AUTOMATIC TRANSAXLE

For later models refer to supplement.

SPECIFICATIONS

Type	Two and four wheel drive, 3 speed, two phase torque converter coupling
Operation	Automatic hydraulic
Band adjustment	Tighten adjuster to 9 Nm and back off 2 turns
Torque stay rod rubber clearance:	
1979–1984 and all Utility models	0.8–1.2 mm

TORQUE WRENCH SETTINGS

Brake band adjuster locknut	28 Nm
Drive plate to crankshaft bolts:	
1979–1984 and all Utility models	53 Nm
1985–1987 Sedan and Station Wagon models	75 Nm
Torque converter to drive plate bolts	26 Nm
Oil pan to transaxle case bolts	5 Nm

1. AUTOMATIC TRANSAXLE TROUBLE SHOOTING

NOTE: The following faults can be caused by conditions that may be rectified within the scope of the information given in this section.

NO DRIVE IN D RANGE

(1) Low fluid level in transaxle: Check fluid level in transaxle and top up.

(2) Disconnected or incorrectly adjusted control linkage: Check and connect or adjust as necessary.

(3) Incorrect transmission fluid: Check and drain and fill with the correct quantity and grade of fluid. Refer to the Lubrication and Maintenance section.

NO REVERSE DRIVE IN R RANGE

(1) Low fluid in transaxle: Check fluid level in transaxle and top up.

(2) Brake band adjustment incorrect: Check and adjust brake band.

(3) Disconnected or incorrectly adjusted control linkage: Check and connect or adjust as necessary.

NO FOUR WHEEL DRIVE SELECTION

(1) Transfer solenoid faulty or wiring disconnected: Check and connect wiring or renew transfer solenoid.

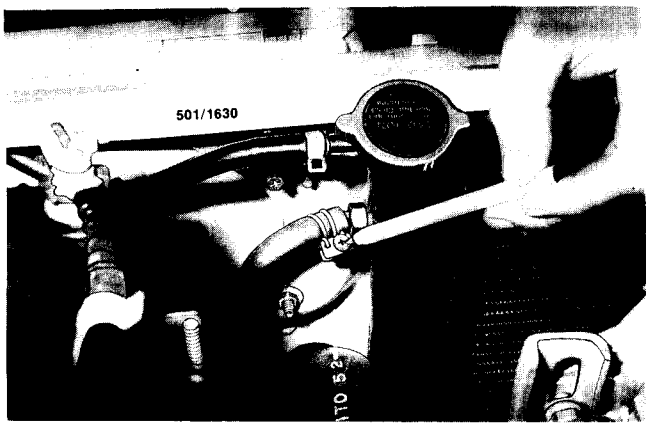
SLIPPING OR ROUGH IN UPSHIFT

(1) Low fluid level in transaxle: Check fluid level in transaxle and top up.

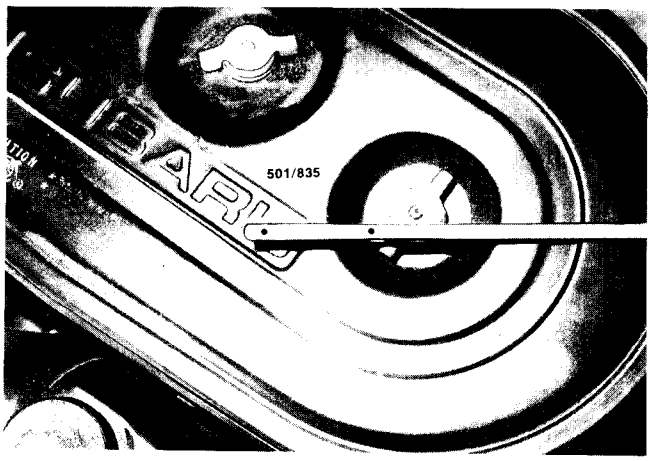
(2) Incorrect transmission fluid: Check and drain and fill with the correct quantity and grade of fluid. Refer to the Lubrication and Maintenance section.

(3) Brake band adjustment incorrect: Check and adjust brake band.

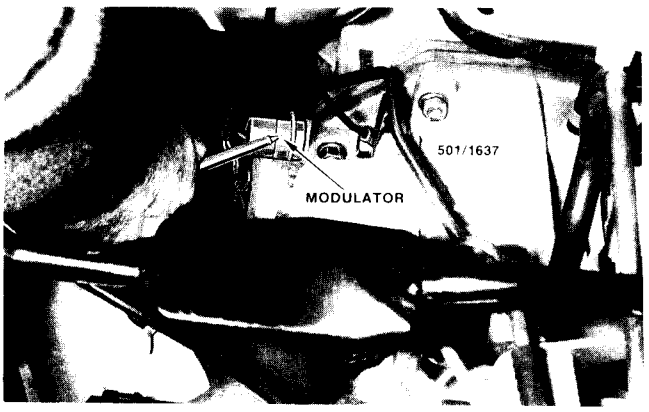
(4) Vacuum modulator punctured or pipe disconnected: Check and connect or renew as necessary.



Ensure that the oil cooler hose clips are secure.



Check the fluid level and top up as necessary.



Check for vacuum and oil leaks at the vacuum modulator.

NO TRANSAXLE KICKDOWN

(1) Kickdown switch or solenoid faulty or disconnected: Check and connect or remove and check solenoid operation.

(2) Brake band adjustment incorrect: Check and adjust brake band.

(3) Vacuum modulator punctured or pipe disconnected: Check and connect or renew as necessary.

ENGINE WILL NOT START IN N OR P POSITION OR WILL START IN ANY POSITION

(1) Linkage incorrectly adjusted: Adjust linkage.

(2) Neutral safety switch faulty: Check and renew as necessary.

2. DESCRIPTION

The transaxle is a three speed automatic unit consisting of a torque converter, compound planetary train, two multiple-disc clutches, one way sprag clutch, a multi-disc brake and one band brake assembly.

