

7. Depress two cable connector latches and remove from shifter base.
8. Cable clips

Install or Connect

1. With cable lock button in the up position and shift lever in the "Park" position, snap cable connector into shifter base.
2. With ignition key in "run" position, snap cable into inhibitor housing.

! Important

- Do not attempt to insert cable with key in any other position.
3. Turn ignition key to "Lock".
 4. Snap cable end onto shifter park lock lever pin.
 5. Push cable connector hose forward to remove slack.
 6. With no load applied to connector nose, snap cable connector lock button down.

Inspect

- Functional Operation
 1. With the shift lever in "Park" and the key in "Lock" position, make sure that you cannot move the shifter lever to another position. Ignition key should be removable from column.
 2. With the key in "run" and the shift lever in "Neutral", make sure that you cannot turn the key to "Lock".
 3. If the above conditions are met, the system is properly adjusted. Proceed to Step 5.
 4. If the above conditions are not met, put cable connector lock back to the up position and readjust as indicated in Steps 5 and 6 above, then push cable connector lock button down and recheck operation.
 5. If key cannot be removed in "Park" position, snap connector lock button to up position and move cable connector nose rearward until key can be removed from ignition.
 6. Snap lock button down.
 7. Reinstall cable into clips to provide correct routing.

PARK/NEUTRAL AND BACK-UP LAMP SWITCH

Remove or Disconnect (Fig. 4)

1. Negative battery cable.
2. Console, see Section 8C.
3. Mounting bolts.
4. Switch

Using Old Switch

Install or Connect

1. Place shift control lever shaft in "NEUTRAL".

2. Align carrier tang on switch with tang slot on shift control.
3. Assemble mounting bolts-to-case, loosely.
4. Rotate switch to align service adjustment hole with carrier tang hole.
5. Insert gage pin (2.34mm/3/32") in service adjustment hole and rotate switch until pin drops in to a depth of 15 mm (19/32").
6. Torque bolts.
 - 2 N·m (18 lbs. in.)
7. Gage pin
8. Console, see Section 8C.
9. Negative battery cable.

! Important

- After switch adjustment, verify that engine will only start in "PARK" or "NEUTRAL". If engine will start in any other position readjust switch.

Using New Switch

Install or Connect

1. Place shift control lever in "NEUTRAL".
2. Insert carrier tang on switch in slot on shifter.
3. Mounting bolts and torque.
 - 2 N·m (18 lbs. in.)

If bolt holes do not align with shift control verify shift control lever is in "NEUTRAL" position, do not rotate switch. Switch is pinned in "NEUTRAL" position.

- If switch has been rotated and pin broken, switch can be adjusted by using the "Using Old Switch" procedure.
4. Move shift control lever out of "Neutral" position to shear plastic pin.

! Important

- After switch installation verify that engine will only start in "PARK" and "NEUTRAL". If engine will start in any other position, readjust switch using "Old Switch" procedure.
5. Console, see Section 8C.
 6. Negative battery cable.

T.V. CABLE

The T.V. cable used on the 700-R4 transmission controls line pressure, shift points, shift feel, part throttle downshifts and detent downshifts. The T.V. cable operates the throttle valve lever and bracket assembly in the control valve.

The Throttle Valve Lever and Bracket Assembly serves two (2) basic functions:

1. To transfer the throttle lever movement to the T.V. plunger in the control valve assembly. This causes T.V. pressure and line pressure to increase according to engine throttle opening and controls part throttle and detent downshifts.
2. To prevent the transmission from operating at low (idle) pressures, if the T.V. cable should

