room	H61	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	H50	43.6	
REAR COMPARTMENT			
H Point couple distance –	L50		
Effective head room	H63		
Min. effective leg room	L51		
H Point to Heel point	H31	NOT	
Min. knee room	L48		
Rear Compartment room	L 3		
Shoulder room	W 4		
Hip room	W 6	APPLICABLE	
Upper body opening to ground	H51		
LUGGAGE COMPARTMENT			
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		---	
STATION WAGON – THIRD SEAT			
Shoulder Room	W85		
Hip room	W86		
Effective leg room	L86	NOT	
Effective head room	H86	APPLICABLE	
Seat facing direction			
STATION WAGON – CARGO SPACE			
Cargo length at floor – front seat	L202		
Cargo length at belt – front seat	L204		
Cargo width – Wheelhouse	W201		
Opening width at belt	W204	NOT	
Maximum cargo height	H201	APPLICABLE	
Rear opening height	H202		
Cargo volume index (cu. ft.) $\frac{W4 \times L204 \times H201}{1728}$	V2		

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

POWER TEAMS

(Indicate whether standard or optional)

MODEL AVAILABILITY	ENGINE					TRANSMISSION		AXLE RATIO ** (Std. first) (Indicate A/C ratio)			
	Displ. cu. in.	Carburetor	Compr. Ratio	BHP @ RPM	Torque @ RPM			A	B	C	D
19437 19467	Turbo-Fire 350 V8 (Base)	One; 4-bbl	10.25:1	300 @ 4800	380 @ 3200	4-Spd. Man'l (2.52:1 low)	Base & A/C	3.36	3.08	--	--
						3-Speed* Automatic	Base & A/C	3.08	--	3.36	--
	Turbo-Fire 350 V8 (L46)*	One; 4-bbl	11.00:1	350 @ 5600	380 @ 3600	4-Spd. Man'l (2.52:1 low)	Base & A/C	3.36	--	3.55	--
						4-Spd. Man'l* (2.20:1 low)	Base only	3.70	--	4.11	--
	Turbo-Fire 350 V8 (LT1)*	One; 4-bbl	11.00:1	370 @ 6000	380 @ 4000	4-Spd. Man'l (2.52:1 low)	Base only	3.55	3.36	3.70	--
						4-Spd. Man'l* (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	3.7 4.1 4.5
	Turbo-Jet 454 V8 (LS5)*	One; 4-bbl	10.25:1	390 @ 4800	500 @ 3400	4-Spd. Man'l (2.52:1 low)	Base	3.08	--	3.36	--
							A/C	3.08	--	--	--
						4-Spd. Man'l* (2.20:1 low)	Base only	3.36	3.08	3.55	3.7
						3-Speed* Automatic	Base only	3.08	2.73	--	--
	Turbo-Jet 454 V8 (LS7)*	One; 4-bbl	11.25:1	460 @ 5600	490 @ 3000	4-Spd. Man'l (2.20:1 low)	Base only	3.36	3.08	3.55	3.7 4.1 4.5
						3-Speed Automatic	Base only	2.73	3.08	3.36	--

* - Optional

** - Positraction standard with all axle applications

A-Standard
B-Economy
C-Performance
D-Special

AMA Specifications—Passenger Car

Page 4

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	350 HP	350 HP	370 HP	390 HP	460 HP
ENGINE – GENERAL					
Type, no. cyls., valve arr.	90° V8 OHV				
Bore and stroke (nominal)	4.00 x 3.48			4.251 x 4.00	
Piston displacement, cu. in.	350			454	
Bore spacing (℄ to ℄)	4.40			4.84	
No. system (front to rear) L. Bank	1-3-5-7				
No. system (front to rear) R. Bank	2-4-6-8				
Firing order	1-8-4-3-6-5-7-2				
Compres. ratio (nominal)	10.25:1	11.00:1		10.25:1	11.25:1
Cylinder Head Material	Cast alloy iron				Cast alum.
Cylinder Block Material	Cast alloy iron				
Cyl. Sleeve-Wet,dry,none	None				
Number of mtg. points Front	Two				
Number of mtg. points Rear	One				
Engine installation angle	3°				
Taxable horsepower $\frac{Dia^2 \times No.\ Cyl.}{2.5}$	51.2			57.8	
Publishing max. bhp* @ eng. RPM	300 @ 4800	350 @ 5600	370 @ 6000	390 @ 4800	460 @ 5600
Publishing max. torque * (lb. ft. @ RPM)	380 @ 3200	380 @ 3600	380 @ 4000	500 @ 3400	490 @ 3600
Recommended fuel regular – premium	Premium				

