# **TRANSMISSION SERVICING - A/T**

# 2000 Dodge Stratus

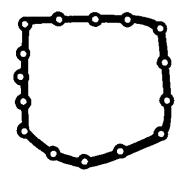
2000-01 TRANSMISSION SERVICING DaimlerChrysler Corp. Automatic Transmission - Cars
2000
Chrysler; 300M, Cirrus, Concorde, LHS, Sebring
Convertible, Sebring Coupe
Dodge; Avenger, Intrepid, Neon, Stratus
Plymouth; Breeze, Neon
2001
Chrysler; 300M, Concorde, LHS, PT Cruiser, Sebring
Dodge; Intrepid, Neon, Stratus
Plymouth; Neon

# **APPLICATION**

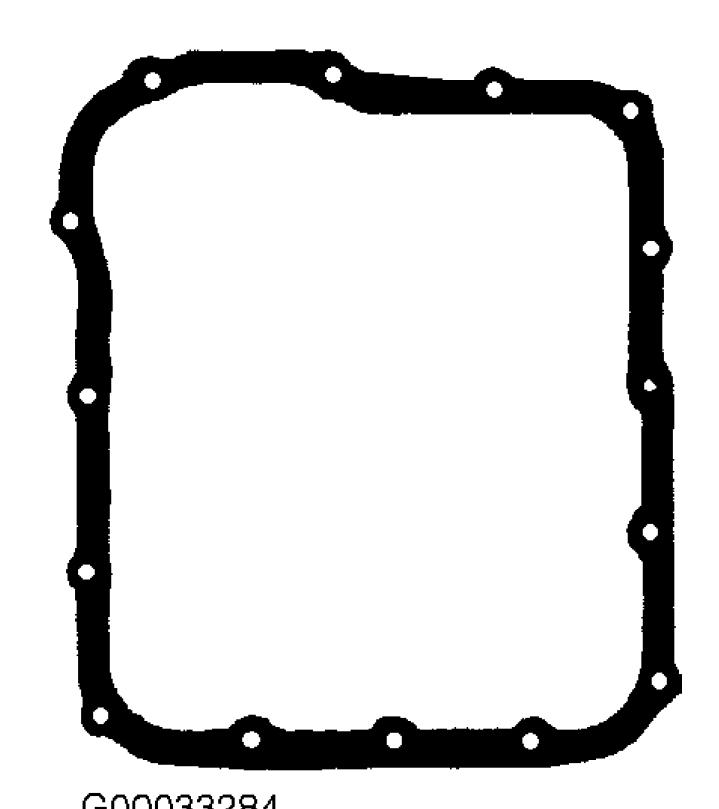
# AUTOMATIC TRANSAXLE APPLICATIONS (2000)

Application (Body Code)	Transaxle	Model
Avenger & Sebring Coupe (FJ22) Breeze, Cirrus & Stratus Sedan (JA) Concorde, Intrepid, LHS & 300M (LH) Neon (PL) Sebring Convertible (JX)		41TE 42LE 31TH
AUTOMATIC TRANSAXLE APPLICATIONS (2001)		
Application (Body Code) Concorde, Intrepid, LHS & 300M (LH) Neon (PL) Prowler (PR) PT Cruiser (PT) Sebring Convertible (JX) Sebring Coupe & Stratus Coupe (FJ22) Sebring Sedan & Stratus Sedan (JR41)		42LE 31TH 42LE 41TE 41TE

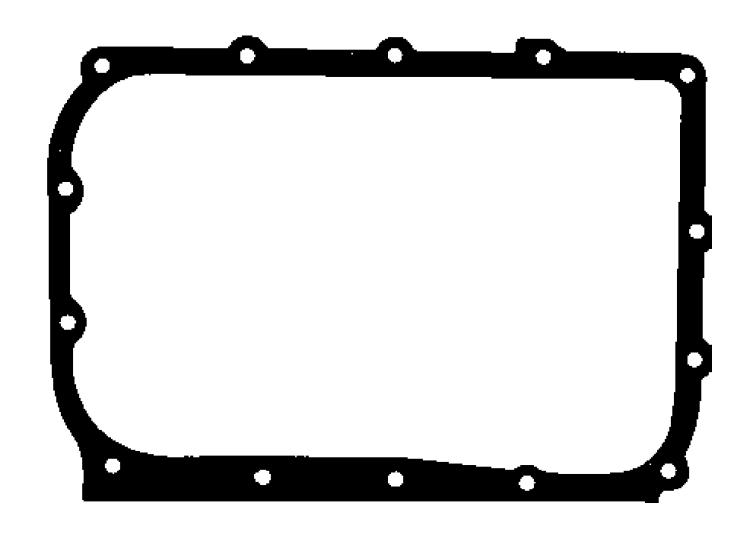
# **OIL PAN GASKET IDENTIFICATION**



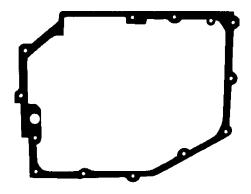
95E13684 Fig. 1: Identifying Oil Pan Gasket (F4AC1 & 41TE) Courtesy of DaimlerChrysler Corp.