An internal oil pump operated by a drive shaft located in an inner and outer gear turning in the transaxle cover/intermediate plate supplies lubricating oil and oil pressure to the transaxle. From 1983 models onward, a four wheel drive transaxle is optional with the oil pump located in the intermediate case between the transaxle and transfer case.

The cooling of the transmission fluid/oil is achieved by circulating the fluid through an oil cooler which is an integral part of the left hand side of the radiator. The fluid level can be checked by the means of a dipstick in a filler tube located at the left hand rear side of the engine.

The vacuum modulator located on the side of the transaxle, is operated by the inlet manifold vacuum. The modulator regulates the oil pressure in the transaxle.

The transfer solenoid located on the rear of the transaxle, controls the selection of four wheel drive. The solenoid, operated by the depression of the four wheel drive switch on the selector lever, operates a transfer valve which allows fluid pressure to the transfer clutch to engage the rear drive.

The transmission selector lever is marked 1, 2, D (drive), N (neutral), R (reverse) and P (park). The neutral safety switch located at the selector lever allows the engine to be started only when the selector lever is in the P or N position.

On four wheel drive models, the four wheel drive switch is located on the selector lever grip, the switch when depressed, engages and disengages four wheel drive as well as illuminating the four wheel drive indicator lamp. On 1985–1987 Sedan and Station Wagon four wheel drive models, an additional switch is installed on the instrument cluster surround or the centre console for the automatic selection of four wheel drive when the four wheel drive switch on the selector lever is in the two wheel drive position.

When the automatic selector switch is on, four wheel drive selection will be made and the warning indicator lamp illuminated when the brake or throttle pedals are fully depressed or the windscreen wipers switched on. When reverse gear is selected, two wheel drive is automatically selected until a forward range selection is made which will illuminate the indicator warning lamp.

When operated, the four wheel drive switch at the lever grip selects four wheel drive regardless of the automatic selector switch position. Four wheel drive selection is indicated by a light shock on engagement and can be selected when the vehicle is in motion.

Four wheel drive models with a damaged or inoperative transaxle should only be towed with the road wheels having no contact with the road surface or the vehicle carried completely by another vehicle to avoid further damage to the transaxle. Two wheel drive models with a damaged or inoperative transaxle can be towed with the selector lever in the N position, provided the distance does not exceed 10 km or a speed of 30 km/h. In the event of a longer distance the vehicle must be towed by lifting the front of the vehicle.

When tuning or testing the engine, the handbrake must be fully applied and the selector lever in P or N position otherwise the vehicle will be set in motion when the engine speed is increased. It is not possible to start the engine by either towing or pushing the vehicle.

3. TRANSMISSION FLUID

Only the recommended transmission fluid specified by the manufacturer should be used when topping up or changing the fluid in the system. Refer to the Lubrication and Maintenance section.

TO CHECK AND TOP UP

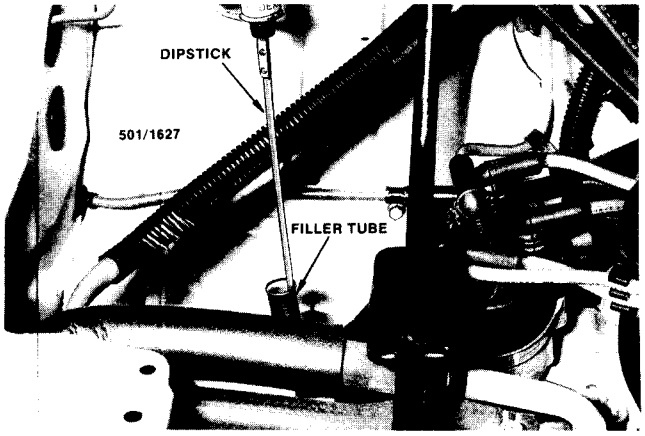
(1) Place the vehicle on a level floor, open the bonnet and clean around the dipstick/filler tube to ensure that no dirt or foreign matter enters the transmission.

NOTE: When working on automatic transmissions it is essential that thorough cleanliness is observed and that no dirt or used transmission fluid be allowed to enter the transmission.

(2) Place the selector in P and ensure the handbrake is fully applied.

(3) Move the selector lever through each gear range and return it to the P position.

(4) Check the fluid level with the engine running at idle ensuring the dipstick is fully inserted in the dipstick filler tube.



View showing location of transmission fluid dipstick.

NOTE: The fluid level should be checked after approximately 10 minutes driving on the road.

If the vehicle has been driven at high speed, in hot weather or has had a load in tow, sufficient time should be allowed to elapse to permit the transaxle to cool down before commencing the fluid level check.

(5) Withdraw the dipstick and check the fluid level reading. The level mark should read above the centre of the upper and lower dipstick marks, if the level is low, stop the engine and remove the dipstick from the dipstick filler tube.

(6) Using a suitable funnel, top up the transmission fluid with the recommended grade and quantity of fluid through the dipstick/filler tube.

(7) If the level reading is too high, ensure that the engine has cooled down as previously described and recheck the fluid level.

(8) If the fluid level again reads too high, a small amount of fluid may be drained from the transaxle.

(9) Instal the dipstick, start the engine and recheck the fluid level.

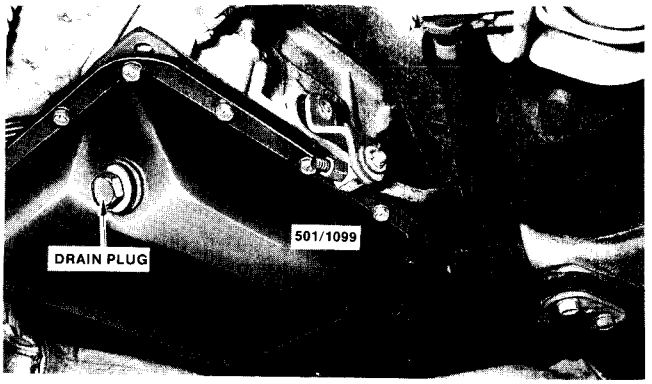
TO DRAIN AND REFILL

The transaxle fluid is normally only renewed at the manufacturers recommended frequencies or when the transaxle assembly is overhauled. Refer to the Lubrication and Maintenance section.