ENGINE – PISTONS

Material		Cst alum alloy	Alum. impact extruded		Cst alm. alloy	Al. imp. ext.
Description and finish		Flat, Notched head	Domed head, valve cut out			
Weight (piston only) oz.		25.76	20.00	20.41	26.80	29.12
Clearance (limits)	Top land	.0235-.0325	.0305-.0395	.0305-.0395	.0306-.0314	.0306-.0394
Clearance (limits)	Skirt Top	.0007-.0013a	.0020-.0020b	.0036-.0042c	.0020-.0028d	.0058-.0066e
Clearance (limits)	Skirt Bottom					
Ring groove depth	No. 1 ring	.2218-.2284			.2348-.2412	.2373-.2437
Ring groove depth	No. 2 ring	.2218-.2284			.2348-.2412	.2373-.2437
Ring groove depth	No. 3 ring	.2038-.2103			.2183-.2247	.2133-.2197
Ring groove depth	No. 4 ring	None				

* Max. bhp (brake horsepower) and max. torque corrected to 60° F and 29.92 in. Hg atmospheric pressure.

a Measured 1.560 from top of piston
b Measured 1.660 from top of piston
c Measured 1.660 from top of piston
d Measured 1.74 from top of piston
e Measured 2.15 from top of piston

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 HP

ENGINE – RINGS

Function (top to bottom)	No. 1, oil or comp.	Compression			
	No. 2, oil or comp.	Compression			
	No. 3, oil or comp.	Oil			
	No. 4, oil or comp.	None			
Compression	Description - material, coating, etc. Upper	Cast alloy iron; barrel face (a)			
	Lower	Cast alloy iron; inside bevel; tapered face (b)			
	Width	(c)	(d)	.0770-.0775	.0620-.06
	Gap	(e)	(f)	.010-.020	.015-.0
Oil	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			
Expanders		In oil ring assembly			

ENGINE – PISTON PINS

Material			Chromium steel			
Length			2.990-3.010		2.930-2.950	2.924-2.9
Diameter			.9270-.9273		.9895-.9898	
Type	Locked in rod, in piston, floating, etc.		Locked in rod			
	Bushing	In rod or piston	None			
		Material				
Clearance	In piston		.00015-.00025	.00045-.00055	.00030-.00040	.00045-.000
	In rod		None			
Direction & amount offset in piston			(g)	On center	(g)	On center

ENGINE – CONNECTING RODS

Material		Drop forged steel		
Weight (oz.)		20.80	27.84	29.44
Length (center to center)		5.695-5.705	6.130-6.140	
Bearing	Material & Type	Premium aluminum		
	Overall length	.797	.847	
	Clearance (limits)	.0007-.0027	.0009-.0025	.0014-.00
	End play	.008-.014	.015-.023	

(a) Chrome plate on V8 350 (300 HP) molybdenum inlay all other engines
(b) Straight edge & barrel face for V8-454 (460 HP); Wear resistant coating V8-350 (300 HP); chrome plate V8-350 (350 & 370 HP) & V8-454 (390 HP) Molybdenum inlay V8-454 (460 HP)
(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
(g) Major thrust side .055-.065

AMA Specifications—Passenger Car

Page 6

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 HP
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	
Main bearing — Material & type	Premium aluminum				
Main bearing — Clearance	(a)			(b)	
Main bearing — Journal dia. and bearing overall length — No. 1	2.4502x.752	2.4503x.752		2.7503x.992	2.7492x.992
Main bearing — Journal dia. and bearing overall length — No. 2	2.4505x.752	2.4503x.752		2.7505x.992	2.7498x.992
Main bearing — Journal dia. and bearing overall length — No. 3	2.4505x.752	2.4503x.752		2.7505x.992	2.7498x.992
Main bearing — Journal dia. and bearing overall length — No. 4	2.4505x.752	2.4503x.752		2.7505x.992	2.7498x.992
Main bearing — Journal dia. and bearing overall length — No. 5	2.4508x1.177	2.4508x1.177		2.7510x1.2525	2.7500x1.2525
Main bearing — Journal dia. and bearing overall length — No. 6	None				
Main bearing — Journal dia. and bearing overall length — No. 7	None				
Main bearing — Dir. & amt. cyl. offset	None				
Crankpin journal diameter	2.099-2.100	2.0988-2.0998		2.199-2.200	
ENGINE – CAMSHAFT					
Location	In block above crankshaft				
Material	Cast alloy iron				
Bearings — Material	Steel backed babbitt				
Bearings — Number	5				
Type of Drive — Gear or chain	Chain				
Type of Drive — Crankshaft gear or sprocket material	Steel sprocket				
Type of Drive — Camshaft gear or sprocket material	Nylon teeth with aluminum hub				
Type of Drive — Timing chain — No. of links	46			50	
Type of Drive — Timing chain — Width	.740			.740	
Type of Drive — Timing chain — Pitch	.500			.500	
ENGINE – VALVE SYSTEM					
Hydraulic lifters (Std., opt., NA)	Standard		NA	Standard	NA
Valve rotator, type (intake, exhaust)	None				
Rocker ratio	1.50:1			1.70:1	
Operating tappet clearance (indicate hot or cold) — Intake	Zero	.020		Zero	.020
Operating tappet clearance (indicate hot or cold) — Exhaust	Zero	.025		Zero	.020

