

TURBO HYDRA-MATIC TRANSMISSION

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GENERAL DESCRIPTION

The Turbo Hydra-Matic transmission, a three-speed fully automatic transmission, is available as an optional transmission on all Firebird models equipped with a V-8 engine.

The transmission is identified by a two-letter code, stamped on the R.H. side of the case. Code letters and year (preceding a serial number) are stamped on the transmission nameplate, also located on the right side of case.

TRANSMISSION	ENGINE	CODE
Turbo Hydra-Matic	400 cu.in.	PX
"	400 cu.in. Ram-Air	PQ
"	326 cu.in. 2 bbl.	PV
"	326 cu.in. HO 4 bbl.	PR

These transmissions are available with either column shift or floor mounted (with console) shift controls.

LINKAGE ADJUSTMENT - COLUMN SHIFT

1. Loosen nut on adjusting swivel and clamp.

2. Position gearshift upper lever in the D (Drive) position (Fig. 7E-1).

3. Set transmission outer selector lever in D (Drive) position.

NOTE: Obtain D (Drive) position by moving outer selector lever counter-clockwise to L (Low) detent, then clockwise two detent positions to D (Drive) position.

4. With gearshift upper lever and outer selector lever in D (Drive) positions, tighten nut on adjusting swivel and clamp to 30 lb. ft. torque.

NOTE: When the above procedure is adhered to, the following conditions must be met by manual operation of the gearshift upper lever:

- a. From R (Reverse) to D (Drive) position travel, the transmission detent feel must be noted and related to indicated positions on dial.

- b. When in D (Drive) and R (Reverse) positions, pull gearshift upper lever upward (toward steering wheel) and then release. It must drop back into position with no restrictions.