When the transaxle is removed for repairs the torque converter, oil cooler and the fluid pipes should be cleaned and flushed out to remove any sludge or obstruction. After transaxle overhaul, instal the correct quantity and grade of transmission fluid into the transaxle.

(1) Allow the transaxle to cool and raise the vehicle to a suitable working height and support it on chassis stands.

(2) Place a suitable drain tin beneath the transaxle and remove the transaxle oil pan drain plug allowing the fluid to drain into the tin.



Installed view of transaxle drain plug.

(3) When the fluid has completed draining, instal the drain plug and a new sealing washer and tighten securely.

(4) Lower the vehicle to the ground, ensuring that it is level and refill the transaxle with the correct quantity and grade of automatic transmission fluid. Refer to Lubrication and Maintenance section.

(5) Start the engine and warm the transmission fluid to the normal operating temperature. Operate the transaxle selector lever through all the ranges.

(6) Check the fluid level with the dipstick and top up as necessary.

4. BRAKE BAND

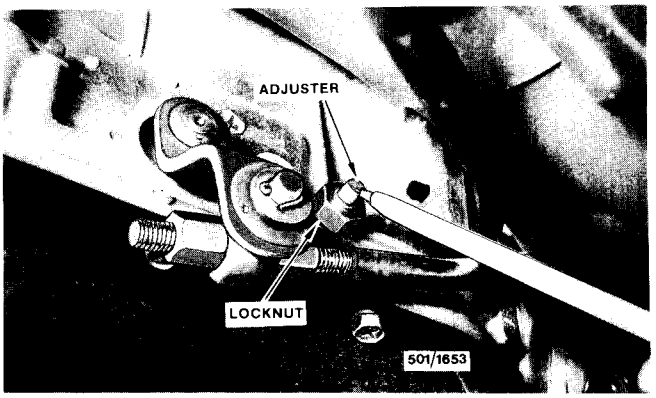
Special Equipment Required:
To Adjust — Suitable torque wrench

TO ADJUST

(1) Raise the vehicle to a suitable working height and support it on chassis stands.

(2) Working under the vehicle, hold the brake band adjuster screw and loosen off the adjuster locknut.

NOTE: Do not loosen the adjuster screw excessively or the brake band strut or piston will drop out of position.



Installed view of brake band adjuster screw on left hand side of transaxle.

(3) Using a suitable torque wrench, tighten the adjuster screw to the Specifications and back off two turns.

(4) Hold the adjuster screw and tighten the adjuster locknut to the Specifications.

5. KICKDOWN SOLENOID

TO REMOVE AND INSTAL

(1) Raise the vehicle to a suitable working height and support it on chassis stands.

(2) Using a suitable drain tin drain approximately one litre of fluid from the transaxle.

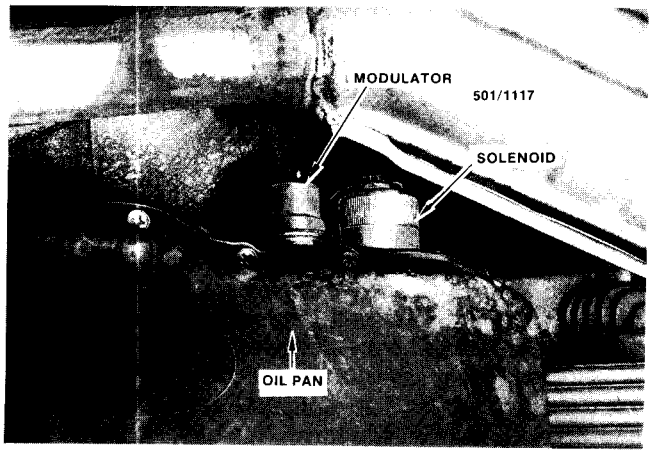
(3) Ensuring the ignition is Off, disconnect the solenoid wiring and unscrew the solenoid from the transaxle.

(4) Carefully clean the solenoid valve in a suitable solvent and check its operation by energising its circuit, renew as necessary.

The installation procedure is a reversal of the removal procedure with attention to the following points:

(1) Ensure that no dirt or foreign matter enters the transaxle assembly.

(2) Lower the vehicle to the ground and top up the transmission fluid as necessary.



Installed view of vacuum modulator and kickdown solenoid.

6. VACUUM MODULATOR

TO REMOVE AND INSTAL

(1) Raise the vehicle to a suitable working height and support it on chassis stands.

(2) Working under the vehicle use a suitable drain tin and drain approximately one litre of fluid from the transaxle.

(3) Loosen the vacuum pipe retaining bolts at the governor and transaxle and move the pipe, hose and bracket away from the vacuum modulator.

(4) Carefully unscrew the vacuum modulator from the transaxle.

(5) Remove the diaphragm sealing ring and piston rod from the transaxle.

Installation is a reversal of the removal procedure with attention to the following points:

(1) Ensure that no dirt or foreign matter enters the transaxle assembly.

(2) Lower the vehicle to the ground and top up the transmission fluid as necessary.

7. FOUR WHEEL DRIVE TRANSFER SOLENOID

TO REMOVE AND INSTAL

(1) Disconnect the negative battery terminal.

(2) Remove the spare wheel from the engine compartment.

(3) Loosen the torque stay rod retaining bolts and/or nuts to allow the transaxle to move slightly to one side.

(4) Disconnect the transfer solenoid wiring and suspend the wiring harness away from the work area.

(5) Remove any cables from the transaxle which will restrict its movement.

(6) Raise the vehicle to a suitable working height and support it on chassis stands.

(7) Working under the vehicle using a suitable drain tin and drain approximately one litre of fluid from the transaxle.