G00033284 Fig. 2: Identifying Oil Pan Gasket (F4A42 & F4A51) Courtesy of DaimlerChrysler Corp.



# $\begin{array}{c} 95D13683 \\ \text{Fig. 3: Identifying Oil Pan Gasket (31TH)} \\ \text{Courtesy of DaimlerChrysler Corp.} \end{array}$



93J40732 Fig. 4: Identifying Oil Pan Gasket (42LE) Courtesy of DaimlerChrysler Corp.

# **LUBRICATION**

#### SERVICE INTERVALS

F4AC1 Transaxle

Check transmission fluid level at 15,000-mile intervals. Under normal service conditions, change transmission fluid and filter at 30,000-mile intervals. Under severe service conditions, change transmission fluid and filter at 15,000-mile intervals. Severe service conditions are conditions such as continuous operation during extreme temperatures, continuous operation in stop and go traffic, long periods of engine idling, trailer towing, police, taxi, local delivery service or operating in dusty conditions.

F4A42 & F4A51 Transaxle

Check transmission fluid level each month. Under normal service conditions, change transmission fluid and filter at 30,000-mile intervals. Under severe service conditions, change transmission fluid and filter at 15,000-mile intervals. Severe service conditions are conditions such as continuous operation during extreme temperatures, continuous operation in stop and go traffic, long periods of engine idling, trailer towing, police, taxi, local delivery service or operating in dusty conditions.

31TH Transaxle

Check transmission fluid level each month. Under normal service conditions, change transmission fluid and filter at 30,000-mile intervals. Under severe service conditions, change transmission fluid and filter, and adjust bands at 15,000-mile intervals. Severe service conditions are conditions such as continuous operation during extreme temperatures, continuous operation in stop and go traffic, long periods of engine idling, trailer towing, police, taxi, local delivery service or operating in dusty conditions.

41TE Transaxle

Check transmission fluid level each month. Under normal service conditions, change transmission fluid and filter at 30,000-mile intervals. Under severe service conditions, change transmission fluid and filter at 15,000-mile intervals. Severe service conditions are conditions such as continuous operation during extreme temperatures, continuous operation in stop and go traffic, long periods of engine idling, trailer towing, police, taxi, local delivery service or operating in dusty conditions.

42LE Transaxle

Check transmission fluid level each month. Under normal service conditions, no service intervals are necessary. Under severe service conditions, change differential fluid at 15,000-mile intervals, and transmission fluid and filter at 48,000-mile intervals. Severe service conditions are conditions such as continuous operation during extreme temperatures, continuous operation in stop and go traffic, long periods of engine idling, trailer towing, police, taxi, local delivery service or operating in dusty conditions.

### CHECKING FLUID LEVEL

F4AC1 Transaxle

1) Park vehicle on level surface. Apply parking brake. Start engine and run at curb idle for at least one minute. With brakes applied, move gearshift lever through all gear ranges, ending in Park.

2) Check fluid level. If vehicle has been driven for at least 15 minutes before checking fluid level, transaxle should be considered hot and fluid level should be above WARM mark on dipstick. If vehicle has been operating for less than 15 minutes, but more than one minute

before checking fluid level, transaxle should be considered to be warm and fluid level should be above ADD mark on dipstick. Add appropriate type of transmission fluid, if necessary. See RECOMMENDED FLUID. DO NOT overfill.

#### F4A42 & F4A51 Transaxle

- 1) Ensure transaxle fluid is at normal operating temperature. Park vehicle on level surface. Apply parking brake. Start engine and run at curb idle for at least one minute. Move gearshift lever through all gear ranges, ending in Neutral. After wiping off any dirt around dipstick, remove dipstick and check condition of fluid.

  2) Ensure fluid level is at HOT mark on dipstick. Add
- 2) Ensure fluid level is at HOT mark on dipstick. Add appropriate type of transmission fluid, if necessary. See RECOMMENDED FLUID. DO NOT overfill.

#### 31TH Transaxle

- 1) Park vehicle on level surface. Apply parking brake. Ensure transmission fluid is at normal operating temperature. Start engine and run at curb idle for at least one minute. Move gearshift lever through all gear ranges, ending in Park.
- through all gear ranges, ending in Park.

  2) Check fluid level. Fluid level should be in HOT range (cross hatched area) of dipstick. Add appropriate type of transmission fluid, if necessary. See RECOMMENDED FLUID. DO NOT overfill.

