CHEVROLET

SERVICE NEWS

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1965 PRODUCT FEATURES

This issue of Service News presents the major product features of the 1965 Chevrolet vehicles and describes many of the new service procedures required.

To highlight 1965 features, the information is generally presented as a comparison between the 1965 and the 1964 versions of all models. More detailed coverage is provided for new models added to the line and for new components on all vehicles. The Chevrolet and Corvair represent the largest change for 1965.

To help you locate information, the material is divided into UPC groups and data for all vehicle series is together in one group. Since many major assemblies of basically similar design are used on several different vehicle lines, this method of grouping permits Series-to-Series reference in a single convenient location.

To obtain complete servicing information on all 1965 vehicles, refer to the 1965 Shop Manuals.

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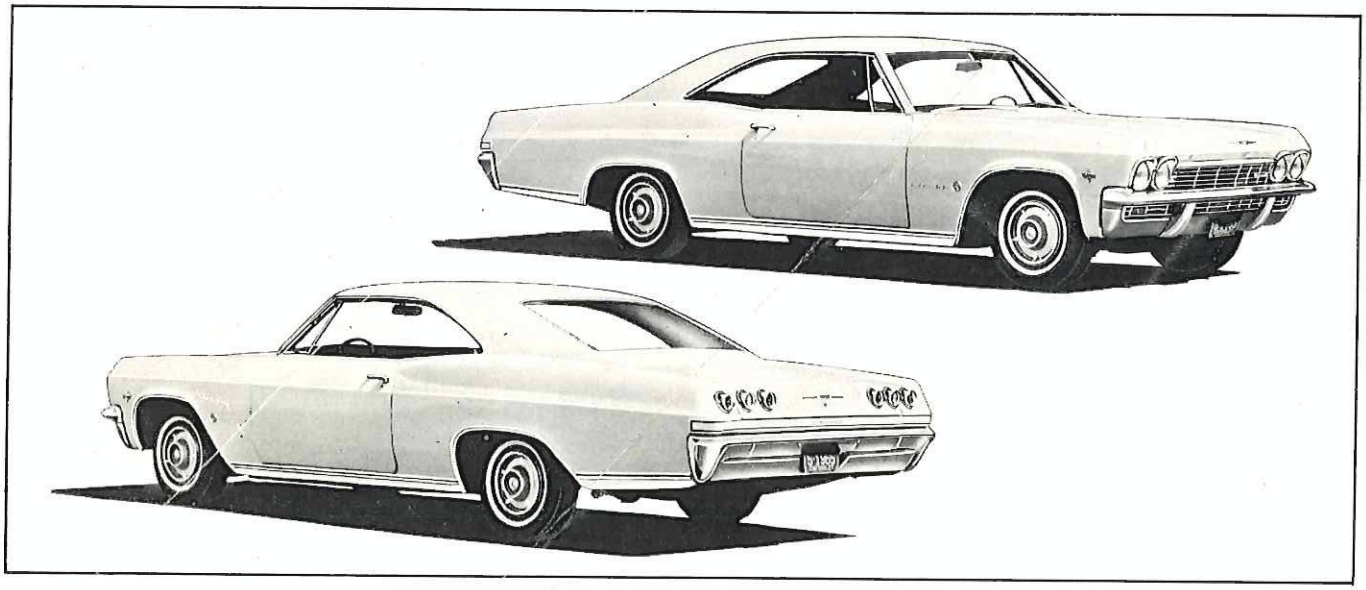


1965 Chevrolet Impala Sport Coupe

GENERAL INFORMATION

A total of 45 passenger car models in the same five vehicle lines are offered in 1965. The Chevrolet and Corvair represent major body changes while the other lines incorporate mainly styling refinements.

A new five-digit vehicle identification numbering system is used in 1965. This new system changes all vehicle series as follows:

Corvair - 10,000 Series
Chevy II - 11,000 Series
Chevelle - 13,000 Series
Chevrolet - 15,000 and 16,000 Series
Corvette - 19,000 Series

CORVAIR - (10,000 SERIES)

The Corvair is completely redesigned with a definite trend towards a sport's car look in 1965. The new two-door sport coupes and four-door sport sedans replace the two and four-door sedan models. Thus, all Corvair vehicles have hard-top styling. The Corvair again is available in nine models, the same as in 1964. The 500 Series Corvair now has two models. The 700 Series is cancelled for 1965. The Monza remains unchanged, and the Spyder becomes the Corvair Corsa. The Greenbrier Sports Wagon is offered for 1965, with only minor body changes.

1965 CORVAIR MODEL IDENTIFICATION

Series	Model Number	Description
500	10137	2-Door Sport Coupe, 5-Passenger
	10139	4-Door Sport Sedan, 6-Passenger
Monza	10537	2-Door Sport Coupe, 4-Passenger
	10567	2-Door Convertible, 4-Passenger
	10539	4-Door Sport Sedan, 5-Passenger
Corsa	10737	2-Door Sport Coupe, 4-Passenger
	10767	2-Door Convertible, 4-Passenger
Greenbrier	R1206	6- or 9-Pass. Sport Wagon

CHEVY II - (11,000 SERIES)

The 1965 Chevy II is available in three series, the 100, the Nova and a Nova Super Sport series. The addition of the Nova Super Sport in midyear 1964 increased the Chevy II models from six to the same seven models that are available for 1965.

1965 CHEVY II MODEL IDENTIFICATION

Series	Model Designation			Description
	4-Cyl.	6-Cyl.	V-8	
100	11111	11311	11411	2-Door Sedan, 6-Passenger
	11169	11369	11469	4-Door Sedan, 6-Passenger
	—	11335	11435	4-Door Station Wagon, 2-Seat
Nova	—	11569	11669	4-Door Sedan, 6-Passenger
	—	11535	11635	4-Door Station Wagon, 2-Seat
	—	11537	11637	2-Door Sport Coupe, 5-Pass.
Nova SS	—	11737	11837	2-Door Sport Coupe, 4-Pass.

CHEVELLE - (13,000 SERIES)

The Chevelle line for 1965 is expanded to four series and twelve models. The new series consists of a four-door sedan and a two-door station wagon. The four series now become the Chevelle 300 Series, the 300 Deluxe, the Malibu, and the Malibu Super Sport. The El Camino sedan pick-up models are also available for 1965.

1965 CHEVELLE MODEL IDENTIFICATION

Series	Model Designation		Description
	6-Cyl.	V-8	
300	13111	13211	2-Door Sedan, 6-Passenger
	13169	13269	4-Door Sedan, 6-Passenger
	13115	13215	2-Daar Station Wagon, 2-Seat
300 DeLuxe	13311	13411	2-Daar Sedan, 6-Passenger
	13369	13469	4-Door Sedan, 6-Passenger
	13335	13435	4-Daor Station Wagon, 2-Seat
Malibu	13569	13669	4-Door Sedan, 6-Passenger
	13537	13637	2-Door Sport Coupe, 5-Pass.
	13567	13667	2-Door Convertible, 5-Pass.
	13535	13635	4-Door Station Wagon, 2-Seat
Malibu S.S.	13737	13837	2-Door Sport Coupe, 4-Pass.
	13767	13867	2-Door Convertible, 4-Pass.
NOTE: El Camino sedan pickup models shown on Truck charts.			

CHEVROLET - (15,000 and 16,000 SERIES)

The 1965 model Chevrolet has an all new body and presents an entirely new appearance. The side glass is curved, and the vehicle frame is a perimeter type similar to Chevelle. The Chevrolet is longer, wider and lower for 1965. The model line-up is identical to 1964 with fifteen models grouped into four series.

1965 CHEVROLET MODEL IDENTIFICATION

Series	Model Designation		Description
	6-Cyl.	V-8	
Biscayne	15311	15411	2-Door Sedan, 6-Passenger
	15369	15469	4-Door Sedan, 6-Passenger
	15335	15435	4-Door Station Wagon, 6-Pass.
Bel Air	15511	15611	2-Door Sedan, 6-Passenger
	15569	15669	4-Door Sedan, 6-Passenger
	15535	15635	4-Door Station Wagon, 6-Pass.
	15545	15645	4-Door Station Wagon, 9-Pass.
Impala	16337	16437	2-Door Sport Coupe, 5-Pass.
	16367	16467	2-Door Convertible, 5-Pass.
	16369	16469	4-Door Sedan, 6-Passenger
	16339	16439	4-Door Sport Sedan, 6-Pass.
	16335	16435	4-Door Station Wagon, 6-Pass.
	16345	16445	4-Door Station Wagon, 9-Pass.
Impala S.S.	16537	16637	2-Door Sport Coupe, 4-Pass.
	16567	16667	2-Door Convertible, 4-Pass.

CORVETTE - (19,000 SERIES)

The Corvette model line-up is continued unchanged from 1964. Both the convertible and the sport coupe are available in 1965 with minor body and power train changes.

1965 CORVETTE MODEL IDENTIFICATION

Model No.	Description
19437	2-Door Sport Coupe, 2-Passenger
19467	2-Door Convertible, 2-Passenger

TRUCK

The 1965 truck line-up is comprised of 324 different models on 24 wheelbases, and represents the largest truck line-up in Chevrolet history. This is an increase of 128 models and two wheelbases over the 1964 model line-up.

1965 LIGHT-DUTY TRUCK MODELS

Vehicle Type	½-Ton (Nominal)	W/B	¾-Ton (Nominal)	W/B	1 Ton
El Camino Sedan Pickup	13380 13480	115 115			
El Camino Custom Sed. Pickup	13580 13680	115 115			
Forward Control Panel	G1205	90			
Flat Face Cowl	C1402	115	C2502 C3602S*	127 133	C3602
Windshield Cowl	C1412	115	C2512 C3612S*	127 133	C3612
Conventional Cab Chassis	C1403 C1503 K1403 K1503	115 127 115 127	C2503 K2503 C3603S* C3803S*	127 127 133 157	C3603 C3803
Stepside Pickup	C1404 C1504 K1404 K1504	115 127 115 127	C2504 K2504 C3604S*	127 127 133	C3604
Fleetside Pickup	C1434 C1534 K1434 K1534	115 127 115 127	C2534 K2534	127 127	
Panel	C1405 K1405	115 115	C3605S*	133	C3605
Suburban Carryall	C1406 C1416 K1406 K1416	115 115 115 115			
Conventional Stake			C2509 C3609S*	127 133	C3609
Forward Control Chassis	P1342	102	P2342 P2542 P2642	104 125 137	P3342 P3542 P3642
Step Van	P1345	102	P2345 P2545 P2645	104 125 137	P3345 P3545 P3645
Step Van "King"			P2535 P2635	125 137	P3535 P3635

**1-ton model with a ¾ ton (nominal) rating plate requested.*

The Corvair Rampside Pickup and the Corvair Panel are discontinued for 1965, but the Greenbrier Model 1206 Sports Wagon is continued into the new year.

The large increase in the number of truck models offered is for the most part due to the introduction of a new four cycle diesel engine. The new four cycle engine is responsible for 105 new models. The two cycle diesel engine has been expanded by 18 models for 1965. This brings the total number of diesel engine vehicles from 22 in 1964 to 145 in 1965, an increase of 123 models.

The total Chevrolet diesel models can be classified into three basic groups. The first group is carry over series D-60, E, U, and W-80 Series and will be carried over into 1965 basically unchanged. The second group consists of new Chevrolet diesel models which are identical to existing Series D-60 in general design. They include the D-50, N-50, X, V, and Y-60 Series. Group three are models that are new for Chevrolet for 1965. They include Q-50, A, N, and Q-60, and the A, N, Q and V models in the 80 Series.

The light and medium duty gasoline vehicle line up for 1965 is carry over except for the P-Model forward control chassis and the T-model tilt cabs that are added in the 50 Series. The G-10 line is carried over unchanged.

POWER TRAINS

The 1965 Chevrolet power train differs from 1964, in that the dual four-barrel carburetor 409 engine is cancelled also the rear axle ratios are changed slightly due to differences, for some applications, in the design of the new Salisbury axles used for 1965.

The Chevelle power trains were increased during the 1964 model year by the addition of both the 250 and the 300 H.P. versions of the 327 cubic in. V-8. These two engines are retained for 1965 and a 350 H.P. version of the 327 engine is added to the lineup. A total of six different engines are available for the 1965 Chevelle. The rest of the power train features are carry over.

In 1965 Chevy II power trains increase from four to six engines. The increase is due to the addition of two 327 cubic inch engines that will have two inch dual exhaust and are available on all models. All the other engines are carried over into 1965 unchanged.

The Corvette power trains are generally unchanged for 1965, except for the addition of one hydraulic lifter equipped engine rated at 350 horsepower.

The Corvair power trains are revised for 1965. The base 95 horsepower engine, and the 110 horsepower engine used on the 500 and Monza Series and the Greenbrier remain unchanged for 1965. A new engine that uses four single-barrel Rochester Model H carburetors is now standard equipment on the Corvair Corsa model and a turbo super-charger is optional equipment on this same vehicle. These latter two engines are new in that larger valves, revised cam and exhaust system create better engine breathing and, therefore, a higher horsepower. All the Corvair engines (except turbocharger) use the Model HV carburetor revised with a high speed power enrichment system for 1965. Transmission and axle line-up remains unchanged.

The 1965 truck power train line-up is vastly increased over 1964 mostly due to the increase in engine and vehicle availability. A new piston design and injector unit on the Series 53 engines and the addition of the D-351, D-478, and DH-478 four cycle engines are the major truck power train revisions.

1965 MEDIUM-DUTY TRUCK MODELS

Gasoline Models			Vehicle Type	Wheel-base	Diesel Models					
1½ Ton	1½ Ton Spec.	2-Ton			1½ Ton		2-Ton			
C5109			Conventional	133						
C5309			Stake	157						
L5309			LCF Stake	145						
C5103	C6103S	C6103	Conventional	133	D5103	Q5103	D6103	Q6103	Q6123	
C5203	C6203S	C6203	Cab	145	D5203	Q5203	D6203	Q6203	Q6223	
C5303	C6303S	C6303		157	D5303	Q5303	D6303	Q6303	Q6323	
C5503	C6503S	C6503		175	D5503	Q5503	D6503	Q6503	Q6523	
	C6803S	C6803		197		Q5803	D6803	Q6803	Q6823	
				211				Q6703		
				223				Q6903		
L5203				97						
L5303			LCF	109						
	L6203S	L6203		133			A6203	A6223		
	L6303S	L6303		145			A6303	A6323		
	L6503S	L6503		169			A6403	A6623		
L5603	L6603S	L6603		175			A6603			
	L6903S	L6903		197			A6703			
				187			A6803			
				211			A6903			
P5742			Forward	157						
P5842			Control Chassis	175						
S5302			School Bus	157						
		S6202	Cowl	197						
		S6402		225½						
		S6702		243						
		S6902		261½						
C5102	C6102S	C6102	Conventional	133						
C5202			Cowl	145						
C5302	C6302S	C6302		157						
C5502	C6502S	C6502		175						
T5203	T6203S	T6203		97		N5203	N6203	N6223	Y6203	
T5303	T6303S	T6303		109		N5303	N6303	N6323	Y6303	
T5603	T6603S	T6603	Tilt-Cab	133		N5603	N6603	N6623	Y6603	
T5803	T6803S	T6803		145		N5803	N6803	N6823	Y6803	
				163			N6703			
T5903	T6903S	T6903		175		N5903	N6903		Y6903	
C5112	C6112S	C6112	Windshield	133						
C5212			Cowl	145						
C5312	C6312S	C6312		157						
C5512	C6512S	C6512		175						
		M6303	Conventional	157			X6303	V6303		
		M6503	Tandem	175			X6503	V6503		
		M6803		193			X6803	V6803		

1965 HEAVY-DUTY TRUCK MODELS

Gasoline Models		Vehicle Type	Wheel-Base	Diesel Models					
2-Ton H.D.	2½ Ton			2-Ton Heavy-Duty			2½ Ton		
C6103H	C8103	Conventional	133	D6103H	Q6103H	Q6123H	Q8103	Q8123	
C6203H	C8203	Cab	145	D6203H	Q6203H	Q6223H	Q8203	Q8223	
C6303H	C8303		157	D6303H	Q6303H	Q6323H	Q8303	Q8323	
C6503H			169						
	C8503		175	D6503H	Q6503H	Q6523H	Q8503	Q8523	
C6803H	C8803		197	D6803H	Q6803H	Q6823H	Q8803	Q8823	
			211		Q6703H		Q8703		
			223		Q6903H		Q8903		
L6203H	L8203		133	A6203H	A6223H			A8223	E8203
L6303H	L8303	LCF	145	A6303H	A6323H			A8323	E8303
L6503H			169	A6403H					
L6603H	L8603		175	A6603H	A6623H		A8603	A8623	
			197	A6703H			A8703		
			187	A6803H			A8803		
L6903H			211	A6903H			A8903		
T6203H	T8203		97	N6203H	N6223H	Y6203H		N8223	U8203
T6303H	T8303		109	N6303H	N6323H	Y6303H	N8303	N8323	U8303
T6603H	T8603	Tilt-Cab	133	N6603H	N6623H	Y6603H	N8603	N8623	
T6803H	T8803		145	N6803H	N6823H	Y6803H	N8803	N8823	
			163	N6703H			N8703		
T6903H			175	N6903H		Y6903H	N8903		
S6702H		School Bus	243						
S6902H		Cowl	261½						
C6102H		Conventional	133						
C6302H		Cowl	157						
C6502H			175						
C6112H		Windshield	133						
C6312H		Cowl	157						
C6512H			175						
	M8303		157				V8303	V8323	
	M8503	Tandem	175				V8503	V8523	
	M8803	Conventional	193				V8803	V8823	
			145				W8303		
		Tandem	163				W8503		
		L.C.F.	181				W8803		

1965 CHEVELLE POWER TRAINS

Engine Description / Bore & Stroke	Gross Horsepower / Gross Torque	Engine Equipment	Comp. Ratio	Trans-mission	Model Application	Rear Axle Ratios* Standard	Rear Axle Ratios* Optional
Hi-Thrift 194 194 Cu. In. L-6 3.563" x 3.25"	120 hp @ 4400 rpm / 177 ft lbs @ 2400 rpm	Single Barrel Rochester "BV" Carburetor Hydraulic Lifters	8.5:1	3-Speed (2.94:1 Low) or Powerglide	Sedans, Coupes & Convertibles	3.08:1Ⓑ	3.36:1 (RPO G76)
					Station Wagons	3.36:1	—
				Overdrive	All Models	3.70:1	—
Turbo-Thrift 230 230 Cu. In. L-6 3.875" x 3.25" **(RPO L26)**	140 hp @ 4400 rpm / 220 ft lbs @ 1600 rpm	Large 1-Barrel Rochester "BV" Carburetor Hydraulic Lifters	9.5:1	3-Speed (2.94:1 Low) or Powerglide	Sedans, Coupes & Convertibles	3.08:1Ⓑ	3.36:1 (RPO G76)
					Station Wagons	3.36:1	—
				Overdrive	All Models	3.70:1	—
Turbo-Fire 283 283 Cu. In. V-8 3.875" x 3.0"	195 hp @ 4800 rpm / 285 ft lbs @ 2400 rpm	2-Barrel Rochester "2GV" Carburetor Hydraulic Lifters	9.25:1	3-Speed (2.58:1 Low)	All Models	3.08:1Ⓑ	3.36:1 (RPO G76)
				4-Speed (2.56:1 Low)	All Models	3.08:1Ⓑ	
				Powerglide	All Models	3.08:1Ⓑ	—
				Overdrive	All Models	3.70:1	—
327 Cu. In. V-8 3.25" x 4.00" **(RPO L30)**	250 hp @ 4400 rpm / 350 ft. lbs. @ 2800 rpm	4-Barrel Carb. (Carter WCFB) Hydraulic Lifters	10.5:1	3-Speed	All Models	3.07:1	—
				4-Speed (2.56:1 Low)			
				Powerglide			
327 Cu. In. V-8 (RPO L74)	300 hp @ 5000 rpm / 360 ft. lbs. @ 3200 rpm	4-Barrel Alum. Carb. (Carter AFB) Hydraulic Lifters	10.5:1	3-Speed	All Models	3.07:1	—
				4-Speed (2.56:1 Low)			
				Powerglide			
327 Cu. In. V-8 (RPO L79)	350 hp @ 6000 rpm / 360 ft. lbs. @ 4000 rpm	4-Barrel Holley Spec. Camshaft Hydraulic Lifters	11.0:1	3-Speed H.D. 4-Speed (2.56:1 Low)	All Models	3.07:1	—

1965 CHEVY II POWER TRAINS

Engine Description / Bore & Stroke	Gross Horsepower / Gross Torque	Engine Equipment	Comp. Ratio	Trans-mission	Model Application	Rear Axle Ratios* Standard	Rear Axle Ratios* Optional
153 Cu. In. L-4 Super-Thrift 3.875" x 3.25"	90 hp @ 4000 rpm / 152 ft lbs @ 2400 rpm	Single Barrel Carburetor Hydraulic Lifters	8.5:1	3-Speed (2.94:1 Low)	Series 100	3.08:1	3.55:1
				Powerglide		3.08:1	—
Hi-Thrift 194 194 Cu. In. L-6 3.563" x 3.25"	120 hp @ 4400 rpm / 177 ft lbs @ 2400 rpm	Single Barrel Rochester "BV" Carburetor Hydraulic Lifters	8.5:1	3-Speed (2.94:1 Low) or Powerglide	Sedans, Coupes & Convertibles	3.08:1Ⓑ	3.36:1
					Station Wagons	3.36:1	—
Turbo-Thrift 230 230 Cu. In. L-6 3.875" x 3.25" **(RPO L26)**	140 hp @ 4400 rpm / 220 ft lbs @ 1600 rpm	Single Barrel Rochester "BV" Carburetor Hydraulic Lifters	8.5:1	3-Speed (2.94:1 Low) or Powerglide	Sedans, Coupes & Convertibles	3.08:1Ⓑ	3.36:1
					Station Wagons	3.36:1	—
Turbo-Fire 283 283 Cu. In. V-8 3.875" x 3.0"	195 hp @ 4800 rpm / 285 ft lbs @ 2400 rpm	2-Barrel Rochester "2GV" Carburetor Hydraulic Lifters	9.25:1	3-Speed (2.58:1 Low)	All Models	3.08:1Ⓑ	3.36:1
				4-Speed (2.56:1 Low)	All Models	3.08:1Ⓑ	3.55:1
				Powerglide	All Models	3.08:1Ⓑ	—
327 Cu. In. V-8 3.25" x 4.00" **(RPO L30)**	250 hp @ 4400 rpm / 350 ft. lbs. @ 2800 rpm	4-Barrel Carb. (Carter WCFB) Hydraulic Lifters	10.5:1	3-Speed	All Models	3.07:1	
				4-Speed (2.56:1 Low)			
				Powerglide			
327 Cu. In. V-8 (RPO L74)	300 hp @ 5000 rpm / 360 ft. lbs. @ 3200 rpm	4-Barrel Alum. Carb. (Carter AFB) Hydraulic Lifters	10.5:1	3-Speed	All Models	3.07:1	—
				4-Speed (2.56:1 Low)			
				Powerglide			

Ⓑ *3.36:1 axle ratio is furnished as standard equipment on vehicles with factory installed air conditioning.*

**All rear axles listed are also available with RPO G80 Positraction differential.*

1965 CORVETTE POWER TRAINS

Engine	Gross Horsepower / Gross Torque	Compression Ratio	Identifying Equipment	Transmission	Std. Axle Ratio	Positraction Axle Ratios (RPO G81)
327 Cu. In. V-8 Base Engine Bore—4.00" Stroke—3.25"	250 hp @ 4400 rpm / 350 ft. lbs. @ 2800 rpm	10.5:1	4-Barrel Carb. (Carter WCFB) Hydraulic Lifters	3-Speed	3.36:1	3.36:1
				4-Speed (2.56:1 Low)	3.36:1*	3.08:1 3.36:1
				Powerglide	3.36:1	3.36:1
327 Cu. In. V-8 RPO L75	300 hp @ 5000 rpm / 360 ft. lbs. @ 3200 rpm	10.5:1	4-Barrel Alum. Carb. (Carter AFB) Hydraulic Lifters	3-Speed	3.36:1	3.36:1
				4-Speed (2.56:1 Low)	3.36:1*	3.08:1 3.36:1
				Powerglide	3.36:1	3.36:1
327 Cu. In. V-8 RPO L79	350 hp @ 5800 rpm / 360 ft. lbs. @ 3600 rpm	11.0:1	4-Barrel Alum. Carb. (Holley) Spec. Camshaft Hydraulic Lifters	4-Speed (2.20:1 Low)	3.70:1	3.08:1 3.36:1 3.55:1 3.70:1 4.11:1 4.56:1
327 Cu. In. V-8 RPO L76	365 hp @ 6200 rpm / 350 ft. lbs. @ 4000 rpm	11.0:1	4-Barrel (Holley) Spec. Camshaft Mech. Lifters			
327 Cu. In. V-8 RPO L84	375 hp @ 6200 rpm / 350 ft. lbs. @ 4600 rpm	11.0:1	Fuel Injection (Rochester) Spec. Camshaft Mech. Lifters			

—3.08:1 ratio axle available optionally (RPO G91)

1965 CORVAIR POWER TRAINS

ENGINE DESCRIPTION	Gross Horsepower / Gross Torque	Engine Equipment	VEHICLE SERIES	TRANSMISSIONS	REAR AXLES* Axle Ratio as Standard Equipment	REAR AXLES* Optional Axle Ratio
164 Cu. In. Opposed-6 Turbo-Air 164 Bore 3.438" Stroke 2.94" Comp. Ratio 8.25:1	95 hp @ 3600 rpm* / 154 ft. lbs. @ 2400 rpm	2-Single Barrel Rochester "HV" Carburetors	500 MONZA	3-Speed	3.27:1Ⓐ	3.55:1 (RPO G95)
				4-Speed		
				Powerglide		
164 Cu. In. Opposed-6 Turbo-Air 164 Comp. Ratio 9.25:1 **(RPO L62)**	110 hp @ 4400 rpm / 160 ft. lbs. @ 2800 rpm	2-Single Barrel Rochester "HV" Carburetors Special Camshaft	500 MONZA	3-Speed	3.27:1Ⓐ	3.55:1 (RPO G95)
				4-Speed		
				Powerglide	3.55:1	—
164 Cu. In. Opposed-6 Turbo-Air 164 Comp. Ratio 9.25:1	140 hp @ 5200 rpm / 160 ft. lbs. @ 3600 rpm	4-Single Barrel Rochester "H" Carburetors Special Camshaft	CORSA	3-Speed	3.27:1	—
				4-Speed		
164 Cu. In. Opposed-6 Turbo-Air 164 Comp. Ratio 9.25:1 **(RPO L63)**	140 hp @ 5200 rpm / 160 ft. lbs. @ 3600 rpm	4-Single Barrel Rochester "H" Carburetors Special Camshaft	500 MONZA	3-Speed	3.27:1Ⓐ	3.55:1 (RPO G95)
				4-Speed		
				Powerglide	3.55:1	—
164 Cu. In. Opposed-6 Turbocharged Comp. Ratio 8.25:1	180 hp @ 4000 rpm / 265 ft. lbs. @ 3200 rpm	Turbo-Supercharger Single Side-Draft Carter "YH" Carburetor Special Camshaft	CORSA	3-Speed	3.55:1	—
				4-Speed		
Greenbrier 164 Cu. In. Opposed-6 Comp. Ratio 8.25:1	95 hp @ 3600 rpm / 154 ft. lbs. @ 2400 rpm	2-Single Barrel Rochester "HV" Carburetors	R-1206	3-Speed	3.55:1	—
				4-Speed		
				Powerglide		
Greenbrier 164 Cu. In. Opposed-6 Comp. Ratio 9.25:1 **(RPO L62)**	110 hp @ 4400 rpm / 160 ft. lbs. @ 2800 rpm	2-Single Barrel Rochester "HV" Carburetors Special Camshaft	R-1206	3-Speed	3.55:1	—
				4-Speed		
				Powerglide		

Rear axle with positraction differential (RPO G81) are available in the same gear ratios listed for conventional differentials.

Ⓐ *3.55:1 ratio axle is furnished as standard equipment on vehicles with factory installed air conditioning.*

1965 CHEVROLET POWER TRAINS

Engine Description / Bore & Stroke	Gross Horsepower / Gross Torque	Engine Equipment	Comp. Ratio	Trans-mission	Model Application	Rear Axle Ratio* Standard	Rear Axle Ratio* Optional
Hi-Thrift 230 **230 Cu. In. L-6** 3.875" x 3.25"	140 hp @ 4400 rpm 220 ft lbs @ 1600 rpm	Single Barrel Rochester "BV" Carburetor Hydraulic Lifters	8.5:1	3-Speed (2.94:1 Low) or Powerglide	Sedans & Coupes	3.08:1Ⓑ	3.36:1 (RPO G76) 3.55:1 (RPO G96)
					Convertibles	3.36:1	3.55:1
					Station Wagons	3.55:1	—
				Overdrive	Exc. Wagons	3.70:1	—
					Sta. Wagon	3.73:1	
Turbo-Fire 283 **283 Cu. In. V-8** 3.875" x 3.0"	195 hp @ 4800 rpm 285 ft lbs @ 2400 rpm	2-Barrel Rochester "2GV" Carburetor Hydraulic Lifters	9.25:1	3-Speed (2.94:1 Low) or Powerglide	15400 & 15600 Sedans	3.08:1	3.36:1 3.55:1
					Station Wagons	3.31:1	3.55:1
					16400 & 16600 Models	3.36:1	
				Overdrive	All except Wagons	3.70:1	3.55:1
					Sta. Wagons	3.73:1	
Turbo-Fire 327 **327 Cu. In. V-8** 4.00" x 3.25" **(RPO L30)**	250 hp @ 4400 rpm 3.50 ft lbs @ 2800 rpm	4-Barrel Carter "WCFB" or Rochester "4GC" Carburetor Hydraulic Lifters 2" Dual Exhaust	10.5:1	3-Speed (2.58:1 Low)	All Models	3.31:1	—
				4-Speed (2.56:1 Low)			
				Powerglide	All Models	3.07:1	—
Turbo-Fire 327 **327 Cu. In. V-8** 4.00" x 3.25" **(RPO L74)**	300 hp @ 5000 rpm 360 ft lbs @ 3200 rpm	4-Barrel Carter "AFB" Carb. (w/4" Throat) Hydraulic 2½" Dual Exhaust	10.5:1	3-Speed (2.58:1 Low)	All Models	3.31:1	—
				4-Speed (2.56:1 Low)			
				Powerglide			
Turbo-Fire 409 **409 Cu. In. V-8** 4.313" x 3.50" **(RPO L33)**	340 hp @ 5000 rpm 420 ft lbs @ 3200 rpm	4-Barrel Rochester "4GC" Carburetor Hydraulic Lifters 2½" Dual Exhaust	10:1	4-Speed (2.56:1 Low)	All Models	3.31:1	—
				Powerglide	All Models	3.07:1	—
Turbo-Fire 409 **409 Cu. In. V-8** 4.313" x 3.50" **(RPO L31)**	400 hp @ 5800 rpm 425 ft lbs @ 3600 rpm	4-Barrel Carter "AFB" Carb. (w/5" Throat) Spec. Camshaft Mech. Lifters 2½" Dual Exhaust	11.0:1Ⓐ	4-Speed (2.56:1 Low)	All Models	3.31:1	4.11:1**
				CR 4-Speed (2.20:1 Low)			4.56:1** 4.89:1**

Ⓐ *These engines are produced with two (2) head gaskets per cylinder bank. Compression ratios shown are for one (1) gasket per bank.*

Ⓑ *A 3.36:1 ratio axle is furnished as standard equipment on vehicles with factory installed air conditioning.*

**Also available as Positraction (RPO G80).*

***Available as Positraction Axle (RPO G80) only.*

LUBRICATION AND LIFT POINTS

All truck chassis lubrication intervals are 60 days or 6,000 miles, whichever occurs first. The truck rear axle lubricant must be Multi-Purpose Gear Lubricant (meeting spec. mil-L-2105B) and of the viscosity-temperature usage shown in the manual transmission chart in the Truck Owners Guide. A rear axle drain and refill interval of 24,000 miles is recommended for all 20-80 Series Trucks, and the use of 5W oil is recommended for the electric shift housing on 2-speed axles in below 0° . . . 10W over 0° temperatures. Axle lube change period should be 12,000 miles under exceptionally heavy loads or continuous high speeds. Engine oil change recommendations on the 50-80 Series Trucks is 2,000 miles or 60 days. All other engine oil change recommendations remain unchanged.