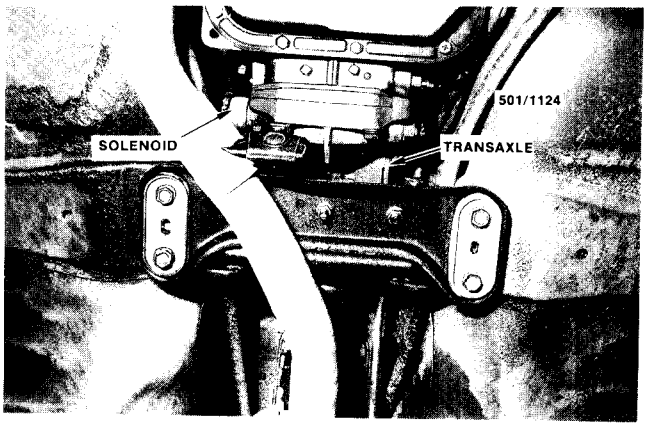
(8) Using a jack, support the weight of the transaxle under the oil pan. Insert a block of wood between the oil pan and the jack.

(9) Remove the crossmember to transaxle retaining nuts.

(10) Remove the crossmember to chassis retaining bolts and remove the crossmember from the vehicle.

(11) Remove the cable from the clamp and move it away from the work area.

(12) Move the transaxle to the left sufficiently to gain access to the transfer solenoid and secure it by inserting a block of wood between the transaxle and the vehicle body. Carefully remove the transfer solenoid from the transaxle.



Installed view of four wheel drive transfer solenoid.

Installation is a reversal of the removal procedure with attention to the following points:

(1) Ensure that no dirt or foreign matter enters the transaxle assembly.

(2) Lower the vehicle to the ground and top up the transmission fluid as necessary.

8. AUTOMATIC FOUR WHEEL DRIVE SWITCH

TO REMOVE AND INSTAL

1985–1986 Sedan and Station Wagon Models

(1) Disconnect the negative battery terminal.

(2) Using a suitable screwdriver carefully prise the automatic switch from the instrument cluster surround or, on later models, the console.

(3) Remove the wiring connector from the rear of the switch and remove the switch from the vehicle.

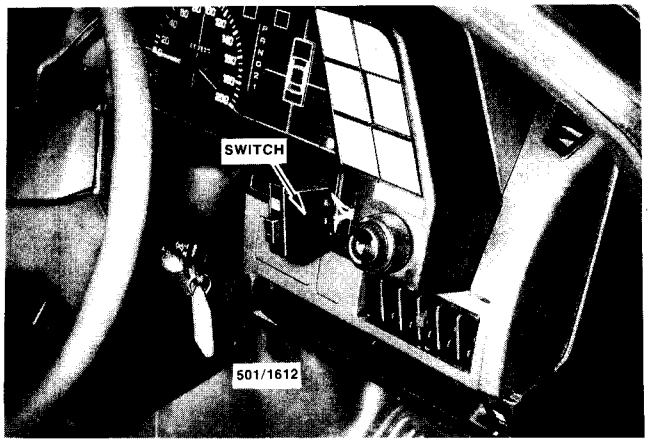
Installation is a reversal of the removal procedure.

1987 Sedan and Station Wagon Models

(1) Disconnect the negative battery terminal.

(2) Remove the instrument cluster surround as described in the Electrical System section and remove the switch from the instrument cluster surround.

Installation is a reversal of the removal procedure.



View of 1985 model four wheel drive automatic selector switch partially removed from the instrument cluster surround.

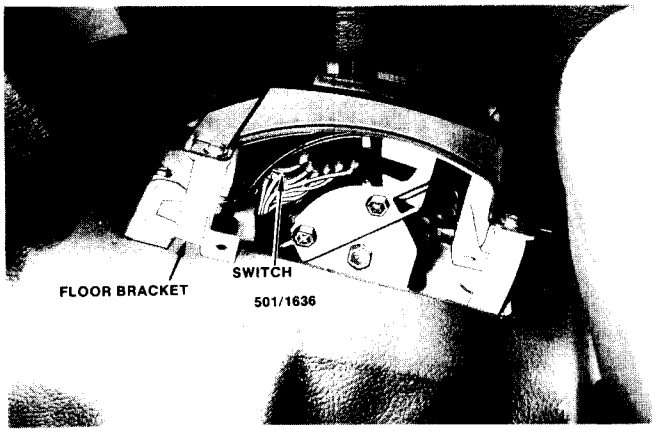
9. NEUTRAL SAFETY SWITCH

The neutral safety switch is situated on the side of the transmission selector lever and is not adjustable or repairable, for the removal and installation procedure reference should be made to the Selector Lever and Linkage heading later in this section.

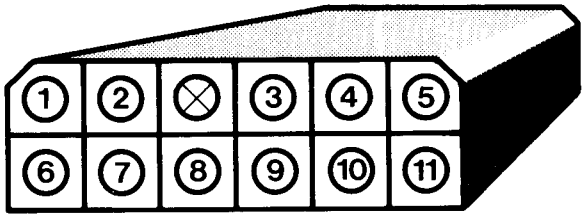
TO TEST

(1) Remove the retaining screws and remove the centre console from the vehicle. Refer to the Body section if necessary.

(2) Lift the floor mat and disconnect the neutral safety switch wiring connector.



Installed view of neutral safety switch and selector lever floor bracket.



501/LD24

Illustration showing neutral safety switch end of wiring connector, 1985–1987 models.

(3) Using a suitable circuit continuity tester, connect the leads to the terminals on the neutral safety switch side of the connector as follows:

(a) On 1979–1984 and all Utility models, connect one lead to the black/white wiring terminal and the other lead to the black/yellow wiring terminal.

(b) On 1985–1987 Sedan and Station Wagon models, connect one lead to the terminal marked 8 and the other lead to the terminal marked 9.

