

Preliminary Check

1. CHECK FLUID LEVEL

HINT: The vehicle must have been driven so that the engine and transmission are at normal operating temperature. (fluid temperature: 70 – 80°C or 158 – 176°F)

- (a) Park the vehicle on a level surface, set the parking brake.
- (b) With the engine idling, shift the selector into each gear from P position to L position and return to P position.
HINT: Depress the brake pedal.

- (c) Pull out the transmission dipstick and wipe it clean.
- (d) Push it back fully into the tube.
- (e) Pull it out and check that the fluid level is in the HOT range. If the level is at the low side of the hot range, add fluid.

Fluid type: ATF DEXRON®II

NOTICE: Do not overfill.

2. CHECK FLUID CONDITION

If the fluid smells burnt or is black, replace it.

3. REPLACE ATF

CAUTION: Do not overfill.

- (a) Remove the drain plug and drain the fluid.
- (b) Reinstall the drain plug securely.
- (c) With the engine OFF, and new fluid through the dipstick tube.

Fluid: ATF DEXRON®II

Capacity:

A241 E 8.0 liters (8.5 US qts, 7.0 Imp. qts)

A243L 7.7 liters (8.1 US qts, 6.8 Imp. qts)

Drain and refill (Reference):

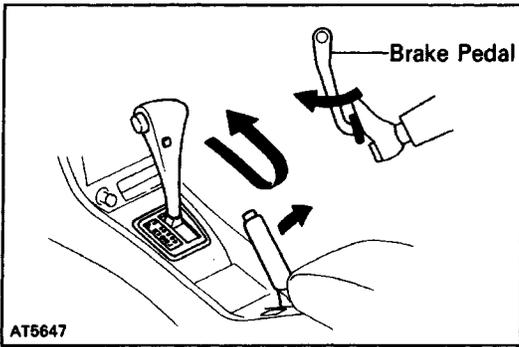
3.3 liters (3.5 US qts, 2.9 Imp. qts)

- (d) Start the engine and shift the selector into all positions from P through L and then shift into P.
- (e) With the engine idling, check the fluid level. Add fluid up to the "COOL" level on the dipstick.
- (f) Check the fluid level with the normal fluid temperature (70 – 80°C or 158 – 176°F) and add as necessary.

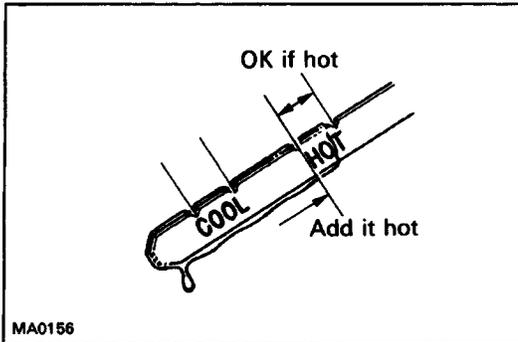
NOTICE: Do not overfill.

4. INSPECT AND ADJUST THROTTLE CABLE (A241 E)

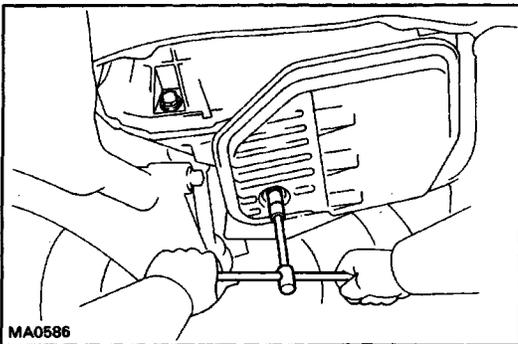
- (a) Check that the throttle valve is fully closed.
- (b) Check that the inner cable is not slack.
- (c) Measure the distance between the outer cable end and stopper on the cable.