#### 41TE Transaxle

- 1) Drive vehicle until engine and transaxle are at normal operating temperature. Park vehicle on level surface. Apply parking brake. Turn engine off. Connect scan tool to data link connector. See Fig. 5.
- 2) Start engine. Using scan tool, read transmission fluid temperature. With transmission fluid temperature displayed on scan tool, determine proper fluid level on dipstick. See Fig. 6. Add appropriate type of transmission fluid, if necessary. See RECOMMENDED FLUID. DO NOT overfill. Turn engine off, and remove scan tool.

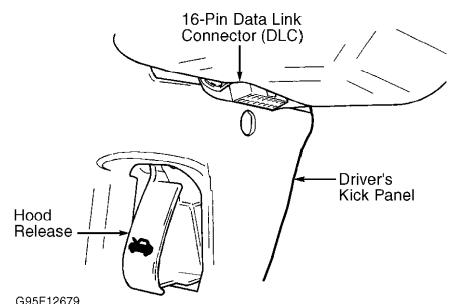
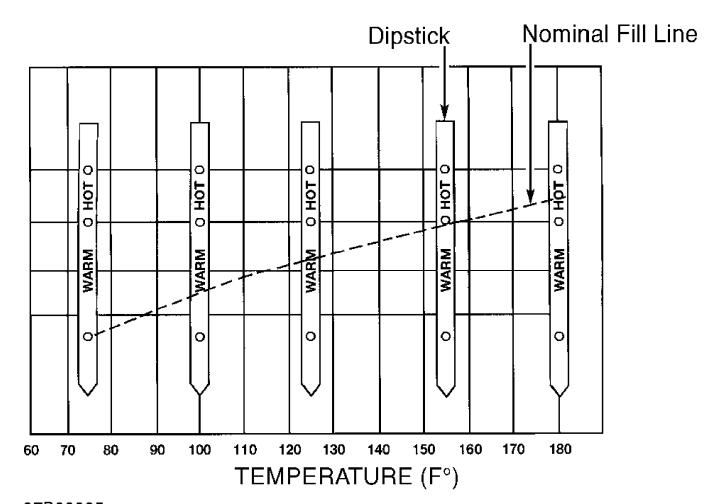


Fig. 5: Locating Data Link Connector (Breeze, Cirrus, Sebring Convertible & Stratus)
Courtesy of DaimlerChrysler Corp.

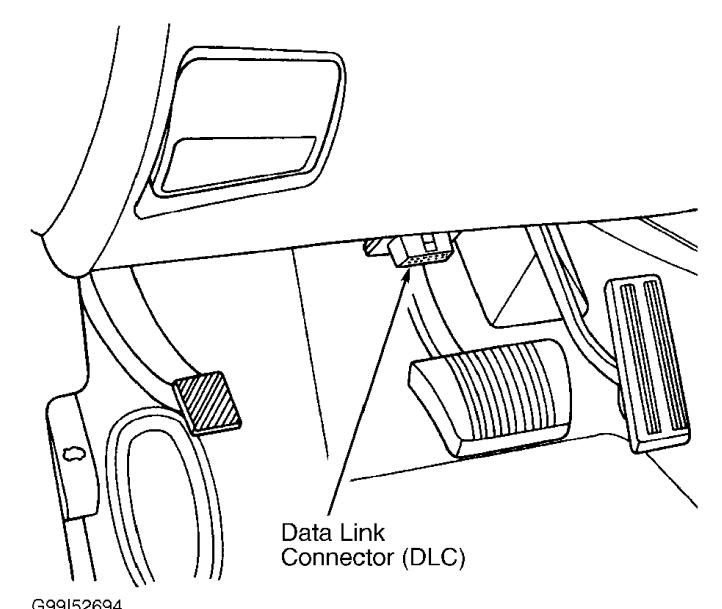


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Fig. 6: Determining Transmission Fluid Level (41TE & 42LE Transaxle) Courtesy of DaimlerChrysler Corp.

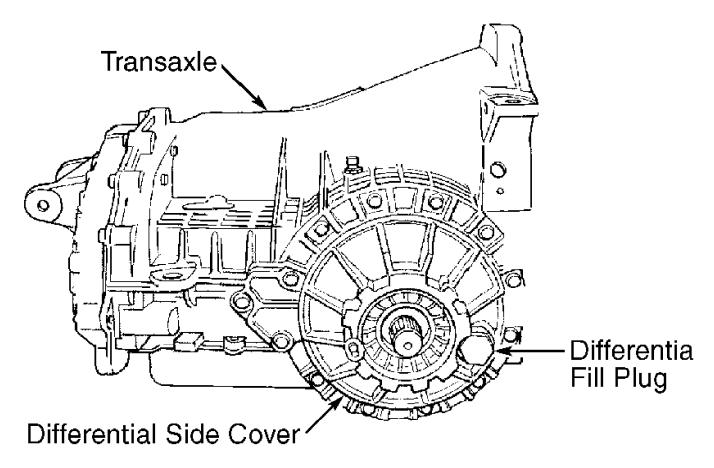
#### 42LE Transaxle

- 1) Drive vehicle until engine and transaxle are at normal operating temperature. Park vehicle on level surface. Apply parking brake. Turn engine off. Connect scan tool to data link connector. See Fig. 7.
- 2) Start engine. Using scan tool, read transmission fluid temperature. With transmission fluid temperature displayed on scan tool, determine proper fluid level on dipstick. See Fig. 6. Add appropriate type of transmission fluid, if necessary. See RECOMMENDED FLUID. DO NOT overfill. Turn engine off, and remove scan tool.