The lifting locations (lift points for jack or hoist) or support points for stand-jack are carry over from 1964 on all vehicles except Chevrolet. The Chevrolet steering linkage is very close to the lower control arms and the lower control arms are no longer the wide "A" frame type. Care must be taken when placing the hoist arm under the front suspension or the lift pads may contact and damage the tie rods. The lift pads should be positioned outboard of the stabilizer attachment at the lower control arm.

1965 TRUCK POWER TRAINS

Standard equipment is shown in bold face type.

Truck Series / Engine	Transmission	Rear Axle Capacity	Rear Axle Ratio
El Camino—13500	**3-Speed**		
194 cu. in. L-6	4-Speed⑪	—	**3.36:1**
230 cu. in. L-6	Powerglide	—	**⑭ 3.08:1**
283 cu. in. V-8			
G10			
153 cu. in. L-4	**3-Speed**	**2400**	**3.36**
194 cu. in L-6	Powerglide	2900	3.73
			4.11
P10	**3-Speed**		
153 cu. in. L-4	3-Speed (Warner)	3500	**4.11:1**
230 cu. in. L-6	4-Speed		①3.73:1
	Powerglide		
C10, C20	3-Speed		**3.73.1**
230 cu. in. L-6	3-Speed (Warner)	**C10 3500**	4.11:1
292 cu. in. L-6	4-Speed		②3.07:1
283 cu. in. V-8	Powerglide	**C20 5200**	**4.57:1**
	Overdrive (C10)		②4.11:1
K10, K20			
230 cu. in. L-6	**3-Speed**	**K10 3300**	**3.73:1**
292 cu. in. L-6	4-Speed	**K20 5200**	**4.57:1**
283 cu. in. V-8			
P20	**3-Speed**		
	3-Speed (Warner)		
230 cu. in. L-6	4-Speed	**5200**	**4.57:1**
292 cu. in. L-6	Powerglide		
C30, P30			
230 cu. in. L-6	**4-Speed**	**7200**	**5.14:1**
292 cu. in. L-6	3-Speed (Warner)		**4.57:1 C30**
283 cu. in. V-8③			
C, L, S, P, T-50			
230 cu. in. L-6		**11,000**	**6.17:1**
		13,500	**6.40:1**
292 cu. in. L-6	**4-Speed**	15,000	7.20:1
283 cu. in. V-8③	4-Speed N.P.⑥	15,000	6.40/8.72:1
C, L, S, T-60	**4-Speed**		
C, L, S, T-60H	4-Speed N.P.		
	5-Spd. New Process 540C⑬		
	5-Spd. Clark 2653 V⑭	**15,000**⑤	**7.20:1**
	5-Spd.▼ Clark 267V⑭	**17,000**	**7.20:1**
292 cu. in. L-6⑫	5-Spd. Clark 2622 V⑭	15,000⑤	6.40/8.72:1
327 cu. in. V-8	5-Spd. Spicer 3152⑭ ⑥	17,000⑦	6.40/8.72:1
348 V-8	5-Spd.▼ Spicer 3152A⑭ ⑥	17,000⑩	7.17/9.97:1
	Powermatic④ ⑥ ⑪		
M60	**4-Speed**		
292 cu. in. L-6	4-Speed N.P.		
	5-Spd. New Process 540C	**28,000 (Bogie)**	**7.20:1**
327 cu. in. V-8	4-Speed—N.P.	28,000	6.40/8.72:1
348 V-8	5-Spd. Clark 2653V		
	5-Spd.▼ Clark 2622V		
C, L, T-80	**5-Spd. Spicer 3152⑧**		
348 cu. in. V-8	5-Spd.▼ Spicer 3152A⑧	**18,500**	**7.17:1**
409 cu. in. V-8	5-Spd. Spicer 5652B⑨	18,500	6.50/8.87:1
	5-Spd.▼ Spicer 5756B⑨	18,500	7.17/9.77:1
	8-Spd. Fuller R46⑨ ④	23,000	6.67:1
	Powermatic④ ⑪ ⑮	23,000	6.71/9.14:1
M80	**5-Spd. Spicer 3152⑧**		
	5-Spd Spicer 5652B⑨		
348 cu. in. V-8	4-Spd. Spicer Aux. 6041	**30,000 (Bogie)**	**7.17:1**
409 cu. in. V-8	3-Spd. Spicer Aux. 5831G⑧	34,000 (Bogie)	7.17:1
	8-Spd. Fuller R46⑨ Powermatic		

① *Not used with 153 engine.*
② *Not used with Powerglide.*
③ *Not used on P30, S, P50 models.*
④ *Used with single speed axle only.*
▼ *Close ratio—used with 2-speed axles only*
⑤ *Not used on 60H series.*
⑥ *Not used on T models.*
⑦ *Used with 6 cyl. engine on C, L, T models, used with 6 cyl. or V-8 on S67, S69, not available on S62, S64.*
⑧ *Used with 348 engine only.*
⑨ *Used with 409 engine only.*
⑩ *Not used on School Bus models.*
⑪ *Not used on L models.*
⑫ *Not used on S69, S69H models.*
⑬ *Used with 6 cyl. engine only.*
⑭ *Used with V-8 engines only.*
⑮ *Not used on T with 409 engine.*
⑯ *Used with D-478 only.*
⑰ *STD. on DH-478.*

Truck Series	Engine	Transmission	Rear Axle Capacity	Rear Axle Ratio
D-50	**3-53N** 2 Cycle Diesel	**4-Speed Chev.** 5-Speed Clark 264 VO	**11,000** 13,500 15,000	**5.43:1** 5.29:1 5.83:1 5.29/7.20:1
N-50 Q-50	**D-351** 4 Cycle Diesel	**4 Speed Chev.** 4-Speed New Process	**11,000** 13,500 15,000	**5.43:1** 5.29:1 6.17:1 5.83/7.95:1 6.40/8.72:1
D60 Y60	**4-53N 2 Cycle Diesel**	**5-Spd. O/D Clark 264VO** 5-Spd. O/D Spicer 3153 5-Spd. Spicer 3152A 5-Speed Clark 267V Cr	**15,000** 15,000 17,000 17,000	**6.17:1** 5.83/7.95:1 4.87/6.77:1 7.17:1
D60H	**4-53N 2 Cycle Diesel**	**5-Spd.▼ Clark 267V** 5-Spd.▼ Spicer 3152A	**17,000**	**4.87/6.77:1** 5.57/7.75:1 6.14/8.51:1 6.50/9.04:1 7.17/9.97:1
Y60H	**4-53N 2 Cycle Diesel**	**5-Spd.▼ Clark 267V** 5-Spd.▼ Spicer 3152A	**18,500**	**7.17:1** 5.57:1 6.50:1 7.60:1 4.87/6.65:1 5.57/7.60:1 6.14/8.38:1 6.50/8.87:1 7.17/9.77:1
A, N, Q60	**D-478 4-Cycle Diesel** DH-478 4 Cycle Diesel	**4-Speed Chev.** 4-Sp. New Process⑯ 5-Sp. New Process 540 GD 5-Sp. New Process⑰ 540GL	**15,000** 16,000 17,000	**6.17:1** 7.20:1 ⑯5.83/7.95:1 ⑯6.40/8.72:1 5.29:1 6.17:1 7.20:1 **5.41/7.44:1** 6.16/8.48:1 6.61/9.09:1 5.57:1 6.14:1 7.17:1 4.88/6.78:1 5.57/7.75:1 6.14/8.54:1 6.50/9.04:1 7.17/9.97:1
A, N, Q60H			All 17,000 Capacity above	
V-60			**28,000 Bogie**	**5.57:1** 5.57/7.60:1
X-60	**4-53N** 2 Cycle Diesel	**5 Sp. Clark 2653V** 5 Sp. Clark 2622V	**28,000 Bogie**	**4.88:1** 5.57/7.60:1
A, N, Q80	DH-478 4 Cycle Diesel	**5-Speed New Process 541GL** 5-Sp. Clark 269V	**18,500**	**7.17:1** 5.57:1 6.50:1 7.60:1 4.87/6.65:1 5.57/7.60:1 6.14/8.38:1 6.50/8.87:1 7.19/9.77:1
E, U-80	**6V-53N 2 Cycle Diesel**	**5-Spd.▼ Spicer 5752C**	**18,500** 18,500 23,000	**4.87/6.65:1** 5.57/7.60:1 5.43/7.39:1
		8-Spd. Fuller R46 Powermatic	23,000	5.57:1
W80	**6V-53N 2 Cycle Diesel**	**5-Spd. Spicer 5752** 4-Spd. Spicer Aux. 7041 Powermatic	**30,000 (Bogie)** 34,000 (Bogie)	**4.88:1** 5.57:1
V-80	**DH-478** 4 Cycle Diesel	**5-Speed New Process 541GL** 5-Sp. Clark 269V 3-Sp. Spicer Aux. 4-Sp. Spicer Aux.	**30,000 Bogie** 34,000 Bogie	**5.57:1** 7.17:1 7.60:1 6.69:1 7.80:1 8.60:1

BODY

Chevrolet for 1965 has an all new body and sheet metal to present an entirely new appearance (fig. 1). The new roof lines include a distinctive "fast-line" profile for the Sport Coupe models, with the roof blending smoothly into the lower body. The body side glass is curved and Chevelle type door locks are used. Tempered glass is utilized for the back window of the Convertible. Lower body sheet metal styling reflects a new massive look to compliment the increased vehicle size.

Corvair styling (fig. 2) is completely new for 1965, including smart new hard-top roof lines, curved, frameless side glass, and restyled interiors.

The 1965 Chevelle (fig. 3) is basically a carry-over body with a new front end appearance achieved with newly styled hood, grille and bumpers. The rear end is changed to include larger stop lamps, and back-up lamps relocated to the rear bumper. Interior trim and exterior ornamentation are also new for 1965.

The 1965 Chevy II (fig. 4) is basically a carry-over vehicle with changes in front end appearance due to a new horizontal bar grille restyled headlights, and larger tail and stop lights, with new exterior ornamentation and interior trim. The back-up lamps have been relocated to the rear compartment lid for 1965.

The 1965 Corvette body construction and panel configuration is continued from 1964 with addition of functional louvers rearward of the front wheel openings, a new radiator grille, and a new hood (fig. 5).

Fig. 1—Chevrolet Impala Station Wagon

Fig. 2—Corvair Monza 4-Door Sport Sedan

Fig. 3—Chevelle-Malibu SS Sport Coupe

Fig. 4—Chevy II Nova SS Sports Coupe

Fig. 5—Corvette Sport Coupe

BODY FRONT END

The windshield assembly on Chevy II and Chevelle are carry over for 1965. The windshield on the Chevrolet and Corvair are adhesive caulk mounted, the same as Chevelle. Along with the caulk mounting are the different type molding clips used with the caulk method of windshield mounting. The extending type sliding sun shade is not used on any Chevrolet vehicle for 1965.

BODY VENTILATION

The Chevelle and Chevrolet will use carry over cowl side air duct panels and control rods. The Chevy II and Corvair use a new one piece plastic panel duct and control assembly. This one piece plastic unit mounts the control rod and cable assembly, the duct door, the grille and the panel assembly as a one piece mounting. The panel has a rim that slides over the pinch-weld along the door and under the door sill molding. The air grille assembly snaps out from its place in the side of the panel to provide access to four sheet metal screws which retain the panel and door assembly to the cowl side.

DOORS

Chevelle door construction is unchanged except that the glass (fig. 6) is now bolted to the lower sash on the hardtop bodies. In this method of glass installation, holes are pierced in the glass, and a rubber grommet is inserted in each of the holes. The attaching bolts pass thru the center of the grommets and the bolts are completely isolated from the glass by the rubber cushion. Torque is 50 inch-pounds maximum on these bolts.

The Corvair body uses curved glass in all the windows for 1965. The rear doors have the bolt on glass the same as Chevelle except that it has a split two-piece sash. The front door glass is pressed into the sash as in 1964. The Corvair doors will have the Chevelle type lock and lock strikers on all doors. The front doors on Corvair use aluminum hinges completely accessible at the door hinge pillar at the door and the pillar. The rear doors use aluminum hinges on all except the body half of the upper hinge, which is malleable iron because of its length. The front doors are adjustable up, down, in, and out on the hinge pillar and fore and aft at the door attachment. The rear door hinges are adjustable in, out, and up or down at the door attachment and fore and aft at the body connection.

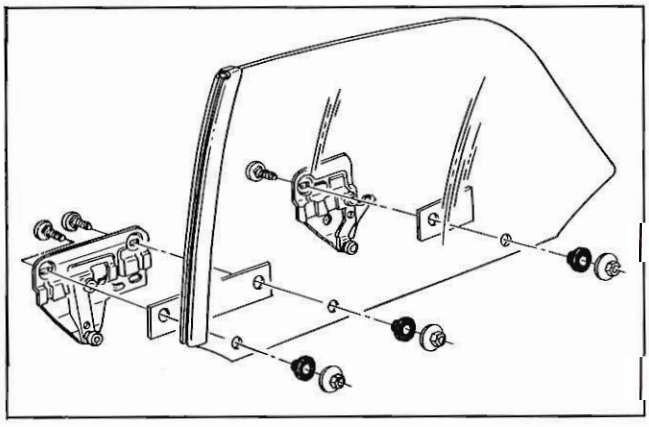


Fig. 6—Bolt-On Glass (Typical)

Since all Corvair bodies are the hardtop style, the side roof rail weather strip is continual from the windshield pillar to the quarter panel area.

On the front door where the glass is pressed into the lower sash channel, it must be flush with the ends of the channel guide or it will have the effect of lengthening the guide, resulting in a hard operating window mechanism. The lower sash channel regulator cam, (both front and rear doors) bolts on to the sash. It is necessary to loosen the ventipane channel attachment and remove the inner and outer strip assemblies to remove window. To remove the ventipane, requires loosening the door glass rear run channel attachments and move the glass rearward. The ventipane adjustment is carry over from 1964. The rear door has a front and rear channel guide. To remove the rear door glass, remove the inner and outer strip assemblies at the door edge, and pivot the rear door glass up-travel stops to allow clearance for glass removal. The up-stops are bolted to the door inner panel and are adjustable for window height.

To remove the remote control mechanism, disconnect at the door edge and slide it forward, then disconnect the rod to the control at the upper access hole and remove the lock through the large lower hole. There is arm clearance through the lower hole to hold the mechanism at the upper hole while removing the clip. The lock cylinder and outer and inside handle are carry over from 1964.

The 1965 Chevrolet has curved glass all around. The doors incorporate Chevelle type locks and lock strikers. All of the hardtop style Chevrolet vehicles use the bolt on glass described under Chevelle. The sedan style doors use the press-on sash at the lower edge of the door windows. The sedan style door uses the screw on channel cam assembly for the window regulator and the hardtop models use a welded on cam assembly.

Window regulator removal and installation on hardtop models require removal of door glass and loosening of the ventipane. The convertibles require removal of the ventipane and glass. The front door window read guide plate and stop assembly located at the rear of the regulator channel cam assembly must be removed for glass removal on all 1965 models.

The rear door remote control inside door lock assembly is mounted (fig. 7) between the inner and outer panels, so that weld nuts are now on the control and the door inner panel has pierced holes for the mounting bolts. When the sedan style rear cam channel requires removal for glass replacement, the remote rod and clip assembly for the push button lock must be removed, because it passes through a part of the channel assembly. It is necessary to drop this remote lock rod from the hole in the guide on both the front and rear doors. To remove the rear remote control handle assembly, it is necessary to disconnect it at the door edge and move it inboard reaching through the lower access hole to hold while disconnecting the clip at the upper smaller access

1965 REFINISH PAINT CHART

CHEVROLET, CHEVELLE, CHEVY II, CORVAIR & CORVETTE EXTERIOR REFINISH

Car Paint Code		Color (Acrylic Lacquer)	DuPont	Rinshed-Mason	Ditzler
Chevrolet Chevelle Chevy II Corvair	Corvette				
AA	AA	Tuxedo Black	88	A-946	DDL-9300
CC	CC	Ermine White	4024-L	A-1199	DDL-8259
DD		Mist Blue	4630-L	A-1720	DDL-13042
EE		Danube Blue	4631-L	A-1721	DDL-13002
	FF	Nassau Blue	4690-L	A-1747	DDL-13057
	GG	Glen Green	4691-L	A-1745	DDL-43412
HH		Willow Green	4633-L	A-1716	DDL-43391
JJ		Cypress Green	4634-L	A-1717	DDL-43390
KK		Artesian Turq.	4628-L	A-1718	DDL-43364
LL		Tahitian Turq.	4629-L	A-1719	DDL-13003
	MM	Milano Maroon	4689-L	A-1746	DDL-50706
NN		Madeira Mar.	4624-L	A-1711	DDL-50700
PP		Evening Orchid	4632-L	A-1722	DDL-50693
	QQ	Silver Pearl	4621-L	A-1708	DDL-32449
RR		Regal Red	4625-L	A-1712	DDL-71472
SS		Seirra Tan	4626-L	A-1713	DDL-22553
	UU	Rally Red	4688-L	A-1744	DDL-71491
VV		Cameo Beige	4401-L	A-1530	DDL-22270
WW		Glacier Gray	4623-L	A-1710	DDL-32461
	XX	Goldwood	4530-L	A-1612	DDL-81450
YY		Crocus Yellow	4620-L	A-1715	DDL-81500

Reading Two-Tone Exterior Paint Codes—Example: "SV" would indicate Seirra Tan body lower with Cameo Beige upper.

TRUCK AND GREENBRIER EXTERIOR REFINISH

RPO No.	Color (Enamel)	DuPont	Rinshed-Mason	Ditzler
500	Black	93-005	P-403	DQE-9000
503	Light Green	93-78388	2U3872	DQE-43244
505	Dark Green	93-77161	2U3692	DQE-42850
507	Light Blue	93-78387	2U2715	DQE-12846
508	Dark Blue	93-77162	2U2522	DQE-12409
510	Turquoise	181-17807	2U3873	DQE-43276
512	Maroon	181-42076	2U670	DQE-50703
514	Red	93-58209	2U5625	DQE-70704
516	Orange	93-082	2U7119	DQE-60156
518	Yellow	93-79070	2U7386	DQE-81503
519	Dark Yellow	93-75306	2U7246	DQE-81348
521	White	93-21667	2U951	DQE-8080
522	Gray	93-78389	2U1596	DQE-32374
525	Fawn	93-79144	2U8175	DQE-22567
526	Ivory	93-93774	2U970	DQE-8290

CHEVROLET, CHEVELLE, CHEVY II, CORVAIR & CORVETTE INTERIOR REFINISH

Color	Chevrolet Chevelle Chevy II Corvair		Corvette		DuPont (Acrylic)	Rinshed-Mason (Std. Lacquer)	Ditzler (Std. Lacquer)
	60 Gloss	Flat -0-	3 Gloss	60 Gloss			
White	•			•	4024-L	62V91	DL-8259
White			•		9184-L		DL-8620
Black	•			•	88	A-946	DL-9248
Black			•		4466-L		DL-9292
Black		•			4428-L		DIA-9317
Med. Blue	•				4630-L	65V22	DL-13006
Dark Blue	•				9172-L	65V23	DL-13007
Dk. Turquoise	•				9176-L	65B32	DL-13008
Dark Blue		•			9194-L		DIA-13010
Dark Blue			•		9189-L		DL-13069
Med. Blue			•		9223-L		DL-13071
Dark Fawn	•				9182-L	65V82	DL-22530
Dark Saddle		•			9199-L		DIA-22534
Dark Fawn		•			9202-L		DIA-22568
Light Fawn	•				9170-L		DL-22569
Med. Saddle	•			•	4626-L	65B83	DL-22570
Med. Fawn	•				9171-L	65B84	DL-22571
Dark Saddle	•				9178-L	65B72	DL-22573
Dark Saddle			•		9190-L		DL-22596
Med. Saddle			•		9222-L		DL-22597
Gunmetal		•			9191-L		DIA-32466
Dark Slate		•			9196-L		DIA-32467
Med. Slate	•				4623-L	65B14	DL-32469
Dark Slate	•				9175-L	65V12	DL-32472
Silver			•		9185-L		DL-32484
Med. Green	•				4633-L	65V32	DL-43367
Mid. Green		•			9193-L		DIA-43369
Dk. Turquoise		•			9197-L		DIA-43398
Med. Turq.	•				4628-L	65B31	DL-43400
Dark Green		•			9225-L		DIA-43420
Dark Green			•		9187-L		DL-43425
Maroon			•		9186-L		DL-50708
Med. Red	•				9183-L	65B53	DL-71474
Red	•				4625-L	65B52	DL-71487
Dark Red		•			9201-L		DIA-71486
Red			•		9188-L		DL-71497

TRUCK AND GREENBRIER INTERIOR REFINISH

Color Ⓐ	DuPont (Acrylic)	Rinshed-Mason (Acrylic)	Ditzler (Std. Lacquer)
Fawn	9119-L		DL-22151
Ivory	4195-L	A-1599	DL-8319
Charcoal Gray	9118-L		DL-32189
Red	2411-L	A-1596	DL-70704
Charcoal	9120-L		DAL-32325
Ⓑ Turquoise	4535-L	A-1683	DAL-43276
Ⓑ Light Green	4538-L	A-1689	DAL-43244

Ⓐ *Where low gloss is required add flattening compound in accordance with label directions.* Ⓑ *Used only on Greenbrier.*

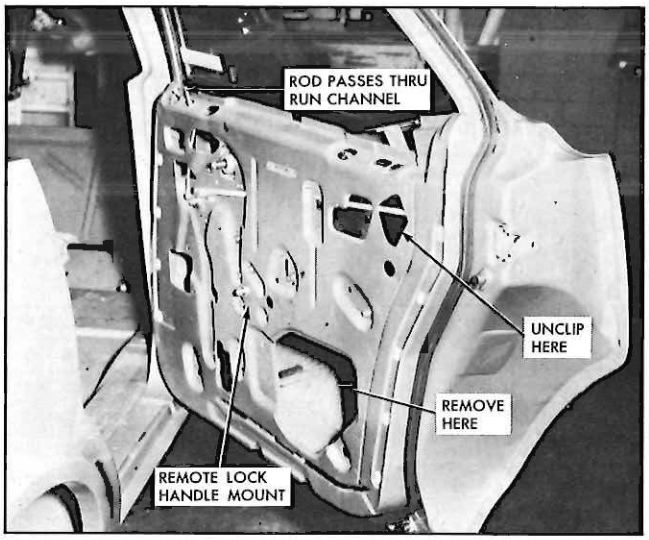


Fig. 7—Rear Door Inner Panel and Controls

hole. Then remove it down and out the lower larger access hole. This is not necessary on the hardtop style since the door allows clearance for disconnection of the clip at the door edge without having to bring it back to the access hole.

SEATS

The bucket seats in all vehicles for 1965 will tilt straight forward instead of angling toward the inside. The Chevelle seats are carry-over from 1964 but use a carpet retainer at the rear of the front seat adjuster.

The Chevrolet has a new four-way seat adjuster assembly for 1965 that uses a gear-nut adjustment for the up-down movement at the rear the same as the six-way adjustable seat. The six-way adjustable seat is carry-over from 1964. The seats on all other vehicles are carry-over from 1964. The dealership seat relocation provision, (two holes in the seat adjuster rail) is also carry-over for 1965.

UNDERBODY

The Chevy II unitized underbody is carried over for 1965.

The Corvair unitized body is new for 1965. The underbody is revised and new alignment checking procedures are covered fully in the Shop Manual.

CONVERTIBLE TOP

There are no convertible top vehicles in the Chevy II line for 1965.

The Chevelle convertible folding top is carry-over for 1965 but the dust boot is revised to include a snap fastener at the outboard ends. The hook and pile front connection and the molding snap clips remain the same.

The Corvair has an all electric powered folding top mechanism for 1965. The motor is located in the same place as the hydro-electric motor and pump assembly was located in 1964. It has seat type actuator cables routed to the actuators that are screw attached to the rear side roof rails. The Corvair convertible top also has a front bow listing pocket retainer similar to the Chevelle and Chevrolet.

The Corvair Convertible has body dampener assemblies installed (4 locations) as shown in Figure 8. The dampeners are filled with fluid at assembly and require no periodic service. If subjected to collision damage, replacement of the unit is necessary.

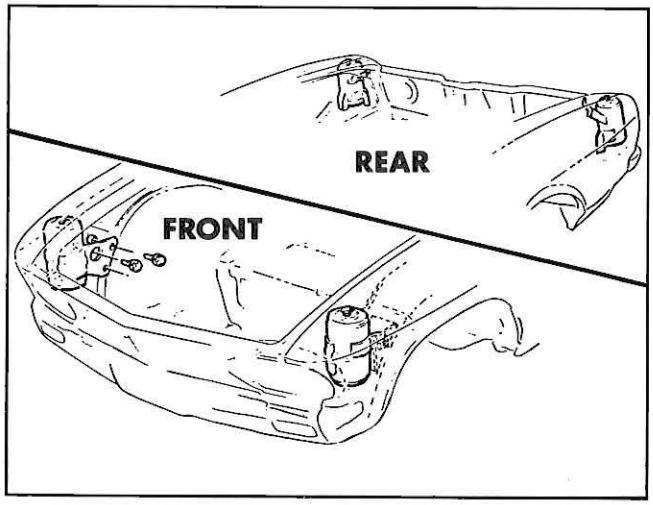


Fig. 8—Body Dampeners—Corvair Convertible

The Chevrolet convertible top is carry-over from 1964 except that it has a tempered plate glass rear window and a new lock mechanism. The Chevrolet convertible top has a new lock mechanism at the side rail the same as Chevelle and Corvair.

QUARTER PANEL REAR END, AND TAIL GATE

The Chevelle and Chevy II are carry-over from 1964 except that the rear windows on the Chevelle two-door model use bolt on glass-to-sash attachments in place of a pressed in sash to glass attachment.

The Corvair uses the adhesive caulk type attachment rear window with molding and window service similar to the Chevelle. A paper water deflector is used in the rear quarter panels in place of the bolt opening cover caulk, except on convertible models. The engine compartment lid has a full perimeter weather strip for 1965 due to the relocation of the engine air inlet to the tulip panel between the rear window and the engine compartment lid. This engine air duct leads to a plenum type chamber the full width of the vehicle. Air is supplied thru the duct to the plenum chamber and past water deflectors to the engine compartment vent duct panel for engine cooling.

The Chevrolet sedan rear window and station wagon quarter panel windows use the caulk window attachment the same as the Chevelle. The rear quarter panel front trim on the Station Wagon, is a one piece assembly even although it appears to be a two piece as it was last year. The rear quarter panel uses the paper water deflectors except on the

convertible models. The rear quarter panel operating hardware is new for 1965 using the same mechanism for electric or manual operation. Service is unchanged from 1964. The rear compartment lid, the striker, and the striker engagement and the adjustment are unchanged from 1964. The Chevrolet Station Wagon tail gate is similar to the Chevelle in its hinges, torque rod, the window water deflector, the window itself and the handle for both construction and service. The electric window tail gate has a cover panel that is screw attached on the inside and bottom edge of the tail gate. The bottom edge retaining screws can be loosened and the cover will slide out from under the screw head due to a slotted opening at that location. This allows easy access to the electric motor should changing be necessary. The run channel sealing strip on the tail gate is extended up with a large lip for better sealing at the top edges of the gate.

FRAME

The frame structural assemblies for all vehicles except Chevrolet are, in general, a continuation of the 1964 design with minor revisions to increase strength or permit related component changes. This applies to both individual frame units, and body-frame structural assemblies such as Corvair and Chevy II.

CHEVROLET

The Chevrolet frame (fig. 9) for 1965 is the perimeter type, similar to Chevelle. Some of the differences on the Chevrolet frame, from the Chevelle, include a shock absorber upper mounting cross member at the rear end, and a front suspension lower control arm strut rod bracket at the front end. Also different are the front and rear suspension mounting bracket location provisions.

TRUCK

The 1965 truck frames are generally carry over from 1964, except for a relocated bracket for the rear stabilizer bar on light duty trucks and stamped spring hangers on the heavy duty trucks. Existing frames will be modified to suit 1965 truck models except for the new diesel engine model vehicles which use a new ladder type channel frame.

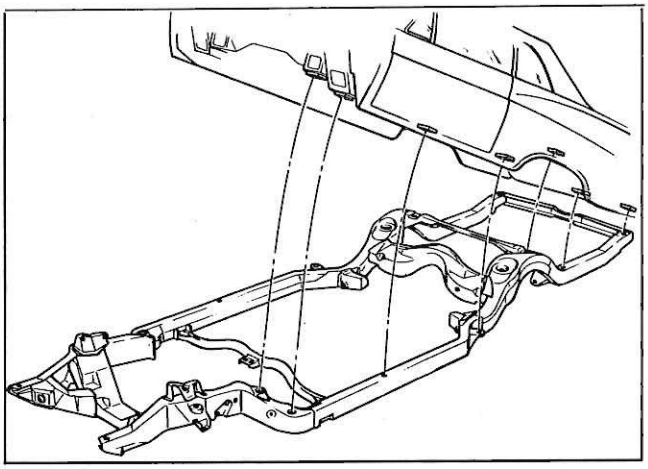


Fig. 9—Chevrolet Frame Assembly and Body Mounts

CORVETTE

The Corvette frame is generally carry over from 1964, but incorporates slight clearance revisions needed for use of disc brakes in 1965. The front cross member additional depression provides more clearance between the engine oil pan and frame cross member assembly.

FRONT SUSPENSION

The Corvette, Chevy II, and Chevelle front suspension systems are not changed for 1965. The Corvette steering knuckle is revised only for mounting of the new disc brake assembly.

CHEVROLET

The 1965 Chevrolet front suspension (fig. 10) is very similar to the Corvair front suspension in many ways. The lower control arm has a single hushing inner mount, and a strut rod controlled ball joint end. The upper control arm is the standard A-frame type with its rebound bumper on the arm instead of on the frame cross member. The shock absorbers are new for 1965 in that the upper mounting is rubber grommet mounted instead of a straight solid attachment. The new attachment does not change the service operation of the shock absorber. The front stabilizer bar is new in that it uses the Chevelle type brackets, grommets, bolts, and spacers for attaching the stabilizer bar to the lower control arm. Control arm ball studs are new, only because of the increased front suspension travel for 1965.

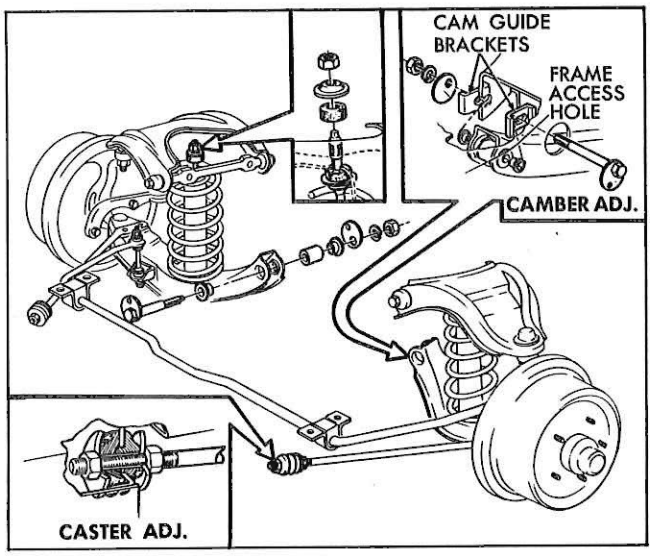


Fig. 10—Chevrolet Front Suspension

The camber adjustment is made at the lower control arm inner attachment at the frame. At this point a bolt and eccentric cam arrangement allows adjustment along the slotted frame opening. Caster is adjusted at the strut rod frame attaching end.