(Continued)

(a) No. 1 - .0008-.00020
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

AMA Specifications—Passenger Car

Page 7

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 HP

ENGINE – VALVE SYSTEM (cont.)

Timing (based on top of ramp points)	Intake	Opens (°BTC)	28°	52°	42° 40'	56°	62°
		Closes (°ABC)	72°	114°	94° 20'	114°	105°
		Duration - deg.	280°	346°	317°	350°	347°
	Exhaust	Opens (°BBC)	78°	98°	112° 50'	110°	106°
		Closes (°ATC)	30°	62°	53° 23'	62°	73°
		Duration - deg.	288°	340°	346° 13'	352°	359°
	Valve opening overlap		58°	114°	96° 3'	118°	135°
Intake	Material		Alloy steel; aluminized face & head on V8-454				
	Overall length		4.870-4.889			5.215-5.235	5.226-5.25
	Actual overall head dia.		1.935-1.945	2.017-2.023		2.060-2.070	2.185-2.19
	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	.4500	.4586	.4614	.5197
	Outer spring press. & length	Valve closed (lb. @ in.)	76-84 @ 1.70			69-81 @ 1.88	69-81 @ 1.88
		Valve open (lb. @ in.)	194-206 @ 1.25			228-252 @ 1.38	181-205 @ 1.32
	Inner spring press. & length	Valve closed (lb. @ in.)	Spring damper			26-34 @ 1.78	37-45 @ 1.78 (a
		Valve open (lb. @ in.)	Spring damper			81-99 @ 1.28	92-110 @ 1.22 (a
Exhaust	Material		High alloy steel; aluminized face (b)				
	Overall length		4.913-4.935	4.891-4.910		5.345-5.365	5.380-5.40
	Actual overall head dia.		1.495-1.505	1.595-1.605		1.715-1.725	1.875-1.88
	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	.4600	.4850	.4800	.5498
	Outer spring press. & length	Valve closed (lb. @ in.)	76-84 @ 1.70			69-81 @ 1.88	69-81 @ 1.88
		Valve open (lb. @ in.)	194-206 @ 1.25			228-252 @ 1.38	181-205 @ 1.32
	Inner spring press. & length	Valve closed (lb. @ in.)	Spring damper			26-34 @ 1.78	37-45 @ 1.78 (a
		Valve open (lb. @ in.)	Spring damper			81-99 @ 1.28	92-110 @ 1.22 (a

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

(Continued)

(a) Spring damper also used
(b) Head also aluminized on V8-454

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (*)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 HP

ENGINE – LUBRICATION SYSTEM (cont.)

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 c/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-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
Exhaust pipe dia. (O.D., wall thick.) Main	2.00 x .082 laminated		2.50 x .092 laminated
Tail pipe dia. (O.D. & wall thickness)	Chrome plated extension: 2.00 at connection - .048		

ENGINE – CRANKCASE VENTILATION SYSTEM

Type (ventilates to atmos., induction system, other)	Standard	Ventilates to induction system	
	Optional	None	
Control Unit	Make and model	AC Spark Plug	
	Location	Left front of rocker cover	
	Energy source (manifold vacuum, carburetor air stream, other)	Manifold vacuum	
	Control method (variable orifice, fixed orifice, other)	Variable orifice	
Complete system	Discharges (to intake manifold, carb. air intake, air cleaner intake, other)	Intake manifold	
	Air inlet (breather cap, carburetor air cleaner, other)	Carburetor air cleaner	
	Flame arrestor (screen, check valve, other)	Screen	

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (*)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 HP

