

1959 Corvette Service News: 1959 Powerglide Production Variations

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There are five different Powerglide transmissions used in 1959. They are used as follows:

1. 6 cylinder Passenger Car
2. V-8 Passenger Car - Regular
3. Corvette
4. V-8 Passenger Car - Special with 250 hp-Fuel Injection
5. Special Option

The regular transmissions used on the 6-cylinder and 8-cylinder models differ in the size of the booster valves and sleeves, and the throttle valve spring. As in past models, the 6 and 8 cylinder models are different converter housings.

NOTE: Booster valve identification for 1958-59 Powerglide Transmission is shown in Figure 2. Similar illustration on page 36 of TOP 59 S & M-1 - "1959 Advance Service Information" booklet, is in error and should be corrected as indicated in Figure 2.

BOOSTER VALVE IDENTIFICATION

	O. D. OF LARGEST LAND	PROJECTION ON LARGEST END
1958 V8 (1st Design)	.671" .559"	YES
1958 V8 (2nd Design)	.671" .551"	NO
1959 V8	.646"	NO
1958 L-6	.529"	YES
1959 L-6	.562"	NO

SERVO COVER LOCATING SLEEVE IDENTIFICATION

1958 (all L-6 and first design V8)	Straight tube type
All 1959 and 2nd design 1958 V8	Six tabs bent inward on booster valve end of sleeve

**Use of incorrect booster valve or locating sleeve will
result in incorrect pressures.**

Fig. 2—Powerglide Booster Valve Identification

The Corvette transmissions have a special converter assembly with 33 bolts holding the converter housing and cover together. In addition, a special governor is used which has lighter small weights to create a higher shift pattern. A longer output shaft is used, and there is no oil cooler valve or piping for transmission oil cooling.

The V-8 passenger car transmission for use with the 250 hp regular camshaft 283 cu. in. V-8 engine carries a Corvette converter and governor. It has a red plastic patent plate on the right side of the converter housing, where the other transmissions have a blue plate. Otherwise, this transmission is the same as

the one used with the regular V-8 engines.

The special option transmission is available only with the 348 cu. in. engine equipped with a Carter AFB carburetor, 11:1 compression ratio and special camshaft using solid valve lifters. This unit has a special 5 plate clutch assembly. The plates are serviced as a package. The other clutch parts are serviced the same way as the regular model. This special transmission also has the 33 bolt Corvette converter and special governor, built to give a maximum shift point of 5400 engine R.P.M. Otherwise, this transmission is the same as the regular V-8 model.

1959 POWERGLIDE HYDRAULIC PRESSURES

The only hydraulic pressure changes in the 1959 Powerglide as compared to 1958 are in the Reverse Range checks. Therefore, the following chart may be used for 1958 or 1959 models.

Range	Test Point	Engine Speed	Vehicle Speed	Manifold Vacuum	Test Pressure V-8	Test Pressure 6-Cyl.
Drive	Low Servo Apply	Idle	—	16"	60-70	55-65
Drive	Low Servo Apply	—	20-25 MPH	20" or more (coasting)	47-53	47-53
Low	Low Servo Apply	1600 RPM	—	—	114-127	70-80
Reverse 1959 only	Reverse Servo Apply	Idle	—	—	80-115	80-115
Reverse 1959 only	Reverse Servo Apply	1250 RPM	—	Vac. Modulator Hose. Disconnected	240-260	170-190
Reverse 1958 only	Reverse Servo Apply	1250 RPM	—	—	215-245 (with 2nd design pressure regulator)	167-191
Drive	Throttle Valve	—	—	—	0-63	0-50
Drive	Governor	—	0 to Full Throttle Shift Point	—	0-84	0-68

1959 POWERGLIDE SHIFT POINTS

Throttle Position	Six Cylinders*		283 V-8*		348 V-8**		Corvette		Special Option W/348 Police Engine and 3.55 Rear Axle	
	Upshift	Downshift	Upshift	Downshift	Upshift	Downshift	Upshift	Downshift	Upshift	Downshift
Closed Throttle	12-15	10-13	12-15	10-13	13-16	11-14	12-15	10-14	14-18	12-15
Detent Touch	27-44	13-17	37-50	13-17	40-55	14-19	36-52	13-17	44-60	15-20
Thru Detent	44-49	41-48	50-56	47-53	55-61	51-58	54-60	50-58	60-66	56-63
**Used with 3.08 Rear Axle			*Used with 3.36 Rear Axle							

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