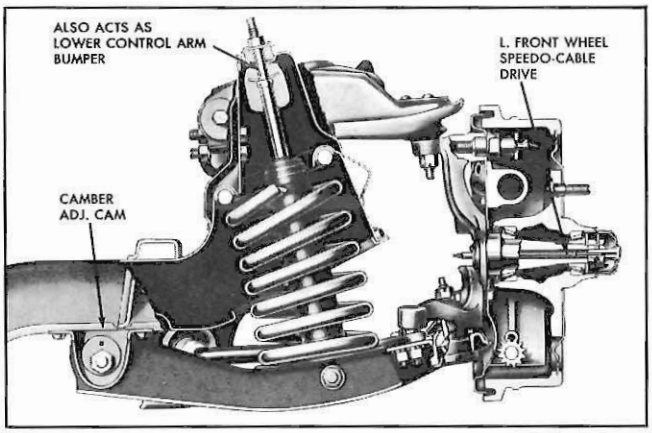


Fig. 11 — Corvair Front Suspension (L.H.)

CORVAIR

The Corvair front suspension (fig. 11) is very similar to the 1964 design. The lower control arm attachment of the front shock absorber is strengthened considerably, using a horizontal bolt attachment on the lower control arm. The shock absorber upper attachment now includes the rubber bumper for the lower control arm. Service procedure on the shock absorber is effected in the method of attachment of the lower end, but the upper end remains unchanged from 1964. Camber adjustment is now made at the inner end of the lower control arm at the eccentric cam bolt arrangement.

The Corvair left front steering knuckle incorporates a hollow passage for the speedometer cable location. The speedometer cable is driven by the indexing tip on the left front wheel bearing dust cap. The wheel bearing nut and lock ring are new on the left front wheel due to the speedometer cable routing.

TRUCK

The front suspension components are continued for 1965 without major change. New front wheel bearing seals of synthetic rubber replace felt as the front wheel bearing seal material for all models. New stamped spring rear hangers are used. New dual rate spring eye bushings are used on the front springs with the 7000 lb. rated front axle assembly. The bushings incorporate a flexible, natural rubber core with partial cut-outs that permit controlled fore and aft movements in the steering linkage, reducing wheel fight. New tools are required to remove and install these bushings.

REAR SUSPENSION

CHEVY II, CORVETTE, CHEVELLE

The rear suspension for the Chevy II is carry over for 1965. The rear suspension for the Chevelle is carry over from an interim 1964 revision. This revision changed the upper control arm rear mount bushing at the differential case tab, by replacing the cam adjustment with a larger non adjustable bushing. This bushing is common with lower control arm bushings and will be serviced with the same tools.

The Corvette service procedures are changed due to disc brakes for 1965. The brake caliper assemblies must be removed for spindle operations. Refer to brake section.

TRUCK

All leaf springs and attachments for 1965 will be carry over with the exception of stamped spring hangers which replace cast spring hangers used in 1964. The coil spring suspension (used on C-P-10 Models) is revised only in the stabilizer arm. The stabilizer (fig. 12) has been shortened, so that it attaches to a cast ear on the carrier rather than to a bracket on the axle tube. The relocation and the shortening of the stabilizer bar also changes the frame mount attachment. The service on this stabilizer bar does not change.

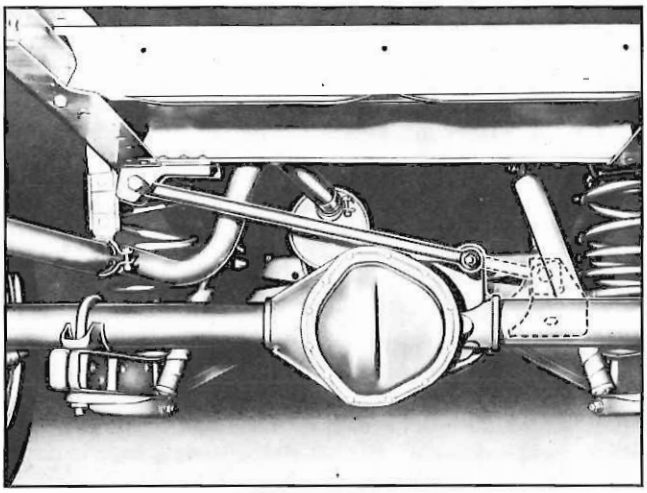


Fig. 12 — Light Duty Truck Rear Stabilizer

CHEVROLET

The 1965 Chevrolet rear suspension (fig. 13) is a link design with upper and lower control arms. The standard rear suspension is three link type including two lower control arms and the right side upper control arm. The heavy duty rear suspension (standard on all station wagons and all 327 and 409 engines) has two upper control arms, as well as two lower control arms. The upper control arm (fig. 14) front mounting bracket is shim mounted to the control arm cross member. Variations in shim thickness

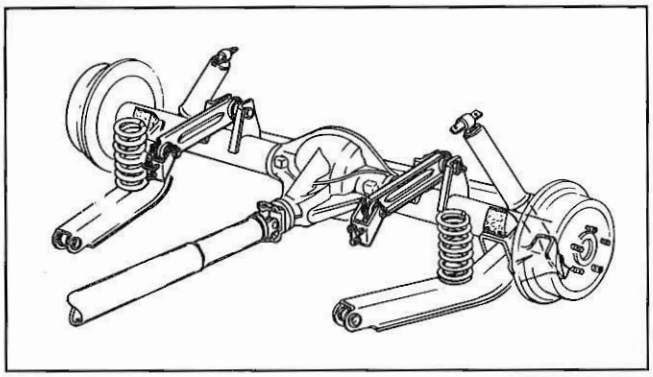


Fig. 13 — Chevrolet Rear Suspension

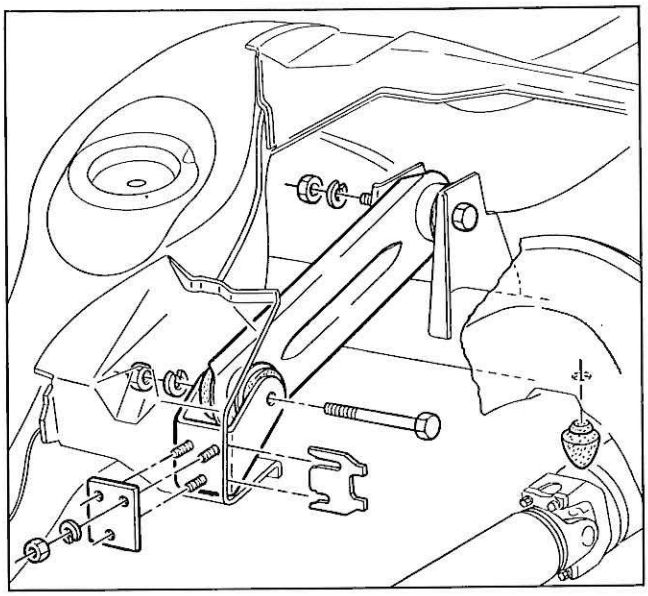


Fig. 14 — Chevrolet Upper Control Arm

provides adjustment for pinion nose angle. The independent coil springs bolt to the lower control arms (fig. 15), and seat into conventional spring seats in the frame at the top. New larger control arm bushings are used at both front and rear of the upper control arm, and at the rear of the lower control arm. New special tools are required for service replacement of these larger bushings.

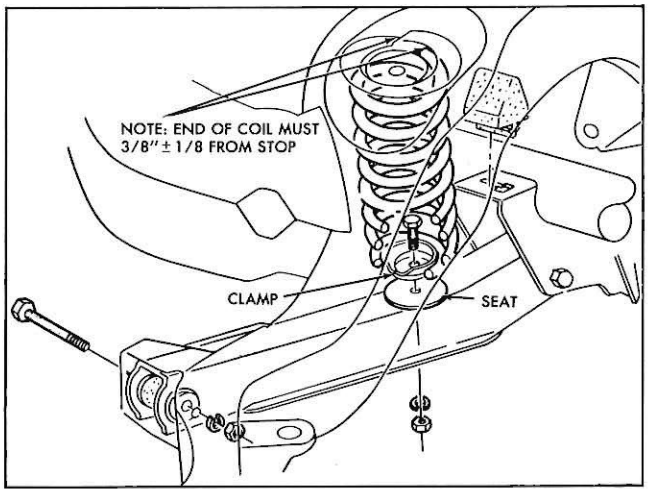


Fig. 15 — Lower Control Arm and Spring Attachment

Automatic Level Control

A pneumatic level control system that automatically maintains correct rear trim height of a car under varying load conditions is available as factory-installed option (RPO G67) for all Chevrolet, Chevelle, and Chevy II models equipped with Superlift Shock Absorbers. The automatic leveling feature is also available as a dealer-installed unit. The leveling system that can be added to the Superlift Shock Absorbers consists of a vacuum operated air compressor with pressure regulator and integral storage tank, vacuum line to engine, air intake filter and

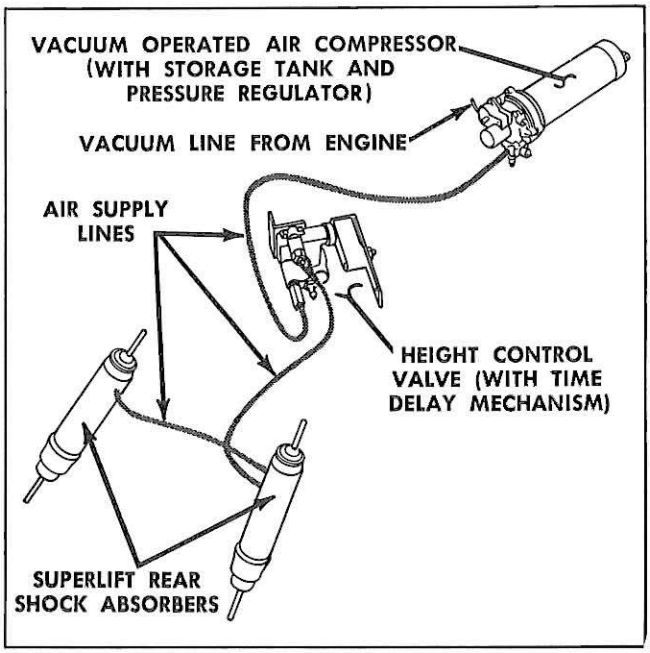


Fig. 16 — Automatic Load Leveling System

lines, and a height control valve (Fig. 16). The compressor is a two-stage type that generates air pressures of up to 250 p.s.i. in the integral storage tank. A self-contained regulator valve is pre-set to maintain pressure to the height control valve of not more than 125 p.s.i. which in effect limits pressure applied to the shock absorbers to 125 p.s.i. The height control valve is linked to the rear suspension and automatically maintains correct vehicle trim height by admitting and exhausting air to the Superlift Shock Absorbers when sufficient load variances cause a trim deflection of approximately ½". A built-in timing mechanism inside the height control valve housing, delays operation from six to twelve seconds to prevent valve action occurring from momentary deflections caused by road variations or other factors.

CORVAIR

Perhaps the most extensive component change on the new Corvair, is in the rear suspension. The new

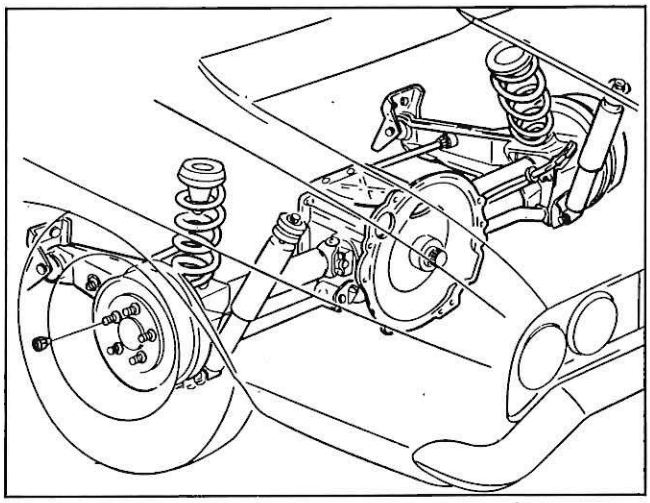


Fig. 17 — Corvair Rear Suspension

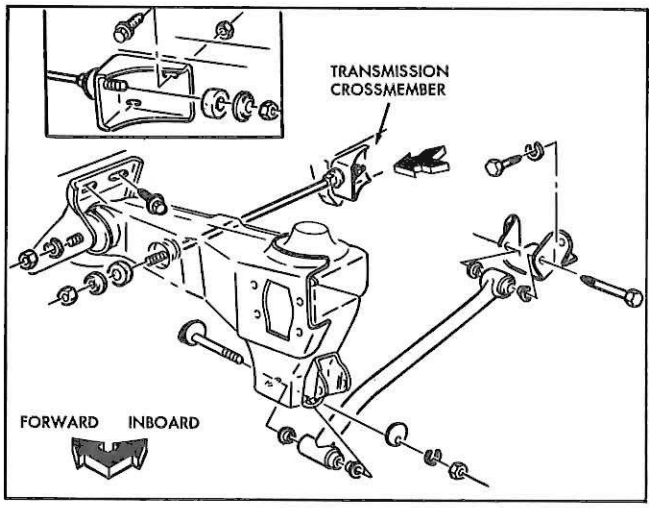


Fig. 18 — Suspension Torque Arm and Rod Detail

rear suspension (fig. 17) consists of torque control arm, front strut rods, rear strut rods, drive shafts and rear mounted coil springs. Like the Corvette, the torque arm is mounted to the body through a rubber bushing at the front end. This bushing is replaceable for service purposes. The rear of the torque control arm is linked to the differential through the rear strut rod and the axle drive shaft. The rear wheel spindle assembly (figs. 18 & 19) is similar to the 1964 Corvette. A new jack screw type tool, is used to remove the spindle assembly from the press fit in the inner bearing, inner race. The tool (in pairs) are used, by removing two spindle support nuts and installing the tool over the studs. The jack screws are extended (fig. 20) against the spindle flange to move the spindle outboard. Since the drive shaft connects the rear of the torque control arm and the differential U joint, it is a major control factor. The differential and slip yoke section of the drive shaft is no longer a slip joint but is bolted to the differential gear.

On the 1965 Corvair, the drive shaft for the rear wheels can be removed simply by disconnecting the shaft universal joints. The wheels must be near curb

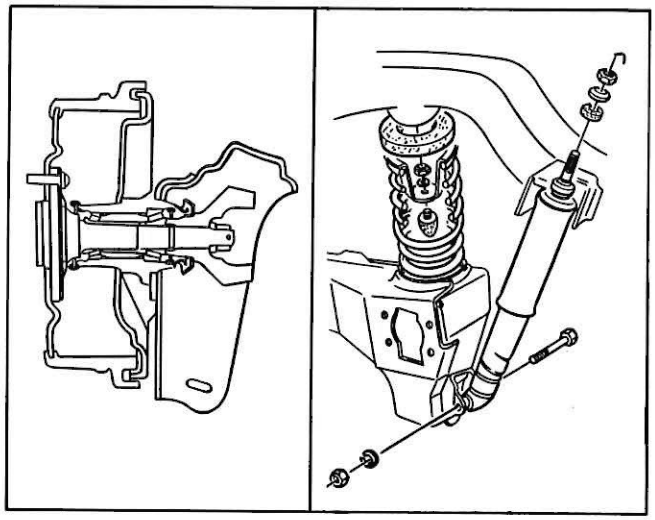


Fig. 19 — Corvair Rear Spindle and Spring Detail

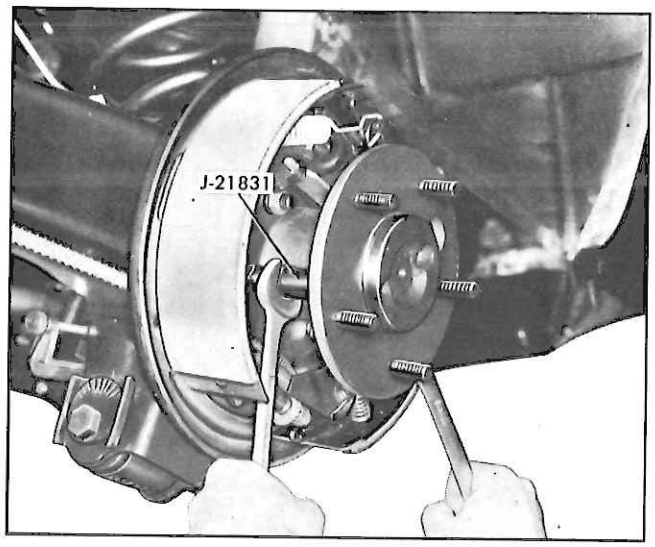


Fig. 20 — Corvair Rear Spindle Removal

height, since the shafts cannot be removed when the wheel is in the full down or jounce position.

The coil springs of the 1965 rear suspension nest on a seat on the torque control arm and the upper end seats in the upper body rail. Both, the upper and lower spring seats incorporate spring stops and retainers for the spring ends.

Toe-in is adjusted at the slotted torque arm front mounting bracket. Camber is adjusted at an eccentric washer and bolt arrangement at the outboard end of the rear strut rod, as shown in figure 21.

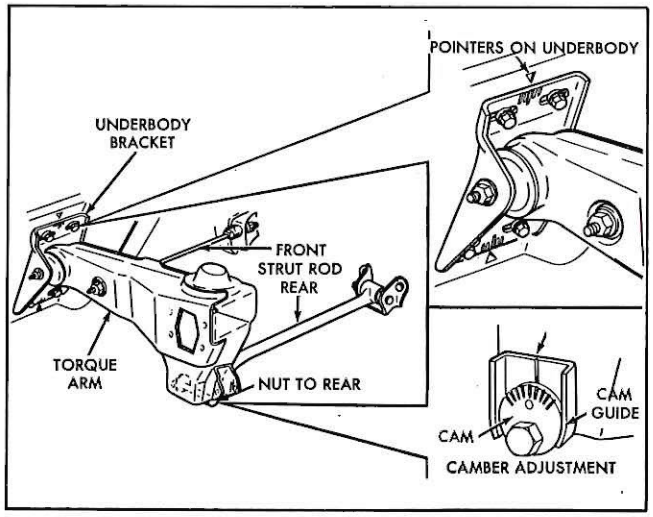


Fig. 21 — Caster and Camber Adjustment—Rear

REAR AXLE

CHEVROLET

The 1965 Chevrolet uses a Salisbury type rear axle, similar to the Chevelle. The differential components themselves are common with the 1964 Chevelle rear axle and permit service procedures to be carry over. The heavy duty rear axle is the same

Salisbury type and is basically the ½ ton rear axle with a new cast carrier housing and axle tube assembly for Chevrolet suspension. Two types of Positraction will be available for 1965; the Dana or Eaton types. The Dana Positraction is the same type unit that was utilized for the 1964 Chevelle.

The new optionally available Eaton Positraction differential unit (fig. 22) is installed in the conventional carrier to replace the standard differential unit. The Eaton Positraction assembly uses the same friction type spring load principle as the Dana, but due to a different design arrangement it requires new service procedures. Overhaul procedures for the new Eaton Positraction axle are covered fully in the shop manuals.

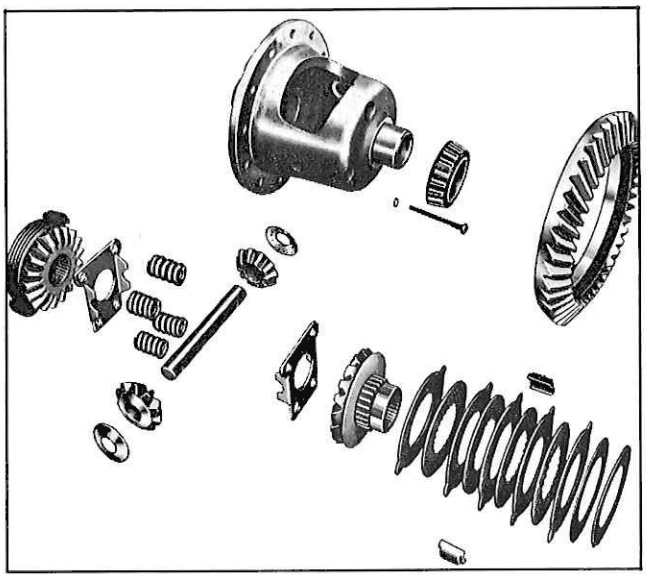


Fig. 22 — Positraction Differential (Eaton Design)

CORVAIR

The new differential carrier for 1965 Corvair is similar to past model with modifications to accommodate the new type rear suspension. The new differential carrier "U" joint yokes will incorporate a 13/32" diameter attaching hole running lengthwise through the center of the yoke stem. A long special bolt runs through the hole, through the side gear, and then into a special shoulder type nut which is locked inside the differential between the side gear and the pinion shaft. The special nut fits into the side gear splines to prevent the nut from rotating while the bolt is turned when replacement of differential yoke is required. A french lock is used under the bolt head. Since the speedometer is now driven from the left front wheel, the hypoid drive shaft is revised to remove the speedometer drive gear and the case opening is eliminated. The U-Joint is strap attached to the differential and wheel yokes. The Dana Positraction is available optionally on the Corvair for 1965.

CHEVELLE, CORVETTE AND CHEVY II

The Chevelle, Corvette, and Chevy II rear axle assemblies are essentially carried over into 1965 unchanged. Chevelle, Corvette, and Chevy II will have both the Dana and the Eaton Positraction units available optionally in 1965.

TRUCK

The rear axle assemblies are carried over for 1965 trucks with only minor changes; however, for the heavy-duty truck line, the Rockwell (Timken) model G-161 single speed axles and model G-361 two-speed axles (all of 16,000 pound capacity) have been added as options for the new A-N-Q diesel models of the 60 series.

Rockwell (Timken) Two Speed Rear Axles

Service adjustments and construction features for the Rockwell (Timken) model G-361 two-speed rear axles are outlined in the following paragraphs and illustrated in Fig. 23.

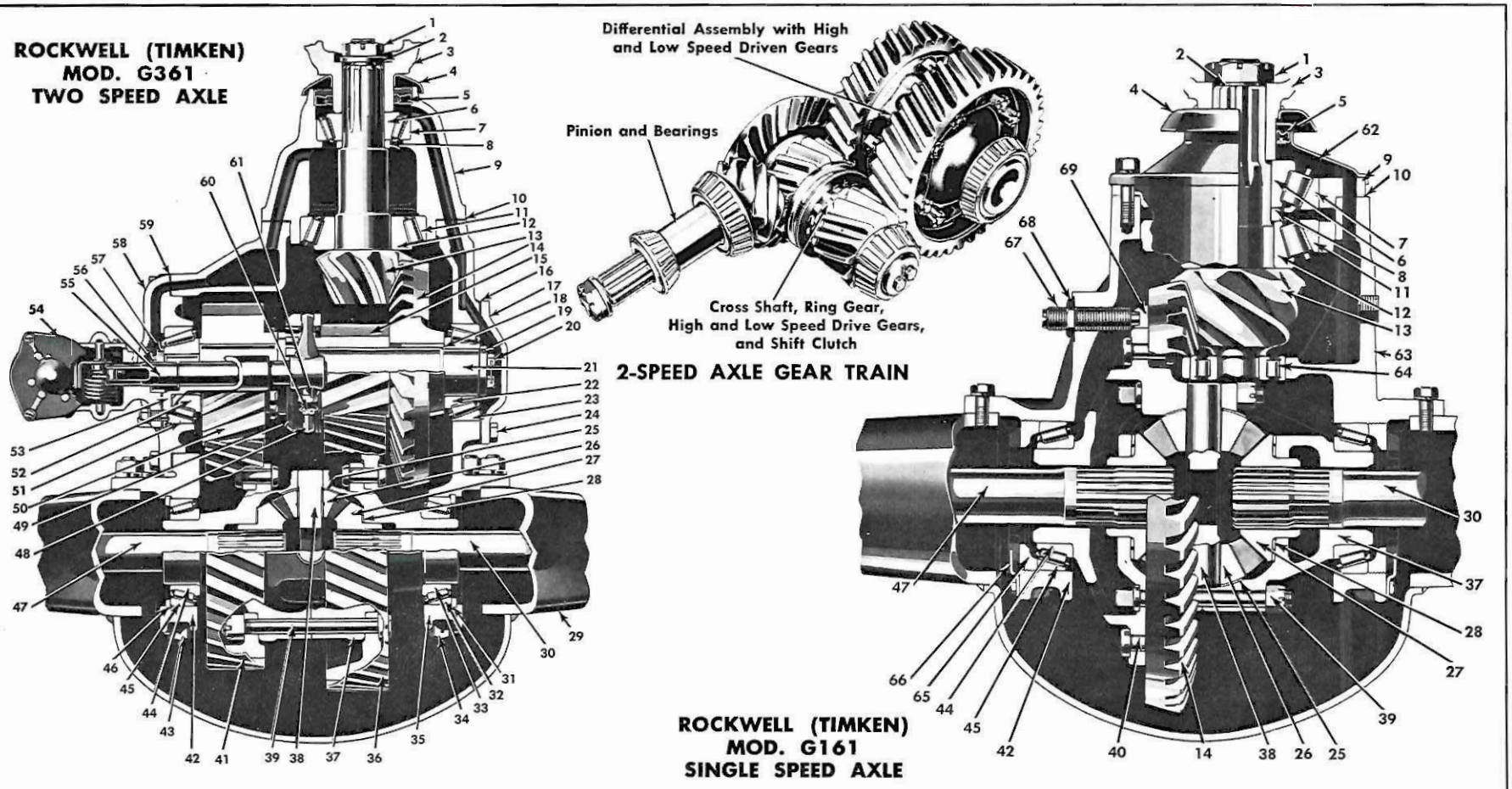
The drive pinion of the model G-361 two-speed axles is mounted on opposed tapered roller bearings, which are supported hy a cage attached to the differential carrier. Pinion bearing pre-load adjustment is controlled by the thickness of two bearing spacers behind the pinion forward bearing cone. A shim pack used between the pinion cage and differential carrier can be varied in thickness to provide proper pinion-ring gear hacklash and tooth contact.

The cross shaft, which supports the ring gear, is carried on two opposed tapered roller bearings. Bearing adjustment is obtained by increasing or decreasing shim pack thicknesses between the carrier and bearing caps or cages. The ring gear is keyed and bolted to the cross shaft.

The high and low speed helical drive gears, and the sliding clutch are supported by the cross shaft. The splined sliding clutch slides on integral teeth on the cross shaft and is moved by the electric shift motor to lock either the constant mesh high or low speed drive gears to the cross shaft, thereby driving the mating gear on the differential case to provide the selected final ratio.

The differential consists of the spider, pinions, side gears, thrust washers, high and low speed driven gears and the two-piece differential case. Thrust washers are used between the differential pinions and case; also, between the side gears and case. Each half of the differential case supports a high or low speed driven gear which is riveted to the case. The entire differential assembly is carried by two opposed tapered roller bearings, which are preloaded by variable thickness spacers.

Lubricant is supplied to the pinion bearings through cored passages in the pinion cage and differential carrier. The cross shaft bearing cages are cored to permit lubricant reaching the bearings, and also to trap a small quantity of lubricant and provide an oil bath for the bearings at all times. A small pipe plug is provided in the pinion cage through which 1 pint of lubricant should be poured when the axle is first placed in service after overhaul.



1 Yoke Nut
2 Nut Washer
3 Propeller Shaft Yoke
4 Dust Deflector
5 Oil Seal
6 Bearing Cone—Outer
7 Bearing Cup—Outer
8 Adjusting Spacer
9 Pinion Cage
10 Adjusting Shims
11 Bearing Cup—Inner
12 Bearing Cone—Inner
13 Drive Pinion
14 Ring Gear
15 Drive Gear
16 Adjusting Shims
17 Bearing Cap
18 Gear Key
19 Retaining Washer
20 Retaining Screw
21 Cross Shaft
22 Bearing Cone
23 Bearing Cup
24 Cap Screw
25 Pinion Thrust Washer
26 Differential Pinion
27 Differential Side Gear
28 Side Gear Thrust Washer
29 Housing
30 Axle Shaft—Right
31 Adjusting Spacer—Right
32 Bearing Cup—Right
33 Bearing Cone—Right
34 Cap Screw
35 Bearing Cap—Right
36 Driven Gear
37 Differential Case
38 Differential Spider
39 Case Bolt & Nut
40 Ring Gear Rivet
41 Driven Gear
42 Bearing Cap—Left
43 Cap Screw
44 Bearing Cone—Left
45 Bearing Cup—Left
46 Adjusting Spacer—Left
47 Axle Shaft—Left
48 Shift Yoke
49 Shift Clutch
50 Drive Gear
51 Bearing Cup
52 Bearing Cone
53 Shift Shaft Sleeve
54 Electric Shift Unit
55 Shifter Shaft
56 Retaining Screw
57 Retaining Washer
58 Bearing Cage
59 Adjusting Shims
60 Set Screw
61 Lock Nut
62 Oil Seal Retainer
63 Differential Carrier
64 Pinion End Bearing
65 Adjuster Ring
66 Adjuster Lock
67 Thrust Block Screw
68 Lock Nut
69 Thrust Block

Fig. 23—Rockwell (Timken) Rear Axles

ROCKWELL (TIMKEN) MODEL G361 TWO-SPEED REAR AXLE SPECIFICATIONS

PINION & RING GEAR:

Type	Hypoid		
Ratios: Hi	5.41	6.16	6.61
Lo	7.44	8.48	9.09
Pinion, teeth	11	10	9
Ring gear, teeth	28	29	28

SERVICE ADJUSTMENTS AND CLEARANCES

Ring Gear—Pinion Backlash ..... .020"-.026"
Adjustment Method ..... Shims
Shim Thickness ..... .003", .005", .010"

Pinion Bearing
Adjustment Method ..... Spacers
Spacer Thickness
Pinion ..... .187", .189", .193", .197", .201", .205", .207", .209"
Rotating Torque Check (In. Lbs.) 5-15

Differential Bearings
Adjustment Method ..... Spacers
Spacer Thickness ..... .187", .192", .197", .202", .207", .212", .217"

Cross Shaft Bearings
Adjustment Method ..... Shims
Shim Thickness ..... .003", .005", .010", .030"
Rotating Torque (In. Lbs.) 5-15

DRIVEN GEARS (on Differential Case)

Type ..... Helical
Backlash ..... .012"-.016"
Rivet Hole Ream ..... .6285"-.6385"
Shift Mounting Sleeve
Adjusting Shims ..... .003", .005", .010", .030"

THRUST WASHER THICKNESS

Differential Side Gears ..... .060"
Differential Pinions ..... .060"

TORQUE SPECIFICATIONS (Ft. Lb.)

Differential Carrier Stud Nut 85-90
Cross Shaft Bearing Cap Bolt 85-90
Cross Shaft Bearing Cage Bolt 85-90
Cross Shaft Bearing Retaining Bolt 40-45
Shift Unit Mounting Stud Nut 25-30
Pinion Cage Bolt 120-130
Differential Bearing Cap Bolt 160-180
Differential Case Bolt 185-205
Pinion Shaft Nut 300-400
Gear to Differential Case Bolt 185-205

Rockwell (Timken) Single Speed Rear Axles

Service adjustments and construction features for the Rockwell (Timken) model G-161 single speed rear axles are outlined in the following paragraphs and illustrated in Fig. 23.

The drive pinion of the model G-161 single speed rear axles is straddle mounted between straight roller bearing at the inner end and two opposed taper roller bearings at the outer end. Drive pinion pre-load adjustment is controlled by thickness of bearing spacers installed between the pinion bearings. Shim pack thickness, used between the pinion cage and the carrier, can be varied to provide proper pinion-ring gear backlash and tooth contact.