ENGINE – EXHAUST EMISSION CONTROL

Type (Air injection, engine modifications, other)			Air Injection - V8-350 (370 HP) & V8-454 (460 HP) Engine modifications - all other engines				
Air Injection Pump *	Type		Semi articulated vane type				
	Displacement		19.3				
	Drive ratio		1.15:1				
	Drive type		Crankshaft puller				
	Relief valve (type)		Diverter valve				
	Filter (describe)		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				
Carburetor	Make						
	Model						
	Barrel size						
	Idle speed	Drive	REFER TO PAGE 10A				
		Neutral					
	Idle A/F mixture						
Distributor	Aux. Adv. Systems (type)		Transmission controlled vacuum spark advance				
	Make		Delco-Remy				
	Model		1111490	1111493	1111491	1111464	111202
	Cent'fgal adv. in crank degrees @ eng. rpm	Start (rpm)	900	1150	1000	1085	1000
		Intermed. points deg. @ rpm	15 @ 1500	10 @ 1700		17 @ 2100	-
		Max. deg. @ rpm	30 @ 5100	26 @ 5000	26 @ 5000	22 @ 3200	21 @ 23
	Vacuum adv. in crank degrees @ eng. rpm	Start (in Hg)	8.00		8.00	7.00	
		Intermed. points deg. @ in. Hg	None				
		max. deg. @ in.	19 @ 17		15 @ 15.5	12 @ 12	
	Vacuum Source		Carburetor				
Timing - Crank degrees @ rpm **			4BTDC	8BTDC	8BTDC	6BTDC	8BTDC
Cooling System			-				
Exhaust System			-				

* - Applies to V8-350 (370 HP) & V8-454 (460 HP) only; Engine modifications all othe

** - At idle - see page 10A for idel speed

AMA Specifications—Passenger Car

Page 10A

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (a)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 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.)		20 (approximately)				
	Filler location		Center at rear deck				
Fuel Pump	Type (elec. or mech.)		Mechanical (a)				
	Locations		Lower right front of engine				
	Pressure range		7.50-9.00 PSI *				
Vacuum booster (std., optional, none)			None				
Fuel Filter	Type		Fine mesh plastic strainer in gas tank				
	Locations		and paper filter element in carburetor inlet **				
Carburetor	Choke type		Automatic				
	Intake manifold heat control (exhaust or water)		Exhaust				
	Air cleaner type	Standard	Oil wetted paper element				
		Optional	None				
	Idle speed (spec. neutral or drive)	Manual (N)	700	750	900	700	
		Automatic (D)	600	Not available		600	
		Idle A/F mix.	Not specified				

CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetors		No. Used and Type	Barrel Size
			Make	Model		
	350 300 hp	Manual	Rochester	7040203	One; 4-bbl	1.38 Prim 2.25 Sec.
		Automatic		7040202		
19437	350 350 hp	Manual	Rochester	7040207	One; 4-bbl	1.38 Prim 2.25 Sec.
19467	350 370 hp	Manual	Holley	3972121	One; 4-bbl	1.686 Prim & Sec.
	454 390 hp	Manual	Rochester	7040205	One; 4-bbl	1.28 Prim 2.25 Sec.
		Automatic		7040204		
	454 460 hp	Manual	Holley	3967481	One; 4-bbl	1.686 Prim & Sec.
		Automatic				

* Shut off pressure - 1800 RPM at pump outlet

** Additional In-line paper filter element between pump & carburetor for V8-454

(a) Deep cover fuel pump with vapor return line to fuel tank for all engines except V8-350 (370 hp)

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL Evaporation Emission Control System (California vehicles)

Fuel Tank Capacity - 18 Gals. (approximately)

Components: -

Fill Limiter - Extended fuel filter neck

Canister - Canister of activated carbon stores vapors vented from gas tank ur removed and burned in the engine.

Liquid Separator - Connected in vent lines to canister. Separates and returns liquid fuel to the tank.

Constant flow purge line (canister to manifold) - Incorporates an orifice to regulate flow to manifold unc all engine operating conditions, including idle.

Variable Flow Purge Line (canister to air cleaner) (snorkel) - Becomes functional above engine idle speeds to more completely purge the canister

Aluminum Heat Dissipator - Positioned between insulation blocks and intake mani Provides optimum heat transfer to surrounding atmo phere.

Carburetor Model No.'s	V8-350 300 HP	V8-350 350 HP	V8-350 370 HP	V8-454 390 HP	V8-454 460 HP
Manual	7040503	7040507	3972123	7040505	3967487
Manual with A/C	7040503	7040507	- -	7040505	- -
Automatic	7040502	- -	- -	7040504	3967487
Automatic with A/C	7040502	- -	- -	7040504	- -

AMA Specifications—Passenger Car

Page 11

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (a)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 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°	
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)			Tube and center			
			Aluminum	Copper - brass		
Cooling system capacity	With heater (qt.)		15	18	22	
	Without heater (qt.)		14	17	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.		1.160:1	1.15:1	.949:1	1.161:1
	Fan cutout type		Thermo-modulated viscous			
	Bearing type		Double row ball			
*Drive belts (indicate belt used by letter)	Fan		A B	E F	J K	
	Generator or alternator		A	E	J K	
	Water Pump		A B	E F	J K	
	Power Steering		C	G	-	G
	Air Conditioning		D	-	-	H -
	Air Injection		-		I -	L