(4) Have an assistant select Park and Neutral in turn. Continuity should exist between the black/white and black/yellow wiring terminals or between wiring terminals 8–9 in the P and N positions only.

(5) Select Reverse and proceed as follows:

(a) On 1979–1984 and all Utility models, connect one lead to the green/yellow wiring terminal and the other lead to the blue/white wiring terminal.

(b) On the 1985–1987 Sedan and Station Wagon models, connect one lead to the terminal marked 10 and the other lead to the terminal marked 11.

(6) Continuity should exist between the green/yellow and the blue/white terminal or between wiring terminals 10–11 in the R position only.

(7) To test the operation of the indicator lamp circuits on 1985–1987 Sedan and Station Wagon models, proceed as follows:

(a) Selecting P, R, N, D, 2 and 1, in sequence with one test equipment lead on connector terminal number 1 and the other lead on connector terminals

numbers 2, 3, 4, 5, 6, 7, also in sequence. Continuity should exist in each lever position.

(8) If the test equipment fails to show continuity in any of the above tests, the neutral safety switch will require renewal.

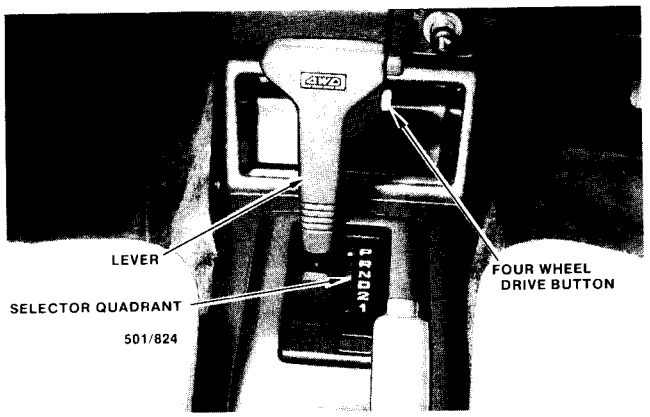
10. SELECTOR LEVER AND LINKAGE

TO REMOVE AND DISMANTLE

(1) Remove the centre console as described in the Body section.

(2) Disconnect the indicator lamp neutral safety switch and where installed, the four wheel drive switch wiring.

(3) Remove the floor bracket to floor retaining screws.



Installed view of selector lever, 1986 four wheel drive model shown.

(4) Raise the vehicle to a suitable working height and support it on chassis stands.

(5) Working under the vehicle, remove the control rod to the selector lever retaining pin split pin and disconnect the control rod.

(6) Remove the control rod connector to transaxle selector arm retaining split pin and remove the rod from the vehicle.

(7) Remove the bush from the selector arm.

(8) Working inside the vehicle, remove the screws retaining the selector lever assembly to the vehicle floor and remove the assembly from the vehicle.

(9) On two wheel drive models proceed as follows:

(a) Remove the lever grip to lever retaining screws and remove the grip.

(b) Remove the button and spring from the grip.

(10) On four wheel drive models proceed as follows:

(a) Remove the four wheel drive switch and retaining spring clip or, on later models the retaining screw and withdraw the switch.

(b) Remove the wiring to switch retaining screws and remove the switch from the lever.

(c) Remove the lever grip to lever retaining screws and remove the grip.

(d) Remove the button and spring from the grip.

(11) Remove the control rod bush from the lever.

(12) Remove the indicator cover to floor bracket retaining screws and remove the cover.

(13) Remove the neutral safety switch to floor bracket retaining bolts and remove the switch.

(14) Using a suitable drift drive the selector lever detent pin from the lever sufficiently to clear the guide plate. Do not drive the retaining pin out completely at this stage.

(15) Remove the selector lever to floor bracket retaining pivot bolt and nut and remove the lever, rubber boot and spacer from the bracket.

NOTE: Do not remove the bushes from the selector lever.

(16) Using a suitable screwdriver, press the lever rod down on its spring and drive the selector lever detent pin from the rod and the lever.

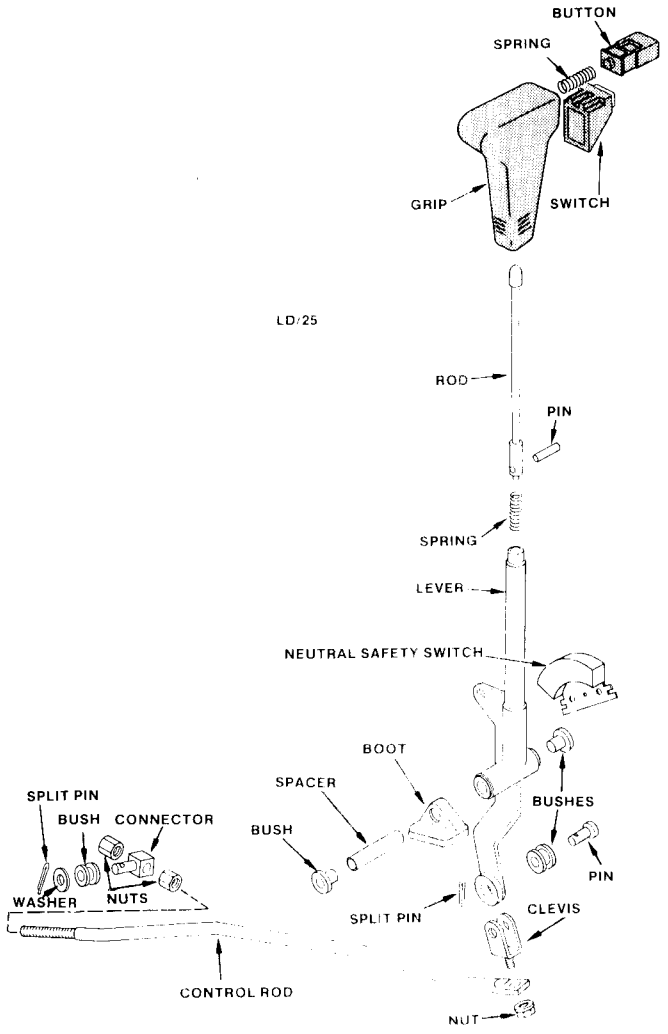


Illustration of dismantled view of transaxle selector lever and linkage, 1985–1987 models.

