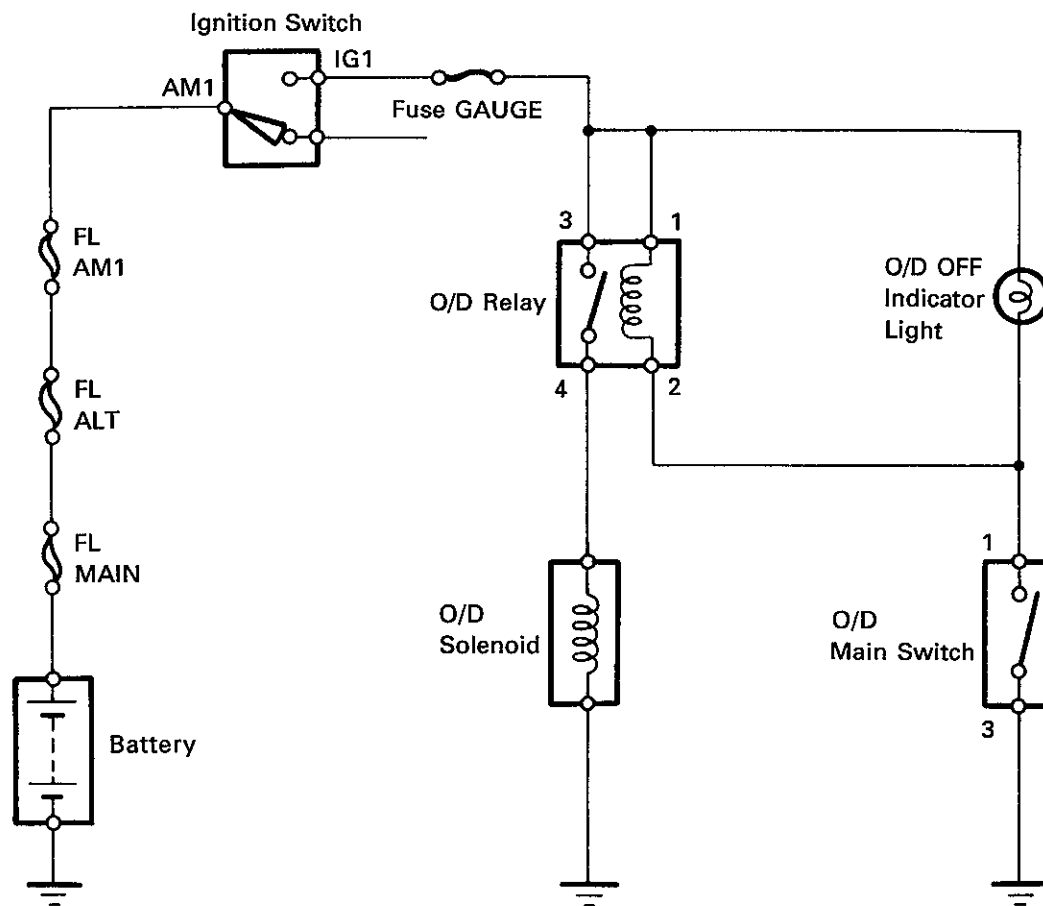


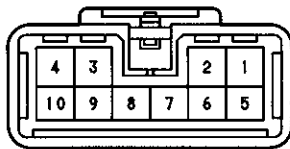
# Electric Control System

## ELECTRIC CONTROL CIRCUIT

Except Europe



Ignition Switch



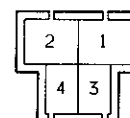
O/D Main Switch



O/D Solenoid

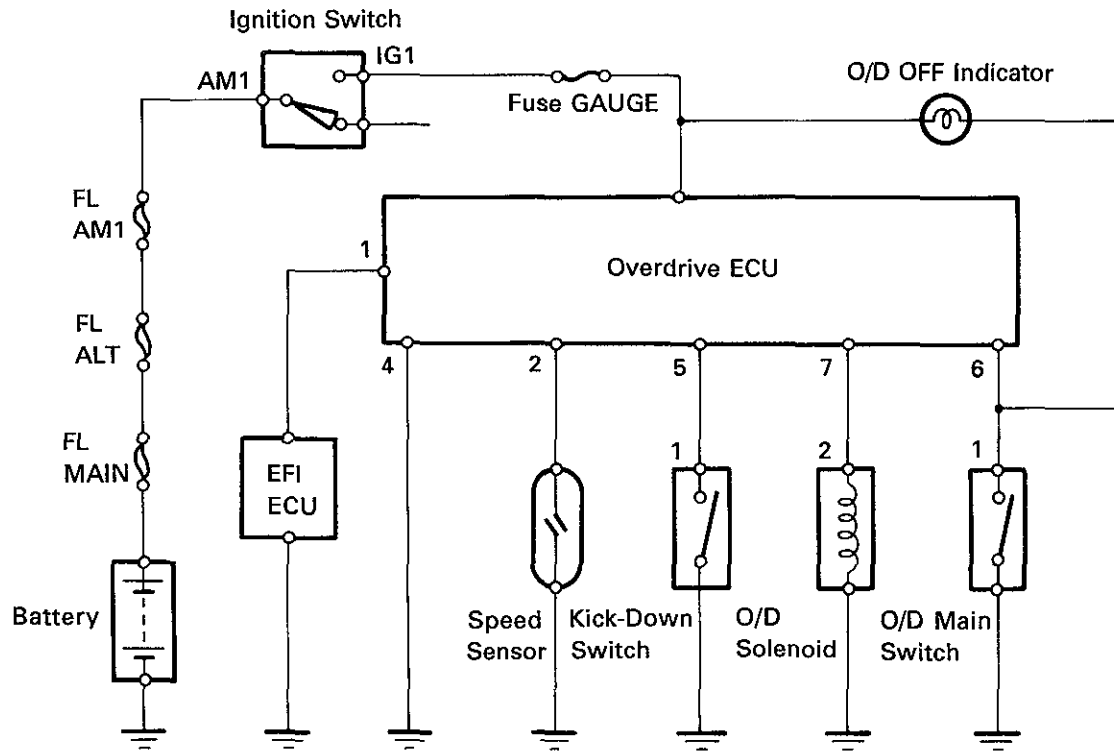


O/D Relay

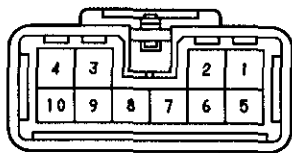