G99|52694 Fig. 7: Locating Data Link Connector (Concorde, Intrepid, LHS & 300M) Courtesy of DaimlerChrysler Corp.

Differential (42LE Transaxle)
Remove differential fill plug from differential side cover.
See Fig. 8. Fluid level should be even with bottom of fill hole. Add appropriate type of differential fluid, if necessary. See RECOMMENDED FLUID. Install and tighten differential fill plug to specification. See TORQUE SPECIFICATIONS.



# 97D03806

Fig. 8: Locating Differential Fill Plug (42LE Transaxle) Courtesy of DaimlerChrysler Corp.

#### RECOMMENDED FLUID

WARNING: Manufacturer does not recommend using additives with transmission fluid.

F4AC1, 31TH, 41TE & 42LE Transaxle Manufacturer recommends Mopar(R) ATF+4, Type 9602 fluid.

F4A42 & F4A51 Transaxle

Manufacturer recommends Diamond ATF SP-11 M or Diamond ATF SP-111 fluid.

Differential (42LE Transaxle)
Manufacturer recommends Mopar(R) Fuel Saving 75W-90 hypoid gear lubricant. DO NOT use synthetic gear lubricants.

# **FLUID CAPACITIES**

#### TRANSAXLE FLUID CAPACITIES (1)

Application	Refill - Qts. (L)	Dry Fill - Qts. (	L)
F4A42	(2) 4.0 (3.8) 5.8 (5.5) 5.8 (5.5)	8.1 (7.	7)

31TH	(2) 4.0 (3.8)		9.1 (8.6)
Except Prowler			
<ul><li>(1) - Approximate quantiti</li><li>(2) - Add specified amount it to idle for at lettransaxle through all additional fluid to</li></ul>	t of fluid. Star east one minute. Ll gear ranges a	With brakes applied and return to Park.	Add

dipstick. Recheck fluid level with transaxle at normal operating temperature. Adjust fluid level to within HOT range on dipstick.

#### DIFFERENTIAL FLUID CAPACITY (1)

Application	Qts. (L)
42LE Except Prowler Prowler	, ,
(1) - Approximate quantity listed.	

#### **DRAINING & REFILLING**

NOTE: The 42LE transaxle has separate transaxle and differential fluid sumps. For differential drain and refill procedure, see DIFFERENTIAL (42LE TRANSAXLE).

F4AC1, 41TE & 42LE Transaxle

- 1) Raise and support vehicle. Loosen oil pan bolts. Tap one corner of oil pan to loosen. Allow fluid to drain from oil pan. Remove oil pan bolts and oil pan. Remove oil filter and "O" ring from valve body.
- 2) Clean oil pan, magnet and all sealing surfaces. Using NEW "O" ring, install NEW oil filter. Apply appropriate RTV sealant on sealing surfaces of oil pan. Install oil pan. Install and tighten oil pan bolts to specification. See TORQUE SPECIFICATIONS.
- 3) Add 4.0 qts. (3.8L) of appropriate fluid to transaxle. See RECOMMENDED FLUID. Apply parking brake. Start engine and allow it to idle for at least one minute. With brakes applied, shift transaxle through all gear ranges and return to Park. Add additional fluid to bring level to 1/8" below ADD mark on dipstick. Recheck fluid level with transaxle at normal operating temperature. Adjust fluid level to within HOT range on dipstick. DO NOT overfill.

#### F4A42 & F4A51 Transaxle

- 1) Disconnect transaxle-to-oil cooler hose at radiator. Place a container under hose to collect fluid. Place gearshift lever in "N" position. Start engine and allow fluid to drain out for no longer than one minute. Turn ignition switch to OFF position.
- 2) Raise and support vehicle. Remove drain plug from bottom of transaxle case to drain remaining fluid. Install drain plug using NEW gasket, and tighten to specification. See TORQUE SPECIFICATIONS.
- 3) Add 5.8 qts. (5.5L) of appropriate fluid into oil filler tube. See RECOMMENDED FLUID. Repeat procedures in step 1) to pump out rest of contaminated fluid. Add 3.7 qts. (3.5L) of appropriate fluid into oil filler tube. Reconnect transaxle-to-oil cooler hose, and firmly replace dipstick.
- 4) Start engine and run it at idle for 1-2 minutes. Move gearshift lever through all gear ranges, ending in Neutral. Ensure

transaxle fluid level is at COLD mark on dipstick. If level is below COLD mark, add more fluid. Drive vehicle until fluid temperature reaches normal operating temperature, and then check fluid level again. Fluid must be at HOT mark. Firmly insert dipstick into oil filler tube.