(17) Remove the rod and spring from the lever interior.

(18) Check the sliding fit of the button in the grip, renew as necessary.

(19) Check the rods, lever, connector and clevis for wear and damage, renew as necessary.

(20) Check the lever grip, button, switch, indicator and neutral safety switch for cracks and damage, renew as necessary.

(21) Check the bushes for wear and damage, renew as necessary.

(22) Check the springs for damage and loss of tension, renew as necessary.

TO ASSEMBLE AND INSTAL

(1) Apply grease to the large diameter ends of the lever interior rod, the surface of the spacer, the spacer contact surface of the rubber boot and the coils of the springs.

(2) Instal the control rod bush to the selector lever.

(3) Instal the spring and lever rod into the interior of the lever, align the detent pin holes on the rod and lever and instal the detent pin. Ensure that the pin is entered from the right hand side and is flush with the left hand side of the lever. Do not drive the pin fully home at this stage.

(4) Instal the spacer and rubber boot to the lever ensuring the boot is installed from the bottom and locates on the lever pivot bolt left hand protusion.

(5) Instal the selector lever and rubber boot to the floor bracket and instal the retaining pivot bolt and nut and tighten securely.

(6) Using a suitable drift drive the detent pin fully home until it is flush with the lever right hand side and enters the guide bracket on the left hand side of the floor bracket.

(7) Check the movement of the neutral safety switch mechanism and temporarily secure the moving plate by installing a 2 mm diameter pin through the moving plate to the switch base plate.

(8) Position the selector lever in Neutral and instal the neutral safety switch to the floor bracket ensuring the switch locating pin locates on the bracket.

(9) Instal the neutral safety switch to floor bracket retaining bolts and tighten to the Specifications. Remove the pin.

(10) On models equipped with two wheel drive proceed as follows:

(a) Instal the spring and button to the lever grip.

(b) Ensuring the button is to the right hand side and depressed instal the grip to the lever. Instal the retaining screws and tighten securely.

(11) On four wheel drive models proceed as follows:

(a) Using a piece of string or wire attached to the four wheel drive switch wires, pull the wiring in from the bottom of the lever grip and out of the switch aperture.

(b) Connect the wires to the four wheel drive switch and tighten the retaining screws securely.

(c) Instal the spring and button to the grip.

(d) Ensuring the button is to the right hand side and depressed, instal the grip to the lever. Instal the retaining screws and tighten securely.

(e) Instal the four wheel drive switch and retaining spring or, on later models, the retaining screw to the grip.

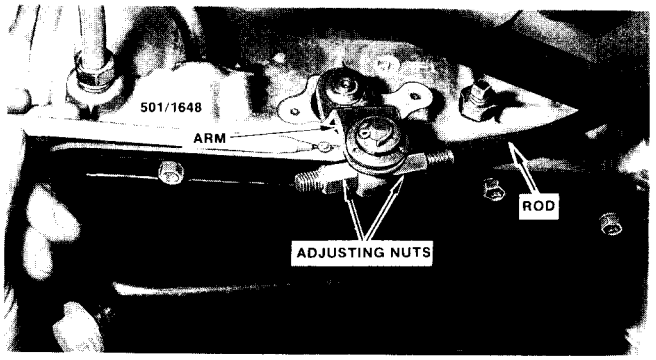
(12) Check that the lever operates freely and smoothly and that the lever movements and the indicator are aligned.

(13) Instal the selector lever assembly to the floor, instal the retaining screws and tighten securely.

(14) Position the selector lever at Neutral. Working under the vehicle instal the bush and control rod connector to the transaxle selector arm and instal the retaining split pin.

(15) Loosen the control rod adjusting nuts.

(16) On early models, position the transaxle selector arm in neutral by aligning the arm with the protusion on the transaxle case.



Installed view showing 1985–1987 models selector arm and one of the neutral alignment protusions.

(17) On later models, position the transaxle selector arm in neutral by aligning the arm between the two protrusions on the transaxle case.

(18) Position the control rod clevis on the selector lever and instal the clevis pin. Secure the clevis pin with the split pin.

(19) Screw the control rod inner adjusting nut until it nearly abuts the connector leaving a clearance of 0–2 mm.

(20) Hold the inner adjusting nut and tighten the outer adjusting nut securely against the connector.

(21) Check the operation of the selector lever.

(22) Connect the indicator lamp, neutral safety switch and where installed, the four wheel drive switch wiring.

(23) Ensure that the engine can only be started at the N and P positions of the selector lever.

(24) Ensure that the R position cannot be selected unless the button is depressed.

(25) Ensure that the reverse lamps illuminate only at the R position of the selector lever.

(26) Instal the centre console and lower the vehicle to the ground.

11. TRANSAXLE ASSEMBLY

Special Equipment Required:
To Remove and Instal — Trolley jack

TO REMOVE

(1) Disconnect the negative battery terminal.

(2) Remove the spare wheel from the engine compartment.

(3) Remove the spare wheel support bracket retaining bolts and remove the bracket.

(4) Disconnect the vacuum hose from the vacuum modulator.

(5) On 1985–1987 four wheel drive Sedan and Station Wagon models disconnect the air breather hose.

(6) Unscrew the speedometer cable collar and remove the cable from the transaxle.

(7) Disconnect the wiring connectors at the kickdown solenoid, temperature switch and where applicable, the transfer solenoid.

(8) Remove the earth wire to body retaining screw and disconnect the earth wire.

(9) On 1979–1984 and all Utility models, remove the starter motor retaining bolts and nuts, withdraw the starter motor and position it securely on the engine compartment bulkhead.

