

1962 Corvette: Service Bulletin: Aluminum Powerglide Shift Problems

Subject: Aluminum Powerglide Shift Problems
Model and Year: 1962 Passenger, Chevy II and Corvette
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TO: ALL CHEVROLET DEALERS

Several types of shift problems may be encountered on early Production 1962 Passenger Cars and Chevy II Models equipped with the aluminum Powerglide transmission. The various problems and possible causes are in addition to those provided in the Shop Manual.

DELAYED OR NO UPSHIFT

Foreign Material

The most common cause of delayed or no upshift is foreign material in the transmission becoming lodged in the valve body or governor in such a manner that a portion of the governor pressure is lost, thus delaying or preventing the upshift.

Incorrect TV Linkage

On early 327 engine equipped models, delayed upshift may be due to installation of an incorrect throttle valve (TV) linkage. In a few instances, the 283 engine cross shaft was installed instead of the correct TV cross shaft, 3817860. The TV cross shaft are easily identified as the 283 version has a bend in its outboard lever whereas the 327 cross-shaft lever is straight in this same area. (Figure 1). If the TV cross shaft was incorrect, also check the cross shaft-to-TV lever rod. As shown in Figure 1, this rod, 3790776, is formed on 327 engine applications as compared to the straight rod used on 283 engine versions.

ENGINE RPM FLARE AT SHIFT

Engine RPM flare-up or momentary runaway at fairly high speed upshifts or forced downshifts may be the result of low oil level, improper band adjustment or a stuck vacuum modulator valve.

Dipstick Usage

When checking complaints of RPM flare at the shift, first check the dipstick installed in the vehicle as the "Full" mark on early production dipsticks is approximately 1/2" lower than the "F" mark on the present dipstick (Figure 2). The later dipstick entered Production approximately September 4, 1961.

The early style dipstick is easily identified as its bottom section is absolutely flat whereas the later dipstick has a formed bridge just above the oil level markings to keep it centered in the filler tube. (Figure 2). A further check is to measure the distance from the top of the cap to the "Full" mark; on Passenger and Chevy II dipsticks, this distance is now 22-1/2", as compared to 23" on the earlier dipsticks. This distance on the Corvette dipstick is now 24-1/2" as compared to 25" on earlier units.

Replace all early dipsticks with the later part when found and add oil as required to raise the transmission oil level to the "F" mark. The later dipstick for 327 engine passenger cars and all Chevy II Models is 3818930; for Corvette, 3818931.

Vacuum Modulator Valve Sticking

Engine RPM flare may also be encountered if the vacuum modulator valve has stuck in the minimum pressure position and would most likely be caused by foreign material in the oil causing valve hang-up.

Band Adjustment

A check for correct low band adjustment should be made if engine RPM flare occurs at the upshift or during forced downshifts.

Correct low band adjustment procedure is to loosen the lock nut, tighten the adjusting screw to 40 inch-lbs., then back-off four (4) full turns exactly. Hold the adjusting screw and tighten the locknut to secure the adjustment.

PARTS DATA

Cross Shaft, TV (327 engine) ---- 3817860

Rod, Cross Shaft-to TV (327 engine) ----- 3790776

Powerglide Dipstick (Passenger and Chevy II) ---- 3818930

Powerglide Dipstick (Corvette) ----- 3818931

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