The differential is a conventional four pinion type with the ring gear attached to the flanged half of the differential case with rivets. The differential case is two-piece type machined as a matched assembly, and must be replaced as such.

Thrust washers are used between differential side gears and case, and between differential pinions and case. Adjusters are provided at each end of differential for differential bearing pre-load, also for ring gear-drive pinion backlash, and tooth contact adjustments.

ROCKWELL (TIMKEN) MODEL G161 SINGLE SPEED REAR AXLE SPECIFICATIONS

PINION & RING GEAR:

Type	Hypoid		
Ratios	5.29	6.17	7.20
Pinion, teeth	7	6	5
Ring gear, teeth	37	37	36

ADJUSTMENTS AND CLEARANCES

Ring Gear—Pinion Backlash ..... .006"-.012"
Shim Thickness (Carrier to Cage) ..... .003", .005", .010"

Pinion Bearings
Adjustment Method ..... Selective Spacers
Spacer Thickness ..... .219", .220", .221", .222", .223", .224", .230", .236", .242", .248", .254"
Pinion Rotating Torque Check (In. Lbs.) 5-15

Thrust Block to Ring Gear Clearance ..... .010"-.015"

Differential Bearings
Adjustment Method ..... Adjusting Rings
Bearing Pre-Load ..... 1 notch past zero end play

THRUST WASHER THICKNESS

Differential Side Gears ..... .060"
Differential Spider Pinions ..... .060"

TORQUE SPECIFICATIONS (Ft. Lbs.)

Pinion Shaft Nut 300-400
Pinion Cage Bolt 55-60
Differential Case Bolt Nut 95-105
Differential Bearing Cap Bolt 125-140
Differential Carrier Stud Nut 95-105

PROPELLER SHAFTS

CHEVROLET

The 1965 Chevrolet uses a one piece propeller shaft in comparison to two piece design used for the past years. The new propeller shaft is a step type, 3 inch outside diameter at the ends and 3-1/2 inch outside diameter in the center section for all models except Powerglide transmission. The Impala Powerglide transmission uses a two piece propeller shaft tube assembly with rubber elements between and inside and the outside tubes. The object of this type construction is to minimize the translation of rear

axle gear noise to the front end of the vehicle. The prop shaft U-joints, U-bolts, and yokes are carried over from 1964.

CHEVELLE, CHEVY II, CORVETTE, AND TRUCK

The Chevelle, Chevy II, and Corvette prop shafts are carried over unchanged into 1965. The propeller shafts for the 1965 truck series are unchanged except for length adaptions for the new model vehicles.

BRAKES

CHEVROLET

The 1965 Brakes for Chevrolet are carry over Bendix type self-adjusting brakes. There are revisions to the wheel cylinders to include Durex iron wheel cylinder pistons and relocated fluid line attachment angles. The brake pedal has a new arm curvature for clearance to the gas pedal. The power brake cylinder mounts directly to the fire wall panel similar to the Chevy II and, therefore, requires a new push rod and attaching bolts. The power cylinder itself is the Chevelle type and is serviced the same as Chevelle.

The 1965 Chevrolet parking brake is the same as Chevelle, except for the cable lengths that adapt it to the new hody.

CHEVY II AND CHEVELLE

The 1965 Chevy II and Chevelle parking and service brakes are carry over, except for new brake line routing on heavy duty rear axles.

TRUCKS

The one ton truck will have self-adjusting brakes of the same basic design as the 3/4 ton trucks, except that they are larger, to accommodate the different brake size.

A DD3 safety brake actuator system for vehicles equipped with air brakes, was introduced in midyear 1964 and is carried over into 1965. The brake actuator works in conjunction with an inversion valve and a push-pull valve to operate as service brakes, emergency brakes or parking brakes. The push-pull valve supplies the operator with a parking brake control merely by pulling the button out. The inversion valve acts as a safety valve to apply the emergency brakes if air pressure should drop to a predetermined level.

The DD3 safety actuator name implies double diaphragm and the 3 denotes triple action for service, parking, and emergency hraking. The actuator functions normally as a service brake chamber, but in addition has a means of mechanically locking a brake application so it can safely be used for parking. With various system arrangements the actuator may be installed to be automatically or manually applied under emergency braking conditions. The inversion valve operates the actuator in its emergency condition. The safety actuator is stud mounted to an axle bracket and operates the slack adjuster arms at each wheel.

CORVAIR

The brakes for the 1965 Corvair are larger to provide better braking performance. The front and rear brakes are both larger and wider. This necessitates a different anchor pin, a heavier backing plate, new drums, larger wheel cylinders, and slightly revised self-adjusting features. The brake pedal mounting (figure 24) is new for 1965 in that it pivots on the end of the clutch pedal cross-shaft instead of on its own shaft. This requires that the clutch pedal and pivot shaft be removed in order to remove the brake pedal, as in passenger and Chevelle vehicles.

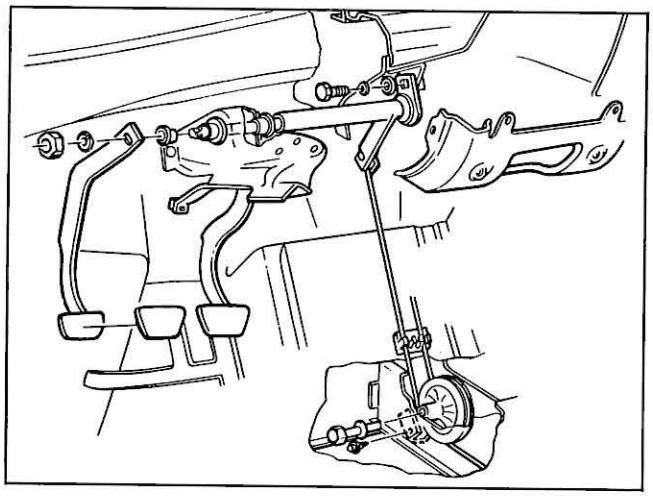


Fig. 24 — Corvair Brake Pedal Mounting

The Corvair parking brake lever and cables are new due to the attachment at the rear wheels (fig. 25) and at the mounting of the parking brake lever. The parking brake lever is instrument panel support mounted rather than mounted to a bracket on a mast jacket. The cables at the rear torque arms are revised only in their new mounting and attachment at the anchor plate.

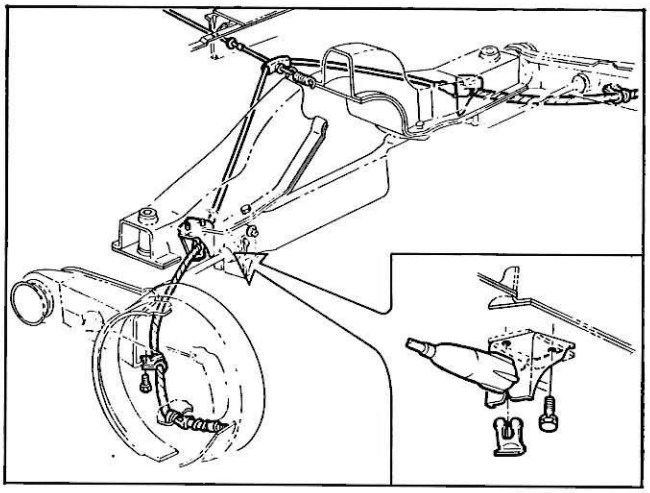


Fig. 25 — Corvair Hand Brake Rear Cable

CORVETTE

The 1965 Corvette uses disc brakes (fig. 26) on all four wheels with a power assist cylinder as optional equipment for 1965. The major components of the disc brake system are the caliper assemblies which replace the wheel cylinder, brake shoes, and linings, and the disc which replaces the brake drum. The caliper assembly contains four pistons, two acting on each shoe with one shoe on each side of the disc assembly. The brake disc is riveted to the hub flange at the front wheel and to the spindle flange at the rear wheel. The disc rotates through the caliper assembly, which is bolted to a support that in turn is attached to the steering knuckle at the front wheel and the spindle support bolts at the rear wheel. The disc has cooling fins between the two shoe reacting surfaces. When a disc must be replaced, the rivets can be drilled out and then the wheel studs will be used for disc retention purposes.

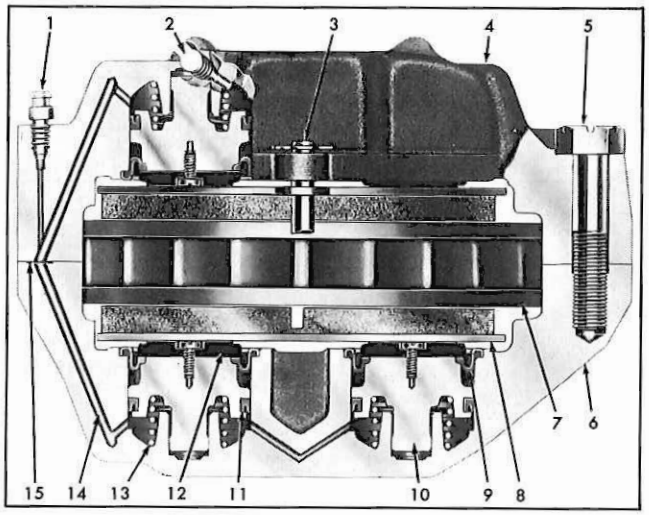


Fig. 26—Corvette Disc Brake (Cut-Away)

1. Bleeder Screw
2. Fluid Inlet
3. Retaining Pin & Clip
4. Inboard Caliper Half
5. Caliper Through Bolt
6. Outboard Caliper
7. Disc Assembly
8. Shoe Assembly
9. Dust Boot
10. Piston Assembly
11. Seal Cup
12. Insulator
13. Spring
14. Transfer Passage
15. "O" Ring

A set of familiar type expanding brake shoes are used on each rear wheel to provide parking brakes. The parking brake shoes mount on the flange plate and shield assembly which is attached to the rear wheel spindle support bolt. The shoes are lever actuated and are manually adjusted (by a star wheel bolt and nut arrangement), thru access holes in the flange and disc hub. To gain access to the parking brakes for other servicing, it is necessary to remove the rear wheel caliper and then the spindle and disc assembly, the same as removing the spindle in 1964.

Let's take a look at how the new disc brake system works. The brake master cylinder operates just as it has in the past with brake lines to each of the caliper assemblies at each wheel. The brake line attachment is to the fluid port at one piston area, from where the fluid passage is drilled to mating passages at the caliper half junction (sealed there with an "O" ring) and then to the piston areas on the opposite caliper half. Pressure on the brake fluid moves the cylinder pistons out against the brake shoes which now apply pressure against the outside surfaces of the disc assembly. Notice there are no return springs on the piston. When the pressure is removed from the brake fluid the light spring tension of the piston spring keeps very light pressure on the brake shoe and against the disc assembly.

The brake shoes are held in place by a retaining pin and when the brakes are applied, the shoe is carried against the caliper assembly to absorb the braking pressure. The retaining pin is merely a guide for positioning the shoes. Notice the deep groove in the center of each shoe. When this groove is about worn off, the shoe needs replacement.

When replacing brake shoes (fig. 27), two things are necessary: 1.) The brake fluid in the master cylinder must be drained (by siphoning or any other means) and 2.) Wheel must be removed from the vehicle. Then the shoe guide pin and clip can be removed and the shoes lifted out. Before the new shoes can be replaced, the cylinder pistons must be pushed back into their bores and retained with a thin clip to allow clearance for the new shoes to be installed. Pushing the pistons back into the cylinders (and remember four per wheel) causes the brake fluid to be forced backward into the master cylinder reservoir. The amount of brake fluid pushed back would overflow the master cylinder causing fluid spillage around the engine fire wall.

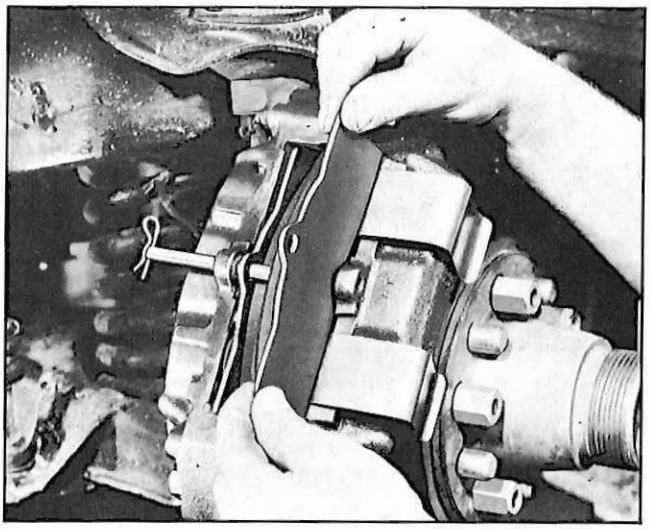


Fig. 27 — Shoe Replacement Disc Brakes

The caliper assembly itself comes in two halves assembled by bolts at the flange ends. The two halves contain fluid crossover passages from one to the other, sealed at the casting mating line with "O" rings.

The bleeder screw is threaded into a passage drilled to intersect the fluid crossover passage. The bleeder screws are located at the front of each caliper. There are two bleeder screws, one inboard, one outboard at the rear wheels, and one bleeder screw on the inboard side at the front wheel. It is, therefore, necessary to remove the rear wheel when bleeding the rear caliper.

1965 CHEVROLET TRUCK BRAKES

HYDRAULIC BRAKE SPECIFICATIONS

All 10 thru 30 Series trucks are equipped with self-adjusting brakes.

Truck Series	Brake Size (inches)		Lining Area (sq. inches)		Main Cyl. Dia. (Inches)	Wheel Cyl. Dia. (inches)	
	Front	Rear	Front	Rear		Front	Rear
G10 (with regular production rear axle)	9½ x 2½	9½ x 2	96	77	1.000	1.060	0.875
With optional 2900-lb. rear axle	9½ x 2½	9½ x 2½	96	96	1.000	1.060	1.060
C10	11 x 2	11 x 2	83½	83½	1.000	1.125	1.000
P10	11 x 2	11 x 2	83½	83½	1.125	1.125	1.000
K10	11 x 2	11 x 2	88½	83½	1.000	1.125	1.000
C20	11 x 2¾	11 x 2¾	119	119	1.000	1.125	1.125
K20	12 x 2	12 x 2	98	93	1.000	1.125	1.125
P20	12 x 2	12 x 2	93	93	1.125	1.125	1.125
C30	11 x 2¾	13 x 2½	119	133	1.125	1.125	1.250
P30	12 x 2	13 x 2½	93	133	1.125	1.125	1.250
50	14 x 2½	15 x 4	136	245	1.125	0.875	1.500
60 (Except M-V-X models)							
With 5000-lb. front axle & 15,000-lb. rear axle	14 x 2½	15 x 4	136	249	1.125	0.875	1.500
With 5000-lb. front axle & 16,000-lb. rear axle	14 x 2½	15 x 5	136	314	1.125	0.875	1.500
With 7000-lb. front axle & 15,000-lb. rear axle	15 x 3	15 x 4	199	249	1.125	1.125	1.500
With 7000-lb. front axle & 16,000-lb. rear axle	15 x 3	15 x 5	199	314	1.125	1.125	1.500
With 7000-lb. front axle & 17,000-lb. rear axle	15 x 3	15 x 6	199	380	1.250	1.125	1.625
With 5000-lb. front axle & 17,000-lb. rear axle	14 x 2½	15 x 6	136	380	1.125	0.875	1.625
M60 (With 5000-lb. front axle)	14 x 2½	15 x 4	136	497	1.125	0.875	1.500
With 7000-lb. front axle	15 x 3	15 x 4	199	497	1.125	1.125	1.500
VX60 (With 5000-lb. front axle)	14 x 2½	15 x 7	136	886	1.125	0.875	1.750
With 7000-lb. front axle	15 x 3	15 x 7	199	886	1.125	1.125	1.750
M80	15 x 3	15 x 6	199	759	1.250	1.125	1.625
80 (Except E-M-UV-W models)	15 x 3	15 x 7	199	443	1.250	1.125	1.750

VACUUM AND AIR POWER CYLINDER USAGE

Vacuum Assist Units	Standard on	Optional on
8.3" Diaphragm (Moraine or Bendix)	None	C10, C20, C30
7" Diaphragm (Midland Ross—"Hy-Power")	None	P20, P30
11" Single Diaphragm (Bendix—"Multivac")	Series 60 (Except M-V-X & S69)	Series 50
12¾" Single Diaphragm (Bendix—"Multivac")	S69, 60H Series (Except "23 Style)	60 Models (Except M-V-X)
12¾" Double Diaphragm (Bendix—"Multivac") (3.2 cubic inches fluid displacement)	M-V-X60, A-C-Q-L-N-T80	None
12¾" Double Diaphragm (Bendix—"Multivac") (4.5 cubic inches fluid displacement)	M-V80	None
Air Assist Units Using TU-FLO 400 Air Compressor		
4½" Cylinder (Bendix—"Multipak") (2.3 cubic inches fluid displacement)	A-N-Q60 (As Mod. "23)	CD-L-M60
4¾" Cylinder (Bendix—"Multipak") (4.7 cubic inches fluid displacement)	A-N-Q-V80 (As Mod. "23)	C-L-M80

BRAKE SIZE—WITH FULL AIR BRAKES

Truck Series	Brake Size (Inches)		Lining Area (sq. in.)	
	Front	Rear	Front	Rear
60H	15 x 3	15 x 6	190	379
M80, V80, W80:				
With 7000-lb. front axle	15 x 3	15 x 6	190	759
With 9000-lb. or 11,000-lb. front axle	15 x 3½	15 x 6	222	759
80 (Except M80, V80, W80):				
With 7000-lb. front axle	15 x 3	15 x 7	190	443
With 9000-lb. or 11,000-lb. front axle	15 x 3½	15 x 7	222	443

PARKING BRAKE SPECIFICATIONS

Truck Series	Trans-mission	Parking Brake Type	Diam-eter (inches)	Lining Area (sq. in.)
10 (Exc. G10)	All	Rear Wheels	—	83½
G-10	All	Rear Wheels	—	77
C20	All	Rear Wheels	—	119
P, K20	All	Rear Wheels	—	93
30	All	Prop. Band	8	63
50, 60	4-Spd	Prop. Dual Shoe	10	36
60	New Process 5-Spd	Prop. Band	9½	67½
	Powermatic	Prop. Band	9½	89
	Clark 5-Spd Spicer 5-Spd	Prop. Band	9½	85
80	Spicer 3152A Spicer 3152	Prop. Band	9½	85
	Spicer 5652B Spicer 5756B Powermatic	Prop. Band	10½	99½
	Fuller R46	Prop. Internal Expanding	13	83½

FULL-AIR BRAKES are standard on E-U-V-W80 models and are available as a regular production option on all other models in the 80 series and most models in the 60H series. The standard air compressor is a Bendix-Westinghouse Model TU-FLO-400, which has a capacity of 7¼ C.F.M. The "400" compressor is water cooled on all diesel models and on gasoline engine jobs equipped with radiator shutters. An air-cooled version of the "400" is standard in all other vehicle installations. An optional TU-FLO-500 water cooled compressor, with a capacity of 12 C.F.M., is also available for most full-air brake installations. On the E-U-V-W80 models the compressor is gear driven, while on all other models it is belt driven from the crankshaft. Two compressed air reservoirs are used (the wet tank and the dry tank), each tank has a capacity of 1188 cubic inches. Models M-V-W80 with full-air brakes have an additional dry tank of 830 cubic inch capacity.

The following information is presented as a summary of Corvette disc brakes, from a service standpoint:

1. There is no shoe adjustment on the disc type service brakes.
2. The groove in the brake shoes is an indicator of brake wear and when the groove is just about gone it is time for shoe replacement.
3. When replacing shoes, it is necessary to siphon fluid from the master cylinder reservoir to make room for fluid return to the reservoir when pushing the caliper pistons back into their bores to make room for the thickness of the new shoes.
4. The shoes have a directional arrow on the back of the shoe plate. This arrow points to the forward rotation of the disc.
5. When bleeding the calipers the rear wheel must be removed to reach the outboard bleeder screw.
6. A retaining clip of thin metal is used to hold the pistons into their bores while installing the new brake shoes.
7. The caliper assembly is removable, after disconnecting the brake line, by removing two mounting bolts and lifting the assembly off the disc.
8. The disc is riveted to the spindle flange in production and the rivets may be drilled out and the wheel studs and stud nuts are sufficient to hold the new disc in place when replacing the disc.
9. The parking brake cable is adjustable for length as the shoes wear, the same as usual.
10. The brake shoe adjustment (for parking brakes) is accessible through either of two holes in the disc and drive plate flanges (fig. 28).

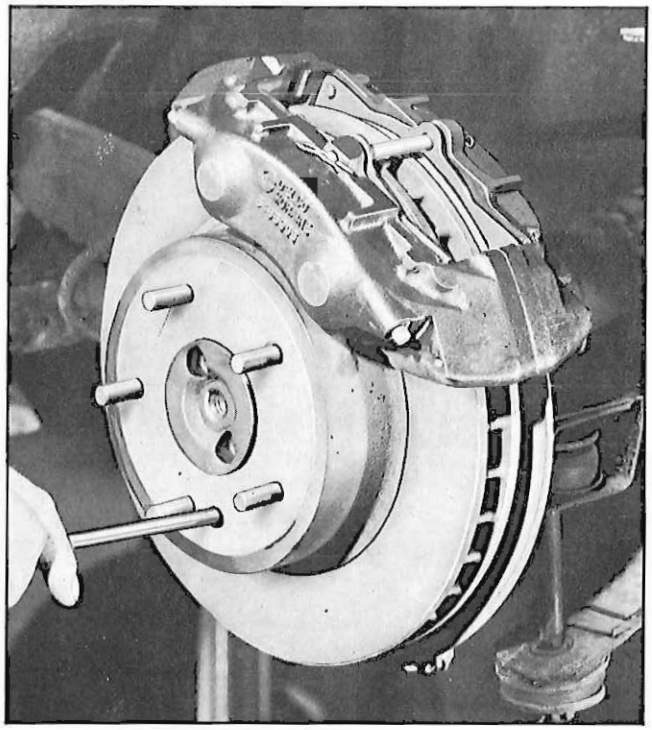


Fig. 28 — Parking Brake Adjustment

11. The rear wheel spindle must be removed to gain access to the parking brake shoes. It is necessary then to remove the caliper, the axle drive shaft, the spindle drive shaft yoke and remove the spindle and disc as an assembly from the wheel support. You now have access to the parking brake shoes, which are serviced the same as any other Bendix type brake shoe set up (fig. 29).

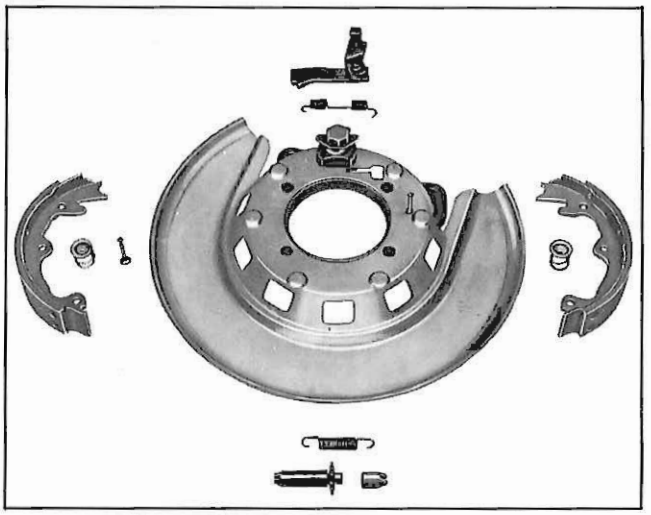


Fig. 29—Corvette Parking Brake Exploded

12. When the Corvette is equipped with knock-off hub assemblies, the adaptors must be removed to gain access to the parking brake adjustment.

Two new master cylinders are used on the 1965 Corvette. The regular production master cylinder is a Bendix type with a single cylinder and a large reservoir. This Bendix cylinder is used on all Corvettes without power brakes. A residual valve is not necessary because the brake shoes ride (with only light spring tension) against the wheel disc and continue to do so as the shoe linings wear out. In other words, the Corvette service disc brakes are self-adjusting with wear. The Bendix master cylinder has an (approximately) 1/8" hole in *both* the reservoir cover and the cover diaphragm for an atmospheric vent. Pressure bleeding is recommended for all Corvettes with disc brakes. A new pressure bleeder adaptor tool

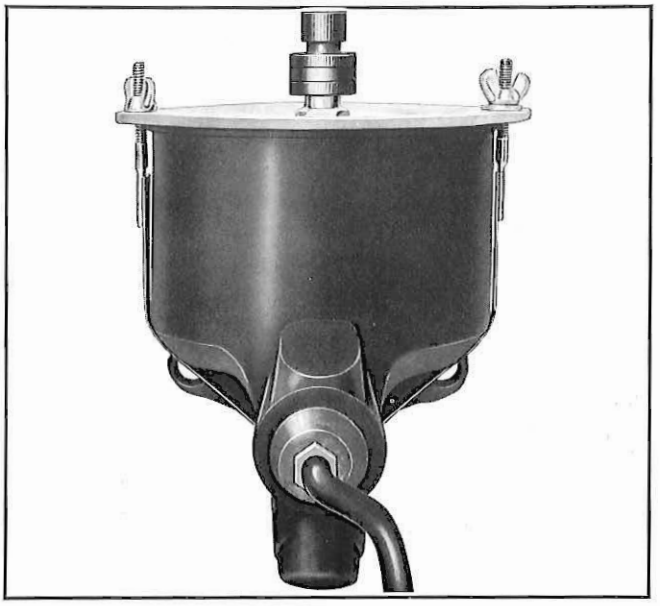


Fig. 30—J-21994 Pressure Bleeder on Master Cylinder

is now available for the Bendix master cylinder (Fig. 30). This tool, J-21994, was unfortunately not listed in the initial 1965 *Special Tool Program,* therefore it must be ordered separately.

A split delivery master cylinder (fig. 31) is used with power brakes on the Corvette for 1965. This master cylinder is a Delco Moraine type in which the front reservoir and piston supply the front wheels, the rear set supplies for the rear wheels. It is used in combination with a Delco Moraine power assist unit. This cylinder (fig. 31) also uses no residual valves in the outlet ports.

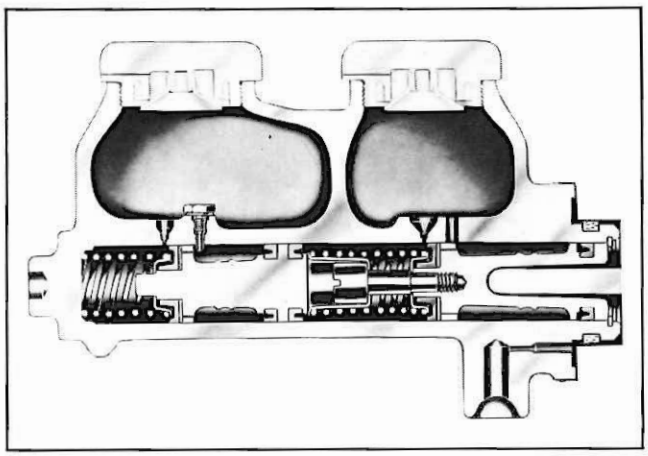


Fig. 31—Split Master Cylinder Used W/Power Brakes

ENGINES

CHEVROLET, CHEVY II, CHEVELLE, AND CORVETTE

Most of the engines used on these vehicles are interchangeable from one vehicle line to the other, with minor revisions such as exhaust manifold and mounting provisions, and will be discussed here as one group, with changes or differences noted.

All engines used on the 1965 Chevrolet series cars have a revised oil pan with the sump flush to the rear of the oil pan, to accommodate the new frame and steering linkage for 1965. The new pan configuration has resulted in a revised oil pump suction pipe and screen assembly and relocated oil level indicator. The dipstick handle is a new tubular design with a seal device due to crankcase ventilation. All engines used in the Chevrolet series passenger car will have revised exhaust manifold take-down flange angles due to the engine repositioning, for clearance to steering and shift linkage.

Oil Pan Service—Chevrolet Series

Oil Pan removal on the 1965 Chevrolet Series passenger cars is not only easier because of the design changes indicated in the preceding paragraph, but oil pan removal and many other engine service operations are also facilitated by the additional working space that is now provided between the engine and the new frame front cross-member. The new procedures are detailed in the Chassis Service Manual for 1965.

NOTE: *It is not necessary to remove any engine used in the 1965 Chevrolet Series passenger cars in order to remove the oil pan. Many operations which required engine removal in 1964 are now performed with the engine in the chassis.*

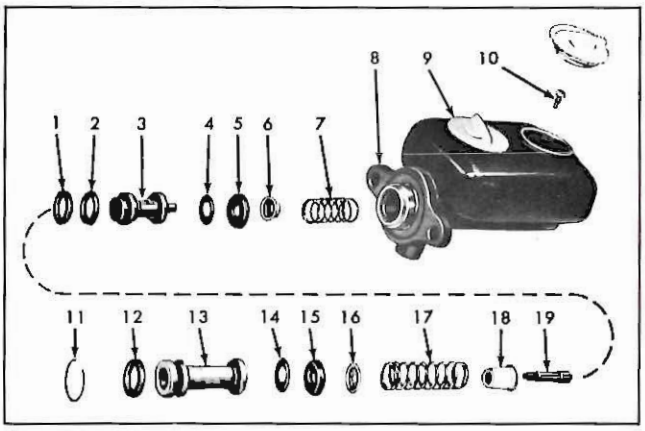


Fig. 32—Moraine Split Cylinder—Exploded View

1-2. Secondary Seals
3. Floating Piston
4. Primary Seal Protector
5. Primary Seal
6. Spring Retainer
7. Floating Piston Spring
8. Cylinder Body
9. Reservoir Cover
10. Piston Stop Bolt
11. Lock Ring
12. Secondary Seal
13. Primary Piston
14. Secondary Seal Protector
15. Primary Seal
16. Spring Retainer
17. Primary Piston Spring
18. Floating Piston Stop
19. Piston Extension Screw

In-Line Engines

The pistons on all in-line engines are revised to provide new oil hole positions for piston pin oiling. The inlet manifold adaptor for the crankcase ventilation hose is now located (fig. 33) in the center leg of the manifold, inboard of the carburetor. All of the in-line 6 cylinder engines have revised camshafts and valve springs to reduce noise level.

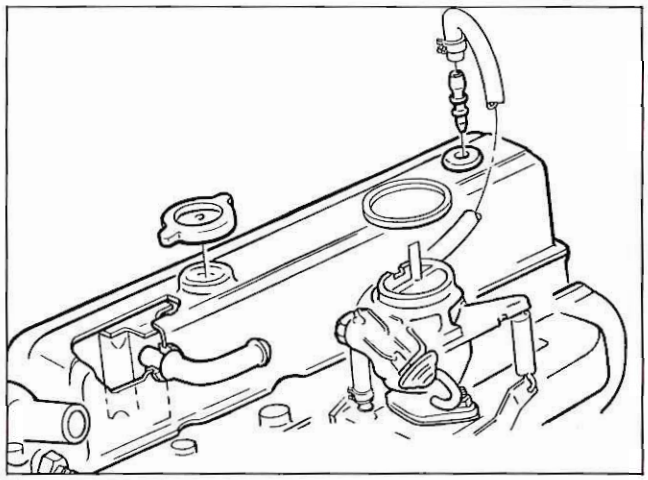


Fig. 33—In-Line Engine Vent Hose Location

V-8 Engines

All 283 and 327 cubic inch V-8 engines use a two inch diameter exhaust manifold take-down flange. When single exhaust systems are used, the crossover pipe is two inches in diameter to the Y connection and

then 2½ inches from there through the muffler to the tail pipe. With dual exhaust, the system is 2½ inch diameter from the manifold flange all the way back. The 283 cubic inch engine pistons have revised piston pin oil holes for better oiling. This engine is carried over from 1964 as base engine V-8 on Chevrolet, Chevelle, and Chevy II.