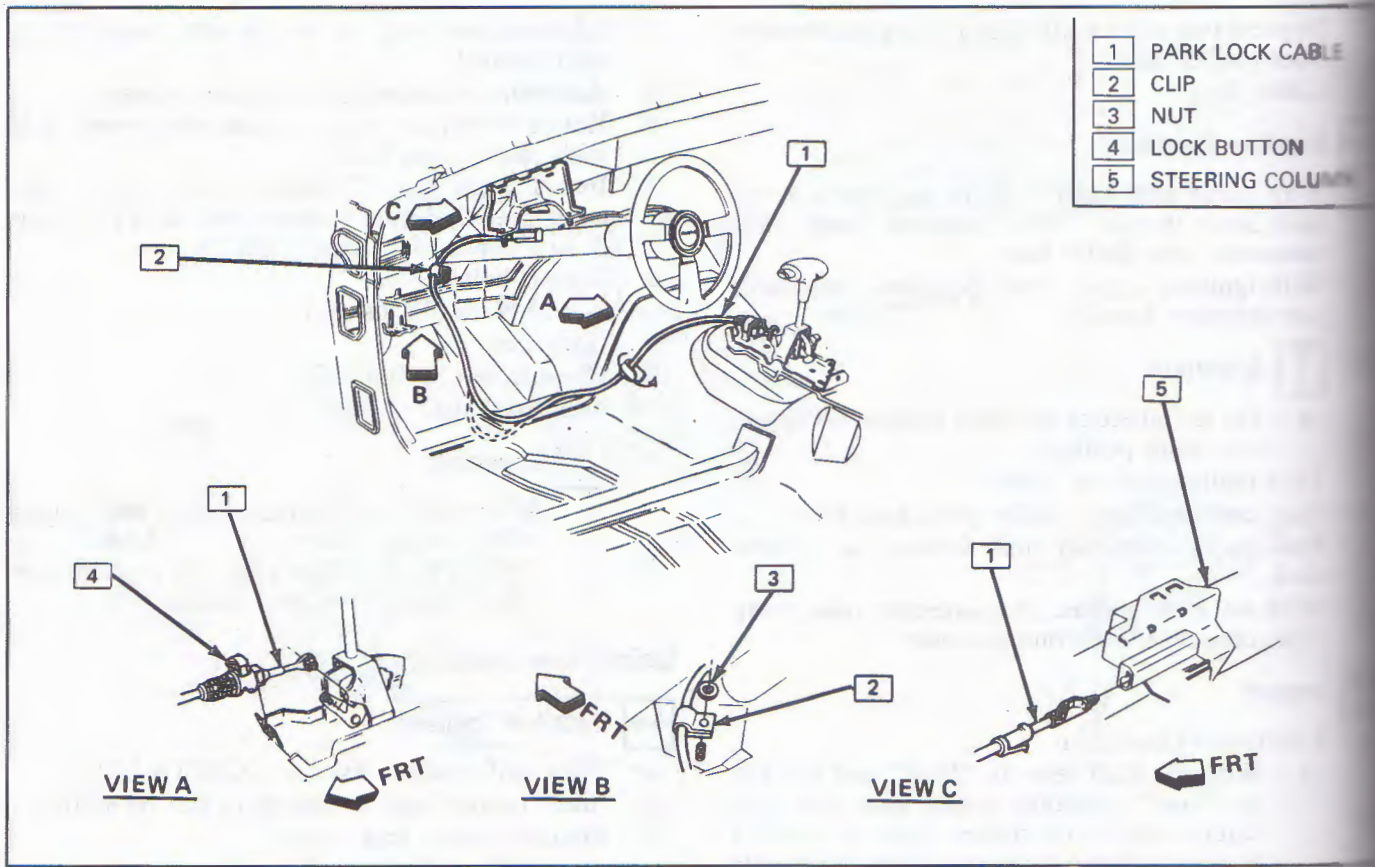


Fig. 3 Park Lock Cable

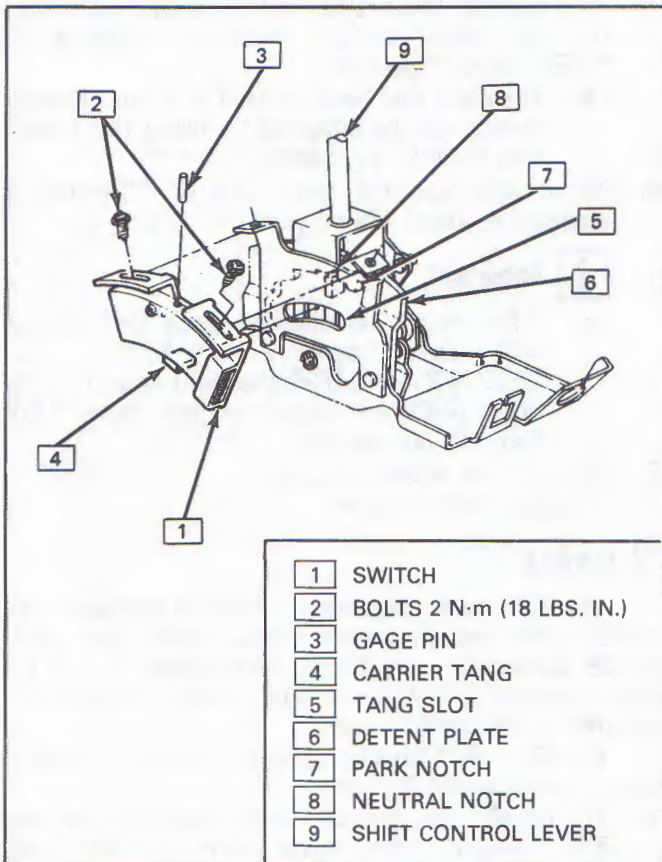


Fig. 4 Park/Neutral & Backup Lamp Switch

become broken or disconnected. If the cable is not connected or broken, the T.V. lifter rod will not move from its normal position which holds the T.V. exhaust check ball off its seat. The T.V. lifter rod will drop down to allow the T.V. exhaust ball to seat only if the cable is broken, disconnected or out of adjustment. With the transmission pan removed, pull down on the T.V. exhaust valve lifter rod and the spring should return the rod to its normal up position. If the throttle valve lever and bracket assembly or lifter rod binds or sticks so that the T.V. lifter rod cannot lift the exhaust ball off its seat, high low pressures and delayed upshifts will result. The T.V. lifter rod must not be bent or it will not function properly.