* Drive Belt Dimensions	L	A	B	C	D	E	F	G	H	I	J	K
Angle of V	←					38°-42°						→
Nominal length (SAE)	30.75	54.25	35.14	32.25	58.00	52.75	32.46	43.50	46.25	32.50	53.75	31.86
Width	←					.380						→

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (•)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 HP

ELECTRICAL – SUPPLY SYSTEM

Battery	Make and Model		Delco-Remy 1980085		Delco-Remy 1980127	
	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.rat	
	Location		Behind drivers seat in storage compartment			
	Terminal grounded		Negative			
Generator or Alternator	Make		Delco-Remy			
	Model		1100901	1100900		
	Type and rating		Diode rectified			
	Output at engine idle (neutral)		42 amps			
	Ratio–Gen. to Cr/s rev.		2.74:1	2.15:1	2.53:1	2.30:1
Regulator	Make		Delco-Remy			
	Model		1119515			
	Type		Semi-conducter, integrated circuit			
	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 lever in neutral and depress clut Automatic-place control lever in "N" or "P" position Initial Start-press accelerator to floor and release. Tu ignition to START, release as soon as engine starts		
Motor Drive	Engagement type			Positive shift solenoid		
	Pinion meshes (front, rear)			Rear		
	Number of teeth	Pinion		9	9	9
		Flywheel	Manual	153	153	168
			Auto.	153	NA	168
	Flywheel tooth face width		Manual	.4010-.4130	.4010-.4130	.4100-.4220
			Auto.	.4010 .4130	NA	.4100-.4220

AMA Specifications—Passenger Car

Page 13

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL			Turbo-Fire 350			Turbo-Jet 454	
			300 HP	350 HP	370 HP	390 HP	460 HP

ELECTRICAL – IGNITION SYSTEM

Type	Conventional – Std., Opt., N.A.		Standard	NA	Standard	NA
	Transistorized – Std., Opt., N.A.		NA	Standard	NA	Standard
	Other (specify)		None			
Coil	Make		Delco-Remy			
	Model		1115270	1115272	1115287	1115263
	Amps	Engine stopped	4.0			
		Engine idling	1.8			
Distributor	Make					
	Model					
	Cent'fgal adv. in c/shaft degrees @ engine rpm (nominal)	Start (rpm)				
		Intermediate points deg. @ rpm	REFER TO PAGE NINE			
		Max. deg. @ rpm				
	Vacuum adv. in c/shaft degrees @ in. Hg. (nominal)	Start (in. Hg.)				
		Intermediate points, deg. @ in. Hg.	–			
		Max. deg. in. Hg.				
	Breaker gap (in.)		.019	Magnetic	.019	Magnetic
	Cam angle (deg.)		29-31	Pulse	28-30	Pulse
	Breaker arm tension (oz.)		19-23	Amplifier	28-32	Amplifier
Timing	Crankshaft deg. @ rpm		Refer to page nine			
	Mark location		Torsional damper			
Spark Plug	Make		AC Spark Plug			
	Model		AC R44	AC R43	AC R43T	AC R43XL
	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		Hypalon jacket			

ELECTRICAL – SUPPRESSION

Locations & type	Non-metallic, high tension ignition

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (a)

MODEL	Turbo-Fire 350			Turbo-Jet 454	
	300 HP	350 HP	370 HP	390 HP	460 HP

ELECTRICAL – INSTRUMENTS AND EQUIPMENT

Speedometer	Type	Circular dial with pointer
	Trip odometer (yes,no)	Yes
Charge indicator – type		Ammeter
Temperature indicator – type		Electric gauge
Oil pressure indicator – type		Bourdon tube gauge
Fuel indicator – type		Electric gauge
Other		Mechanical tachometer
Windshield wiper	Type – Standard	Electric, two speed
	Type – Optional	None
Windshield washer	Type – Standard	Push-button
	Type – Optional	None
Horn	Type	Vibrator
	Number used	Two
	Amp draw (each)	4.5-6.5 @ 12.5V (low note); 4.2-6.2 @ 12.5V (high note)

DRIVE UNITS – CLUTCH (Manual Transmission)

		Standard	Heavy Duty *
Make & type		Chevrolet, single dry disc semi-centrifugal	
Type pressure plate springs		Diaphragm, bent finger design	
Total spring load (lb.)		2450-2750	2900-3100
No. of clutch driven discs		One	
Clutch facing	Material	Woven type asbestos	
	Outside & inside dia.	11.00 x 6.50	10.40 x 6.50
	Total eff. area (sq.in.)	123.70	103.53
	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	

(a) Available with V8-350 (370 hp) and 454 (460 hp)

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL

DRIVE UNITS – TRANSMISSIONS

Manual 3-speed (std. or opt.)	Not available
Manual 4-speed (std. or opt.)	Standard
Manual with overdrive (std. or opt.)	Not available
Automatic (std. or opt.)	Optional all engine combinations except V8 350 (350 & 370 HP)

DRIVE UNITS – MANUAL TRANS.