There are five 327 cubic inch V-8 engines for 1965. This is an increase of one from 1964. All five of these engines are used on Corvette in 1965, adding a Holley four barrel hydraulic lifter engine of 350 horsepower to the Corvette engine line up as RPO L79.

All engines use the new self-cleaning crankcase ventilation valve shown in figure 34. This ventilation valve has small clearances between the valve and the passage and as the valve moves back and forth, it cleans itself. All V-8 engines, except Corvette, use an oil wetted paper air cleaner element for 1965. Servicing of these cleaners requires inspection of the element after 12,000 miles service, if suitable for further service, inspect at 6000 mile intervals thereafter until replacement is necessary.

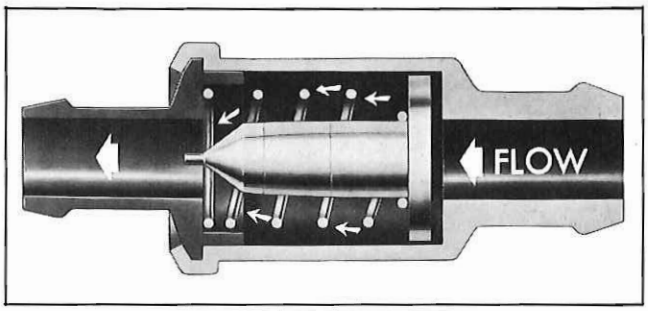


Fig. 34—Self-Cleaning Crankcase Vent Valve

CHEVROLET—CHEVELLE—CHEVY II ENGINE TUNE-UP CHART

ENGINE			153	194	230	283	327	327	327	327	409	409
H.P.			90	120	140	195	250	300	350	365	340	400
Compression PSI (Note 1)			130			150	160				150	
Spark Plugs	Make and Number	Colder	AC 44N			AC 44	AC 43				AC C42N	
		Standard	AC 46N			AC 45	AC 44				AC 43N	
	Gap		.035″									
Ignition Distributor	Point Dwell		31°—34°			28°—32°						
	Point Gap		.019″ (New)—.016″ (Used)									
	Arm Spring Tension		1-32 Ounces									
	Condenser		18-23 Mfd.									
Fan Belt			70 ± 5 Lbs. (Used)—90 ± 5 Lbs. (New)—Using Strand Tension Gauge									
Air Cleaner			Note 2									
Tappet Adjustment	Inlet		Hydraulic—1 Turn Down from Zero Lash							.030″	HYD.	*.018″
	Exhaust		Hydraulic—1 Turn Down from Zero Lash							.030″	HYD.	*.030″
Ignition Timing BTDC (Note 3)		Nominal	4°	8°	4°	8°	4°	8°		12°	6°	12°
		Range	4-8°	6-10°	4-8°	6-12°	4-8°	6-12°		10-14°	4-8°	10-14°
Engine Idle RPM		Synchromesh	450—500						550	800	450-500	950-1000
		Automatic	Note 4						——		④	—
Fuel Pump		Pressure	3¼—4½			5¼—6½			6-7½		7¼-8½	
		Volume	One Pint in 30-45 Seconds									
Cooling System PSI			13 (15 Air Conditioning)									
Crankcase Vent Valve		Positive	Check Valve at Oil Change Intervals						—			
		Closed Positive	Clean Orifice at Tune-up Intervals									

NOTE 1—At cranking speed, throttle wide open—Maximum Variation 20 pounds between cylinders.

NOTE 2—PAPER ELEMENT—Service at 12,000 miles initially—Check every 6,000 miles thereafter.

POLYURETHANE—Service every 12,000 miles.

OIL BATH—Change oil at regular engine oil change intervals.

NOTE 3—At idle, speed with vacuum advance line disconnected and plugged.

NOTE 4—Idle speed on engines with automatic transmission should be set as low as possible to obtain smooth idle and prevent creep in drive or harsh shifts during transmission operation.

**For Sustained High Speed—Inlet .030″—Exhaust .030″*

1965 CORVETTE ENGINE TUNE-UP CHART

ENGINE			327	327	327	327	327
Horsepower			250	300	350	365	375
Carburetors			WCFB	AFB	Holley		Fuel Injection
Compression PSI			160*		150*		
Spark Plugs	Make and No.	Colder	AC—43				
		Std.	AC—44				
		Hotter	AC—45				
	Gap		.035″				
Ignition Distributor	Point Dwell		28°—32°				
	Point Gap		.019″ New—.016″ Used				
	Point Arm Spring Tension		Preset at 19—23 oz.				
	Condenser		.18—.23 Microfarad				
Fan Belt			75 ± 5 Lbs. Using Strand Tension Gauge				
Air Cleaner			Polyurethane Element***				
Tappet Clearance	Inlet		Hydraulic—One Turn to Center Plunger			Mech.—.030″ Hot	
	Exhaust		Hydraulic—One Turn to Center Plunger			Mech.—.030″ Hot	
Ignition Timing** (BTDC)°			4° Nominal 4°—10° Range	8° Nominal 6°—12° Range		12° Nominal 10°—14° Range	
Engine Idle RPM	Syn.		450—500		650—750	750—850	850 (Min.)
	Auto. (In Drive)		450—500****		—		
Fuel Pump	Pressure		5¼ to 6½ PSI @ idle to 1000 RPM			6½—7½ PSI @ Idle to 1000 RPM	
	Volume		One Pint in 30 to 45 Seconds				
Cooling System Radiator Pressure			13 PSI				
Crankcase Vent Valve			Metered orifice—clean at each tune-up				

*At cranking speed with throttle open and all plugs removed—15 psi moximum variotion between cylinders.

**Range depends on locality, driving conditions, and grade of fuel. When setting, disconnect vacuum advance line and cap vacuum opening.

***Polyurethane wash ond re-oil each 12,000 miles.

****Idle speed on engines with automatic transmissions should be set as low as possible to obtain smooth idle and prevent creep in drive or harsh shifts during transmission operation.

CORVAIR

The Corvair engine (fig. 35) is generally carried over into 1965 with changes in the sheet metal and engine mounting provisions. It uses a Delcotron type generating system with different mounts and a new wiring harness. Available as the base engine on the Corsa vehicle, is a new four-singe barrel carburetor engine (fig. 36). This engine has four Rochester Model H carburetors, (two primary and two secondary) using progressive accelerator linkage in which the secondary carburetors open after approximately 50% primary throttle opening.)

The Corvair engine upper shroud is revised to add the belt guide. The side shields and front shields (fig. 37) are revised to accept a new engine cooling air seal (fig. 38). The cooling air thermostats are relocated in the lower shrouds to use shorter operating rods from their almost center shroud location (fig. 39). Service

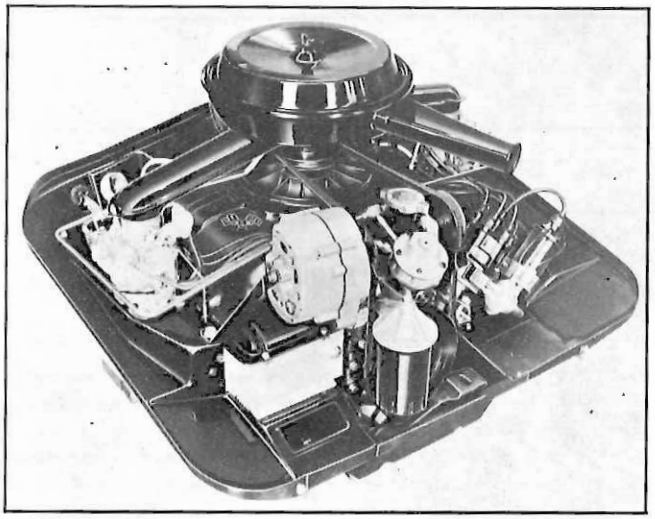


Fig. 35—Corvair Base Engine

1965 CORVAIR ENGINE TUNE-UP CHART

Horsepower			95	110	140	180
Compression PSI (Note 1)			130			
Spark Plugs	Make and Number	Colder	AC 44FF	—	AC 42FF Competition	
		Standard	AC 46FF	AC 44FF		
	Gap		.035"	.030"		
Ignition Distributor	Point Dwell		31°-34°			
	Point Gap		.019 (New)—.016 (Used)			
	Arm Spring Tension		19-23 Ounces			
	Condenser		18-23 Mfd.			
Blower Belt			55 ± 5 Lbs. (Used)—75 ± 5 Lbs. (New)—Using Strand Tension Gauge			
Air Cleaner			Note 2			
Tappet Adjustment	Inlet		Hydraulic—1 Turn Down from Zero Lash			
	Exhaust					
Ignition Timing (Note 3)		Synchromesh	4-8° BTDC	12-16° BTDC	16-20° BTDC	24° BTDC
		Automatic	12-16° BTDC	12-16° BTDC	—	—
Engine Idle RPM		Synchromesh	450-500	600-650	600-650	850
		Automatic	Note 4		—	—
Fuel Pump		Pressure	4-5 Lbs. Idle—1000 RPM			
		Volume	1 Pint in 30-45 Seconds			
Crankcase Vent Valve Closed Positive			.089" Orifice			

NOTE 1—At cranking speed, throttle wide open—Maximum Variation 20 pounds between cylinders.

NOTE 2—Paper ELEMENT—Service at 12,000 miles initially—Check every 6,000 miles thereafter.
OIL BATH—Change oil at regular engine oil change intervals.

NOTE 3—At idle speed with vacuum advance line disconnected and plugged.

NOTE 4—Idle speed on engines with automatic transmission should be set as low as possible to obtain smooth idle and prevent creep in drive or harsh shifting during transmission operation.

adjustments here are unchanged. The turbo-supercharger is carried over into 1965, with sheet metal changes due to the new vehicle, as an optional engine for the Corsa vehicle.

The engine rear mount (fig. 40) has been revised due to the body styling and now uses two bolts for attachment of the engine rear mount bracket to the rear mount. The nuts used on these two mount bolts should be torqued to 25-35 ft. lbs. The 1965 Corvair Chassis Shop Manual in error specifies an installation torque of 50-60 ft. lbs. for these nuts. Correct the Corvair Manuals in your possession.

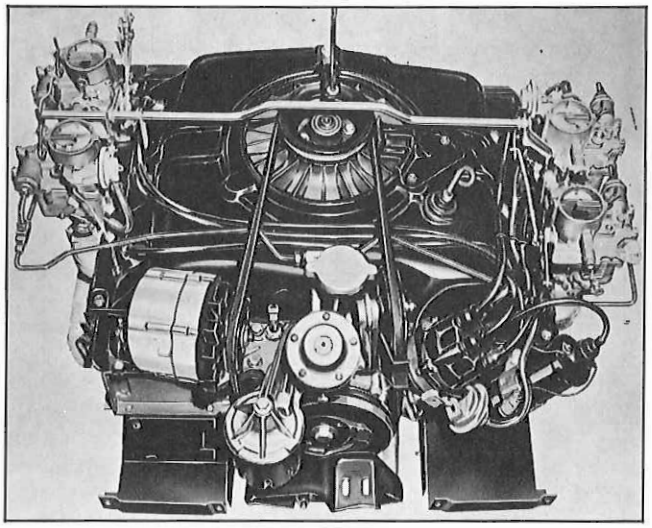


Fig. 36—Corvair 4 x 1 Carburetor Engine

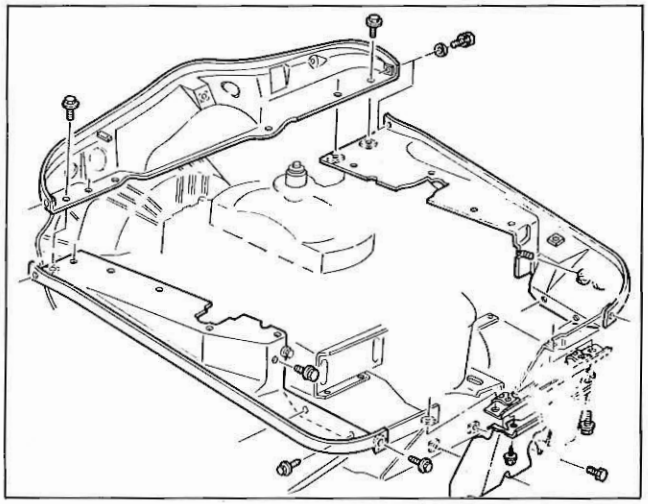


Fig. 37—Engine Upper Shielding

1965 TRUCK ENGINE TUNE-UP CHART

SPECIFICATIONS		ENGINES						
		153	230	292	283	327	348	409
Carburetors		Carter YF	Rochester B*		Rochester 2G		Rochester 4G	
Compression (Note 1)		130 PSI			140 PSI			
Spark	Make and Number	AC 46N		AC C42N	AC 44	AC 42-1 Com	AC C42N	
	Gap and Torque	.035—20-25 Ft. Lbs.						
Ignition Distributor	Dwell (Cam) Angle	31°-34°			28°-32°			
	Point Gap	.019 (New)—.016 (Used)						
	Arm Spring Tension	12-23 In. Oz.						
	Condenser	.18-25 Mfd.						
Fan Belt		75 ± 5 Lbs. Using Strand Tension Gauge						
Air Cleaner (Note 2)								
Valve Lash	Inlet	Hydraulic—1 Turn Down from "No Lash" Point						
	Exhaust	Hydraulic—1 Turn Down from "No Lash" Point						
Ignition Timing (Note 3)		4° BTDC (Use No. 2 Spark Plug on Step Vans)				8° BTDC		4° BTDC
Engine Idle RPM	Synchromesh	450—500						
	Powerglide in Drive	450—500 (Note 4)						
Fuel Pump	Pressure	3½ to 4½ PSI			5¼ to 6½			
	Volume	One Pint in 30 to 45 Seconds						
Cooling System Radiator Pressure		7 PSI & 13 PSI					9 PSI	

NOTE 1—At cranking speed, throttle wide open—maximum variation 20 pounds between cylinders.

NOTE 2—PAPER ELEMENT—Service at 12,000 miles initially—check every 6,000 thereafter until replaced.
OIL BATH—Change oil at regular engine oil change intervals.

NOTE 3—At idle speed with vacuum advance line disconnected and plugged.

NOTE 4—Idle speed on engines with Automatic Transmissions should be set as low as possible to obtain smooth idle and prevent creep in drive or harsh shifts during transmission operation.

**Chevy Van with 230 engine uses Carter "YF" carburetor.*

Corvair Engine Servicing

The Corvair engine sheet metal configuration, the rear suspension, and engine compartment seal are new for 1965. As a result, some service operations change and are reflected in the 1965 Corvair Shop Manual. The time required for repair is reduced considerably in many instances.

Operations affected are:

1. Those requiring power train R&R . . . Time saving changes are due to the new seal installation, and the removal of the axle drive shafts at U-joints instead of removal of the wheel and wheel bearing mount plate assembly. The transmission cross-member should not be disconnected from the vehicle to avoid disrupting the suspension front strut rod.
2. Cylinder-Head-Removal (in-the-vehicle) . . . There is more clearance for this operation due to the design of the new seal and it is not necessary to disconnect the rear engine mount and lower the engine.

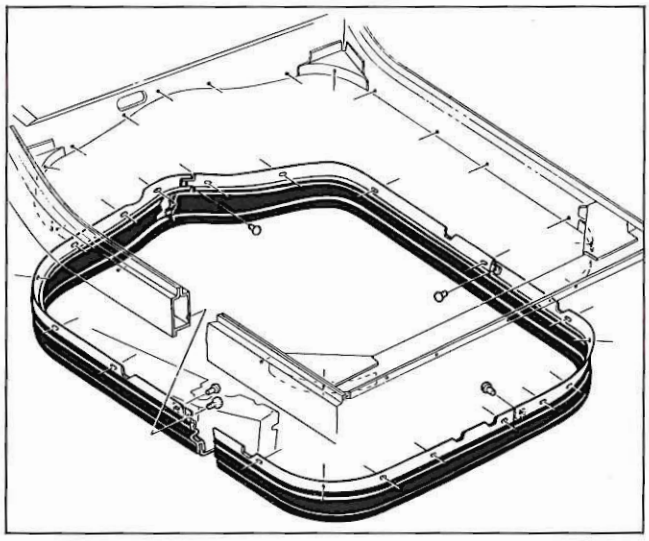


Fig. 38—Engine Compartment Seal

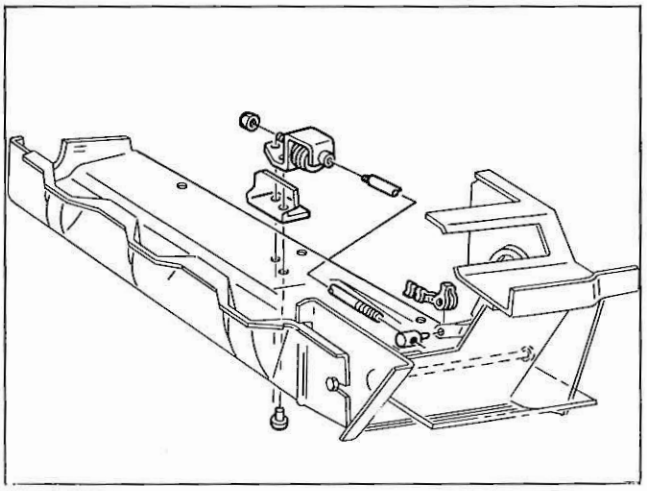


Fig. 39—Corvair Engine Thermostat Location

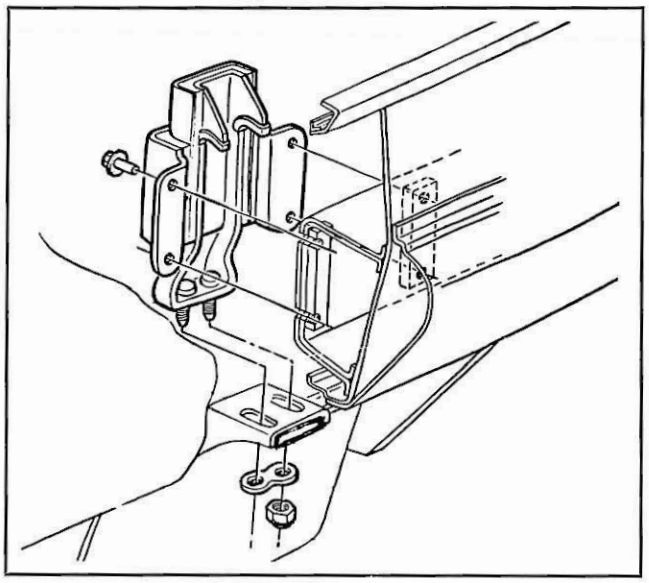


Fig. 40—Corvair Engine Rear Mount

SERIES 53N DIESEL ENGINES

A 3 cylinder (3-53N) series 53 Diesel engine has been added in the D50 vehicles for 1965.

The series 53N Diesel engines are revised to incorporate relocated piston rings and provide a more positive injection nozzle fuel shut-off. The piston rings are relocated to place 3 rings at the top and one lower ring as shown in Fig. 41.

On the Series 53N engines, the injector (fig. 42) now has a fuel shut-off needle and bypass lift-off passage to locate the shut off set closer to the nozzle tip, to provide a sharper start and cut-off of the injection of fuel.

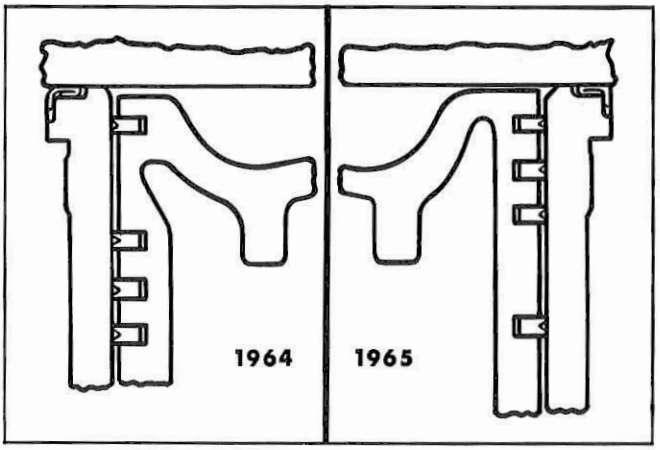


Fig. 41—Piston Ring Relocation—(Series 53 Diesel)

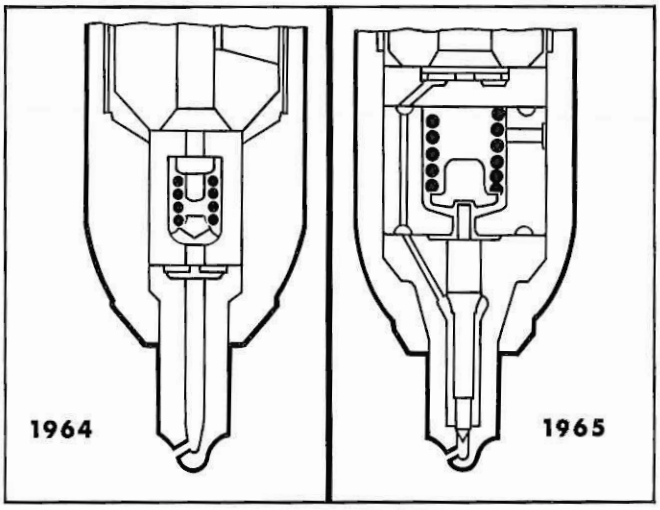


Fig. 42—Injector Cross-Section—(Series 53 Diesel)

THE NEW 4-CYCLE DIESEL ENGINES

The new 4-cycle engines (fig. 43) provide medium-tonnage operators with diesel power at a low nnit cost, competitively, along with superior fuel efficiency, light weight, and low maintenance costs.

Three engines are available in displacements of 351 and 478 cubic inches to provide 130, 150, and 170 gross horsepower. Basic specifications are shown in the accompanying chart.

4-CYCLE DIESEL ENGINE SPECIFICATIONS

Engine Model	D351	D478	DH478
Type	60 Degree V, Six Cylinders		
Displacement Bore & Stroke (in.) Taxable Horsepower	351.2 Cu. in. 4.56 x 3.58 49.90	477.7 Cu. in. 5.125 x 3.86 63.03	
Gross Horsepower Gross Torque (lbs-ft)	130 234 @ 2000 RPM	150 275 @ 2000 RPM	170 310 @ 2000 RPM
Governor setting Compression Ratio	3200 RPM 17.5 to 1		

All engines are the same in basic design with a high degree of parts interchangeability. Differences between the 351 and 478 cubic inch engines are minimal, and the only differences between the D478 and the DH478 are in the fuel system and oil cooler. An oil cooler is standard on the DH478, optional on the D478, and not available on D351 engines. The cooler, when used, is mounted to the engine at the oil filter location.

The new engines are 4-cycle, naturally-aspirated, and over-square. In the over-square design, the piston stroke is shorter than the piston diameter, making it possible to attain high crankshaft speeds with relatively low piston speed and reduced piston travel.

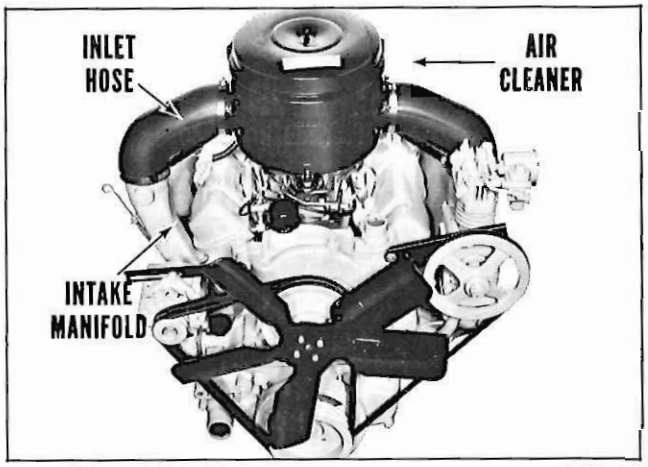


Fig. 43—4-Cycle Diesel Engine

The crankcase ventilation system provides a constant flow of air through all working parts of the engine. Sludge-forming oil fumes, blow-by gases, and condensation are drawn from the block and heads into the combustion chamber and burned. Basically, the system is of the positive type. This is accomplished by routing all ventilation hoses from the engine to the oil bath air cleaner. The air cleaner (fig. 44), in turn, provides a slight vacuum in the hoses which draws out the fumes and filters the air. Fumes pass through the induction system, are burned in the engine, and pass out the exhaust system as exhaust gases. This results in a low pressure system free from additional filtering elements and special valves which require servicing.

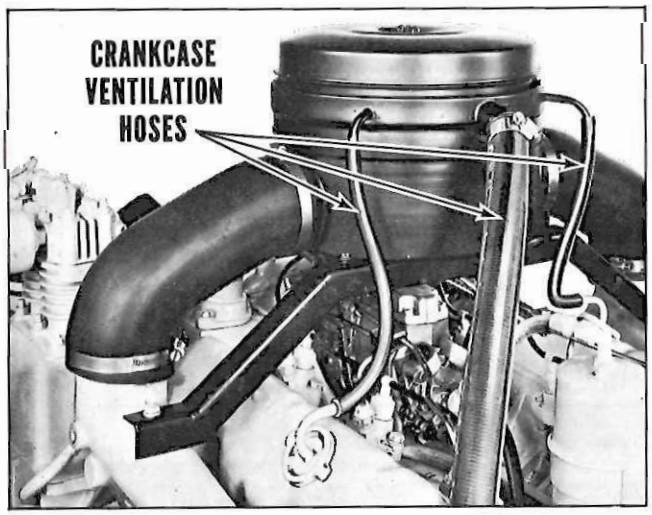


Fig. 44—Air Cleaner Attachment

The inlet and exhaust manifold arrangement is unique in V-block design. Cast aluminum intake manifolds and cast iron exhaust manifolds are mounted at outer sides of the cylinder heads. Exhaust pipes are connected to outlet flanges on exhaust manifolds. Air cleaner support brackets are bolted to intake manifolds and rubber hoses carry air from air cleaner to the intake manifolds.

The fuel system used with 4-cycle Diesel engines includes the fuel injection pump assembly of the PSJ series manufactured by American Bosch Arma Corporation. Injection pump assembly is mounted on machined rear face of engine front cover assembly. Fuel injection pump has a single plunger with distributor type hydraulic head, and is gear driven from a pump drive gear bolted to front face of engine camshaft gear.

Control of engine temperature is accomplished by means of two thermostats (175°) which restrict or permit the flow of cooling liquid within a sealed system (fig. 45). Coolant is forced by water pump

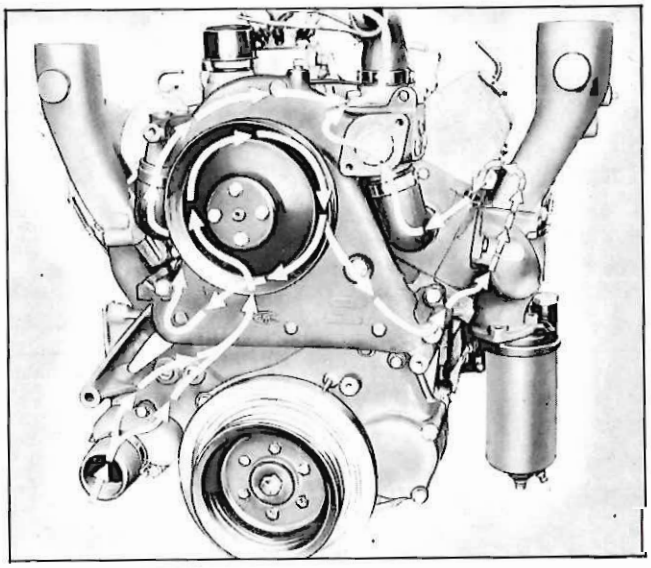


Fig. 45—4 Cycle Diesel Cooling System

action into the front of the cylinder block in both cylinder banks. It travels through cylinder block and upward into both cylinder heads. It flows through the heads to front and out hoses into a collection chamber in engine front cover. While engine is cold (below normal operating temperature), the thermostats are closed and coolant cannot flow through the radiator. Instead, it flows through a permanent internal by-pass in the engine front cover and iuto suctiou side of water pump, then recirculates through the cylinder block and heads. In addition, a limited amount of coolant also flows out the top hose into radiator top

tank and from there through an external by-pass hose down to a tee at the back side of thermostats. It is the flow through external by-pass which causes the thermostats to open when coolant has been heated to temperature for which thermostats are set. This limited flow is also recirculated through the block and heads.

ENGINE FUEL

Accelerator linkage on all 6-cylinder engines is revised to relocate the pedal bellcrank in the up position similar to the V-8, as shown in Figure 46.

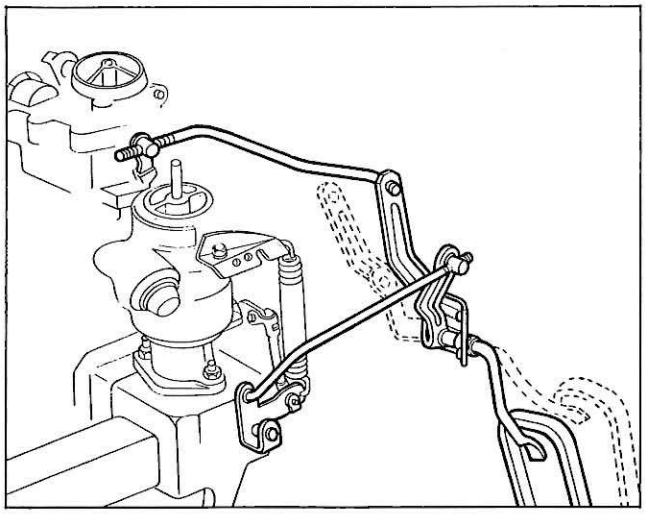


Fig. 46—6 Cyl. Engine Accelerator Pedal Bellcrank

The 1965 single and two barrel carburetors are carry over with calibration changes from 1964. The AFB, WCFB, and Holley carburetors are carried over into 1965 unchanged.

The Rochester 4GC carburetor is revised similar to the 4GC-low profile carburetor revision in interim 1964. These revisions were as follows:

1. The fuel pump inlet check ball was relocated from the plunger shaft to the fuel bowl floor.
2. Only the low profile carburetor is revised to locate the main metering jets horizontally at the floor of the fuel bowls and an access plug in the external wall of the fuel bowl.

CORVAIR

The Corvair HV carburetor is revised in 1965 to include a hi-speed power enrichment system. This hi-speed power enrichment system is vacuum operated through an opening into the carburetor venturi. The power enrichment needle is located in a passage just below and to the side of the carburetor main well and as the venturi pressure drops in the main well surface it also allows the enrichment needle to raise off its seat thereby enriching the fuel mixture as shown in Figure 47.

The new four-single barrel carburetor Corvair engine uses the Model H carburetor (secondary) connected through progressive type linkage to the primaries. The secondary carburetors have no choke system and no idle system. They do maintain the hi-speed system, part throttle system, and fuel pump system as well as the float system. The service operations on this carburetor are the same as the Model HV carburetor after removal from the vehicle. The primary carburetors are adjusted in the same fashion as the regular Corvair engine carburation for tbe synchronization procedure. The secondary carburetors are adjusted (fig. 48) as follows:

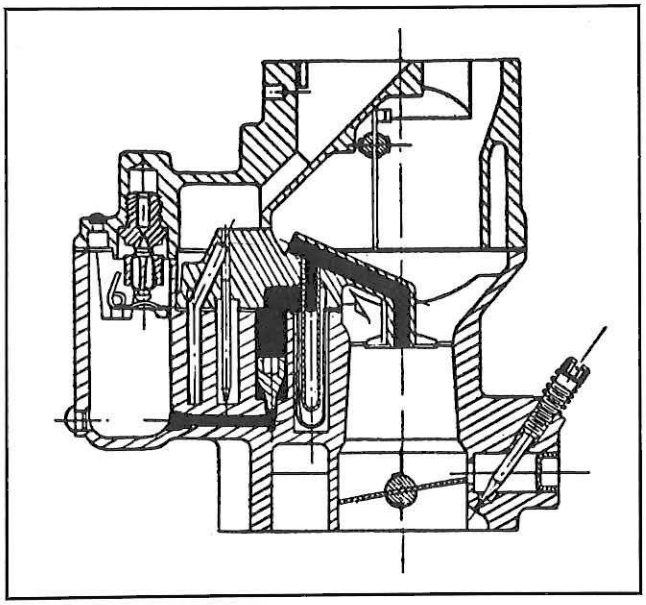


Fig. 47—Hi-Speed Enrichment System

1. Hold primary carburetors in the wide open position with secondary linkage disconnected at the slotted lever.
2. Move the left secondary carburetor to the wide open throttle position and adjust the connecting link swivel until it just enters the rear of the slotted lever (linkage pulls lever at this carb.). Connect the linkage.
3. Move the right secondary carburetor to wide open throttle position and adjust the connecting link to just enter the rear of the slotted lever (linkage pushes lever at this carb.). Connect the linkage.