# ELECTRIC CONTROL CIRCUIT (Cont'd)

Europe



Ignition Switch



O/D Main Switch

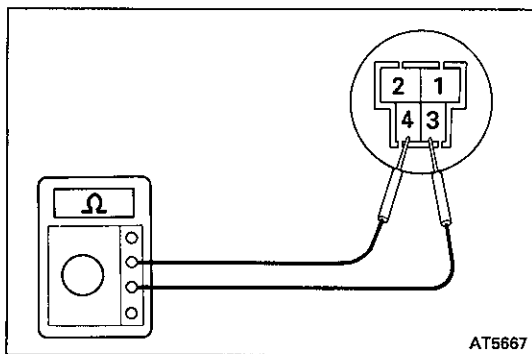


Overdrive ECU



O/D Solenoid and Kick-Down Switch





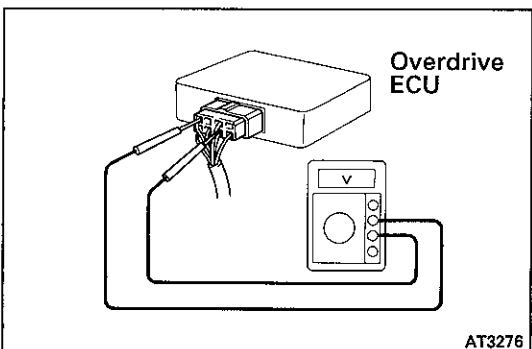
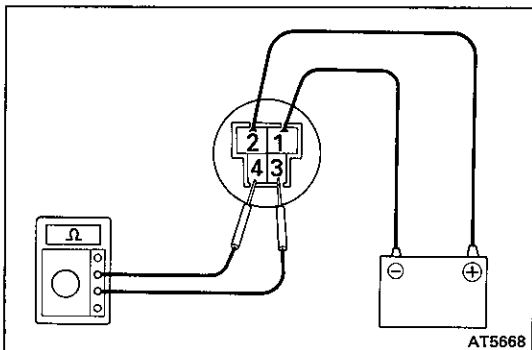
## INSPECTION OF ELECTRIC CONTROL COMPONENTS