			4-Speed (a)	4-Speed (b)
Number of forward speeds				
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	

DRIVE UNITS – MANUAL TRANS. W/OVERDRIVE

(For transmission data see manual transmission section)

Type (planetary or other)			
Manual lockout (yes, no)			
Downshift accelerator control (yes, no)			NOT
Minimum cut-in speed			
Gear ratio			AVAILABLE
Lubricant	Capacity (pt.) (Overdrive only)		
	Separate filler (yes, no)		
	Type recommended		
	SAE viscosity number	Summer	
		Winter	
		Extreme cold	

(a) Available all engine combinations except V8-454 (460 HP)

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

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL	V8 350	V8 454

DRIVE UNITS – AUTOMATIC TRANSMISSION

Available all engines except V8 350 (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		1-2 47; 2-3 82	1-2 44; 2-3 74
Max. kickdown speed–drive range		2-1 37; 3-2 76	2-1 32; 3-2 68
Torque convertor	Number of elements	3	
	Max. ratio at stall	2.10	
	Type of cooling (air, liquid)	Water	
	Nominal diameter	12.20	
Lubricant	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 .120
	Overdrive transmission	Not available
	Automatic transmission	2.00 x 29.50 x .095

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

(Continued)

AMA Specifications—Passenger Car

Page 17

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL

DRIVE UNITS – PROPELLER SHAFT (cont.)

Intermediate 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, 3868728
	Number used		Two
	Type (ball and trunnion, cross)		Cross
	Rear attach. (u-bolt, clamp, etc.)		U-Bolt
	Bearing	Type (plain, anti-friction)	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
Lubricant	Capacity (pt.)		4.0
	Type recommended		Meeting Military Specs. MIL-L-2105-B
	SAE viscosity number	Summer	SAE 80
		Winter	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	9
	Ring gear	41	37	37	32	37	37	41
Ring Gear O.D.		8.375						

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

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, load range and ply		F70 x 15B-2 ply (4 ply rating)
	Type (bias, radial, etc.)		Fiberglass Bias Belted
	Full rated Inflation Press.	Front	Cold 24; Hot 30
		Rear	Cold 24; Hot 30
	Rev./Mile at 45 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 .175

AMA Specifications—Passenger Car

Page 19

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

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				
Rotor	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
	displacement distribution	Front	%		77
		Rear	%		23
Pedal arc ratio					5.23
Line pressure at 100 lb. pedal load					576
Shoe Clearance	Front				Self adjusting
	Rear				Self adjusting
Brake lining	Bonded or riveted				Woven asbestos
	Front Wheel	Material			Riveted
		Size (length x width x thickness)	Prim. or outboard		5.96 x 2.21 x .41
			Second. or inboard		5.96 x 2.21 x .41
		Segments per shoe			
	Rear Wheel	Material			Woven asbestos
		Size (length x width x thickness)	Prim. or outboard		5.96 x 2.21 x .41
			Second. or inboard		5.96 x 2.21 x .41
		Segments per shoe			

* 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—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL

STEERING

Manual (std., opt., NA)				Standard-Energy absorbing steering wheel
Power (std., opt., NA)				Optional-NA with V8-350 (370 hp) & 454 (460 hp)
Adjustable steering wheel (tilt, swing, other)		Type and description		Tilt and Telescopic steering column; 3" adjustment
		(std., opt., NA)		Optional
Wheel diameter		Manual		16.0
		Power		16.0
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
		Ratios	Gear	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
	Gear	Type		Same as manual
		Ratios	Gear	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.)			6-1/2 to 7-1/2
	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 P 1/2 to P 1-1/2; Power Steering P 1-3/4 to P 2-3
	Camber (deg.)			P 1/4 to P 1-1/4 (a)
	Toe-in (outside track inches)			3/32 to 5/32 (a)
Steering spindle & joint type				Steering knuckle with spherical joint
Wheel Spindle	Diameter	Inner bearing		1.2493-1.2498
		Outer bearing		.7492-.7497
	Thread size			3/4-20 NEF-3 (Modified)
	Bearing type			Taper roller