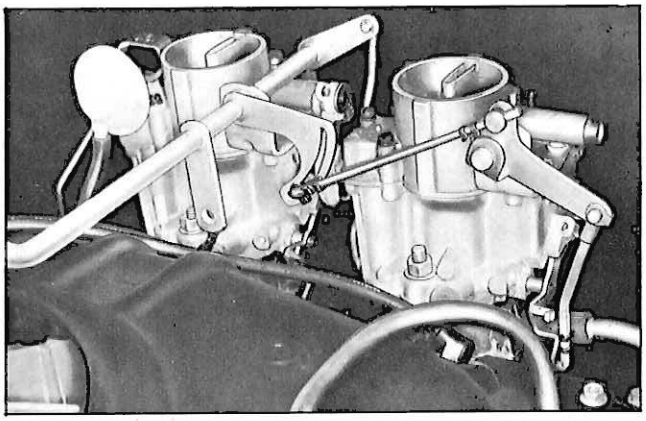


Fig. 48—Corvair 4 x 1 Carburetor Linkage

4. Operate the throttle linkage and observe linkage. All carburetors must reach wide open throttle together and the secondary carburetors must always move together from start to wide open.

AIR CLEANERS

Air cleaners for 1965 in-line engines are carry over from 1964 unchanged. Air cleaners for the V-8 engine 327 and 283 cubic inch are changed to include an oil wetted paper element for 1965. The test and change interval remains the same as in 1964. The Corvair carburetor air cleaners remain the same as in 1964 with a revised air cleaner and diffuser tube assembly used on the four-carburetor engine. Optionally available on Corvair are pre-cleaner oil bath type air cleaners. When the optional oil hath air cleaner is used on the regular Corvair engine a new engine air inlet duct is added from the body opening to the engine cooling blower opening.

ENGINE ELECTRICAL

CORVAIR

Engine electrical systems for Corvair change due to the use of the new Delcotron charging system. The Corvair Delcotron is new in that the drive end frame changes because of the dual mounting ears and the rear or slip ring and frame is revised to provide an extra mounting bolt opening for the rear mounting bracket. The rotor is the same as used on passenger car Delcotrons except that a new self-locking special nut is required when used on Corvair. This self-locking nut is needed because the Delcotron revolves in a reverse direction from those used on other passenger cars. The Corvair uses only the two unit double contact type regulator with its Delcotron charging system. Since the horn relay on the Corvair is located in the luggage compartment, a junction block (fig. 49) is used with the Corvair Delcotron charging system. It is a fiber plastic nut mounted on the left hand rear side rail next to the battery where a metal bolt connects three leads to form the junction block at a common connection.

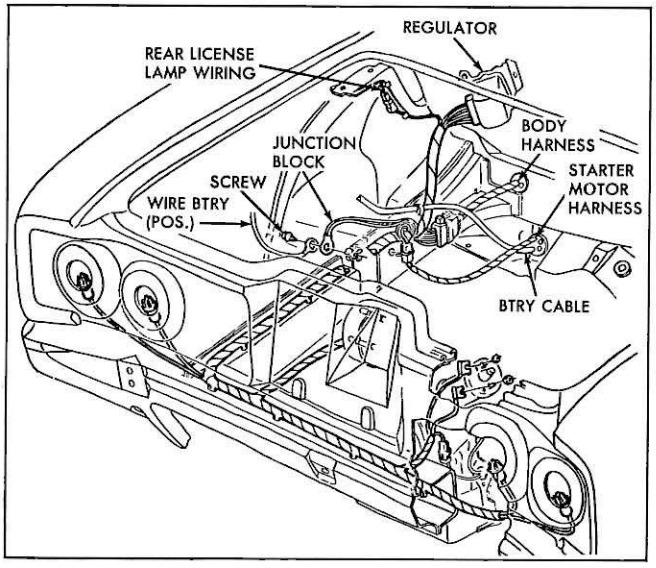


Fig. 49—Corvair Engine Wiring

It is at this point we would install a resistor between the battery lead and the rest of the leads at the junction when checking the voltage setting of the charging system. We can get into trouble here if the resistor is put in before trying to start the engine and as a result, amperage is not available to move the starter solenoid to the engaged position. It is suggested that the connections be made and a jumper wire be used around the quarter ohm resistor temporarily while starting and then remove the jumper lead. An alternate method would be to use one of the many instruments that include a knob that will either put the quarter ohm resistor in or out of the circuit. It is then a simple matter to turn the knob a quarter turn and put the quarter ohm resistence back in a circuit after starting the engine. In all other respects the Corvair charging system is tested, adjusted and serviced the same as any other Delcotron system. All other aspects of the Corvair engine electrical system are carry over from 1964 except for rerouting along the new body.

The optional high output Corvair 5.5" Delcotron uses the same double contact two unit regulator with an external field discharge diode. The (fig. 50) diode is located in a separate wire between regulator "F" terminal and ground at the regulator.

CHEVROLET, CORVETTE, CHEVELLE, AND CHEVY II

Engine electrical systems are basically carry over on these vehicles for 1965, except for a new full transistor regulator in the charging system.

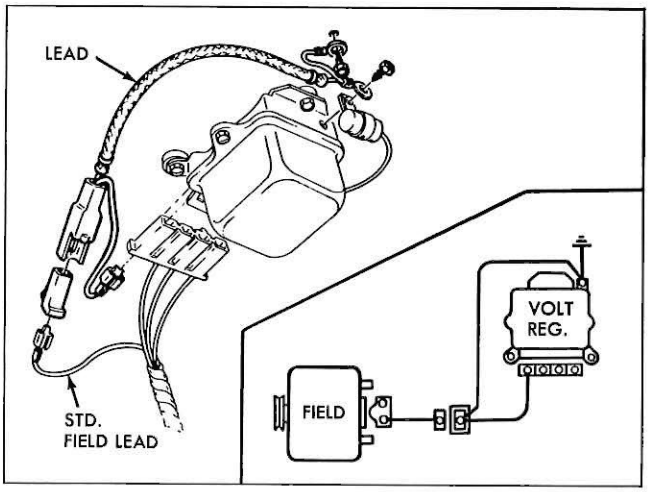


Fig. 50—Field Discharge Diode W/RPO K-84

Transistorized ignition of the pulse amplifier type is offered on passenger Chevrolet 409 cubic inch engines, Corvette 327 cubic inch hi-performance engines.

A new full transistorized voltage regulator with an integral light and field relay unit is introduced for 1965 as optional equipment on all of these vehicles. This regulator replaces the partial transistorized regulator in all of its applications. The new regulator has the four-terminal connector and the same three leg mounting surface as the two unit regulator and is thus interchangeable into the system.

The transistor regulator (fig. 51) is an assembly composed principally of transistors, diodes, resistors, a capacitor, and a thermistor to form a completely static voltage regulating unit used in combination with a conventional type field and light relay. We should remember that the transistor regulator is an electrical device which limits generator voltage to a

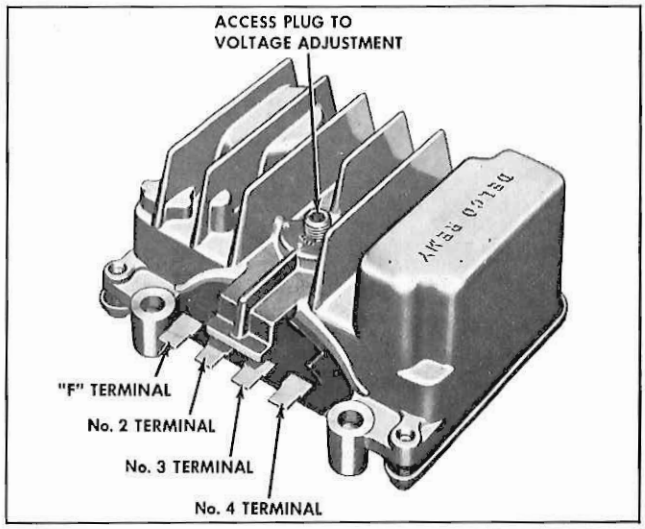


Fig. 51—Full Transistor Regulator

pre-set value by controlling the generator field current. This is the only function that the regulator performs in the charging circuit. The addition of the field relay unit provides: (1) a common four terminal connector unit on this regulator, (2) a method of providing initial generator field excitation thru an indicator lamp at the dashboard, and (3) a short route excitation circuit which also provides a method of turning out the indicator lamp. Figure 52 shows the regulator in the charging system. Test procedures are covered fully in the Chassis Service Manual.

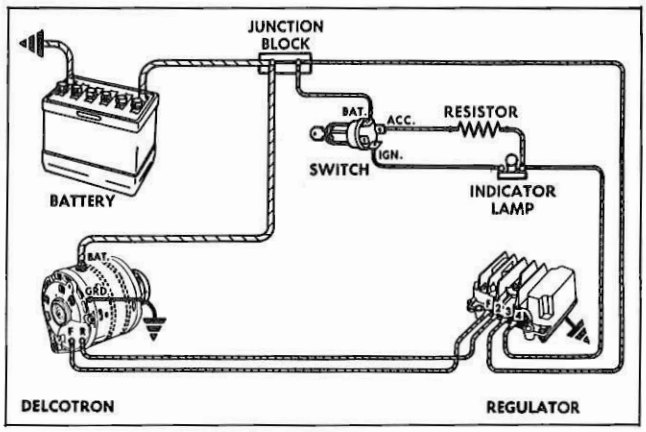


Fig. 52—Charging System Schematic

CLUTCHES

Chevrolet clutch usage is carried over into 1965 unchanged except to add an eleven (11") inch clutch driven plate on 409 cubic inch engines. The clutch cross shaft is relocated to pivot at the clutch housing flange instead of the engine flange. The service procedures change due to linkage removal for clutch or clutch housing replacement. The adjustment procedure remains the same.

Corvette clutch adjustment should be frequently checked for free-play at the pedal, and reset as required. Reset to 1"-1½" free-play for regular usage and to 1½"-2" on units subjected to extremely heavy duty usage. To check, depress pedal by hand until resistance is felt.

Corvair clutch usage is carried into 1965 unchanged, but the pedal linkage, and linkage service procedures are new. The clutch pedal is mounted on a long pivot shaft (fig. 24) that is also the brake pedal pivot shaft. The pedal is bolted over a locating square end of the pivot shaft, and the pull cable is connected to a lever at the inner end of the pivot shaft. This arrangement eliminates one cable pulley and allows the clutch pivot shaft to be pulled inboard from the support for bushing or brake pedal operations.

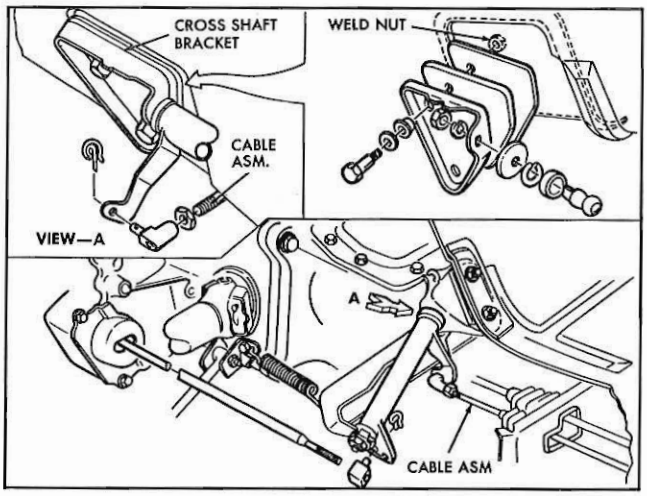


Fig. 53—Corvair Clutch—Cross-Shaft Details

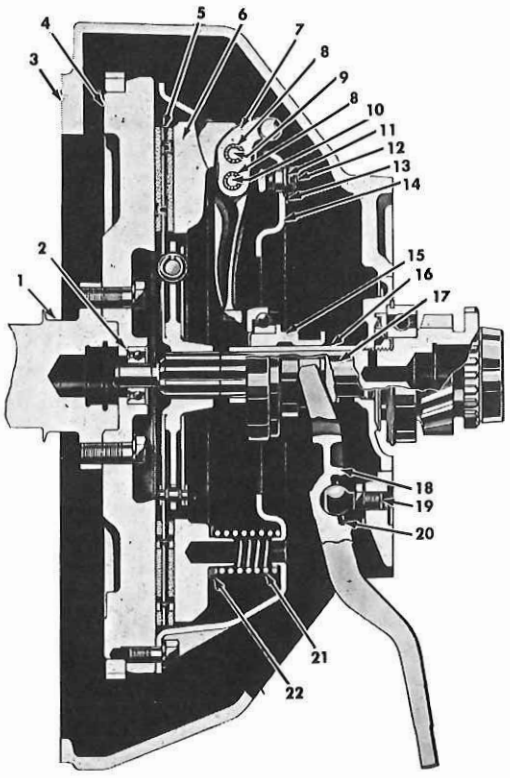
The cross shaft end of the linkage (fig. 53) is revised in its mounting and it provides adjustment at both the clutch pull rod and cable attachments as follows:

1. Disconnect the return spring then disconnect the fork pull rod at the cross shaft lever.
2. Loosen the cable lock nut, then disconnect the swivel at cross shaft.
3. Locate the cross shaft lever (¾" to 1" on 4-speed transmissions, and 1⅞" to 2⅛" on 3-speed transmissions) from crossmember then pull rearward on clutch cable and adjust cable swivel to enter hole on the cross shaft lever.
4. Connect the swivel to the lever, then tighten the lock nut and connect the return spring.
5. Pull the fork pull rod until release bearing rests against clutch fingers, then adjust pull rod swivel to just enter the hole in the outboard cross shaft lever.
6. Turn the swivel 3 turns to lengthen the pull rod, then connect the swivel and test clutch pedal feel.

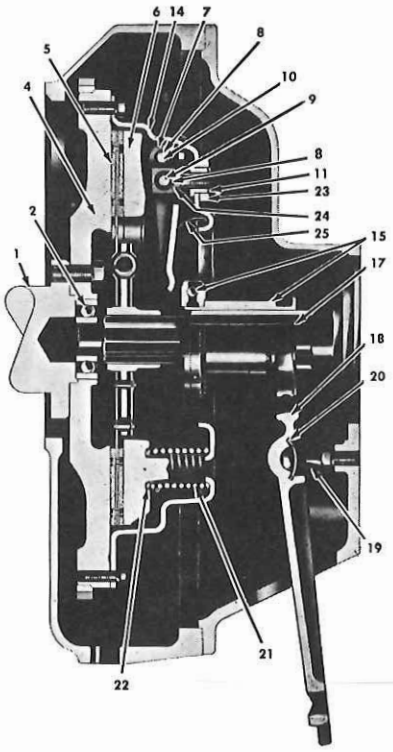
TRUCK

Truck clutches and linkages are carry over for their respective applications in 1965. The 6V-53 Diesel will continue to use the Lipe-Rollway clutch as in the past. The new 4 cycle diesel engines will use "Borg & Beck," "Lipe-Rollway" or "Long" type clutches.

The Lipe-Rollway and the Long clutches are coil spring, lever released type similar to the familiar Borg & Beck. The release lever attachment at the pressure plate and eye bolt are needle roller bearings. The Long clutch has a centrifugal weight extension, on the lever, to add pressure with higher speeds. The Lipe-Rollway clutch lever needle bearings are caged, the Long bearings are loose. Cross-sectional views of each are shown in Figure 54. Special clutch finger adjusting wrenches are available for adjustment on these clutches.



1. Engine Crankshaft
2. Pilot Bearing
3. Clutch Housing
4. Engine Flywheel
5. Driven Disc Assembly
6. Pressure Plate
7. Release Lever
8. Needle Bearing Rollers
9. Release Lever Pin
10. Pressure Plate Pin
11. Adjusting Nut
12. Release Lever Yoke
13. Thrust Plate
14. Clutch Cover
15. Release Bearing
16. Transmission Bearing Retainer
17. Transmission Main Drive Gear
18. Release Fork
19. Release Fork Ball Stud
20. Release Fork Retainer Spring
21. Pressure Spring
22. Insulator Washer
23. Adjusting Nut Lock Nut
24. Release Lever Eye Bolt
25. Retracting Spring



"LONG" CLUTCH

"LIPE-ROLLWAY" CLUTCH

Fig. 54—Clutch Cross-Sections

TRANSMISSIONS

POWERGLIDE

All Powerglide transmissions are carried over with minor changes. All Powerglide transmissions except Corvair incorporate an oil drain plug in the oil pan to facilitate the oil change interval of 12,000 miles. The Corvette Powerglide uses a new transmission extension housing without control lever mounting bracket provisions. All passenger car automatic and manual transmissions use out-put shafts with a 27 instead of a 16 tooth spline.

MANUAL TRANSMISSIONS

All Chevrolet manual transmissions use longer extension housing due to the new engine forward location in 1965. The over drive kick down switch is relocated to the upper right hand side of the extension housing. The Chevrolet four-speed transmission extension housing and main shaft are revised to provide for a right hand speedometer take-off connection.

The Chevelle, Chevy II, and the Corvette three speed transmissions are carried over with no change into 1965. The four speed transmissions have revised extension housings also for the right hand speedometer drive location.

Trucks for 1965 will have seven new transmissions due to the introduction of the new four-cycle diesel engine. Six new 5-speed transmissions (all incorporating new ratios) are used in addition to the carryover 1964 transmissions. Service procedures on these new transmissions are similar to those for other transmissions already in the line from the same manufacturer.

Servicing Corvair Transmissions

It is no longer necessary to remove the power train for transmission removal. Support and lower the front

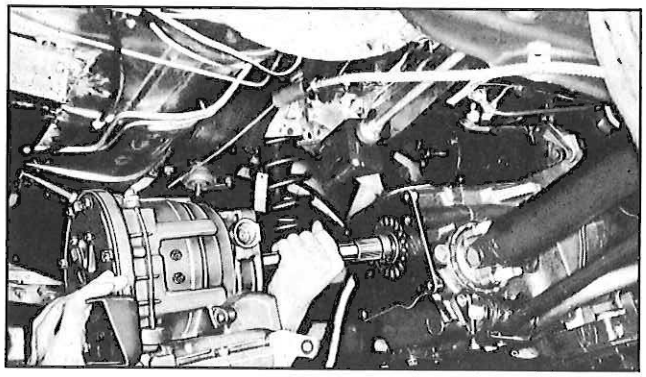


Fig. 55—Corvair Transmission Removal

of the engine and remove the transmission with the engine in the vehicle (Fig. 55). This applies to 3-Speed, 4-Speed, and Powerglide transmissions. However, when the differential must be removed power train removal is still recommended.

TRANSMISSION CONTROLS

The Chevy II and Chevelle Powerglide and three speed column mounted transmission controls are carry over from 1964 with no change. The Chevrolet 3-Speed Column Shift linkage uses the familiar Chevelle type transmission 2nd and 3rd speed lever cross-shaft (fig. 56).

The Chevrolet Powerglide steering column control is revised at the quadrant indicator unit (fig. 57). The new instrument panel and mast jacket are revised resulting in a new housing and shift tube assembly. The transmission control indicator dial and retainer are integral parts of the instrument panel and steering gear jacket upper cover assembly instead of being loose pieces attached to the turn signal housing. A die cast dial indicator retainer assembly indexes into the lower, inner surface of the transmission control lever housing and is attached by a machine screw inserted through a clearance hole in the housing. The dial indicator is a piece of wire shaped to the curvature of the steering column and mounted to the retainer in the selector lever support housing. The retainer is mounted on the inside surface of the selector lever support housing between it and the shifter tube assembly, and attached by a screw inserted through

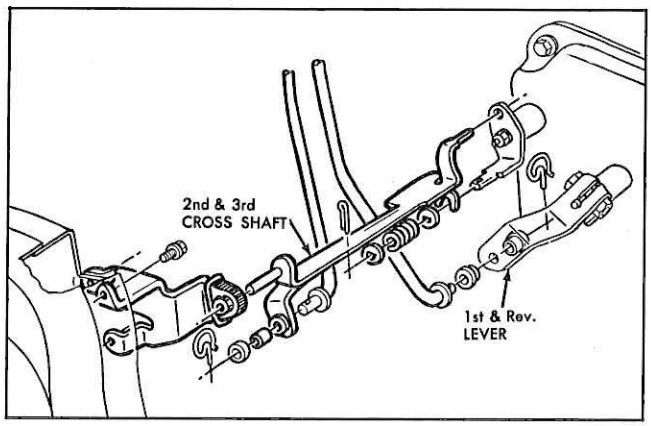


Fig. 56—3-Speed Transmission Linkage

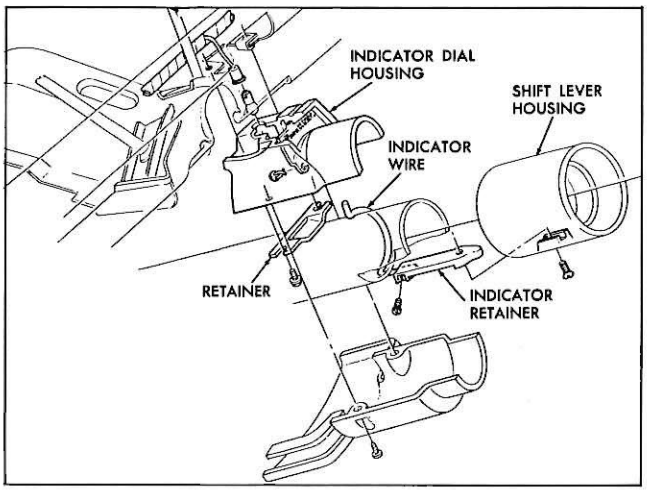


Fig. 57—Chevrolet Powerglide Indicator

a clearance hole in the housing. A set screw holds the indicator wire into the retainer assembly. The intermediate steering shaft assemhly and U joint assembly have been eliminated for 1965 due to the relocation of the steering linkage to the rear of the front cross-member. The worm shaft is connected with a rag joint to the steering wheel shaft similar to Chevelle. The shifter tube lower bearing, between the mast jacket and steering shaft lower end, are retained (on the three speed transmission linkage) with three screws to maintain lever parallelism.

On the Powerglide the lower end adjusting ring has been replaced by an adapter assembly and clamp wire type retainer the same as Chevelle.

The Corvair Powerglide transmission has a new control lever configuration (fig. 58) mounted in the instrument panel but primarily designed to conform with revised contour of the mounting surface. The lever is a T-handle formed by a stud inserted through a hole in a vertical surface of the driver end of the lever, capped at each end by bullet shaped knobs. The control configuration is changed for 1965, but still maintains the cable type movement with a new neutral and back-up light switch assembly.

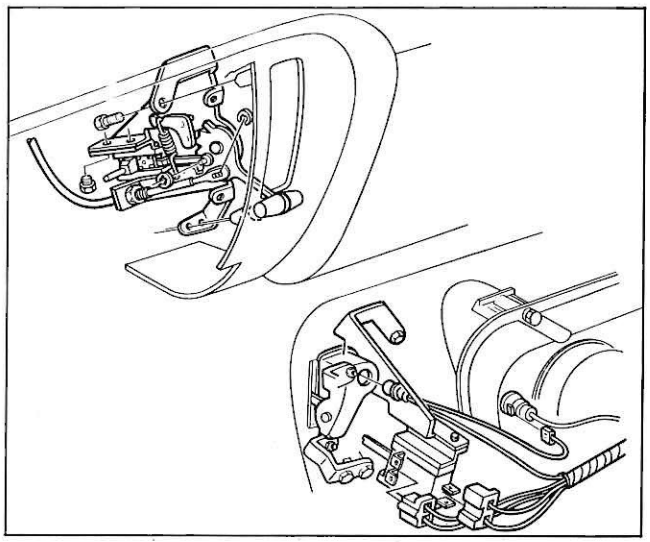


Fig. 58—Corvair Powerglide Shift Lever

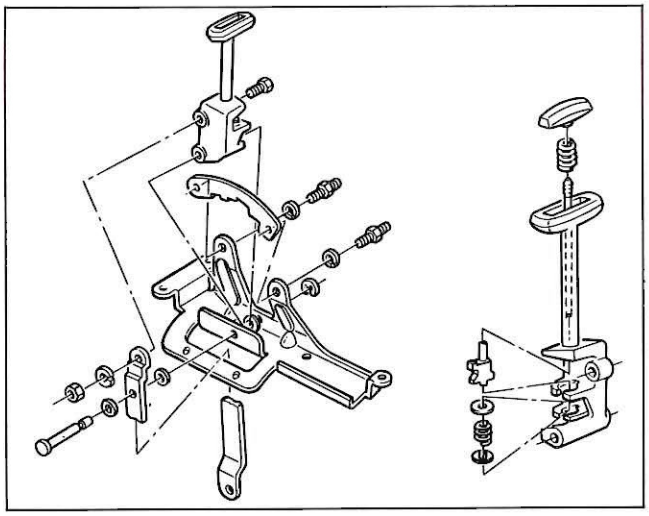


Fig. 59—Chevrolet & Chevy II Floorshift—Powerglide

FLOOR SHIFT CONTROLS

The 1964 Chevelle Powerglide floor shift control remains unchanged for 1965. It retains the relay rod and relay lever link to the Powerglide shift lever.

The Chevrolet, Chevy II and Corvette use a new straight line pattern floor shift Powerglide (fig. 59 and 60) that eliminates the relay rod and relay lever that is on the Chevelle. All three shift control mechanisms are floor mounted types with a lower shift lever extension reaching down from the upper one at the mount bracket location to connect to a single transmission lever adjustable connecting rod. The detent mechanism of each is similar. All of these transmissions including Chevelle have a new type neutral safety and back up lamp switch which mounts at the transmission bracket assembly and operates directly from the shift control lever.

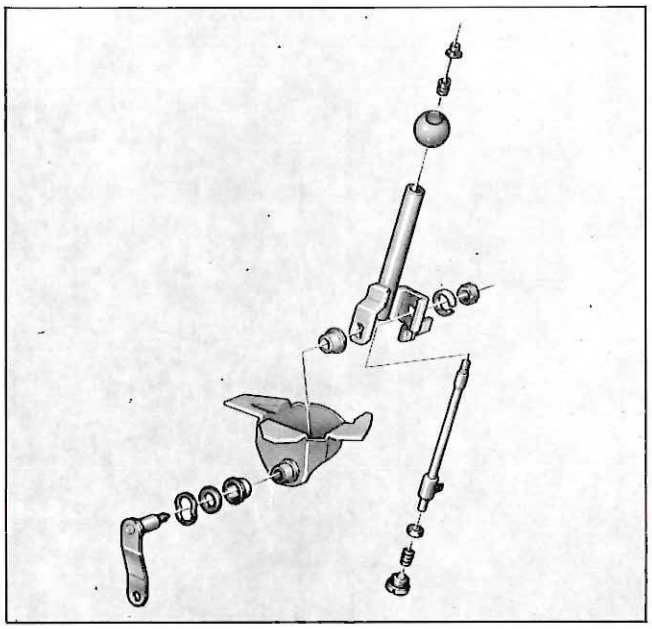


Fig. 60—Corvette Floorshift—Powerglide

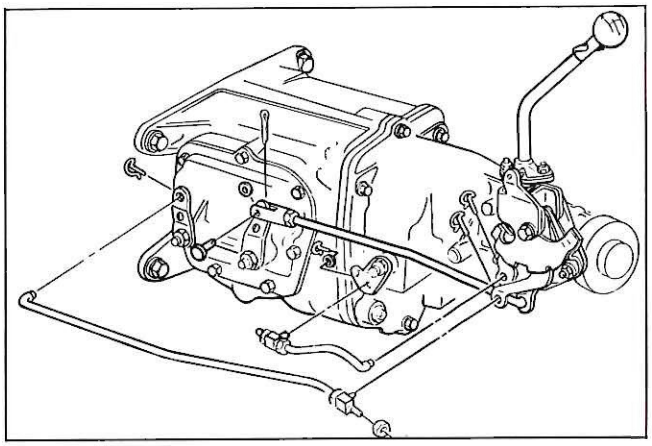


Fig. 61—Four-Speed Quick Shift (Typical)

All passenger 4-speed transmissions (except Corvair) have two holes in the 1-2 and 3-4 shift levers. This results in an optional quick-shift (fig. 61) by relocating the control rod.

Transmission control for Greenbrier and Chevy Van have not changed for 1965. Except for different transmission control levers used with tower cover, four speed transmission, other truck transmission controls have not changed for 1965. The revision of the shift control lever incorporates two plastic "O" rings, one above and one below the lock pin hole between the upper and lower levers. The result is, that during shifts there is metal to metal contact between the control lever sleeve and the extension, but not when the lever is held stationary, thus effectively eliminating shift lever buzz.

Corvair Manual Transmission Shift Linkage

The gearshift control assembly and linkage for the Corvair 3 and 4-speed transmissions is changed considerably from the 1964 design. The control assembly (fig. 62) has a different configuration and many new parts. At the lower end of the control lever are two spherical balls to actuate the long shift control rod. A new upper sphere was added in conjunction with a new fulcrum block on the front of the control rod. The upper sphere will rotate the control rod to select a proper shifting fork and the lower sphere will move the control rod backward and forward to move the gear. The four speed gearshift lever has been shortened for the purpose of obtaining a quicker shift.

The long shift rod back to the transmission is now covered with a paper insulator sleeve and the rod operates in a steel guide tube that extends almost its entire length. A linkage stabilizer link is connected between the transmission crossmember and a bracket welded to the shift rod guide tube (fig. 63).

To remove the shift rod and tube assembly from the vehicle it will be necessary to disconnect the new design boot from the crossmember. Shift linkage installation and adjustment is illustrated in Figures 62 and 63. It is recommended that the following service procedure be used for linkage installation.

1. Assemble shift lever upper seal in body cut out with projections down and small hole on left side. Lubricate upper surface of seal with grease.

2. Lubricate gearshift control lever, spring, spring seat, cup, etc., then assemble into the control housing assembly with small hole of housing positioned on left and tab of spring seat on right.
3. Place above assembly over seal and use #8 screw to hold assembly in place.
4. Assemble and lubricate bushings in control rod tube. Assemble tunnel seal on rear end. Assemble control rod assembly into control rod tube. Lubricate guide socket. Assemble rear boot, coupling, clamp, etc. to control rod. Leave clamp loose. Assemble control rod link, busbings, etc. to control rod tube. Tighten link front nut fully. Assemble link bracket, nut and washers to link. Leave nut loose.
5. Install rod and tube assembly in tunnel and couple to transmission. Apply grease to bottom surface of the shift lever lower mounting seal and install seal between the control rod tube bracket and the underbody, seal positioned with curved flanges up and notch to the left side. Install the 4 gearshift control assembly attaching washers and nuts.
6. Shove link bracket against shoulder on link and attach bracket to transmission support. Tighten bolts to transmission support; then tighten nut on link.
7. Remove #8 screw from housing and replace with drive plug.