NOTE: The following procedure applies to vehicles under normal service. Under severe service, manufacturer recommends a drain and refill; and then performing a second drain and refill including a NEW filter and band adjustment after driving vehicle 10 miles.

#### 31TH Transaxle

- 1) Raise and support vehicle. Loosen oil pan bolts. Tap one corner of oil pan to loosen. Allow fluid to drain from oil pan. Remove oil pan bolts and oil pan. Remove oil filter bolts, oil filter and gasket from valve body.
- 2) Clean oil pan, magnet and all sealing surfaces. Using NEW gasket, install NEW oil filter. Install and tighten oil filter bolts to specification. See TORQUE SPECIFICATIONS. Apply appropriate RTV sealant on sealing surfaces of oil pan. Install oil pan and tighten oil pan bolts to specification.
- 3) Add 4.0 qts. (3.8L) of appropriate fluid to transaxle. See RECOMMENDED FLUID. Apply parking brake. Start engine and allow it to idle for at least one minute. With brakes applied, shift transaxle through all gear ranges and return to Park. Add additional fluid to bring level to 1/8" below ADD mark on dipstick. Recheck fluid level with transaxle at normal operating temperature. Adjust fluid level to within HOT range on dipstick. DO NOT overfill.

#### Differential (42LE Transaxle)

- 1) Raise and support vehicle. Remove differential fill plug from differential side cover. See Fig. 8. Remove differential drain plug located on bottom of differential housing. Allow fluid to drain from differential.
- 2) Install and tighten differential drain plug to specification. See TORQUE SPECIFICATIONS. Fill differential with appropriate fluid until fluid is even with bottom of fill hole. See RECOMMENDED FLUID. Install and tighten differential fill plug to specification.

#### **ADJUSTMENTS**

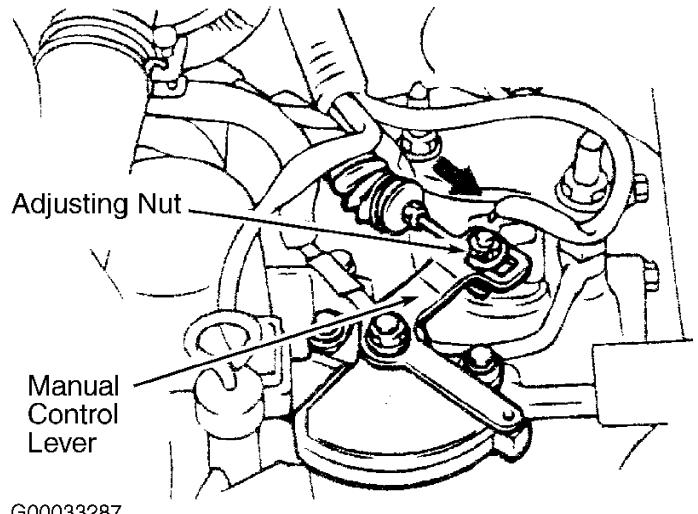
#### **GEARSHIFT CABLE**

F4AC1 Transaxle

- 1) Apply parking brake. Place gearshift lever in "N" position. Loosen lock nut on gearshift cable at manual control lever. Manual control lever is lever at transaxle on which gearshift cable is installed.
- 2) Place manual control lever in Neutral. Lightly pull end of gearshift cable toward manual control lever and tighten lock nut on shift cable. If gearshift cable is properly adjusted, engine should start only with transaxle in Park or Neutral.

#### F4A42 & F4A51 Transaxle

Place gearshift lever in "N" position. Loosen control cable at manual control lever coupling nut to free cable and lever. Place manual control lever in Neutral. Gently pull transaxle gearshift cable until cable is tightly drawn. Tighten adjusting nut. See Fig. 9. Ensure gearshift laver is in "N" position. Ensure each position of manual control lever matches each position of gearshift lever.