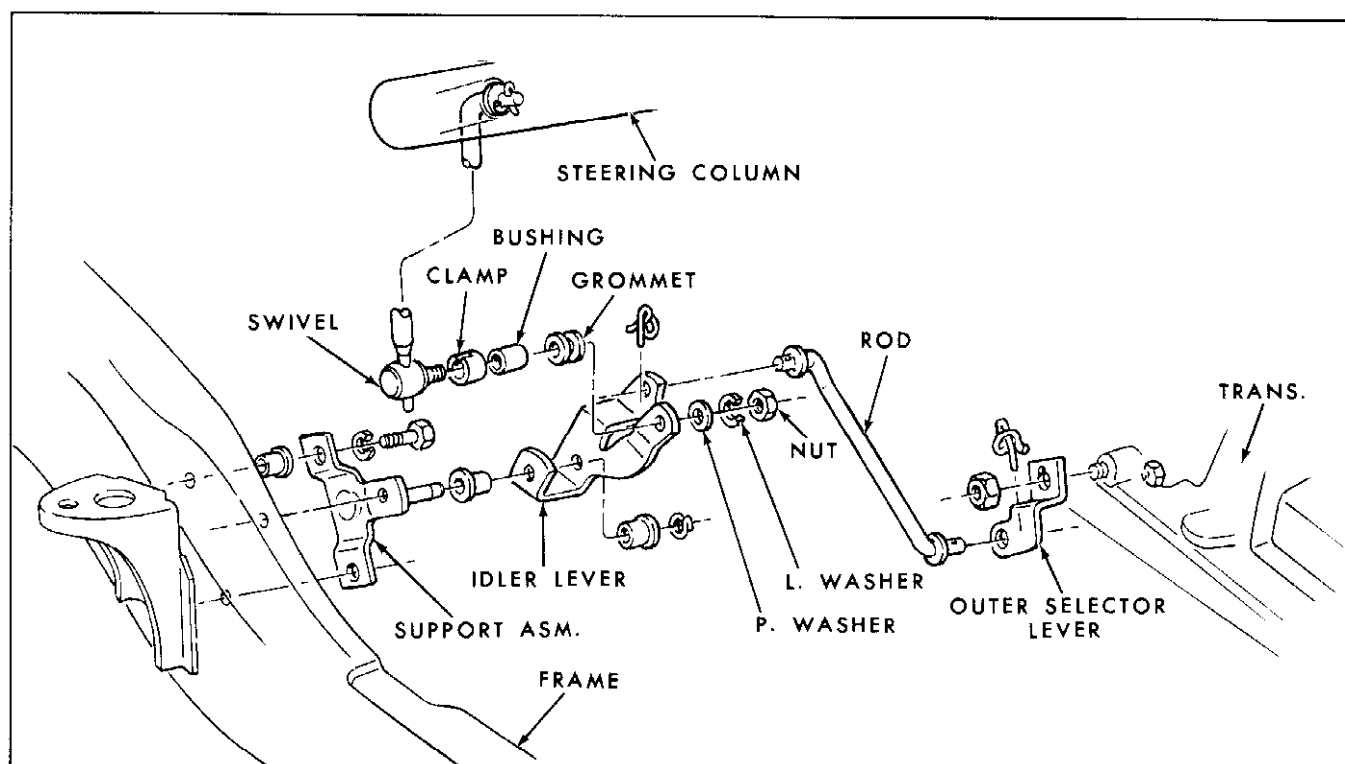


Fig. 7E-1 Lower Gearshift Controls - Column Shift

LINKAGE ADJUSTMENT - FLOOR SHIFT

1. Loosen both swivel nuts (G and H) on lower control rod (Fig. 7E-2).

2. Set transmission outer selector lever in "D" (Drive) position.

NOTE: Obtain "D" (Drive) position by moving outer selector lever counter-clockwise to "L" (Low) detent, then clockwise two detent positions to "D" (Drive) position.

3. Using floor shift lever, set the control pawl rod in "D" (Drive) notch of shifter assembly detent (see view A).

4. Apply a load Y to control lever (see view C) until the control pawl rod contacts the detent at point of contact B (see view A).