T.V. CABLE SYSTEM DIAGNOSIS

Inspect

CAUTION: To avoid possible personal injury and/or damage to the car, brakes must be applied at all times during the test.

1. Install oil pressure gage.
2. Install engine tachometer.
3. Warm up engine to proper operating temperature.
4. Run engine at 1000 RPM.
5. Apply parking brake.
6. Place gear selector in "PARK" and note oil pressure.

7. Place gear selector into "DRIVE". Oil Pressure should be equal or not more than 10 psi (34 kPa) higher than in "PARK".
8. Increase engine speed to 1400 RPM. If oil pressure does not increase, adjust T.V. cable. Refer to T.V. Cable Adjustment.

Remove or Disconnect (Figs. 5 thru 7)

1. Air cleaner.
2. T.V. cable terminal from throttle lever.
3. Cable housing from bracket while compressing locking tangs.
4. Routing clips or straps.
5. Raise car, see Section 0A.
6. Bolt securing T.V. cable to transmission.
 - Pull up on cable cover at transmission until cable is visible.
7. Cable from transmission link.
8. Cable seal.

Install or Connect

1. New seal into transmission case hole.
2. Transmission end of cable to T.V. link and secure to transmission case with bolt and washer assembly. Torque to 10 N·m (7 lb. ft.).
3. Cable routing clips or straps.
4. Lower car.
5. Pass cable through engine bracket and engage locking tangs of cable on bracket.
6. Avoid damaging or kinking wire cable.
7. Cable terminal to throttle lever.

Inspect

- Pull on upper end of cable. It should travel a short distance with light resistance caused by the small return spring on the T.V. lever. When releasing the upper end of the T.V. cable, it should return to the zero T.V. position.

Adjust

- T.V. cable. Refer to Figs. 5 thru 7.

CHANGING FLUID AND FILTER

Remove or Disconnect

1. Raise the car and support properly, see Section 0A.
2. Place drain pan under transmission oil pan.
3. Oil pan bolts from the front and sides only.
4. Loosen rear oil pan bolts approximately 4 turns.

NOTICE: Do not damage the transmission case or oil pan sealing surfaces.

5. Lightly tap oil pan with rubber mallet or pry to allow fluid to drain.
 - Inspect fluid color
 - Refer to chart in Section 7A
6. Remaining oil pan bolts, oil pan and gasket.

7. Oil filter and o-ring
 - O-ring may be stuck in the case

Clean

- Transmission case and oil pan gasket surfaces with solvent and air dry.
 - All traces of old gasket material must be removed

Install or Connect

- Coat o-ring seal with a small amount of petrolatum
 - New o-ring onto filter
 - New filter into case
 - Oil pan and new gasket
 - Oil pan bolts 20 N·m (15 lbs. ft.)
8. Lower car.
 9. Fill transmission to proper level with DEXRON® II fluid or equivalent, see Section 7A.
 10. Check "Cold" fluid level reading for initial fill. Do not overfill.
 11. Follow the "Transmission Fluid Level Checking Procedure" in Section 7A of this Service Manual.
 12. Check oil pan gasket for leaks.

700-R4 SERVICEABLE COMPONENTS

The following parts can be serviced with the transmission in the vehicle:

- Throttle valve control cable and/or sleeve seal
- Fill tube and/or seal
- Governor assembly
- Speedometer drive and/or driven gear
- Servo assembly
- Valve body assembly, spacer plate, gaskets, throttle lever and bracket assembly, auxiliary valve body, TCC solenoid, switch and wiring.
- Converter to flexplate bolts.
- Oil pan and/or gasket, strainer assembly and "O" ring.
- Pressure Regular Valve.
- Rear Oil Seal.

SERVO ASSEMBLY

Remove or Disconnect (Fig. 8)

Tool Required:

J 29714

1. Raise car and suitably support, see Section 0A.
2. Torque Arm, see Section 3D.
3. Propeller Shaft, see Section 4A.
4. Exhaust hanger.
5. Support transmission.
6. Crossmember and transmission mount.
7. Two transmission oil pan bolts below servo cover.
8. Install J 29714 on oil pan and reinstall oil pan bolts.
9. Depress servo cover and remove retaining ring.
10. J 29714.