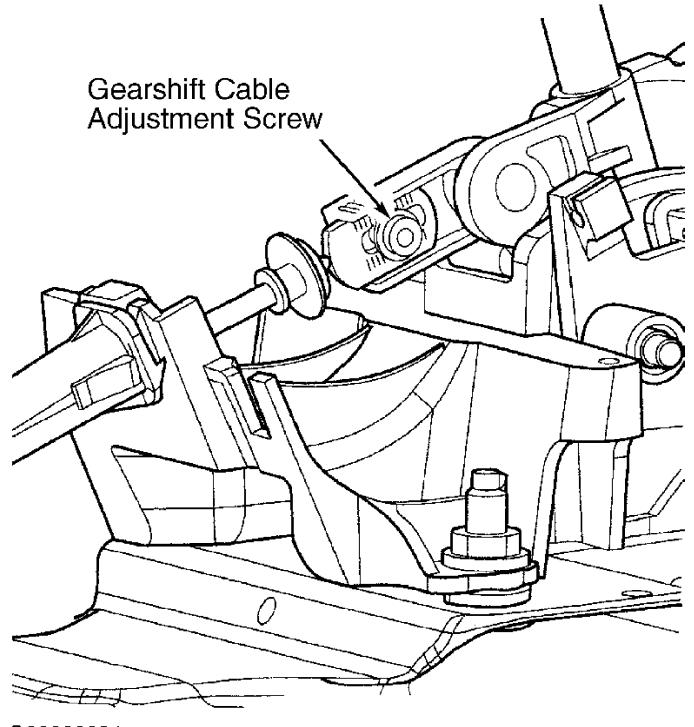


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9: Locating Gearshif

Fig. 9: Locating Gearshift Cable Adjusting Nut Courtesy of DaimlerChrysler Corp.

#### 31TH Transaxle

- 1) Loosen set screw and remove gearshift lever knob. Remove cover plugs over screws located behind cup holders on center console. Remove screws holding center console to floor bracket. Screws are located behind cup holders on center console.
- 2) Open lid on center console, if equipped. If vehicle is equipped with a non-arm rest center console, remove screw cover plugs near rear of center console.
- 3) Remove remaining screws and center console. Place gearshift lever in "P" position. Loosen gearshift cable adjustment screw. See Fig. 10. Move transaxle manual lever to Park.
- 4) Verify transaxle is in Park by attempting to roll vehicle in either direction. Tighten gearshift cable adjustment screw to 70
- INCH lbs. (8 N.m). Verify proper cable adjustment.
  5) Ensure engine starts only with transaxle in Park or
  Neutral, and detent position for Neutral and Drive are within gate
  areas on gearshift lever. If engine starts with transaxle in any other
  ranges except Park and Neutral, or binding exists, readjust gearshift
  cable. Reinstall center console. Install gearshift lever knob, and
  tighten set screw to 15 INCH lbs. (2 N.m).



 $\begin{array}{c} G00033281 \\ \text{Fig. 10: Locating Gearshift Cable Adjustment Screw} \\ \text{Courtesy of DaimlerChrysler Corp.} \end{array}$ 

#### 41TE Transaxle

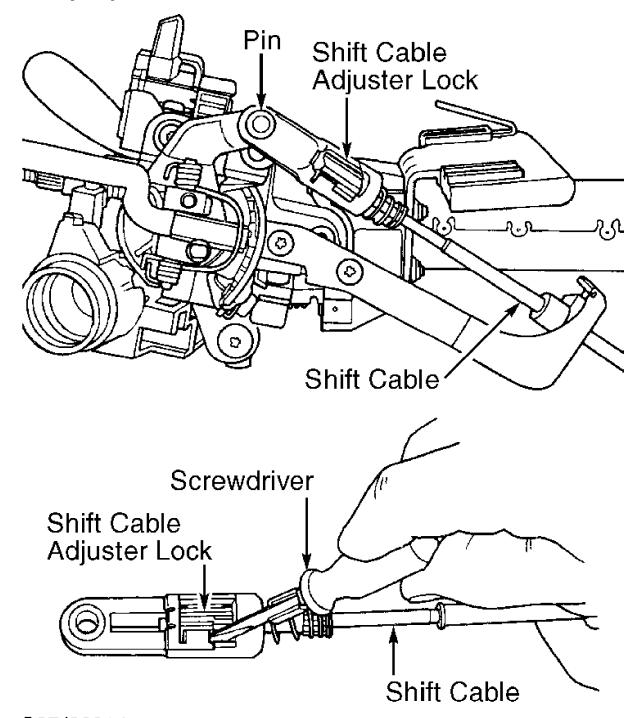
1) Apply parking brake. Remove set screw and remove gearshift lever knob. Remove gearshift lever bezel and wiring. Gearshift lever bezel snaps on top of center console and indicates gearshift lever position.

- 2) Reinstall gearshift lever knob and set screw. Ensure gearshift lever is in "P" position. Loosen shift cable adjuster nut at gearshift lever. Move manual control lever on transaxle to Park. Manual control lever is lever at transaxle on which gearshift cable is installed.
- 3) Ensure gearshift lever and manual control lever on transaxle are in Park. Tighten gearshift cable adjuster nut at gearshift lever.
- 4) Ensure engine starts only with transaxle in Park or Neutral and detent position for Neutral and Drive are within gate areas on gearshift lever. If engine starts with transaxle in any other ranges except Park and Neutral, or detents are not within gate areas, readjust gearshift cable. Reinstall gearshift lever bezel.

