

TRANSMISSION SERVICING - A/T

1990 Nissan 240SX

1990 TRANSMISSION SERVICING
Automatic Transmission

Axxess, Maxima, Pathfinder, Pickup,
Pulsar NX, Sentra, Stanza, 240SX, 300ZX

IDENTIFICATION

AUTOMATIC TRANSMISSION APPLICATIONS

Model	Transmission
Axxess	RL4F02A Transaxle
Maxima	RE4F02A Transaxle
Pathfinder	RE4R01A Transmission
Pickup	
3.0L	RE4R01A Transmission
2.4L	RL4R01A Transmission
Pulsar NX	RL3F01A Transaxle
Sentra	RL3F01A Transaxle
Stanza	RE4F02A & RE4F02V Transaxle
240SX	RE4R01A Transmission
300ZX	RE4R01A Transmission

LUBRICATION SERVICE INTERVAL

Inspect fluid level every 15,000 miles or 12 months. If under severe conditions, change every 30,000 miles or 24 months.

CHECKING FLUID LEVEL

TRANSAXLE & TRANSMISSION

1) Check fluid with engine and transmission at normal operating temperatures. With vehicle standing level and at idle, shift transmission/transaxle through all positions and return to "P" position.

2) Clean area around dipstick. Remove dipstick, wipe clean, insert and withdraw. Level should be between "H" and "L" marks. If level is not as indicated, add fluid as necessary.

3) Dipstick on some models may be marked with HOT and COLD ranges. Use cold range if fluid is between 86-120°F (30-50°C).

NOTE: Normal fluid should be clear with a Pink color and should not have a strong burnt odor.

TRANSFER CASE

Oil level should be at bottom of fill hole.

RECOMMENDED FLUID

Transaxle & Transmission

All automatic transmissions and transaxles use Dexron automatic transmission fluid.

Transfer Case
 Transfer cases use API GL-4 SAE 75W-90.

NOTE: Pathfinder and Pickup are factory equipped with Dexron type ATF fluid in the transfer case. It can be replaced with Hypoid SAE 75W-90 (API GL-4). DO NOT mix gear oil and ATF fluid.

FLUID CAPACITY TABLE

TRANSMISSION REFILL CAPACITIES

Transmission	(1) Qts. (L)
RE4F02A	7.9 (7.4)
RE4F02V	7.9 (7.4)
RE4R01A	
240SX	8.8 (7.9)
300ZX	8.1 (7.7)
RL3F01A	6.7 (6.3)
RL4R01A	8.8 (7.9)
RL4F02A	7.9 (7.4)

(1) - All quantities include torque converter capacities.

DIFFERENTIAL REFILL CAPACITIES

Application	Pts. (L)
Axxess (4WD)	2.1 (1.0)
Pathfinder & Pickup	
(2WD)	1.6 (1.5)
Front & Rear (4WD)	1.4 (1.3)
Sentra (4WD)	2.1 (1.0)
240SX	2.8 (1.3)
300ZX	3.1 (1.5)

TRANSFER CASE REFILL CAPACITIES

Application	Pts. (L)
Axxess	3.5 (1.6)
Pathfinder & Pickup	4.8 (2.2)
Sentra	2.3 (1.1)

DRAINING & REFILLING

AXXESS, MAXIMA, PULSAR NX, SENTRA & STANZA

1) Remove drain plug and allow ATF to drain. Reinstall drain plug. On Axxess, Maxima and Stanza, tighten drain plug to 18-25 ft. lbs. (24-34 N.m). On Pulsar NX and Sentra, tighten drain plug to 61-113 INCH lbs. (7-13). Add fluid through filler tube.

2) Bring transaxle to normal operating temperature. Shift transaxle through all gears and return to the "P" position. Check fluid level and add to obtain appropriate level.

PATHFINDER, PICKUP, 240SX & 300ZX

1) Loosen oil pan bolts and allow ATF to drain. Remove oil pan and clean pan and oil screen thoroughly. If replacing screen, tighten bolts to 61-78 INCH lbs. (7-9 N.m).

2) Install pan using a new gasket and tighten pan bolts to 43-70 INCH lbs. (5-8 N.m). Add fluid through filler tube. Bring transmission to normal operating temperature. Shift transmission through all gears and return to the "P" position. Check fluid level and add to obtain appropriate level.

NOTE: Band adjustment procedures are not part of on-vehicle adjustment procedure. Band adjustment procedures should only be performed during bench inspection or overhaul.

KICKDOWN SWITCH ADJUST

Pathfinder, Pickup, 240SX and 300ZX

Kickdown switch is located at top of accelerator pedal post. A "click" should be heard just before accelerator bottoms out when depressed. If no "click" is heard, loosen switch lock nut and adjust.