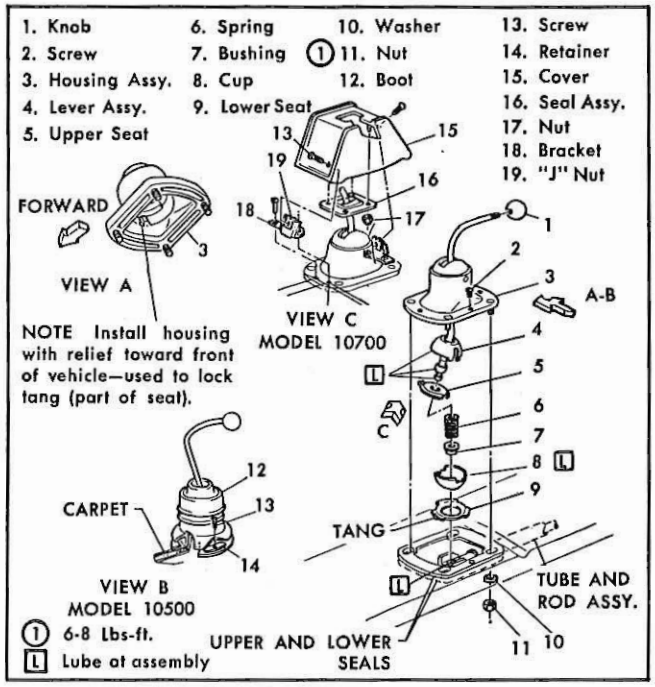


Fig. 62—Corvair 3 & 4 Speed Gearshift Control

8. Adjust shift linkage as shown in Figure 63. Check transmission shift in all ranges.

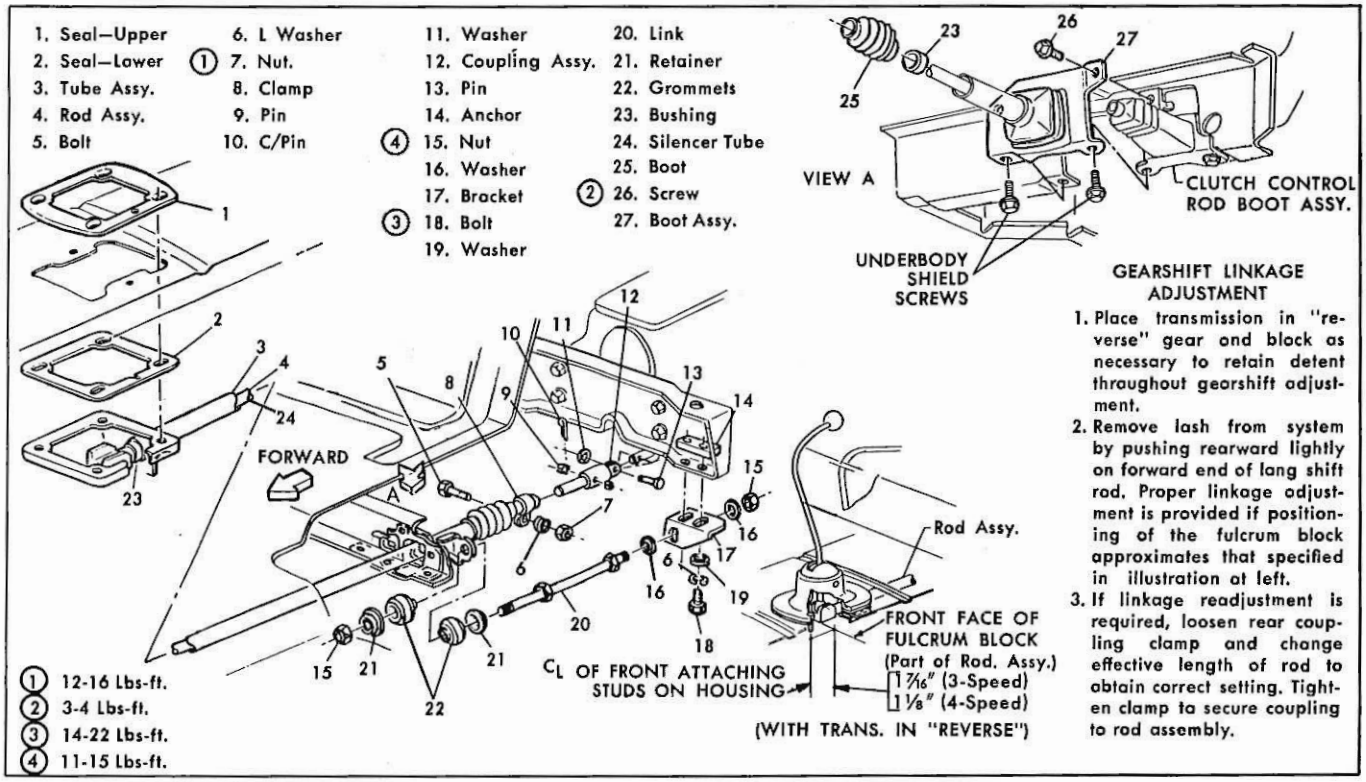


Fig 63—Corvair 3 & 4 Speed Transmission Shift Linkage Installation and Adjustment

FUEL AND EXHAUST SYSTEMS

The gas tank and related items on Chevelle and Corvette are carried over into 1965 unchanged. The Chevy II gas tank is carried over into 1965 with a filler neck change to incorporate the gas cap cam

that is used in passenger and Chevelle. The Corvair gas tank is modified with a new flange area and added depression at the right side of the tank for clearance purposes. The filler neck is slightly longer to reach a new door location, and the gas cap cam lock as used on Chevrolet and Chevelle models. Service procedures on these tanks are the same as in 1964.

The gas tanks for Chevrolet model vehicles are new for 1965 due to the new perimeter frame and suspension components. The sedan tanks will be mounted and serviced the same as Chevelle and the filler neck is located behind the license plate door. The station wagon gas tank is located in the left rear fender well (the same as the 1964 Chevrolet) and serviced in the same manner. All gas caps are carry over.

Fuel tanks and related items will be the same for 1965 on all the carry over truck models. The new P-50 Series Van, uses the same style fuel tank mount as the P-30 Series except for longer brackets for a larger tank. The fuel system for the new diesel models have a tank-to-engine fuel line as well as a fuel return line for by-pass or overflow fuel from the injection system. Fuel tank sizes and locations are optional on many of these vehicles.

EXHAUST SYSTEMS

The Chevrolet exhaust system is new for 1965 due to the new chassis frame. The L-6 engine uses single exhaust on left side of the vehicle. The 283 V-8 and 327 single exhaust has a long crossover with a connection behind the transmission extension housing. The 327 V-8 uses a single resonator. The duel exhaust systems all use dual resonators as well. The exhaust systems for the 1965 models are known as a split system; that is, they use clamp connections between the exhaust pipe and muffler and between the muffler and tail pipe. The exhaust manifold take down flanges are set at a new angle due to the forward location of the engine and for clearance to shifting mechanisms.

The Chevelle and Chevy II in-line engine and 283 engine application exhaust systems will be carried over into 1965 unchanged. The Chevelle and Chevy II 327 cubic inch engines will have a welded type exhaust system and will use resonators. The Corvair exhaust system is new due to the new body design and compartment seal, which requires that the pipe be routed at a new angle and, therefore, will not service back. The 4 x 1 Engine uses dual exhaust.

The basic Corvette exhaust system will be carried over into 1965 nnchanged. A new optional exposed side-mounted system (fig. 64) will be available in 1965.

The exhaust systems for the heavy duty diesel truck line will be the split system; that is, they will be clamped connections for 1965. All exhaust systems are available with frame mounted muffler or heavy duty trucks are optionally available with exhaust stack systems.

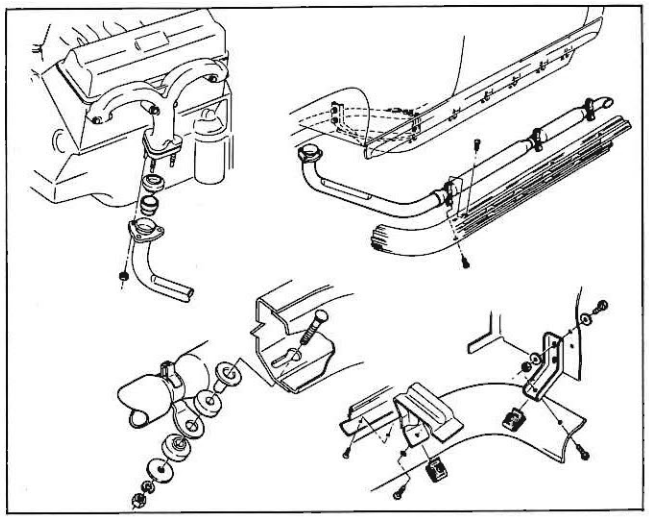


Fig. 64— Corvette Optional Exhaust System

STEERING

CHEVROLET

The steering linkage for the 1965 Chevrolet (fig. 65) is located to the rear of the front cross-member. The idler lever support bracket is a large bolt shape that passes through the frame and is held with a nut and lock washer instead of a bracket bolted to the frame as in 1964. The pitman arm and linkage are new because of the new routing. Since the steering linkage is very close to the lower control arms and the lower control arms are no longer the wide "A" frame type, **care must be taken when positioning the hoist arm under the front suspension so that the lift pads do not contact and damage the tie rods.**

The steering gear of the Chevelle is used on the Chevrolet for 1965, both standard and power steering. The standard steering shaft is one piece design connected to the steering gear stub shaft with a rag joint. The intermediatae shaft and U-joint have been eliminated.

New steering column assemblies are required because of; 1.) Powerglide shift indicator relocation; 2.) The addition of a shifter detent plate on tilt column to provide the same shift pattern as the regular powerglide; 3.) The steering shaft length; and 4.) The attachment to the instrument panel. The tilt wheel will be available with both manual and power steering for 1965.

The Chevrolet power steering pump for 1965 will be the same as Chevelle, but beefed-up somewhat to

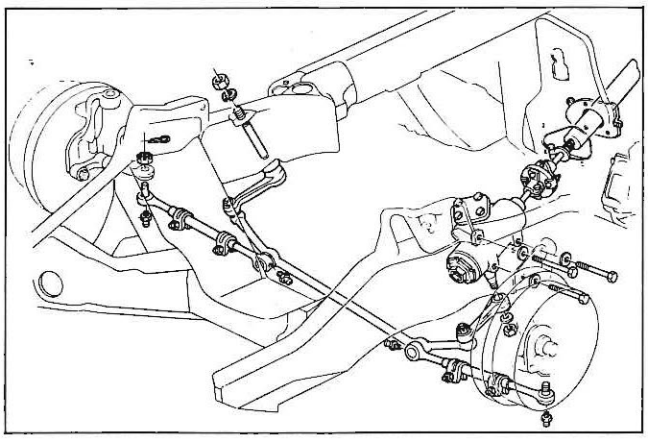


Fig. 65—Chevrolet Steering Linkage

increase the maximum pressure by a 100 pounds. Service procedures, from the Chevelle manual and power steering gears, are used for the Chevrolet for 1965.

CORVAIR AND CORVETTE

The 1965 Corvair will use a new deep dish steering wheel with new horn buttons and horn rings. The steering gear shaft will be shorter due to the new deep dish steering wheels. The revised pitman arm and idler lever arm reduces the steering turning diameter from 38 to 36 feet for 1965. The parking brake bracket does not mount against the steering column and its mounting bracket and the turn signal switch mounting holes have been removed from the mast jacket. A new telescoping steering column will be offered as an RPO in the 1965 Corvair, and uses a plastic steering wheel. The 1965 Corvette steering components are carry over from 1964 with the exception of the hydraulic power steering pump which will be the same as passenger car for 1965. Corvette also offers a telescoping steering column in 1965.

The telescoping steering column (fig. 66) of the 1965 Corvair and Corvette are basically identical with revisions due to different body applications. Both the Corvair and Corvette use floor shift transmission controls, thus making the telescoping column adaptable to these vehicles. An extended turn signal control housiug covers a shortened mast jacket at the upper end. A short inner mast jacket section connected to the turn signal control housing has a guide slot on its upper surface. A bolt through the outer mast jacket locates into this slot to guide the column up or down without turning. The steering shaft is three piece on these vehicles: A short shaft from the steering gear to the intermediate shaft coupling, intermediate shaft, and an upper or steering wheel shaft. The steering wheel shaft slides inside of the intermediate shaft within the column and is wedge locked with the locking knob and wedging mechanism. The locking knob is located just beneath the horn button and attaches to a lock holt by two retaining screws. The lock bolt threads up or down against a wedge rod. The wedge lock mechanism of the steering shaft locks the telescoping column in place and the guide bolt of the mast jacket keeps the two assemblies in proper alignment.

When the telescoping column is used on Corvair the steering gear and steering shaft coupling is located between the gas tank and the left front wheel splash shield. To gain access to the coupling without removing the gas tank, drill a 2 inch diameter hole in the left front wheel splash shield at the approximate location shown in figure 67.

The Corvair steering tie rod clamp flange must be positioned to point straight downward on all Corvair vehicles. This is necessary to gain proper clearance to the frame, especially at the left side.

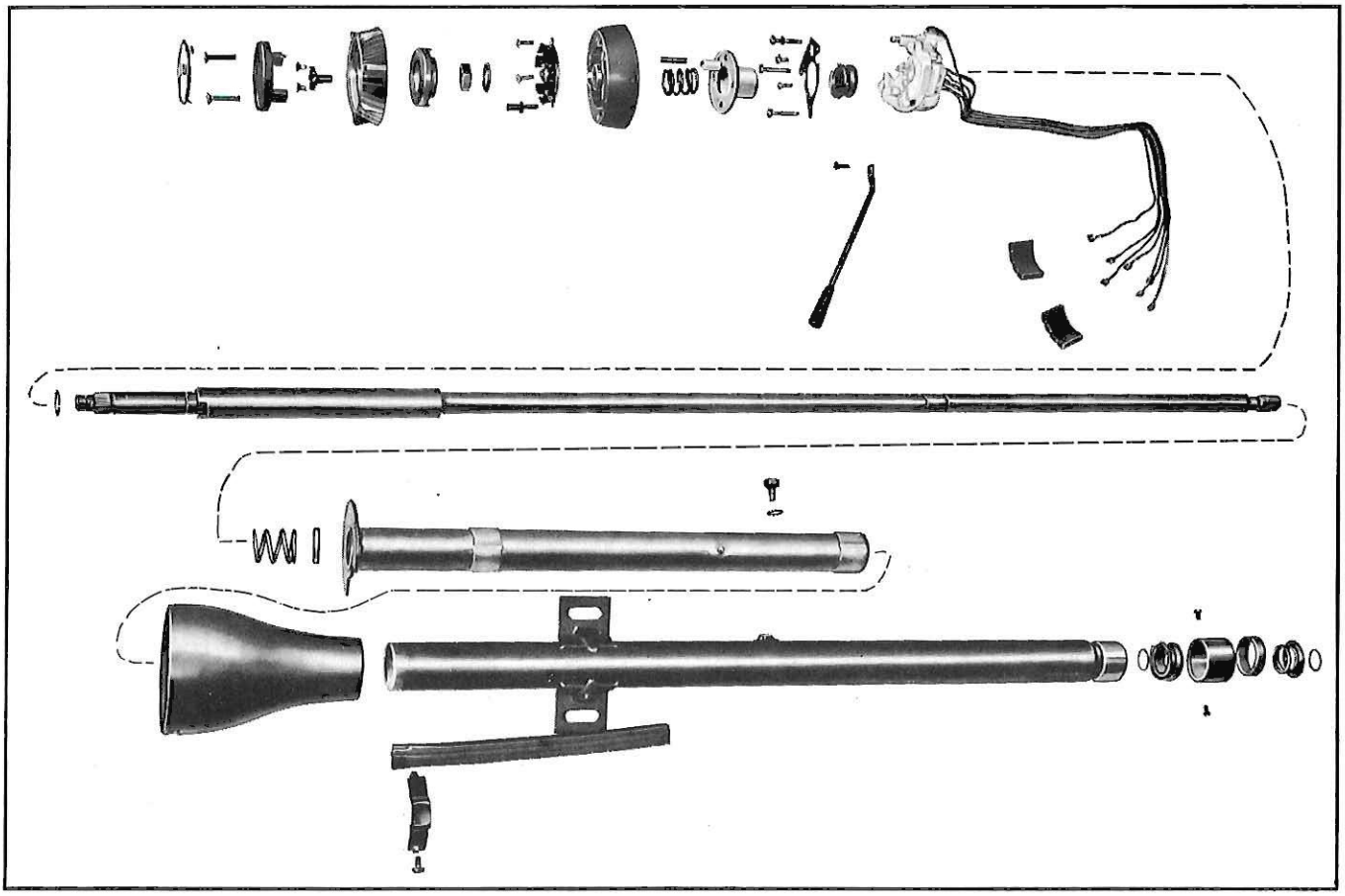


Fig. 66—Telescoping Steering Column Exploded

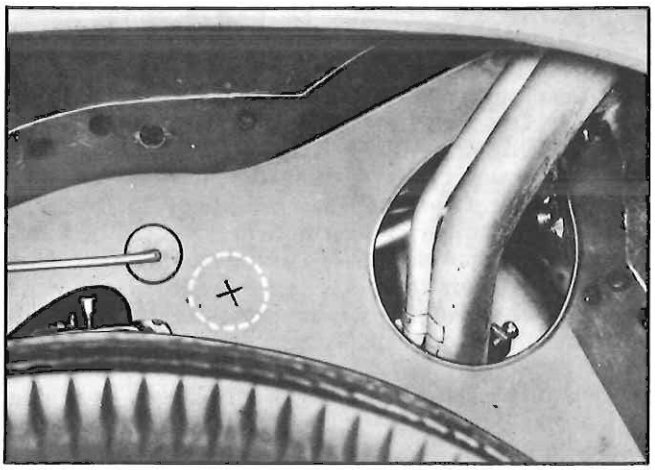


Fig. 67—Splash Shield Access Hole

WHEELS AND TIRES

The tire size designations of all tires for 14 and 15 inch diameter wheels have been revised as follows:

1964	1965
7.00 x 14	7.35 x 14
7.50 x 14	7.75 x 14
8.00 x 14	8.25 x 14
6.70 x 15	7.65 x 15
7.10 x 15	8.15 x 15

The 1965 Corvair has the five hole bolt circle, the same as Chevelle and Chevy II. This change allows the spare tire to be mounted in two positions. It should be mounted so one hole between mounting bolts, is inboard and two holes are outboard. A good way to be correct every time is to locate the valve inboard every time.

CHASSIS SHEET METAL

Chevrolet

The all new front end appearance of the 1965 Chevrolet affects the servicing and replacement of front fenders, hood assembly and hood lock. The hood lock features a pop-up spring due to hood panel design. Access to the hood release lever is through the grille beneath the header panel.

The hood alignment is controlled by the position of the hinges and the height of the two bumpers at the radiator support. The adjustment is more critical this year due to the line to line sheet metal to hood mating on all four sides for 1965. At the same time, it will be easier for alignment because of the proximity of the metal to the hood.

The hood catch assembly mounting holes are slotted to provide for the hood lock bolt. Adjust the hood lock bolt until the hood and the header peak and wind split line surfaces line-up evenly. The fenders are adjustable with shims at the cowl and the rocker panel area as in 1964.

The Chevrolet radiator support will be cushioned by rubber mounts in place of steel shims for 1965. The rubber biscuits between the radiator support panel and the forward ends of the frame are placed on both sides of the radiator support and located with a spacer sleeve.

Chevelle

The front end appearance of the Chevelle forms a wedge shape front end. This was done by reforming the grille and bumper and the front of the hood panels all into wedge shape. The grille has a wide center molding with a new center emblem. The bumper is revised to have a very short license plate center area. The radiator support is now rubber mounted at its frame connections to provide noise and vibration insulation. Current production steel shims will be replaced with rubber biscuits, one on each side of the support panel and spaced by spacer sleeve.

Chevy II

Basically the front end sheet metal is unchanged on 1965 Chevy II. Styling is changed by relocating the front parking and directional lamps from the grill area to the front bumper, and redesigning the head lamp bezel to be concentric and interchangeable from one side to the other. The new grill appears to have horizontal bars only with a new emblem at its center. Service procedures on the front end sheet metal change only due to the relocation of the parking and turn signal lamp and the new head lamp bezel.

Corvette

The 1965 Corvette body construction and panel configuration is continued from 1964. Functional louvers on each front quarter panel aid in engine compartment ventilation by providing escape ports for engine air. A new radiator grille and hood provide appearance changes. Hood panels, inner and outer, are modified to remove former depression and give the hood a smooth continuous surface.

ELECTRICAL

The ignition switch on all 1965 Chevrolet passenger vehicles has been redesigned to be a two key system, with an ignition pattern change and a new trim plate designation. The two key system allows locking of the instrument panel compartment and the rear compartment (trunk) with one key and the doors and ignition switch with the other key. The key location pattern change is due to the elimination of the separate "LOCK" position. All ignition switches have the ACCESSORY, OFF, ON and START positions, with switch locking and key removal possible only at the "OFF" position.

A body wire color code standardization, applies the same color code for all bodies in 1965. This means that the wire running from the front to the tail lights will be the same color code in Chevrolet as in Corvette and all other vehicles. The color code explanation and colors are explained in the shop manuals for 1965.

INSTRUMENT PANELS

Corvair

All Corvair instruments, gauges or indicator bulbs, are located in the console mounted instrument cluster (fig. 68). The entire cluster must he removed to permit servicing of the various instruments and gauges.

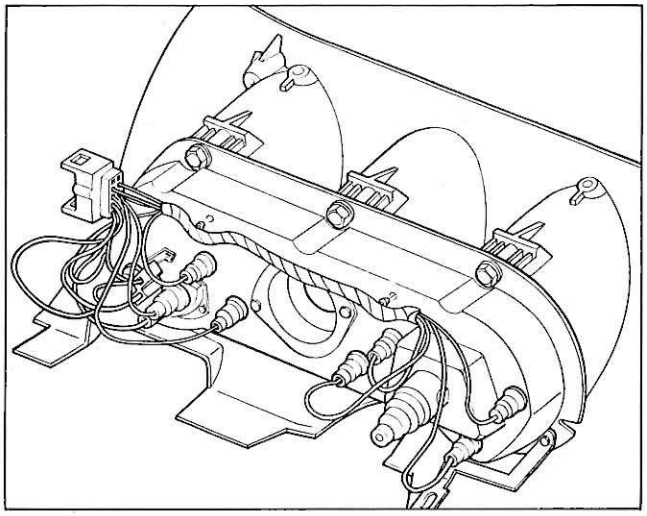


Fig. 68—Corvair Instrument Console Harness

The cluster illuminating and indicator bulbs may be replaced without removing the cluster from the console, but it is necessary to remove the heater control assembly or, if so equipped, the air conditioning control assembly. The indicator or cluster illuminating lamp sockets may then be snapped in or out of their locations and the bulb replaced.

The instruments are deeply recessed in individual housings (fig. 69) which include the speedometer, the fuel gauge, and the engine warning lights for the 500 and Monza Series. The Corsa models have a full compliment of instruments including special speedometer with trip odometer, tachometer, and manifold pressure and cylinder head temperature gauges. The Corsa models also include an electric clock with a sweep second hand. The radio and speaker are located just to the right of the instrument cluster. The ash tray, ignition switch, and cigarette lighter are located just below the radio control. The ash tray is a tilting design for 1965.

The headlight switch, windshield wiper switch, and ignition switch use new bezel nuts requiring the use of tool J-21932. Instrument cluster removal requires the removal of these switch bezel nuts, the steering wheel and mast jacket assembly, the shift lever knob on the powerglide, the heater or air conditioning control, the speedometer cable connection, and the cluster retaining screws.

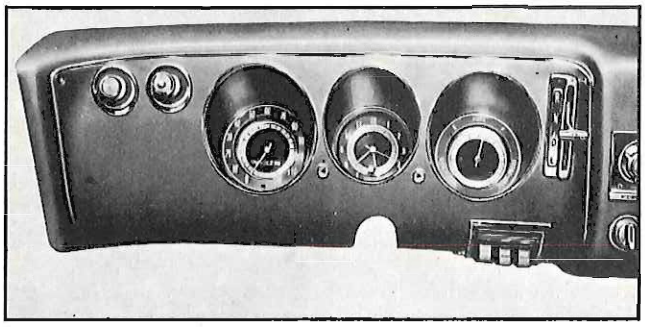


Fig. 69—Corvair Instrument Panel

Chevrolet

The 1965 Chevrolet instrument panel features a new full width recessed area and new instrument cluster styling. The instrument cluster (fig. 70) consists of a circle area on each side of a long speedometer and radio location. The instruments and warning lights are conveniently grouped in the left hand circle to the left of the steering wheel. The right hand circle is the clock location. The speedometer and the radio sit side by side between these two circles, and included on the speedometer face are the turn signal indicator lamps and the hi-beam indicator lamp and the parking brake lamp.

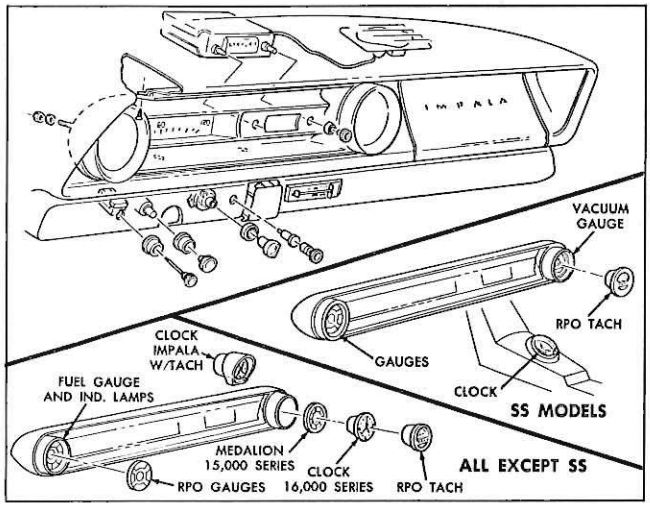


Fig. 70—Chevrolet Instrument Arrangement

The standard instrument cluster consists of a speedometer, fuel gauge, generator, temperature and oil pressure indicator lamps. A clock is included on deluxe models. All of the instruments and gauges on this cluster (except the speedometer) may be serviced without removing the cluster from the vehicle. (fig. 71).

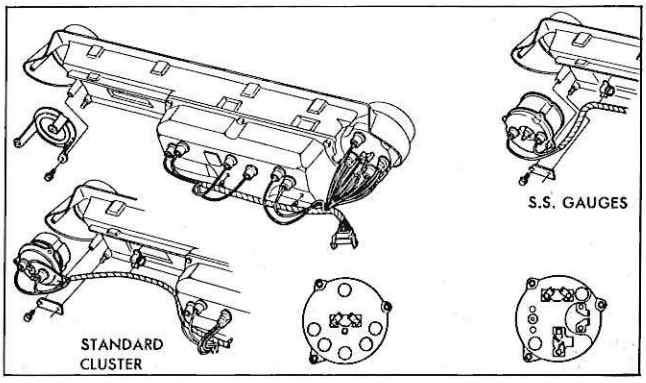


Fig. 71—Chevrolet Instrument Console Wiring

On Super Sport models, the ammeter, temperature and oil pressure gauges replace the tell-tale lamps. The instrument cluster console must be removed to service these gauges and also the vacuum and fuel gauge on this model.

Any one of the cluster indicator and illuminating lamp bulbs can be replaced without removing the cluster from the instrument panel.

The electric clock is standard equipment for Impala model in the right cluster circle. When the optional tachometer is used, the Impala clock is located on top of the instrument panel. This location is used for a vacuum gauge on the Super Sport models and the clock is located in the front seat center console.

Chevy II

The 1965 Chevy II instrument panel is basically carry over with new dials and a new trim plate common to all Chevy II Series. The standard equipment clock on the super sport model will have a sweep second hand. A new medallion is used on the 100 and Nova models.

Chevelle

The 1965 Chevelle instrument panel (fig. 72) is basically carry over, but is accented with a bright trim V molding containing the switch identification names. The Malibu and Super Sport series have a clock with a sweep second hand and a glove box trim plate, as standard equipment.

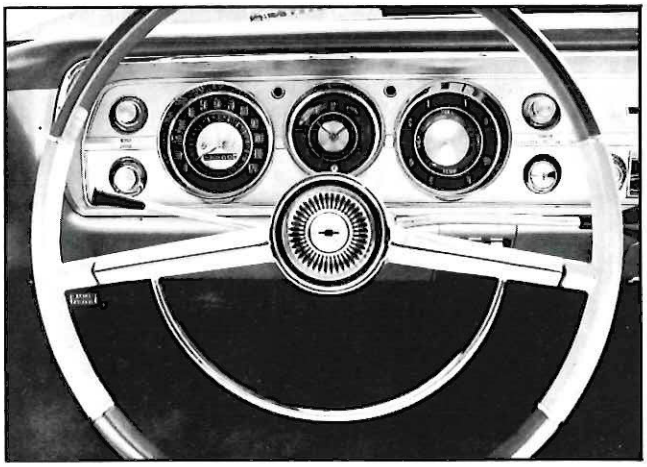


Fig. 72—Chevelle Instrument Panel

PARKING LAMPS

The 1965 Corvair front parking and turn signal lamp is relocated below the bumper for 1965 (refer to fig. 73). Bulb replacement requires removal of two lens attaching screws and the lens. The lamp housing replacement requires removal of a cover plate iu the luggage compartment floor pan, and a U clamp attachment at the rear of each housing.

The 1965 Chevy II parking lamp is relocated from the grille area to the front bumper. Lamp housing, lens or bulb replacement is achieved by removing two nuts from the back of the bumper area, removing the assembly, and disassembling it.

The Chevelle parking lights remain in the bumpers for 1965, but have a different lamp housing to bumper attachment. Two screws installed vertically in the bumper hold the lamp assembly and two screws hold the lens to the lamp. Removal of the lens allows bulb replacement.

The 1965 Chevrolet front parking and turn signal lamp is mounted in the grille just below the headlight assembly. The bulb is replaced by removing two lens attaching screws and lens.

The 1965 Corvette turn signal and parking lamp location and service procedures are carry over.

NEUTRAL SAFETY SWITCH

The neutral safety switch on all except floor shift Powerglide models is carry over for 1965 on all vehicles. All Powerglide floor shift neutral safety switches are the Chevelle type mounting, but use spade terminals at the switch instead of an enclosed harness with a remote connector. The backing lamp switch is part of this neutral safety switch.

VEHICLE REAR LAMPS

The 1965 Chevrolet rear lamps are new for 1965, but their mounting procedures and lamp replacement provisions are carry over, on both the station-wagon and sedan models.

The 1965 Corvair rear lighting is similar to 1964 in appearance but the lamp sockets are located to be fully accessible from the engine compartment. All three lamp sockets may be unplugged from the engine compartment for bulb replacement. The lamp socket attaching screws are accessible from inside the engine compartment also, and once the assembly is removed, the lens attaching screws are accessible for disassembly. The Corvair license plate lamp is the same assembly as in 1964 but is relocated to the engine compartment lid extension. Bulb and lamp assembly replacement procedures are the same as in 1964 after opening the engine compartment lid.

Chevelle rear lighting is revised, moving the back-up lamps to the rear bumper just outboard of the license plate area. The back-up lamp bulb is replaceable by snapping the socket from the lamp assembly, and the lens is replaceable after removal of the assembly from the bumper. The license plate lamps are screw attached to the bumper at each side of the license plate. The stop and tail lamp bulbs are accessible after socket removal from inside of the rear compartment. The lens is removable after removing the bezel attaching nuts from inside the luggage compartment. The Station Wagon tail and stop lamp bulb removal is the same as in 1964 except that the assembly and lens are larger in 1965.

The Chevy II rear lighting is revised to include separate back-up lamps relocated into the rear compartment lid. The over-all configuration of the tail and stop lamp assembly and the back up lamp assembly are similar to 1964, and the service procedures are the same as in 1964 for bulb replacement. The lenses are one piece and both the tail-stop light assembly and the back-up light assembly service procedures remain the same as in 1964.