Rear wheel alignment - Camber N1-3/8 to N3/8
Toe-In - 1/32 to 3/32

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

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-Moraine
	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 .600 with V8 350 engines 15.77 x 3.80; 138.75 x .618 with V8 454 engine
	Spring rate (lb. per in.)	250 with 350 engines; 284 with 454 engine
	Rate at wheel (lb. per in.)	89 with 350 engines; 97 with 454 engine
Stabilizer	Type (link, linkless, frameless)	Link
	Material & bar diameter	.750 with 350 engines; .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
	If leaf	No. of leaves	9
		Shackle (comp. or tens.)	Tension
Stabilizer	Type (link, linkless, frameless)		Link (B)
	Material		.562
Track bar type			None

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

(B) - With V8 454 Cu. In. engine only

AMA Specifications—Passenger Car

Page 22

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (a)

MODEL	Sport Coupe	Convertible
FRAME		
Type and description (Separate frame, unitized frame, partially - unitized frame)	All welded, full length, ladder constructed frame with 5 crossmembers	

BODY – MISCELLANEOUS INFORMATION

Drs. hinged (front, rr.)	Front doors	Front	
	Rear doors	---	
Type of finish (lacquer, enamel, other)		Lacquer	
Hood counterbalanced (yes, no)		No	
Hood release control (internal, external)		Internal	
Vehicle Indent. No. location		Left hand windshield pillar	
Engine No. location		Front right side of cylinder block	
Theft protection - type		Lock mounted on steering column; lock steering wheel, transmission shift levers 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-safety solid 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.
Windshield glass exposed surface area		977.4	
Side glass exposed surface area		800.8	
Backlight glass exposed surface area		392.5	418.0*
Total glass exposed surface area		2170.7	2196.2

* Removable Auxiliary Top - 620.1

AMA Specifications—Passenger Car

Page 23

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

MODEL

CONVENIENCE EQUIPMENT

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

Power windows	Side windows	Optional
	Vent windows	NA
	Backlight or tailgate	NA
Power seats (specify type as well as availability)		NA
Reclining front seat back (R-L or both)		NA
Front seat head restrainer (R-L or both)		Standard-integral
Radios (specify type as well as availability)		Optional-AM-FM Push-button, AM-FM Stereo
Rear seat speaker		NA
Power antenna		NA
Clock		Standard
Air conditioner (specify type and availability)		Optional - Four-season (manual control)
Speed warning device		NA
Speed control device		NA
Ignition lock lamp		NA
Dome lamp		Standard Coupes, NA - convertible
Glove compartment lamp		Standard
Luggage compartment lamp		Standard
Underhood lamp		NA
Courtesy lamp		Standard
Map lamp		Standard
Auto. trans. quad. lamp		NA
Cornering gas lamp		NA

LAMP HEIGHT AND SPACING

Height above ground to center of bulb or marker	Headlamp	Highest *	25.4
		Lowest	--
	Tail	Highest	27.1
		Lowest	--
	Sidemarker	Front	18.0
		Rear	19.0
Distance from C/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.

AMA Specifications—Passenger Car

MAKE OF CAR CORVETTE MODEL YEAR 1970 DATE ISSUED 2-70 REVISED (e)

WEIGHTS

	CURB WEIGHT * POUNDS			% PASS. WEIGHT DISTRIBUTION				LIQUID WEIGHT	
				Pass. In Front		Pass. In Rear			
	Front	Rear	Total	Front	Rear	Front	Rear	Fuel	Coolar
Model									
2-Door Sport Coupe	1598	1687	3285	28.0	72.0	--	--	120.0	31.5
Convertible	1574	1725	3299	28.0	72.0	--	--	120.0	31.5

Accessories & Equipment Differential Weights				Remarks
				With 4-Speed transmission
350 cu. in. V8 (300 HP)	+53	+32	+85	With Turbo Hydra-Matic transmission
350 cu. in. V8 (350 HP)	+16	- 0	+16	With 4-Speed transmission
350 cu. in. V8 (370 HP)	+13	+ 3	+16	With 4-Speed transmission
454 cu. in. V8 (390 HP)	+153	+25	+178	With 4-Speed transmission
454 cu. in. V8 (390 HP)	+186	+43	+229	With Turbo Hydra-Matic transmission
Air Conditioning	+70	+18	+88	With 300HP 3-Spd trans. & 350 HP engine
	+63	+15	+78	With 300 HP engine & Turbo Hydra-Matic
	+79	+20	+99	With 390 HP engine & 4-spd transmission
Power Brakes	+ 8	+ 2	+10	
Power Steering	+25	+ 1	+26	With 300 HP engine
	+23	+ 1	+24	With 350 & 370 HP engine
	+28	+ 1	+29	With 390 HP engine
Radio, AM/FM P. B.	+ 9	+ 7	+16	With 350 cu. in. engine
	+ 8	+ 5	+13	With 454 cu. in. engine
Auxiliary Top	+ 8	+45	+53	
Power Windows	+ 5	+ 5	+10	
Deluxe Wheel Covers	+ 9	+ 9	+18	
454 cu. in. V8 (460 HP)	+59	+22	+81	With 4-Speed transmission
454 cu. in. V8 (460 HP)	+101	+33	+134	With Turbo Hydra-Matic transmission