#### 42LE Transaxle

- 1) On column shift applications, go to next step. On floor shift applications, go to step 6).
- 2) On column shift applications, apply parking brake. Remove upper steering column cover. Note location of gearshift cable and gearshift cable adjuster lock on steering column. See Fig. 11. Using screwdriver, rotate gearshift cable adjuster lock to unlock position.
- CAUTION: Parking sprag must be fully engaged before adjusting gearshift cable.
- 3) Ensure manual control lever on transaxle is rotated fully rearward to Park, and parking sprag is fully engaged. Manual control lever is lever at transaxle on which gearshift cable is installed.
- 4) Verify transaxle is in Park and parking sprag is fully engaged by slightly moving vehicle backward and forward. Tilt steering column to fully downward position. Place gearshift lever in Park. Ensure ignition key is removed from ignition switch.
- 5) Adjust gearshift cable by rotating gearshift cable adjuster lock into locked position. Reinstall upper steering column cover. Ensure gearshift lever operates smoothly without binding, and engine starts only with transaxle in Park or Neutral. If engine starts with transaxle in any other ranges except Park and Neutral, or binding exists, readjust gearshift cable.
- 6) On floor shift applications, apply parking brake. Place gearshift lever in "N" position. Loosen set screw and remove gearshift lever knob. Remove ashtray located on center console bezel, below radio. Center console bezel fits around gearshift lever and on top of center console.
- 7) Remove center console bezel-to-center console screw located below ashtray area, on center console bezel. Disengage clips holding each rear corner of center console bezel on center console. Remove center console bezel.
- CAUTION: Parking sprag must be fully engaged before adjusting gearshift cable.
- 8) Loosen gearshift cable adjuster nut at gearshift cable adjuster. See Fig. 12. Ensure manual control lever on transaxle is rotated fully rearward to Park, and parking sprag is fully engaged. Manual control lever is lever at transaxle on which gearshift cable is installed.
- 9) Verify transaxle is in Park and parking sprag is fully engaged by slightly moving vehicle backward and forward. Place gearshift lever in "P" position. Ensure ignition key is removed from ignition switch. Tighten gearshift cable adjuster nut to specification. See TORQUE SPECIFICATIONS.
- 10) Reinstall center console bezel and gearshift lever knob. Ensure gearshift lever operates smoothly without binding and engine

starts only with transaxle in Park or Neutral. If engine starts with transaxle in any other ranges except Park and Neutral, or binding exists, readjust gearshift cable.



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Fig. 11: Locating Shift Cable, Shift Cable Adjuster Lock &
Releasing Shift Cable Adjuster Lock (42LE Transaxle)
Courtesy of DaimlerChrysler Corp.

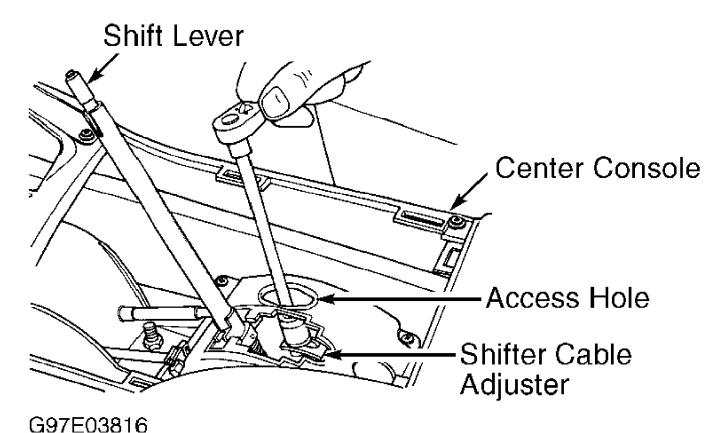


Fig. 12: Locating Shift Cable Adjuster Nut (42LE Transaxle) Courtesy of DaimlerChrysler Corp.

# KICKDOWN BAND (FRONT)

31TH Transaxle

1) Loosen kickdown band adjusting screw lock nut while preventing adjusting screw from rotating. Kickdown band adjusting screw and lock nut are located on top front side of transaxle. See Fig. 13. Back off adjusting screw lock nut about 5 turns. Ensure adjusting screw rotates freely in transaxle case.

2) Tighten adjusting screw to 72 INCH lbs. (8.1 N.m), and then back off 2 1/4 turns. Hold adjusting screw in this position, and tighten adjusting screw lock nut to specification. See TORQUE SPECIFICATIONS.

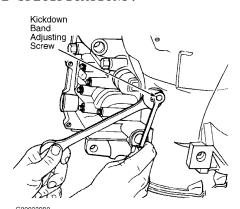


Fig. 13: Locating Kickdown Band Adjusting Screw & Lock Nut (31TH Transaxle)

Courtesy of DaimlerChrysler Corp.