### (Except Europe)

#### 1. INSPECT OVERDRIVE RELAY

- (a) Remove the overdrive relay from the relay box.
- (b) Using an ohmmeter, check that there is continuity between terminals 3 and 4.
- (c) Apply battery voltage to the terminals 1 and 2. Check that there is no continuity between terminals 3 and 4.

If continuity is not as specified, replace the relay.



### (Europe)

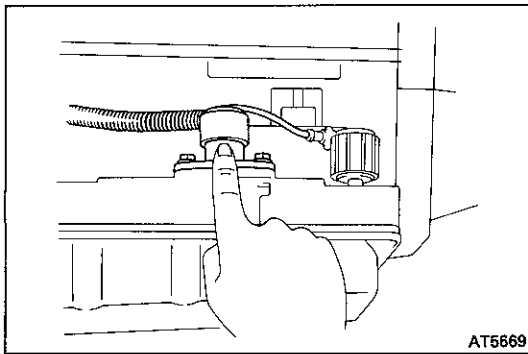
#### 2. INSPECT VOLTAGE OF OVERDRIVE ECU

- (a) Remove the glove compartment and transmission control ECU.
- (b) Turn on the ignition switch.
- (c) Measure the voltage at each terminal.



G-7-2

Terminal	Measuring condition	Voltage (V)
1 - 4	—	10 - 14
2 - 4	Standing still	4 - 7 or 0 - 1
	Engine running, vehicle moving	2.5 - 4
3 - 4	—	10 - 14
5 - 4	Vehicle moving, throttle valve opening 85% or more	0 - 1
	Vehicle moving, throttle valve opening less than 85%	4 - 7
6 - 4	O/D main switch turned ON	12
	O/D main switch turned OFF	0 - 1
7 - 4	O/D main switch turned ON	10 - 14
	O/D main switch turned OFF	0 - 1

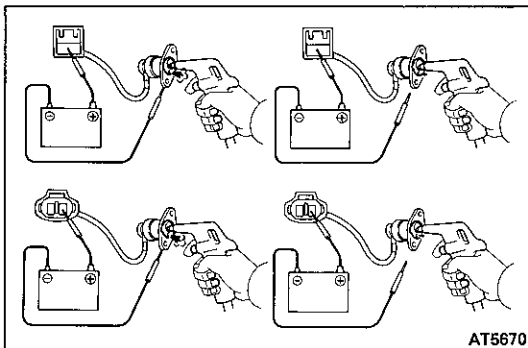
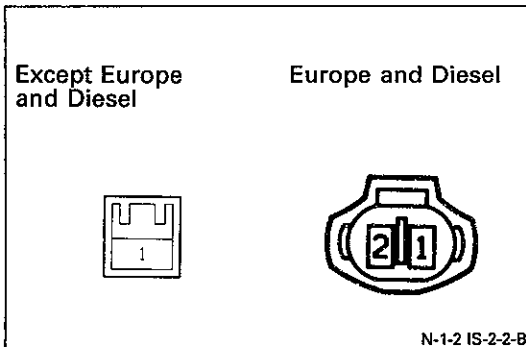


### 3. INSPECT OVERDRIVE SOLENOID

- (a) Disconnect the solenoid connector and apply 12 V battery voltage to the solenoid. Check that the solenoid operation sound is heard.

- (b) Using an ohmmeter, measure the resistance between terminal 1 and body ground.