(10) On 1985–1987 Sedan and Station Wagon models proceed as follows:

(a) Disconnect the wiring cables to the starter motor.

(b) Remove the starter motor retaining nuts and remove the earth wire. Remove the starter motor from the vehicle.

(11) On 1979–1984 and all Utility models, loosen the torque stay rod nuts sufficiently to allow the engine to be tilted to the rear to facilitate transaxle removal.

(12) On 1985–1987 Sedan and Station Wagon models, remove the torque stay rod to body and transaxle retaining bolts and remove the stay rod from the vehicle.

(13) Remove the ignition timing mark access cover from the torque converter housing and remove the converter to the drive plate retaining bolts. Ensure that the retaining bolts are not mislaid inside the housing.

(14) Disconnect the transmission fluid cooler hoses from the transaxle. Plug the pipes to prevent the loss of fluid and the entry of dirt.

(15) On 1979–1984 and all Utility models, remove the transaxle to engine upper bolts and nuts and loosen the lower retaining nuts.

(16) On 1985–1987 Sedan and Station Wagon models, remove the transaxle to engine right hand retaining bolt and nut.

(17) Raise the vehicle to a suitable working height and support it on chassis stands.

(18) On 1979–1984 and all Utility models, remove the hot air intake hose from the exhaust.

(19) Loosen the exhaust engine pipe to manifold retaining nuts.

(20) Remove the engine pipe to intermediate pipe retaining bolts, springs and nuts.

(21) Remove the engine pipe to support bracket retaining bolt and nut.

(22) Remove the engine pipe to manifold retaining nuts and remove the engine pipe from the vehicle.

(23) On four wheel drive models remove the intermediate pipe to the rear muffler retaining bolts and nuts and remove the intermediate pipe from the vehicle.

(24) Using a suitable drain tin positioned under the oil pan remove the drain plug and drain the transmission fluid. Instal the drain plug and new washer and tighten securely.

(25) Disconnect the dipstick/filler tube from the transaxle ensuring that the pipe aperture is plugged to prevent the entry of dirt and that the sealing 'O' ring is not damaged.

(26) On four wheel drive models remove the propeller shaft(s) from the vehicle ensuring that the transaxle aperture is plugged to prevent entry of dirt. Refer to the heading Propeller Shaft in the Manual Transaxle section.

(27) Position the selector lever in N and mark the position of the inner and outer adjusting nuts on the selector lever control rod and remove the outer nut.

(28) Remove the selector lever to control rod retaining split pin and clevis pin and remove the rod.

(29) On 1979–1984 and all Utility models, proceed as follows:

(a) Remove the stabiliser bar to chassis retaining bolts and nuts and remove the clamps and rubbers noting their installed position.

(b) Remove the stabiliser bar to radius rod retaining bolts and nuts and remove the clamps and rubbers noting their installed position. Remove the stabiliser bar from the vehicle.

(30) On 1985–1987 Sedan and Station Wagon models, remove the stabiliser bar link plates to control arm retaining bolts and nuts and separate the stabiliser bar. Discard the retaining nuts.

(31) Remove the control arm to front crossmember retaining bolts and nuts and lower the arms. Discard the retaining nuts.

(32) On 1985–1987 Sedan and Station Wagon models, remove the handbrake cable bracket to control arm retaining bolts and nuts and separate the cable and lower the arms.

(33) Using a suitable drift drive the axle shaft to drive shaft retaining pins from the axle and drive

shafts. Discard the retaining pins.

(34) Push the rear of the front wheels outwards and separate the axle shaft from the drive shaft.

(35) Remove the rear crossmember to transaxle retaining nuts.

(36) On the 1985–1987 Sedan and Station Wagon models, remove the transaxle to engine retaining nuts.

(37) Suitably support the engine and position the jack underneath the transaxle assembly.

(38) Remove the rear crossmember to chassis retaining bolts and remove the crossmember.

(39) On 1979–1984 and all Utility models, remove the transaxle to engine retaining nuts.

(40) On four wheel drive models, disconnect the wiring from the four wheel drive and the transmission fluid temperature switches.

(41) Carefully separate the transaxle assembly from the engine and lower it carefully to avoid fouling any components. Withdraw the transaxle assembly from the vehicle.

NOTE: Under no circumstances may the converter or drive plate be hammered or levered to remove the transaxle. This should be done by inserting a wedge between the two mating faces in the area of the locating dowels.

(42) Thoroughly clean the exterior of the transaxle assembly in a suitable solvent ensuring that no foreign object or liquid enters the transaxle.

(43) Check the transaxle cases for cracks and damage, renew as necessary.

TO INSTAL

Installation is a reversal of the removal procedure with attention to the following points:

(1) Ensure that the torque converter is correctly installed to the transaxle.

(2) Ensure that the mating surfaces of the transaxle and torque converter housing are clean and free of burrs.

(3) Using the trolley jack, position the transaxle under the vehicle.

(4) Guide the transaxle forward to locate onto the engine. Carefully guide the transaxle forward until it locates on the dowells and abuts the face of the torque converter housing.

(5) Instal the right hand retaining bolts and nuts and lower retaining nuts to the transaxle and engine and tighten securely.

(6) Instal the rear crossmember to the transaxle and instal the new retaining nuts and tighten securely.

(7) Instal the rear crossmember to the chassis and instal the retaining bolts and tighten securely.

(8) On 1985–1987 Sedan and Station Wagon models, tighten the transaxle to engine lower retaining nuts securely.

(9) Remove the jack. On 1980–1984 and all Utility models, instal the handbrake cable to the chassis and instal the retaining bolt and nut and tighten securely.

(10) Push the outside of the front wheels inwards and instal the axle shafts to the drive shafts ensuring that the retaining pin holes are aligned.

(11) Instal the new retaining roll pins to the axle and drive shafts.

(12) Instal the control arms to the front crossmember, instal the retaining bolts and new nuts and tighten securely.