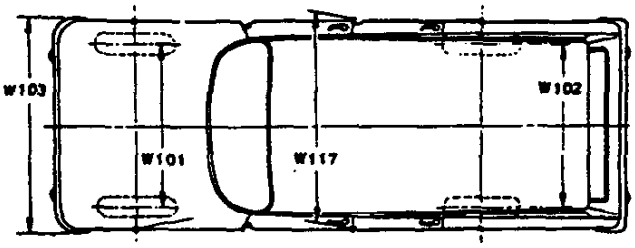
*Reference – SAE Aerospace-Automotive drawing standards, Section E 1 02 (d).

AMA Specifications—Passenger Car

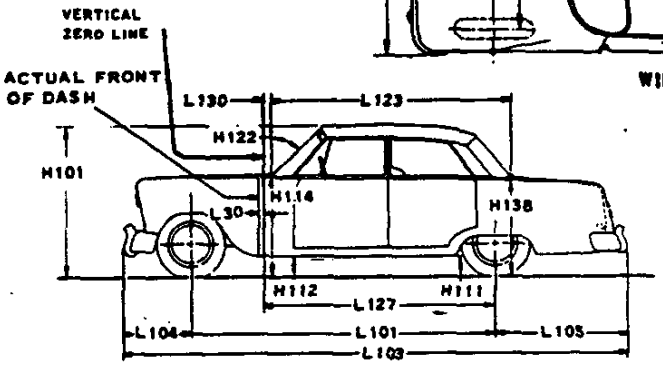
CAR AND BODY DIMENSIONS

KEY SHEET

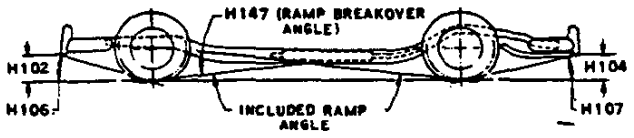
EXTERIOR CAR AND BODY DIMENSIONS



WIDTH

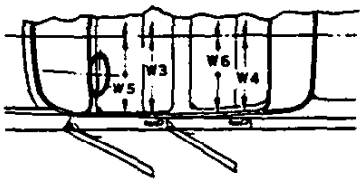


LENGTH & HEIGHT

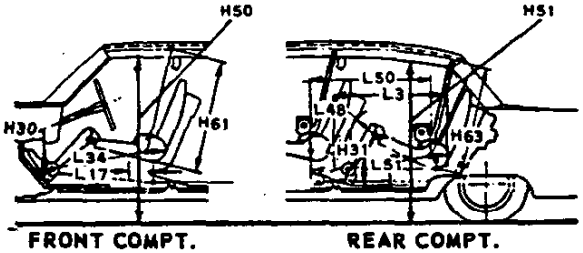


GROUND CLEARANCE

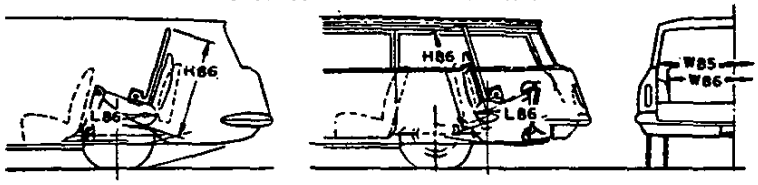
INTERIOR CAR AND BODY DIMENSIONS



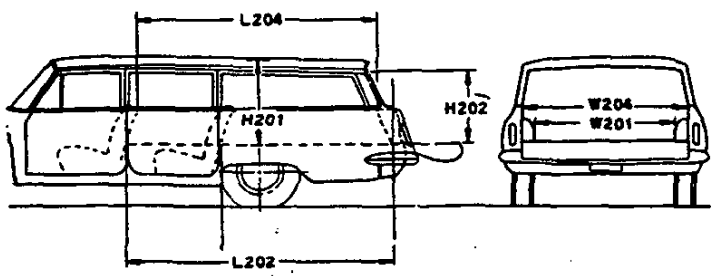
WIDTH



FRONT COMPT. REAR COMPT.



THIRD SEAT



CARGO SPACE

AMA Specifications—Passenger Car

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 #2 PILLAR. Measured across body at #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 Cowl 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° 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° 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° 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° 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 center to the back 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 molding or nearest interference. Measured at H Point station.

W 6 HIP ROOM – REAR. The lateral dimension through 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° 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 wheelhousings 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.

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

AMA Specifications—Passenger Car

Page 27

INDEX