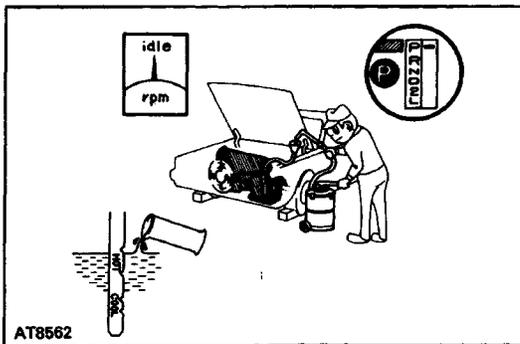
AT5647



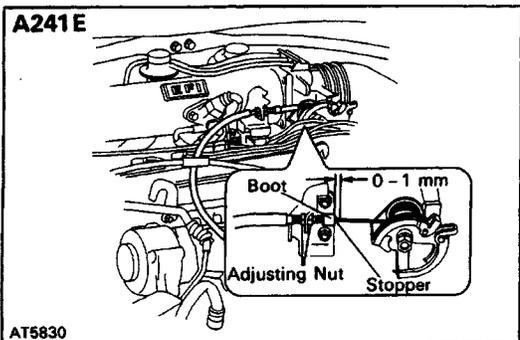
MA0156



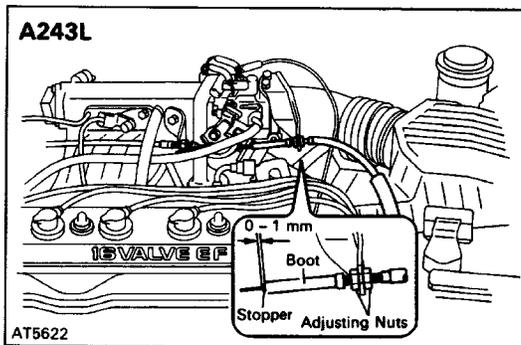
MA0586



AT8562



AT5830

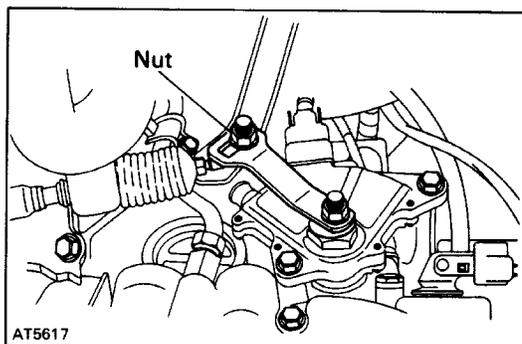
**(A243L)**

- (a) Depress the accelerator pedal all the way and check that the throttle valve opens fully.
HINT: If the valve does not open fully, adjust the accelerator cable.
- (b) Fully depress the accelerator pedal.
- (c) Measure the distance between the end of the boot and stopper on the cable.

(A241 E, A243L)

Standard distance: 0 -1 mm (0 - 0.04 in.)

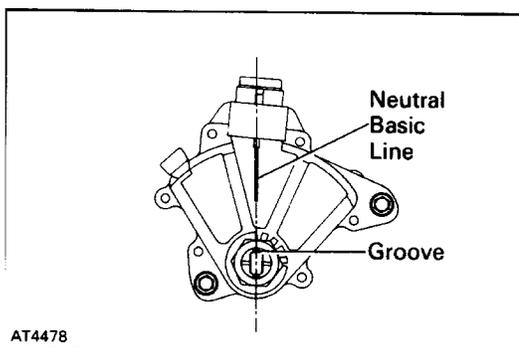
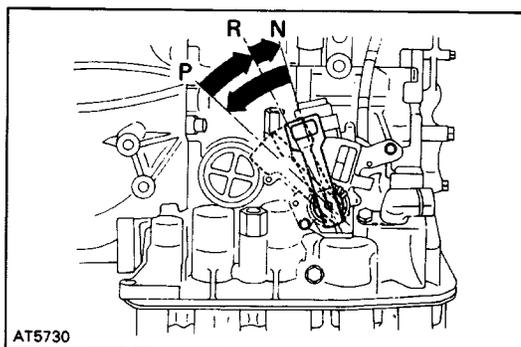
If the distance is not standard, adjust the cable by the adjusting nuts.

**5. INSPECT AND ADJUST SHIFT CABLE**

When shifting the shift lever from the N position to other positions, check that the lever can be shifted smoothly and accurately to each position and that the position indicator correctly indicates the position.

If the indicator is not aligned with the correct position, carry out the following adjustment procedures.

- (a) Remove the No.2 engine under cover and air duct.
- (b) Loosen the swivel nut on manual shift lever.
- (c) Push the manual lever fully toward the right side of the vehicle.
- (d) Return the lever two notches to NEUTRAL position.
- (e) Set the shift lever to N.
- (f) While holding the lever lightly toward the R range side, tighten the swivel nut.

**6. ADJUST PARK/NEUTRAL POSITION SWITCH**

If the engine will start with the shift selector in any position other than N or P position, adjustment is required.

- (a) Loosen the park/neutral position switch bolts and set the shift selector to the N position.
- (b) Align the groove and neutral basic line.
- (c) Hold in position and tighten the bolts.

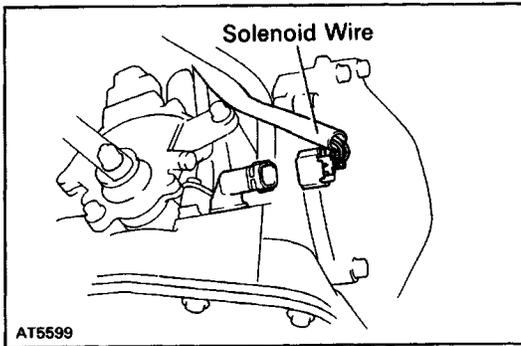
Torque: 5.4 N-m (55 kgf-cm, 48 in.-lbf)

7. INSPECT IDLE SPEED IN POSITION)

Idle speed:

5S-FE 650 – 750 rpm

4A-FE 750 – 850 rpm



Manual Shifting Test (A241 E)

HINT: With this test, it can be determined whether the trouble lies within the electrical circuit or is a mechanical problem in the transaxle.

- 1. DISCONNECT SOLENOID WIRE**
- 2. INSPECT MANUAL DRIVING OPERATION**

Check that the shift and gear positions correspond with the table below.

Shift position	D	2	L	R	P
Gear position	O/D	3rd	1 st	Reverse	Pawl Lock

HINT: If the L,2 and D gear positions are difficult to distinguish, perform the following road test.

- While driving, shift through the L, 2 and D positions. Check that the gear change corresponds to the shift position.

If any abnormality is found in the above test, the problem lies in transaxle itself.

- 3. CONNECT SOLENOID WIRE**
- 4. CANCEL OUT DIAGNOSTIC TROUBLE CODE**
(See page [AT-14](#))