(13) On 1979–1984 and all Utility models proceed as follows:

(a) Instal the stabiliser bar, rubbers and clamps to the chassis and instal the retaining bolts and nuts and tighten securely. Ensure that the rubbers are installed with their compliance slits to the rear.

NOTE: On models equipped with the modified stabiliser bar to chassis rubber bushes the compliance slits should be positioned facing the chassis.

(b) Instal the stabiliser bar, rubbers and clamps to the radius rod and instal the retaining bolts and nuts and tighten securely. Ensure that the rubbers are installed with their compliance slits to the inside.

(14) On 1985–1987 Sedan and Station Wagon models proceed as follows:

(a) Instal the stabiliser bar link plates to the control arms and instal the retaining bolts and nuts and tighten securely.

(b) Instal the handbrake cable to the control arms and instal the retaining bolt and nut and tighten securely.

(15) Position the selector lever at N and instal the control rod on the lever.

(16) Instal the control rod to selector lever retaining clevis pin and secure with the split pin.

(17) Ensuring the transaxle selector arm is in the neutral position instal the control rod to the arm and adjust the nuts to the position noted on removal and tighten securely.

(18) Connect the dipstick/filler tube to the transaxle and tighten securely ensuring the sealing 'O' ring is correctly located.

(19) On four wheel drive models instal the propeller shaft(s). Refer to the heading Propeller Shaft in the Manual Transaxle section.

(20) On 1985–1987 Sedan and Station Wagon models proceed as follows:

(a) Lower the vehicle to the ground and tighten the control arms to front crossmember retaining bolts and nuts securely.

(b) Tighten the stabiliser bar link plate to control arm retaining bolts and nuts securely.

(c) Raise the car to a suitable working height and support it on chassis stands.

(21) Position the engine exhaust pipe on its support bracket and instal the retaining bolt and nut loosely.

(22) Instal the engine pipe and new gasket to the manifold and instal the retaining nuts loosely.

(23) Instal the engine pipe and new gasket to the intermediate pipe and instal the retaining bolts, springs and nuts and tighten securely.

(24) Tighten the engine pipe to manifold and support bracket retaining bolts and nuts securely.

(25) On 1979–1984 and all Utility models instal the hot air intake hose to the exhaust.

(26) On four wheel drive models, instal the intermediate pipe and new gasket to the rear muffler and instal the retaining bolts and nuts and tighten securely. Ensure the exhaust is located correctly on the hangers.

(27) Lower the vehicle to the ground.

(28) On 1979–1984 and all Utility models proceed as follows:

(a) Instal the starter motor to the engine, instal the retaining bolts and nuts and tighten securely.

(b) Tighten the transaxle to engine retaining bolts and nuts and tighten securely.

(29) On 1985–1987 Sedan and Station Wagon models proceed as follows:

(a) Remove the engine support rod, instal the torque stay rod to the transaxle and body and instal the retaining bolts and nuts and tighten securely.

(b) Instal the starter motor to the engine and instal the retaining bolts and nuts and tighten securely. Ensure that the earth wire is secured by the retaining nut.

(c) Instal the wiring cables to the starter motor.

(30) Align the torque converter to the drive plate, instal the retaining bolts and tighten to Specifications. Instal the ignition timing mark access cover to the converter housing.

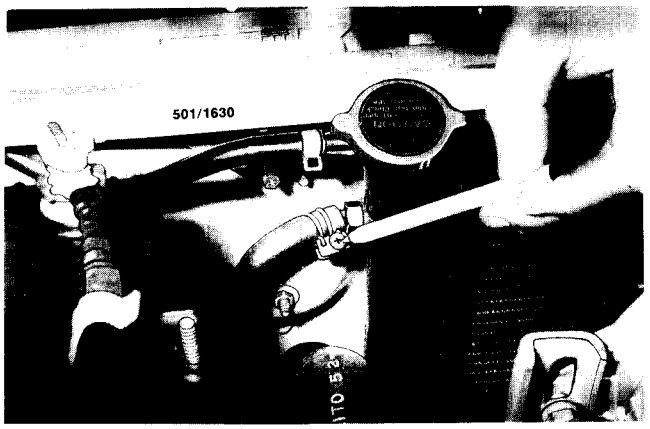
NOTE: Align the drive plate to torque converter and access hole by turning the engine by hand.

(31) On 1979–1984 and all Utility models proceed as follows:

(a) Loosen the stay rod adjusting nut until the rod is loose on the engine bracket.

(b) Tighten the rear nut and check the clearance between the washer and rubbers at the engine. This is specified as torque stay rod clearance and is controlled by the adjusting nut or the installation of new rubbers. Refer to Specifications.

(c) When adjustment is complete hold the rear nut and tighten the adjusting nut securely.



Ensure that the oil cooler hose clips are secure.

(32) Connect the fluid cooler hoses to their pipes and the vacuum hose to the vacuum modulator. Ensure that the hoses are secure.

(33) Instal the speedometer cable to the transmission and tighten the retaining collar securely ensuring it is routed under the torque stay rod.

(34) Connect the wiring to the fluid temperature switch, kickdown solenoid and, where applicable, the transfer solenoid.

(35) On four wheel drive models, connect the wiring to the four wheel drive.

(36) Instal the earth wire to the body and instal the retaining screw and tighten securely.

(37) On 1985–1987 four wheel drive Sedan and Station Wagon models, instal the air breather hose. Ensure the hose is secure.

(38) On 1979–1984 and all Utility models, tighten the control arms to the front crossmember retaining bolts and nuts securely.

(39) Instal the spare wheel support bracket and instal the retaining bolts and tighten securely.

(40) Connect the negative battery terminal.

(41) Fill the transaxle with the recommended grade and quantity of transmission fluid.

(42) Start the engine and check for exhaust and fluid leaks.

(43) Check the transaxle controls for free and smooth operation.

(44) When the transaxle has reached operating temperature stop the engine and check the transmission fluid level and top up if necessary.

(45) Instal the spare wheel to the vehicle.