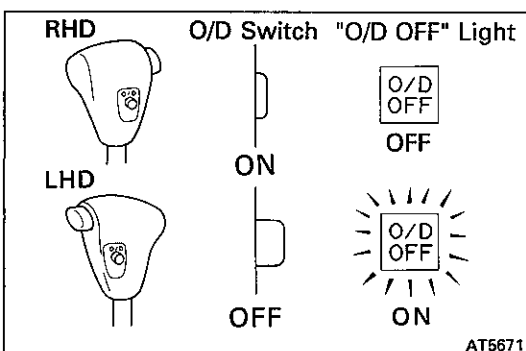
STD: 11 – 15  $\Omega$



### 4. CHECK SOLENOID SEALS

If there is foreign material in the solenoid valve, there will no fluid control even with solenoid operation.

- (a) Check that the solenoid valve does not leak when low-pressure compressed air is applied.
- (b) When supply battery voltage to the solenoid, check that the solenoid valve opens.



### 5. INSPECT "O/D OFF" INDICATOR

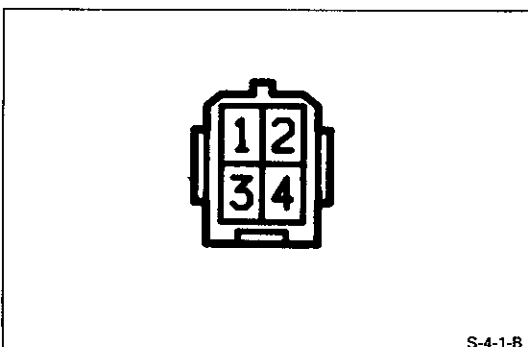
- (a) Turn on the ignition switch.
- (b) Check that the "O/D OFF" indicator does not light, when the O/D main switch is turned ON.
- (b) Check that the "O/D OFF" indicator lights, when the O/D main switch is turned OFF.

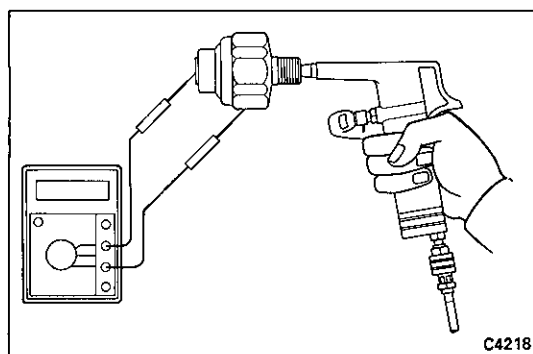
### 6. INSPECT OVERDRIVE MAIN SWITCH

- (a) Remove the console box.
- (b) Using an ohmmeter, check the continuity of the terminals for each switch position.

Terminal	1	3
Switch position		
ON		
OFF	○	○

If continuity is not as specified, replace the switch.





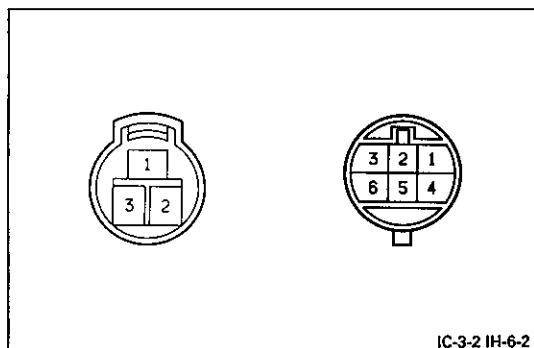
### 7. INSPECT KICK-DOWN SWITCH

While blowing the low-compressed air (2 – 3 kg/cm<sup>2</sup>, 28 – 43 psi or 196 – 294 kPa) into the switch, check the continuity between terminal and switch body.