# LOW-REVERSE BAND (REAR)

NOTE: Oil pan must be removed from transaxle to adjust low-reverse band.

31TH Transaxle

- 1) Raise and support vehicle. Loosen oil pan bolts. Tap one corner of oil pan to loosen. Allow fluid to drain from oil pan. Remove oil pan bolts and oil pan.
- 2) Loosen low-reverse band adjusting screw lock nut while preventing adjusting screw from rotating. Low-reverse band adjusting screw and lock nut are located inside transaxle, near low-reverse band lever. See Fig. 14. Back off adjusting screw lock nut 5 turns. Ensure adjusting screw rotates freely in transaxle case.
- 3) Tighten adjusting screw to 41 INCH lbs. (4.6 N.m), and then back off 3 1/2 turns. Hold adjusting screw in this position and tighten adjusting screw lock nut to specification. See TORQUE SPECIFICATIONS.
- 4) Clean oil pan, magnet and all sealing surfaces. Apply appropriate RTV sealant on sealing surfaces of oil pan. Install oil pan. Install and tighten oil pan bolts to specification. See TORQUE SPECIFICATIONS.
- 5) Add  $4.0~\rm{qts.}$  (3.8L) of appropriate transmission fluid to transaxle. See RECOMMENDED FLUID. Apply parking brake. Start engine and allow it to idle for at least one minute.
- 6) With brakes applied, shift transaxle through all gear ranges and return to Park. Add additional fluid to bring level to 1/8" below ADD mark on dipstick. Recheck fluid level with transaxle at normal operating temperature. Adjust fluid level to within HOT range on dipstick. DO NOT overfill.

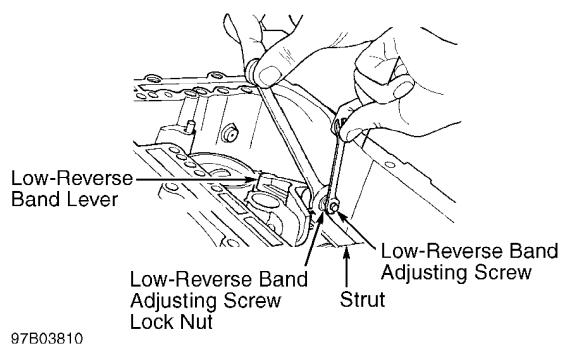


Fig. 14: Adjusting Low-Reverse Band (31TH Transaxle) Courtesy of DaimlerChrysler Corp.

NOTE: See CHRYSLER CORP. SHIFT INTERLOCK SYSTEMS - CARS article in

AUTOMATIC TRANSMISSIONS.

#### THROTTLE VALVE CABLE

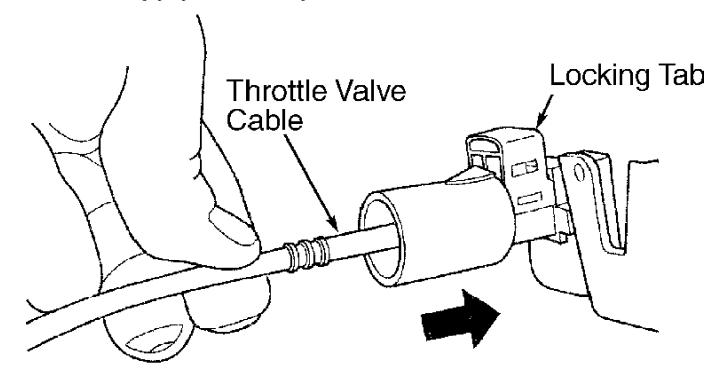
31TH Transaxle

NOTE: Air cleaner/throttle body assembly must be installed into position before adjusting throttle valve cable.

1) Verify cable is routed properly with no kinked or binding conditions. Release adjustment locking clip on cable at throttle body. It is not necessary to remove clip.

2) Grasp cable housing near adjustment body, push in towards throttle body, and then release. See Fig. 15.

3) Press locking clip to secure cable into position. Road test vehicle to verify proper transaxle operation.



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Fig. 15: Adjusting Throttle Valve Cable (31TH Transaxle) Courtesy of DaimlerChrysler Corp.

### TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

Application	Ft.	Lbs.	(N.m)
Differential Fill Plug (42LE)			
F4AC1, 31TH & 41TE			
42LE Shift Cable Adjusting Nut (42LE)			
Transaxle Drain Plug (F4A42 & F4A51)	23	-26 (C	30-34)

	INCH	Lbs.	(N.m)
Differential Drain Plug (42LE)  Low-Reverse Band Adjusting Screw Lock Nut (31TH)  Oil Filter Screw (31TH)  Oil Filter Retaining Clip Screw (42LE)  Shift Cable Adjusting Nut (F4A42 & F4A51)		124 4	(14) 4 (5) 4 (5)

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