CAUTION: DO NOT allow switch to close too soon, or downshift will occur at part throttle.

THROTTLE VALVE CABLE ADJUST (AXXESS, SENTRA, STANZA)

1) Loosen double lock nuts on throttle plate side of cable. Move throttle plate to wide open throttle position and hold during adjustment procedure. Move cable sheath toward engine bracket to remove all play.

2) Turn lock nut "B" so it just contacts bracket. Turn lock nut "B" specified number of turns AWAY from bracket. See Fig. 1. See THROTTLE CABLE LOCK NUT SPECIFICATIONS table.

THROTTLE CABLE LOCK NUT SPECIFICATIONS

Application	No. of Turns
Lock Nut "B"	
Axxess and Stanza	2 3/4-3 1/4
Sentra	1-1 1/2

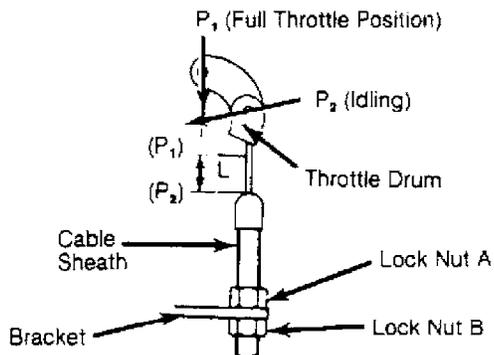


Fig. 1: Adjusting Throttle Cable (Sentra Shown; Others Similar)
 Courtesy of Nissan Motor Co., U.S.A.

3) Tighten lock nut "A". Ensure throttle cable stroke "L" is within specified range between full throttle and idle. See THROTTLE

CABLE STROKE SPECIFICATIONS table. Road test vehicle and note kickdown point.

THROTTLE VALVE CABLE ADJUST (PATHFINDER, PICKUP, PULSAR)

1) Press spring loaded lock plate on throttle cable at engine bracket to release cable. Move cable sheath toward engine bracket to remove all play. Release lock plate.

2) Quickly open throttle plate to wide open throttle position. Ensure throttle cable stroke "L" is within specified range between full throttle and idle. See THROTTLE CABLE STROKE SPECIFICATIONS table. Road test vehicle and note kickdown point.

THROTTLE CABLE STROKE SPECIFICATIONS

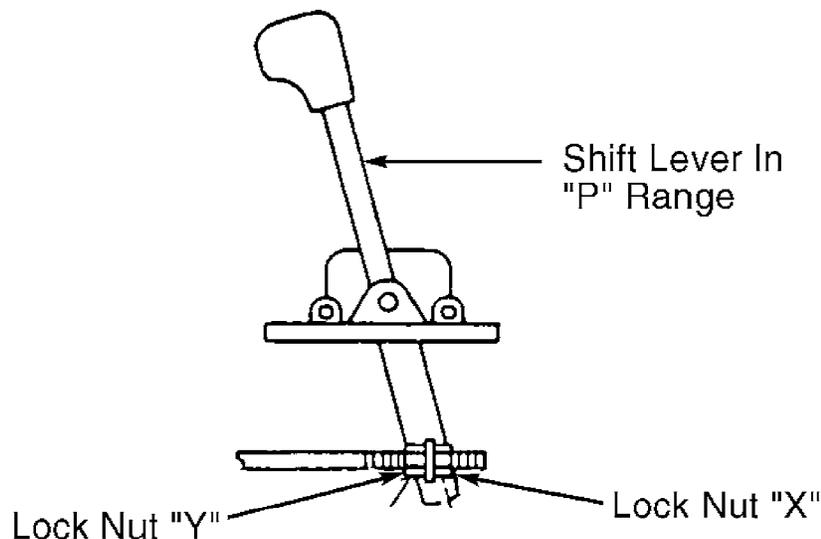
Model	Stroke In. (mm)
Axxess & Stanza	1.54-1.69 (39-43)
Pathfinder & Pickup	1.50-1.65 (38-42)
Pulsar NX & Sentra	1.08-1.24 (27.4-31.4)

GEARSHIFT LINKAGE ADJUST

AXXESS, PICKUP (2WD WITH FLOOR SHIFT), 240SX & 300ZX

1) Starting in the "P" position, shift through all gear positions to "1" position. If detents cannot be felt or pointer is improperly aligned, linkage must be adjusted.

2) Place shift lever in "P" position. Loosen lock nuts on rod. See Fig. 2. Pull selector lever toward "R" range side without pushing button and tighten lock nut "X" until it touches trunnion.