**Resistance:** 0 Ω

### 8. INSPECT SPEED SENSOR

(See page BE-51)

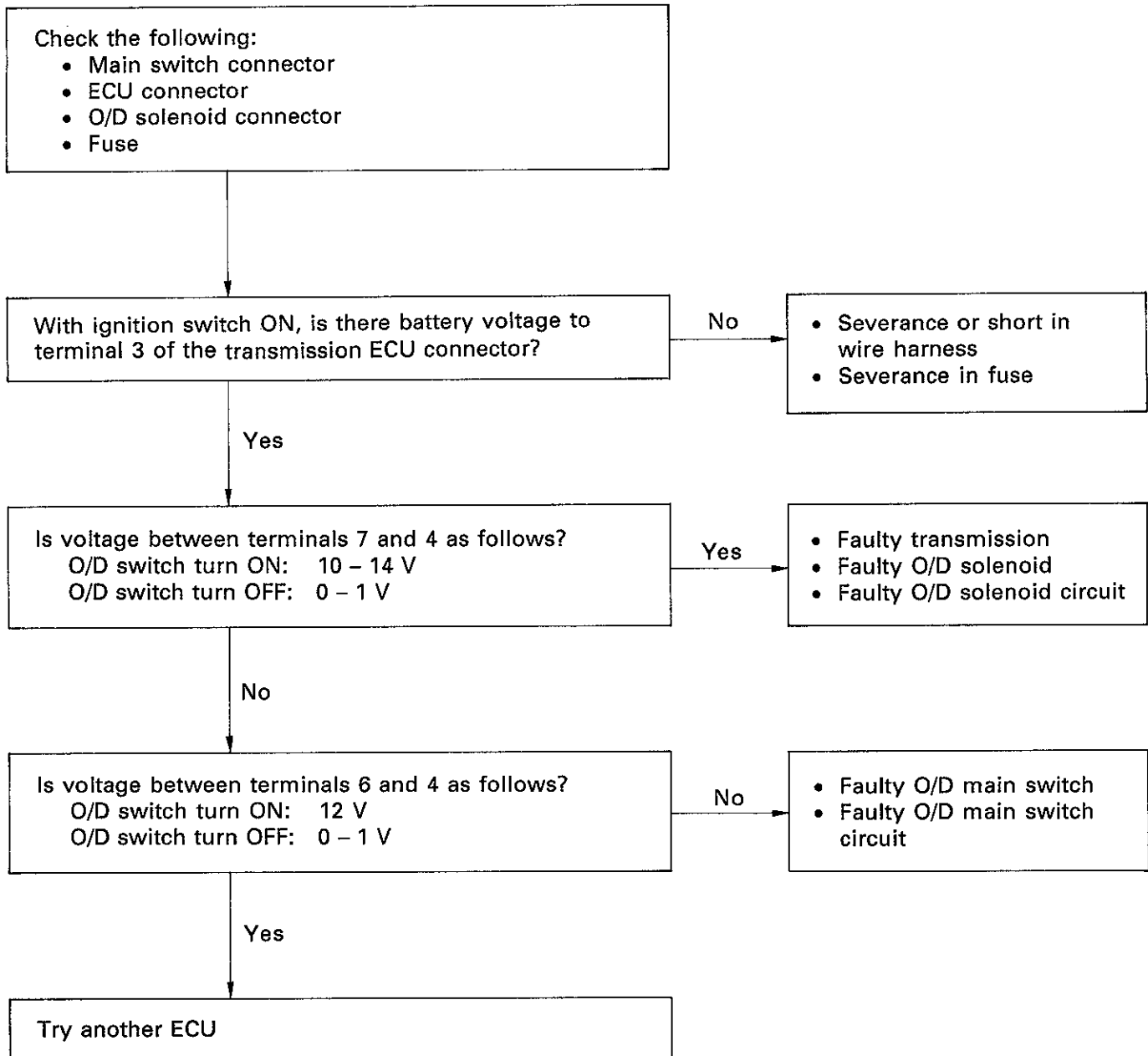


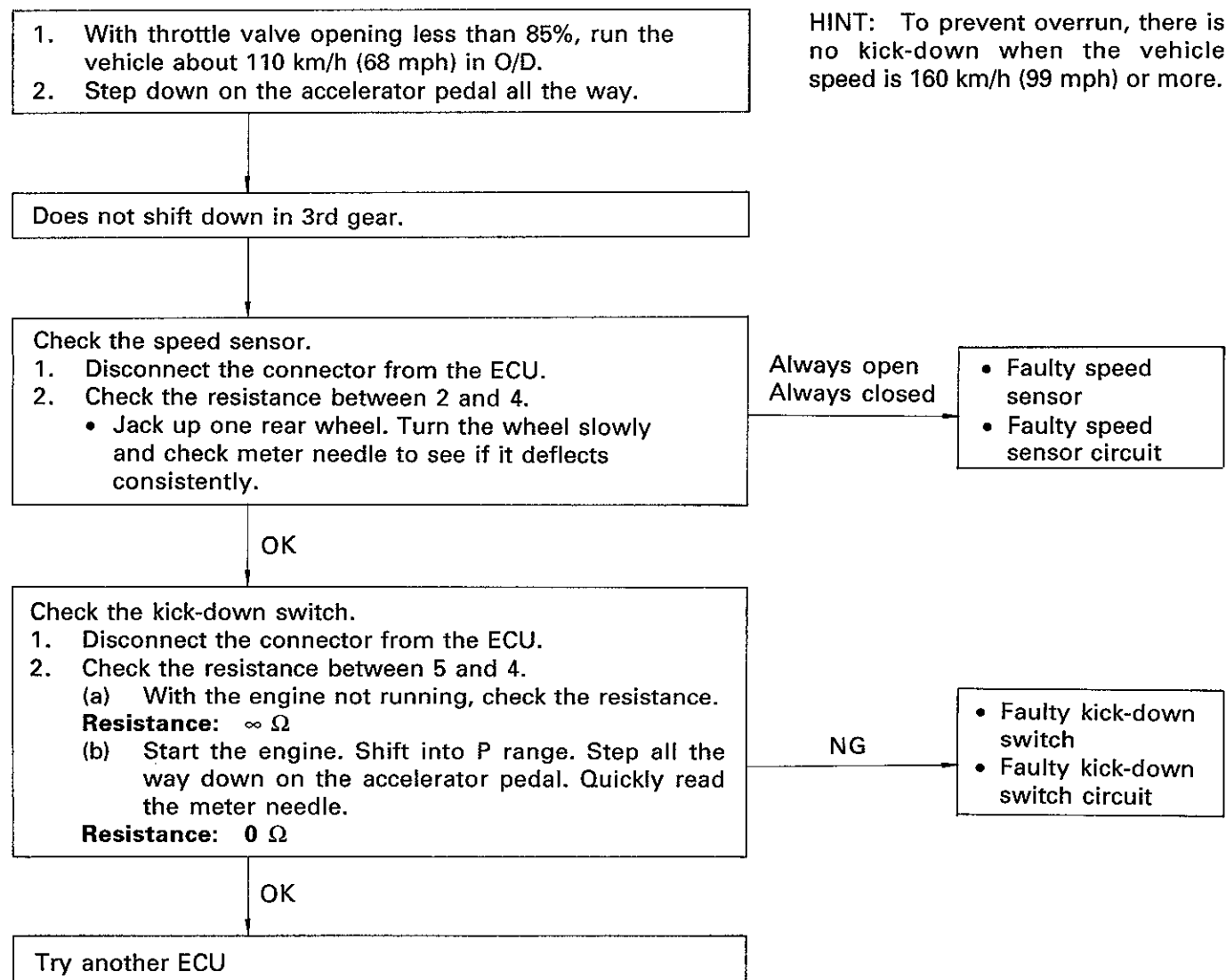
### 9. INSPECT NEUTRAL START SWITCH

Inspect that there is continuity between each terminals.

○—○ : Continuity

Terminal Switch Position	1/3	2/3	3/3	1/6	2/6	3/6	4/6	5/6	6/6
P		○—○			○—○				○—○
R	○—○				○—○				
N		○—○		○—○	○—○				
D					○—○			○—○	
2					○—○		○—○		
L					○—○	○—○			

**TROUBLESHOOTING FLOW-CHART****Trouble No. 1 No overdrive engagement at any vehicle speed with the O/D main switch ON.**

**Trouble No.2 No kick-down from O/D to third gear with the throttle valve opening 85% or more.****Trouble No. 3 No overdrive engagement when the throttle valve opening less than 85% (kick-down switch OFF) and vehicle speed between 70 – 160 km/h (43 – 99 mph) with the O/D main switch ON.**