5. Place a .094" spacer between nut G and lower control rod swivel. Tighten nut until it touches .094"

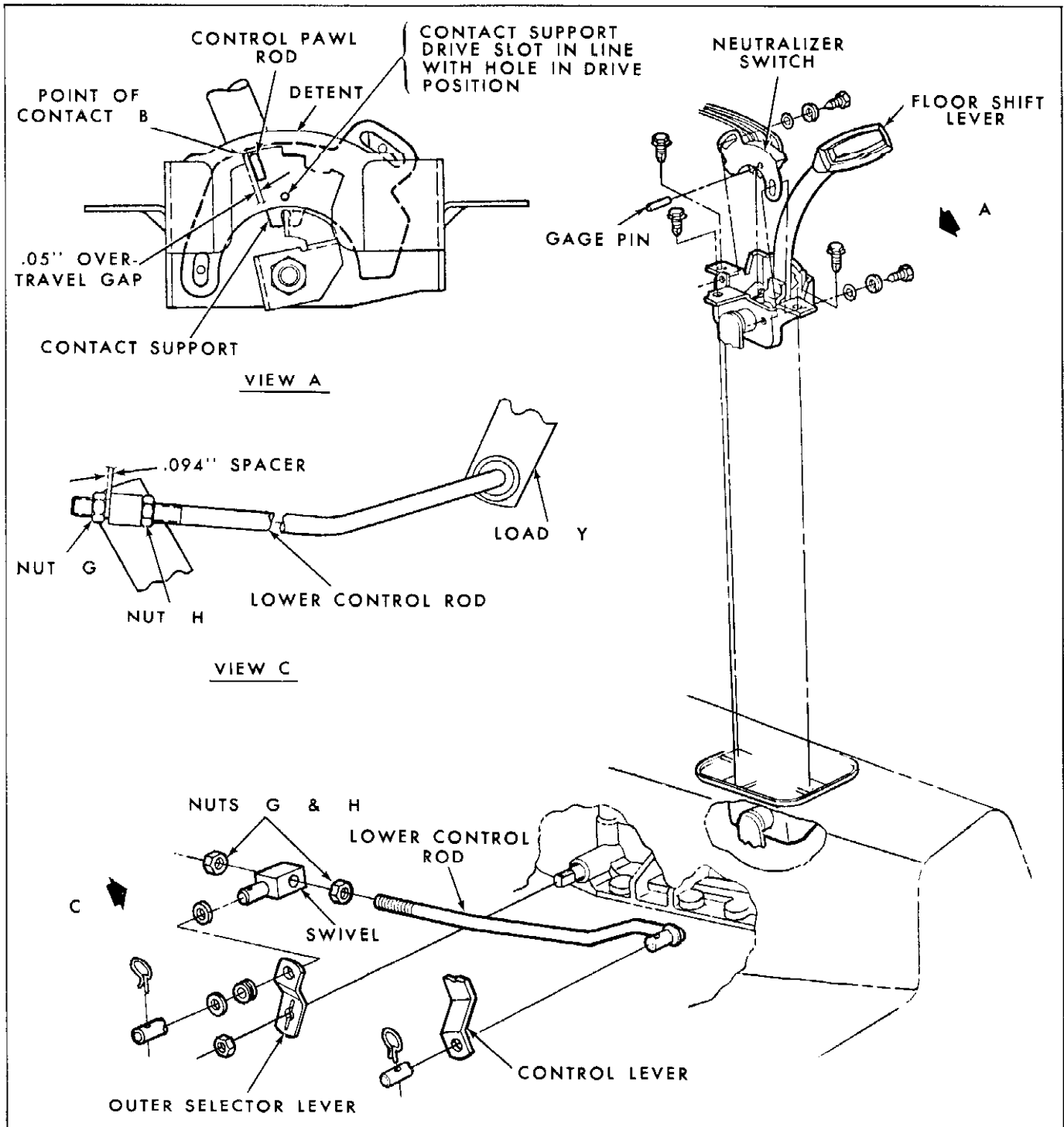


Fig. 7E-2 Gearshift Controls - Floor Shift

spacer. Release load Y, remove spacer and tighten nut H to maximum of 40 lb. in. torque (see view C).

NOTE: The foregoing will provide a .05" over-travel gap in the notches of the shifter assembly detent.

NEUTRALIZER SWITCH, ADJUST OR REPLACE - COLUMN SHIFT

Service procedure for the Firebird neutralizer switch, column shaft, are the same as shown in Section 7E of the 1967 Pontiac Service Manual.

NEUTRALIZER SWITCH, ADJUST OR REPLACE - FLOOR SHIFT

After gearshift linkage is properly adjusted, the neutralizer switch must be so positioned that the car will start only in Park and Neutral positions. If it is possible to crank the engine in any other detent position, the switch must be adjusted (or replaced) as follows:

1. Position floor shift lever in the D (Drive) position.

2. Remove ash tray, trim plate assembly, indicator lens and housing from console, disconnect bulbs from housing and disconnect multiple connector from wiring harness at in-line connector.

3. Loosen two screws attaching neutralizer switch to shift lever bracket assembly (or remove and install new switch).

4. Insert a gage pin (3/32" dia.) in drive hole in left side of switch to a minimum depth of 1/4", to hold switch in position (see Fig. 7E-2, view A).

NOTE: If floor shift lever is in D (Drive) position, gage pin will hold switch contact in D (Drive) position when switch is properly aligned to shift lever.

5. Tighten screws to 25 lb. in. torque, remove gage pin, connect wiring and check operation of switch.

6. Install indicator lamps, housing, lens, ash tray and trim plate assembly.

DESIGN, OPERATION, SERVICE AND REPAIRS

Design, operation and service procedures for the Firebird Turbo Hydra-Matic transmission assembly are the same as those for the G.T.O. model PS transmission, as shown in Section 7E of the 1967 Pontiac Service Manual.

NOTE: Removal of transmission from car requires removal of the engine oil filter and transmission filler pipe.