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Fig. 2: Adjusting Shift Linkage (Axxess, 2WD Pickup w/ Floor Shift, 240SX & 300ZX)

Courtesy of Nissan Motor Co., U.S.A.

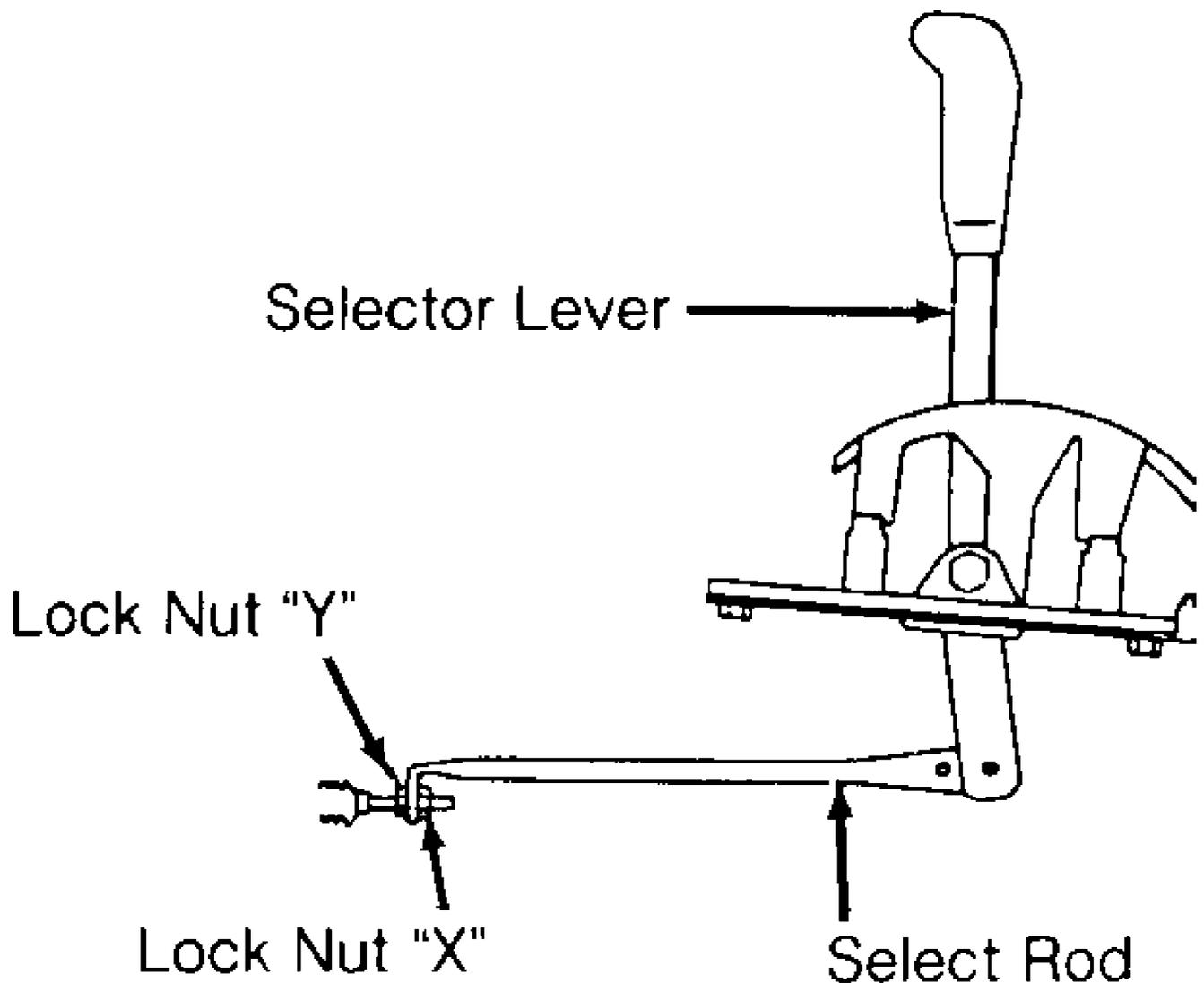
3) On all models except Axxess, back off lock nut "X" one

turn. Tighten lock nut "Y" to 97-132 INCH lbs. (11-15 N.m). On Axxess, DO NOT back off lock nut "X". Tighten lock nut "Y" to 12-16 ft. lbs. (16-22 N.m). On all models, recheck positions, ensuring selector lever moves smoothly.

MAXIMA, PULSAR NX, SENTRA & STANZA

1) Move control lever from the "P" to the "1" position. Ensure control lever can move smoothly and without any sliding noise. If not, grease contact areas of control lever and readjust cable.