HORNS

The 1965 Corvair horns are relocated (fig. 73) into the headlamp housing assembly. To replace the horn it will be necessary to remove the headlamp assembly to gain access to the horn.

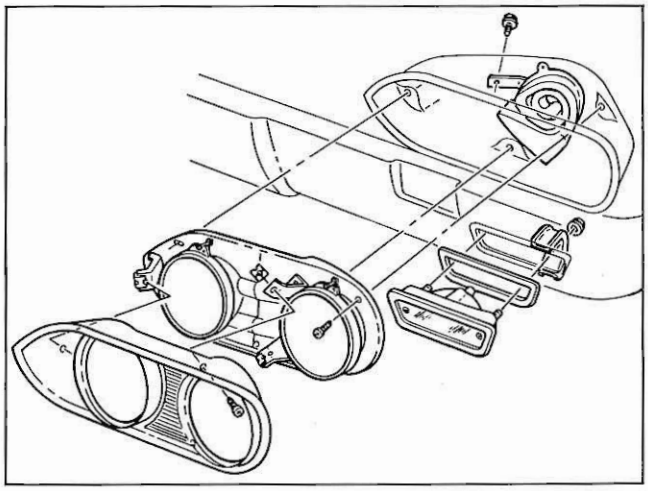


Fig. 73—Corvair Horn & Headlamp Location

TURN SIGNALS

All vehicles in 1965 will use the plastic turn signal switch assemblies. Service procedures on the turn signal assemblies vary according to the vehicle wheel and mast jacket assemblies.

The turn signal flasher on Chevrolet, Chevelle, Chevy II and Corvair are relocated for 1965. The flasher retaining clip is relocated thru the instrument panel lower edge at the right end under the instrument console to provide a more audible signal when the system is in operation.

PARKING BRAKE ALARM

The 1965 Chevrolet uses a Corvette type parking brake alarm switch and the Corvette adjustment and service procedures are used. All other parking brake alarm installations are carry-over.

WINDSHIELD WIPERS

The 1965 Chevrolet uses a new windshield wiper linkage (fig. 74) incorporating ball connections at the motor actuating lever and each transmission actuating lever. There is a small plastic access plate at the outboard curvature of the cowl to gain access to the transmission wiper linkage ball joints. A new two-speed depressed-park type windshield wiper motor is used on Chevrolet in 1965. This motor includes a revised washer pump cover and washer pump assembly. It also includes a new cycling cam assembly. The washer pump (mounted on the gear box), revised in mid 1964 to incorporate "O" rings for freeze expansion protection, is continued for 1965.

The 1965 Corvair utilizes the 1965 Chevrolet ball type wiper linkage connections. The 1965 Corvette, Chevelle, and Chevy II windshield wiper motors and linkage are carry-over from 1964 unchanged.

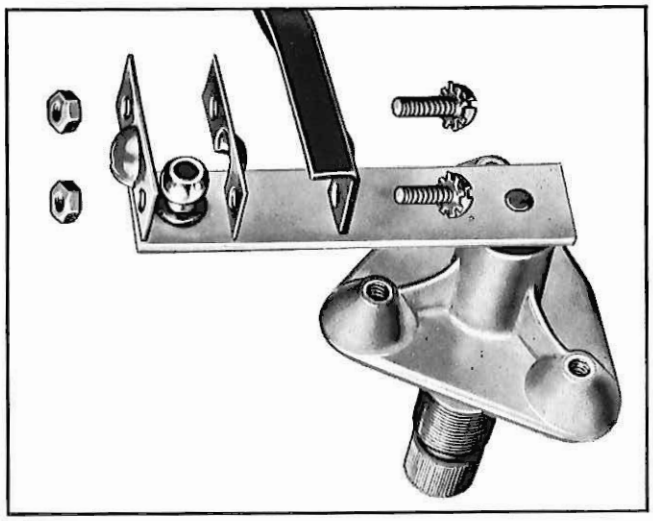


Fig. 74—Linkage Ball Socket

BODY WIRING

The body wiring of the 1965 Chevelle is carry-over except for some wire color changes necessary to complete adaption to the uniform color code. The 1965 Chevy II body wiring is revised due to a relocation of the parking lamps (to the trunk lid on sedans and tail gate on station wagons), and to comply with the uniform color code.

The 1965 Chevrolet body wiring is the flat type, floor panel routed wiring harness complying with the uniform color code. Trouble shooting procedure for body wiring electrical problems remains unchanged. The tail gate operating wire is routed from the right-hand rear quarter panel, where the body wiring connector is located, then back around the routing path of the body harness and to the left-hand quarter panel where the switch is located. The up-cycle of the tail gate window switch (at the left rear quarter) is taped off and not used, the same as in 1964. The tail gate safety switch is improved and relocated from the right to the left end panel of the tail gate. This safety switch is used to prevent completion of the window motor circuit, unless the tail gate is fully closed.

The Chevrolet dome light wiring is routed through the left front door hinge pillars as in 1964, but is retained by plastic push-in type threaded plugs, thereby eliminating the possibility of short circuit thru metal screws. Dome lights and floor console bulbs are the cartridge type the same as in 1964 and access is also the same.

The 1965 Corvair Greenbrier wiring diagram (Fig. 75) shows the new wiring, color codes and Delcotron charging system. This diagram should be saved for service reference, as Greenbrier wiring is not shown in the 1965 Corvair Shop Manual.

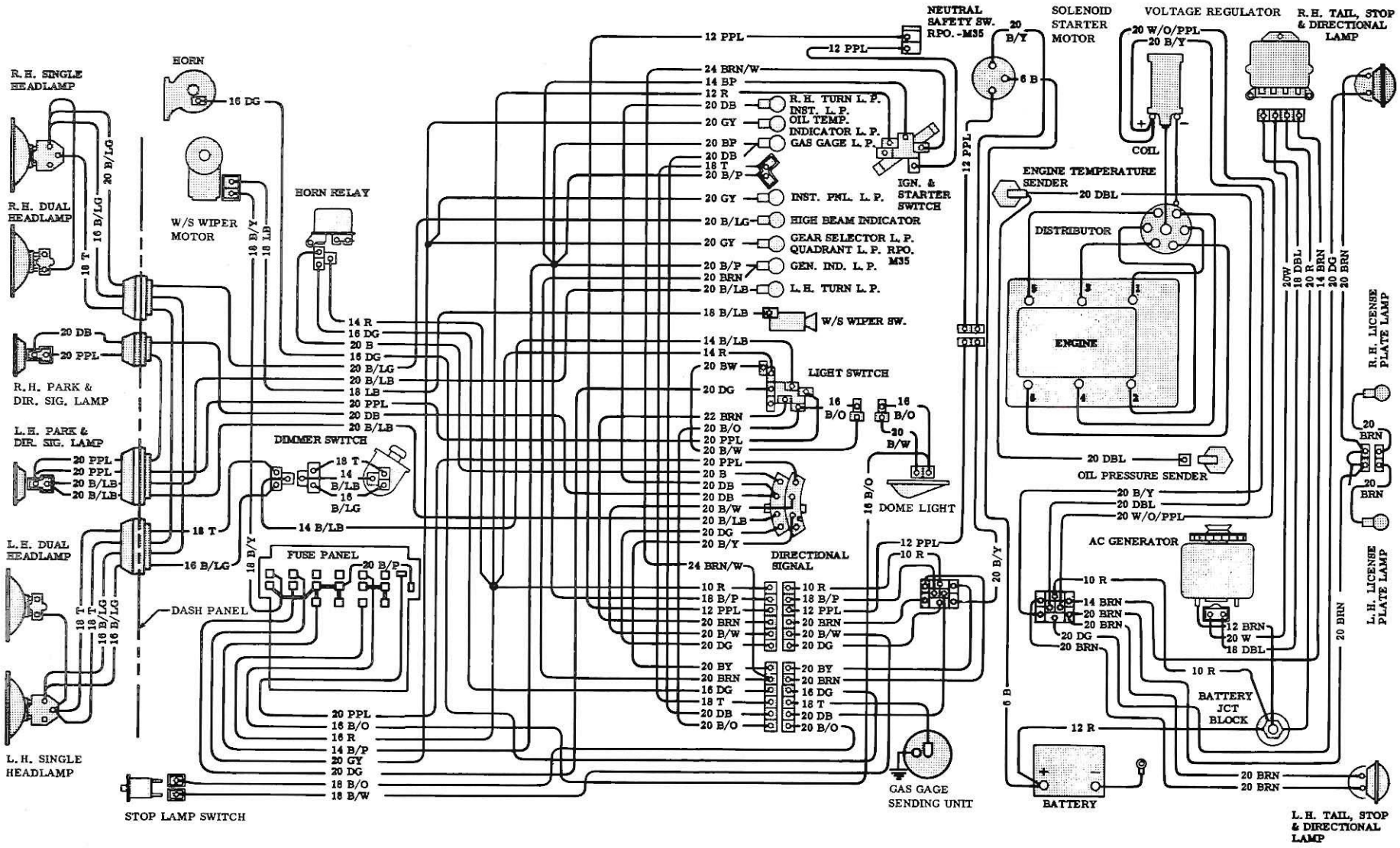


Fig. 75—1965 Greenbrier Wiring Diagram

RADIATOR AND GRILLE

Although the radiators for most vehicle lines are new for 1965, service procedures are carryover. The radiator assemblies are attached by four cap screws, either to the radiator support, or to the radiator shroud, depending on the engine installation of each vehicle. In general, the V-8 and four cylinder engines use a shroud between the radiator support and the radiator. The in-line six cylinder engines use a radiator mounted directly to the radiator support with a shroud on the engine side of the radiator. The removal and installation procedures for radiators are basically carry over from 1964.

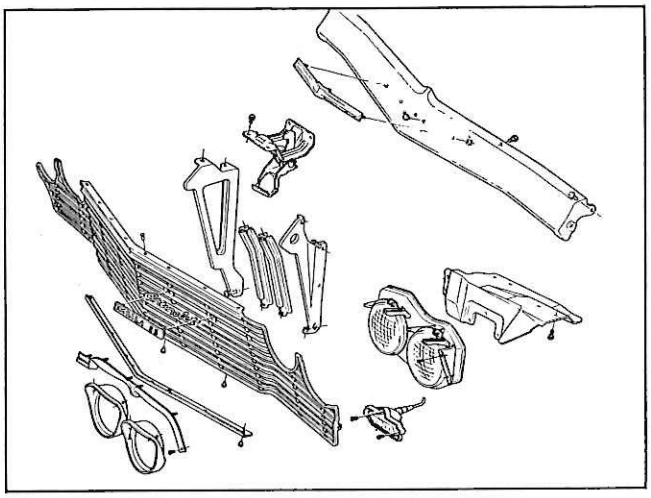


Fig. 76—Chevrolet Passenger Car Grille

The 1965 Chevrolet grille (fig. 76) is full fender-width with a wedge shaped design. The fender extension sections of the grille are simulated grille bars. The complete grille assembly has riveted together the grille bars, upper and lower support rails, the support arms, and the grille header. The grille header is a sheet metal painted section located between the vehicle hood and the grille proper. Since the grille header is riveted section of the grille, it is removed as an assembly with the grille and then the rivets must be removed for separate service. The assembly can be re-riveted or assembled with small screws. The parking lamp assemblies are mounted in the grille extensions just below the headlight assemblies. When removing the grille for service, the header assembly, the reinforcements, the center support, the head lamp and parking lamp assemblies are all removed as an assembly. The head lamp and parking lamp are screw retained to the grille section, but the other sections are all riveted as an assembly.

BUMPERS

CHEVROLET

The new Chevrolet series passenger car front bumper (fig. 77) is of six piece design that includes a slim center face bar with short curved outer face bars. An anodized and painted valance panel of very heavy material is below and slightly rearward of the upper face bar assembly. Vertical bumpers guards attach to the lower edge of the center face bar and to the valance

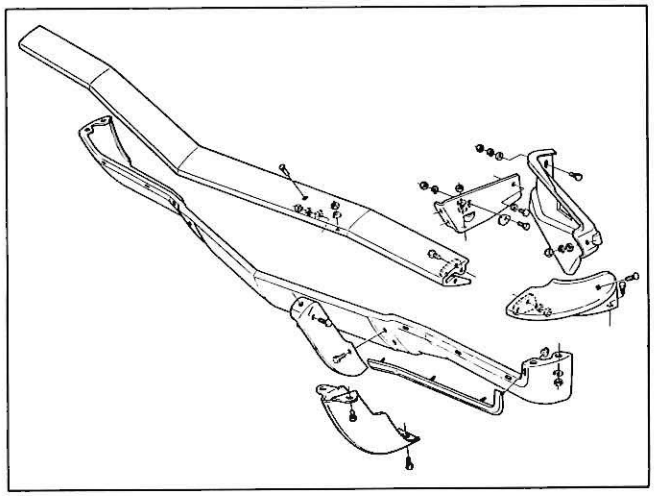


Fig. 77—Chevrolet Front Bumper

panel mounting bracket. For servicing this bumper, it is easiest to remove the complete bumper assembly and then disassemble.

The rear bumper is a three piece design with provisions in the center face bar for rear gas tank fill. A spring loaded license lamp door conceals the filler neck and gas cap and is mounted to the bumper. Disconnecting the license door springs, with a pair of pliers, aids during removal of the license plate lamp. The rear bumper service procedures are approximately the same as in 1964.

CHEVELLE AND CHEVY II

The Chevelle and Chevy II front bumpers have been revised to include pierced holes for front parking lamps and carry thin slots inboard from the parking lamps to the license plate mounting area. The Chevelle rear bumper face bar has been changed to incorporate pierced holes for back-up lamps. Front and rear bumper attachment on these vehicles is the same as used in 1964.

HEATERS

CHEVROLET

The heater assembly for the 1965 Chevrolet is essentially carry over from 1964 with new horizontally operated control lever mechanism. The control mechanism (fig. 78) is mounted in the dash so that the levers operate horizontally rather than vertically as they did in 1964. The three levers operate the same as they did in 1964 in that the off – de-ice control is the air door operating lever for the defroster control. The cold-hot operating lever is the air operating door

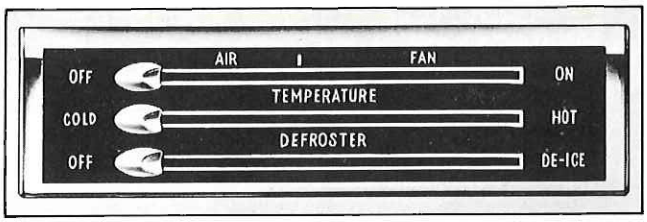


Fig. 78—Chevrolet Heater Control

to control the air through or to by-pass the heater core. The off-on lever is the temperature control and also the fan switch after approximately half way location.

CORVAIR

The Corvair direct air heater system is redesigned to deliver the warm air through a center duct (fig. 79)

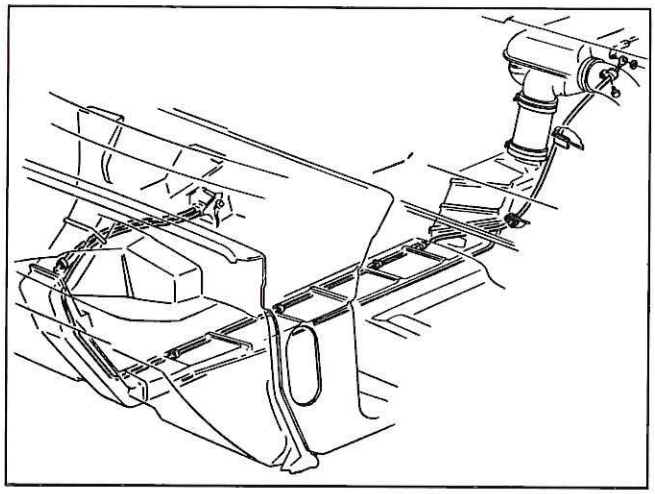


Fig. 79—Corvair Heater System

rather then along the rocker panel side passages as in 1964. Warm air is taken off the front of each of the engine front shields and routed to the heater air inlet where the air is mixed with cooler air from a single flexible hose at the upper engine shroud. The heater assembly air inlet and duct work have a new configuration for 1965 due to the new body configuration. The air mixed at the heater assembly now flows through a flexible hose to the rear duct assembly and through this duct to the front duct and valve assembly. The rear duct assembly is a wide flat piece that is routed through the body center tunnel assembly and covered with the metal shield that also covers the shift mechanism and the clutch control linkage. The front duct (fig. 80) assembly rises along the toe panel to the inside of the body where an air valve assembly for directing the air to the defrosters or to the front passenger compartment is located. The heater control assembly contains three levers moving vertically in the dashboard. The fan lever operates the fan switch. The heat lever operates the rear heater assembly mixing doors, and the defroster cable operates the front air diverter door to direct air to the defroster or to the front compartment. The heater control cables for the heater fan and mixer door are routed to the rear along the right side of the heater duct and attached to the duct with small clips. The new defroster duct assembly is a "Y" shape and is screw attached to the front duct assembly that contains the defroster air diverter door.

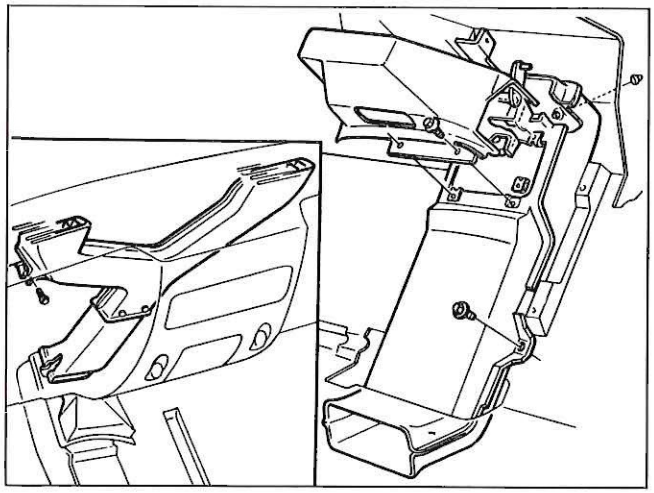


Fig. 80—Front Duct-Work

Removal of the rear duct and extension assembly requires removal of the tunnel shield assembly and is removed as one piece. This center extension slides inside of the front duct and there are no other attaching screws under the shield assembly. The front duct that rises to the defroster diverter door assembly can be removed after removal of the tunnel toe panel and disconnection of the defroster duct and mixer door. After this has been done, the hold down screws are removed and the front duct is lifted upward and tilted rearward at the top to slide it off of the duct extension.

AIR CONDITIONERS

CHEVY II, CHEVELLE, CORVETTE AND TRUCK

The air conditioning system on Chevy II and Truck is the all weather system generally carried over from 1964 with control changes to suit new instrument console configuration. The Chevelle and Corvette factory installed units are Four-Season Systems. Only the all weather systems will be available on these vehicles as factory options. The custom air conditioning system will be available as a dealer option. The dealer installed options will use the same under hood parts as the factory unit on each one of the vehicles. The dealer unit will have different under dash panel parts with new mountings and difference in the ducts. Corvette system is factory installed only.

CHEVROLET

The 1965 Chevrolet has a new Four Season air conditioning system as a regular production option. This improved design provides uniform in-car comfort during any weather conditions. Cooling and heating units are combined to eliminate discomfort of climate changes. Humidity reduction and air filtering are available on the air conditioning cycle.

New duct work and re-routing of the air stream are provided by a relocated evaporator core. The evaporator core and suction throttling valve are relocated inboard on the fire wall side of the dash panel, and are easily accessible in 1965. The blower motor is located to the outboard side of the evaporator core.

Combined cooling and heating controls (fig. 81), housed in the instrument panel can direct tempered air to the floor or instrument panel outlets. When cool outside temperatures and hot sun are encoun-

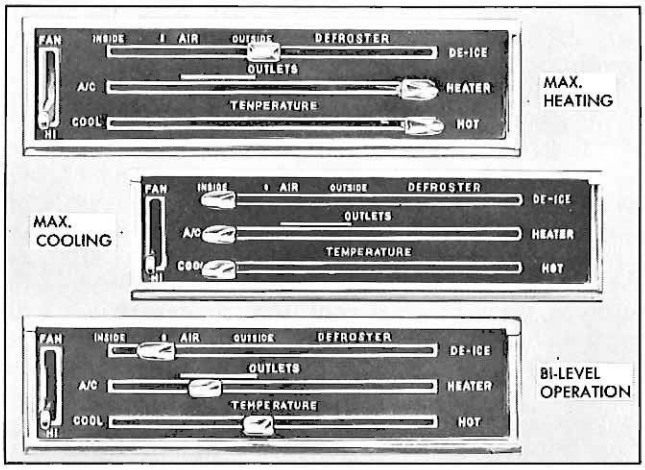


Fig. 81—Chevrolet Air Conditioning Controls

tered, the system can supply warm air at floor level and cool air at head level thus providing bi-level in-the-car comfort. The same three levers, horizontally moved, are used for the air conditioning heater control with a fourth vertical switch lever for a three speed blower.

The control panel upper lever controls the air (from inside re-circulating air to full outside fresh air), indirectly through a vacuum control valve operated diverter door and also controls the defroster diverter door. The center lever marked air conditioning or heater, controls the location of the outlet door to allow air to move to the heater outlets or the defroster outlets. The lower lever, cold-hot lever, controls the temperature door which regulates the amount of air passing through the heater core. The fan switch at the left of the control panel controls the three speed blower motor. The air flow circulation is shown in figure 82.

CORVAIR

The 1965 Corvair uses the All Weather air conditioning system and this year, for the first time, it can operate on either full outside air, full inside recirculated air, or a blend of both. This is accomplished through a new inlet duct assembly (fig. 83) in the luggage compartment that is attached to openings leading inside the car, to the front compartment chamber, and to the air conditioning inlet. The evaporator is located beneath the dash with new mounts due to the new body configuration, but its operation is similar to 1964. The blower is mounted in the luggage compartment and a new air conditioning outlet ball is used on each end of the instrument panel and a

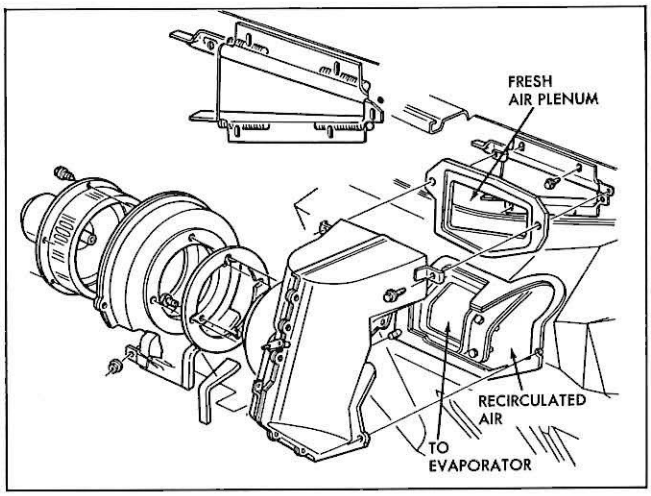


Fig. 83—Corvair Air Inlet Assembly

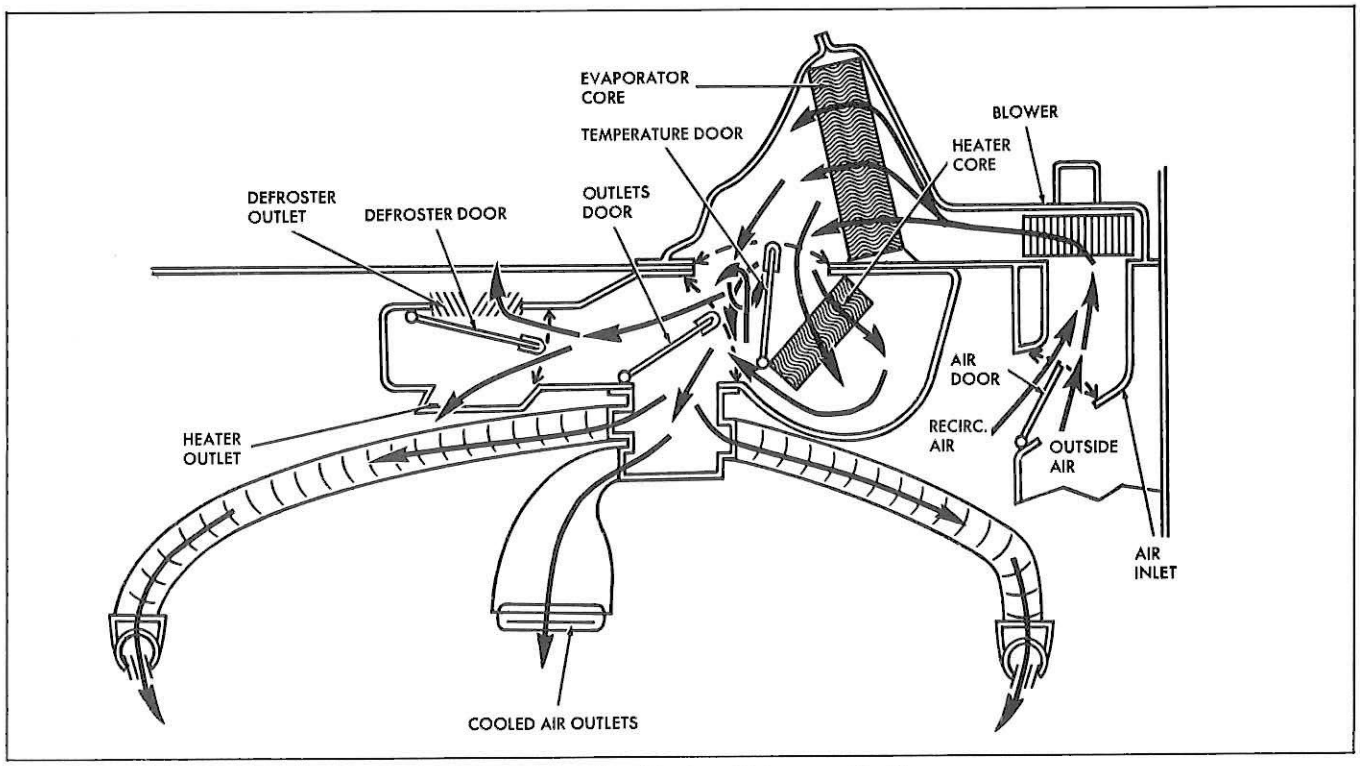


Fig. 82—Chevrolet Air Conditioner—Air Flow

slotted outlet at the center of the instrument panel. These outlet balls are reversible, providing spot cooling when turned one way, diffused air when reversed. Other system components remain much the same as in previous Corvair air conditioning systems.

Control Panel Assembly

Control assembly installation in the control panel as well as installation of the heater-air conditioning blower switch and the air selector switch is illustrated in Figure 84.

The right hand control cable runs to the thermostatic switch; the second cable runs through the dash panel to operate the deflector door on the air inlet assembly. The two left control cables are the direct air heater "heat" and "defrost" cables which are routed as for the standard heater. Maintain the "heat" and "defroster" control knobs fully "up" during air conditioning operation.

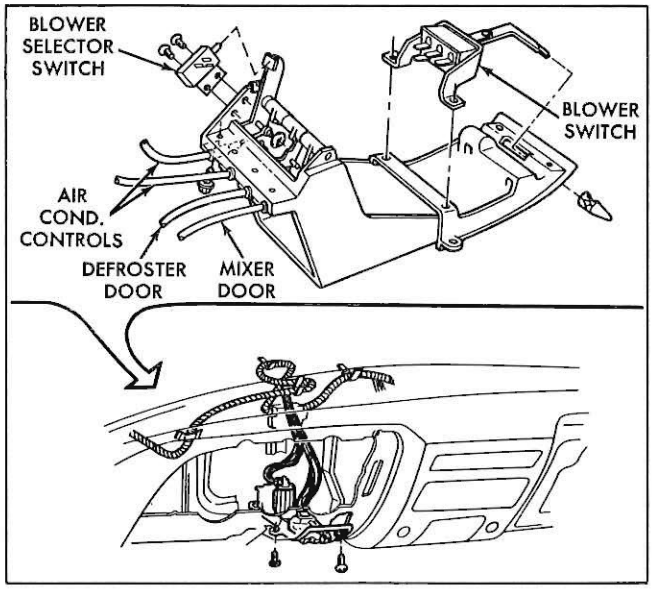


Fig. 84—Corvair Air Conditioner Controls

The fan switch operates either the heater blower located on the heater air inlet assembly as described in the Direct Air Heater information previously covered in this section, or the air conditioning blower located on the air conditioning air inlet assembly in the luggage compartment. Switch control passes from one blower to the other according to the position of the "COOL" control lever. With the COOL control lever in the fully "up" position the fan switch will control the *heater* blower. When the COOL control is pushed "down", calling for cooling, a selector switch completes the electrical circuit to the *air conditioning blower*. Then movement of the "fan" lever to any "on" position completes the electrical circuit to engage the compressor clutch start the compressor and the air conditioning cycle. The thermostatic switch then controls the compressor on cycling hasis as required to provide the cooling effect desired.

RADIOS

In addition to the regular offering of the AM and the AM-FM radios the 1965 Chevrolet, Chevelle, Chevy II, and Corvair will have an optionally available stereo adaptor for the AM-FM set to provide stereo channel reception from stereo broadcast FM radio stations. These stereo multiplex adaptors to the system will be a factory or dealer option on the Chevrolet and a dealer installed option on Chevy II, Chevelle, and Corvair. In all installations, an indicator light on the adaptor informs the driver when the station he is listening too is capable of broadcasting stereo. Most programs from these stations will be stereophonic. This means that sound is transmitted on two channels and picked up separately by different speakers. The number of speakers used varies from 2 to 4 depending on the vehicle series and body type in which the multiplex system is installed.

CHEVROLET PROTECT-O-PLATE SYSTEM

WHAT IT IS . . . *The Chevrolet Protect-O-Plate System has been developed for the express purpose of assisting the Chevrolet dealer in faster and easier preparation of warranty forms. In addition, the plates are adaptable for use on dealer repair orders and owner sales follow-up cards. The Chevrolet Assembly Plant attaches a data embossed metal plate to the inside of the back cover of the Owner Protection Plan book placed in each Chevrolet passenger car or truck. This Protect-O-Plate is stamped with the particular vehicle serial number and other component identification data. The center area of the Protect-O-Plate is left blank for the dealer to attach embossed tape containing information as to the Owner's name and address and date of vehicle delivery.*

WHAT IT DOES . . . *When warranty repair is performed on the vehicle, the Protect-O-Plate presented by the owner is placed in the Protect-O-Plate Imprinter and vehicle data, owner's name, address, and delivery date are entered onto the warranty form in one fast error-free operation.*

WHERE IT IS KEPT . . . The Owner Protection Plan booklet *inserted at the plant* **is related to the particular vehicle** *as the Protect-O-Plate is stamped with the individual unit numbers,* **therefore, the same booklet must be kept in and delivered with the vehicle.** *The back page of the Owner Protection Plan booklet is stamped with the plate at the plant allowing for verification of the vehicle identification at any time prior to delivery. In the event the booklets are removed from new vehicles, a program should be designed to insure delivery of the correct booklet with the sold or traded vehicle. Information for obtaining a replacement booklet or plate is detailed in Section One of the "Dealer Policies and Procedures Manual."*

WHEN THE SYSTEM STARTS . . . *The Chevrolet Protect-O-Plate System went into effect with the first 1965 series vehicles built at assembly plants. Dealers should emboss and apply tape with owner data prior to delivery of the first 1965 series car sold. All 1965 series warranty documents, prepared by dealers who have purchased imprinters and embossers, should include Protect-O-Plate data.*

DETAILED DATA . . . *Complete detailed information on the operation and impression adjustment of the imprinter and embosser is contained in the equipment instruction pamphlet. Technical Service Bulletin No. DR-690, entitled "1965 Car and Truck Identification Information," describes the Protect-O-Plate data in detail.*