2) Place selector lever in the "P" range. Loosen lock nuts holding shift cable to select rod. See Fig. 3. Ensure selector lever is in "P" range and transaxle is fully engaged in Park.



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Fig. 3: Adjusting Shift Linkage (Maxima, Pulsar NX, Sentra & Stanza)

Courtesy of Nissan Motor Co., U.S.A.

3) Turn lock nut "X" until it touches select rod end while

holding select rod horizontal. Tighten lock nut "Y". Move control lever from the "P" to the "1" position again.

4) Make sure that control lever can move smoothly and without sliding noise. Apply grease to contacting areas of selector lever and select rod.

PATHFINDER & PICKUP (W/ COLUMN SHIFT)

1) Place selector lever in the "P" range. Loosen lock nuts. See Fig. 4. Ensure transaxle is in Park. Pull selector lever toward "R" range side without pushing button and tighten lock nut "A" until it touches trunnion.

2) Back off lock nut "A" 2 turns. Tighten lock nut "B" to 97-132 INCH lbs. (11-15 N.m). Ensure selector lever moves smoothly.

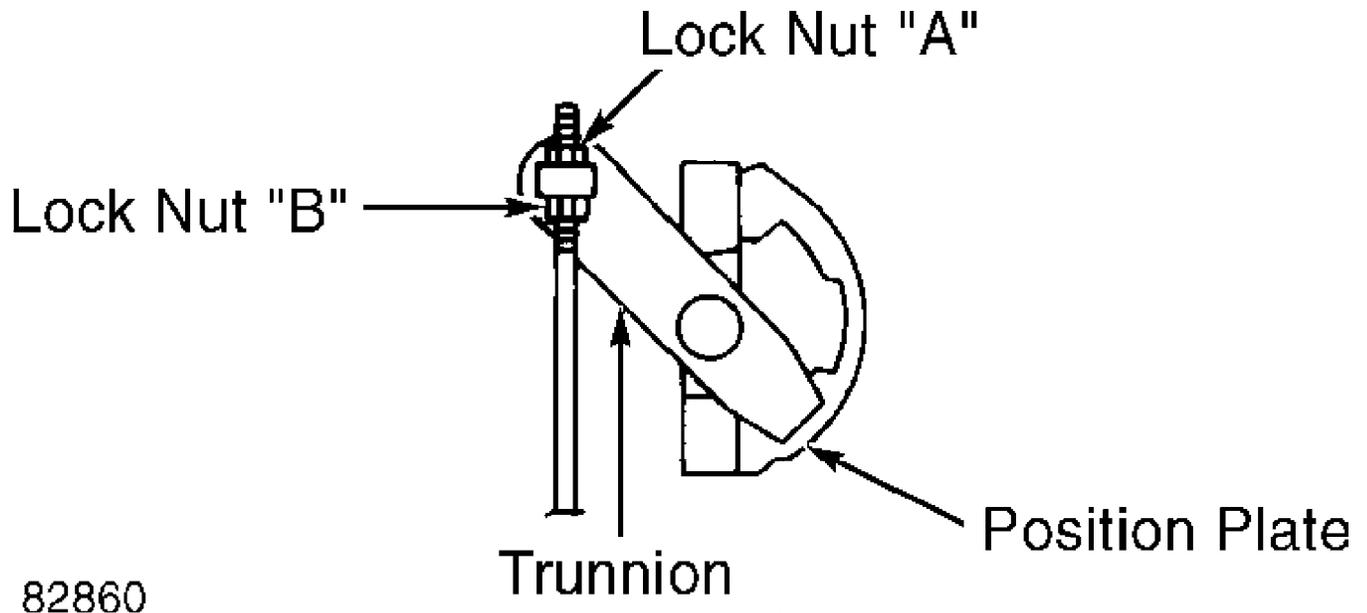


Fig. 4: Adjusting Shift Linkage (Pathfinder & Pickup w/Column Shift)
Courtesy of Nissan Motor Co., U.S.A.

PATHFINDER & PICKUP (4WD W/ FLOOR SHIFT)

1) Place selector lever in the "P" range. Remove center console and loosen adjustment lock nuts. Ensure transmission is in the "Park" position.

2) Tighten turn buckle until selector lever moves toward the "R" range without pushing button. Back off turn buckle one turn. Tighten lock nuts to 36-48 INCH lbs. (4-6 N.m). Ensure selector moves smoothly. See Fig. 5.

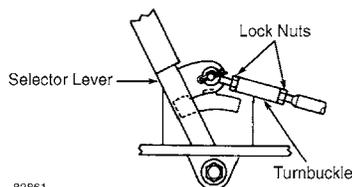


Fig. 5: Adjusting Shift Linkage (4WD Pathfinder & Pickup)
Courtesy of Nissan Motor Co., U.S.A.

NEUTRAL SAFETY SWITCH ADJUST

1) Switch operates back-up lights and prevents starting except in the "P" or "N" positions. To adjust, ensure transmission/transaxle is in the "N" position. Transmission lever should be in a vertical position.

2) Remove alignment hole screw at bottom of switch and loosen retaining bolts. Move switch until correct size alignment pin can be inserted in rotor. See NEUTRAL SAFETY SWITCH ALIGNMENT PINS table. Tighten retaining bolts, remove pin and replace alignment hole screw. See Fig. 6.

NEUTRAL SAFETY SWITCH ALIGNMENT PINS

Model	Pin Diameter	
	In.	(mm)
Pulsar NX & Sentra10	(2.5)
All Others16	(4.0)

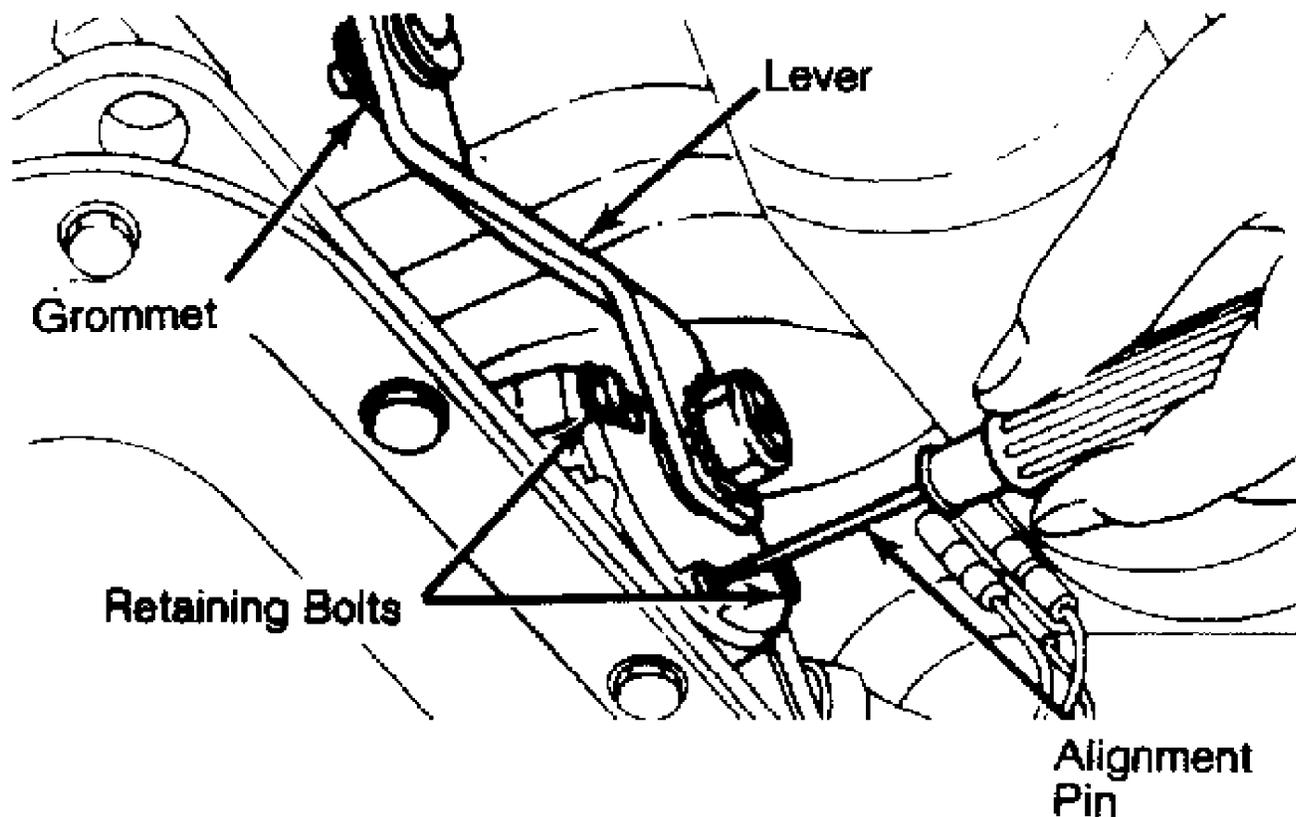


Fig. 6: Adjusting Typical Neutral Safety Switch
 Courtesy of Nissan Motor Co., U.S.A.