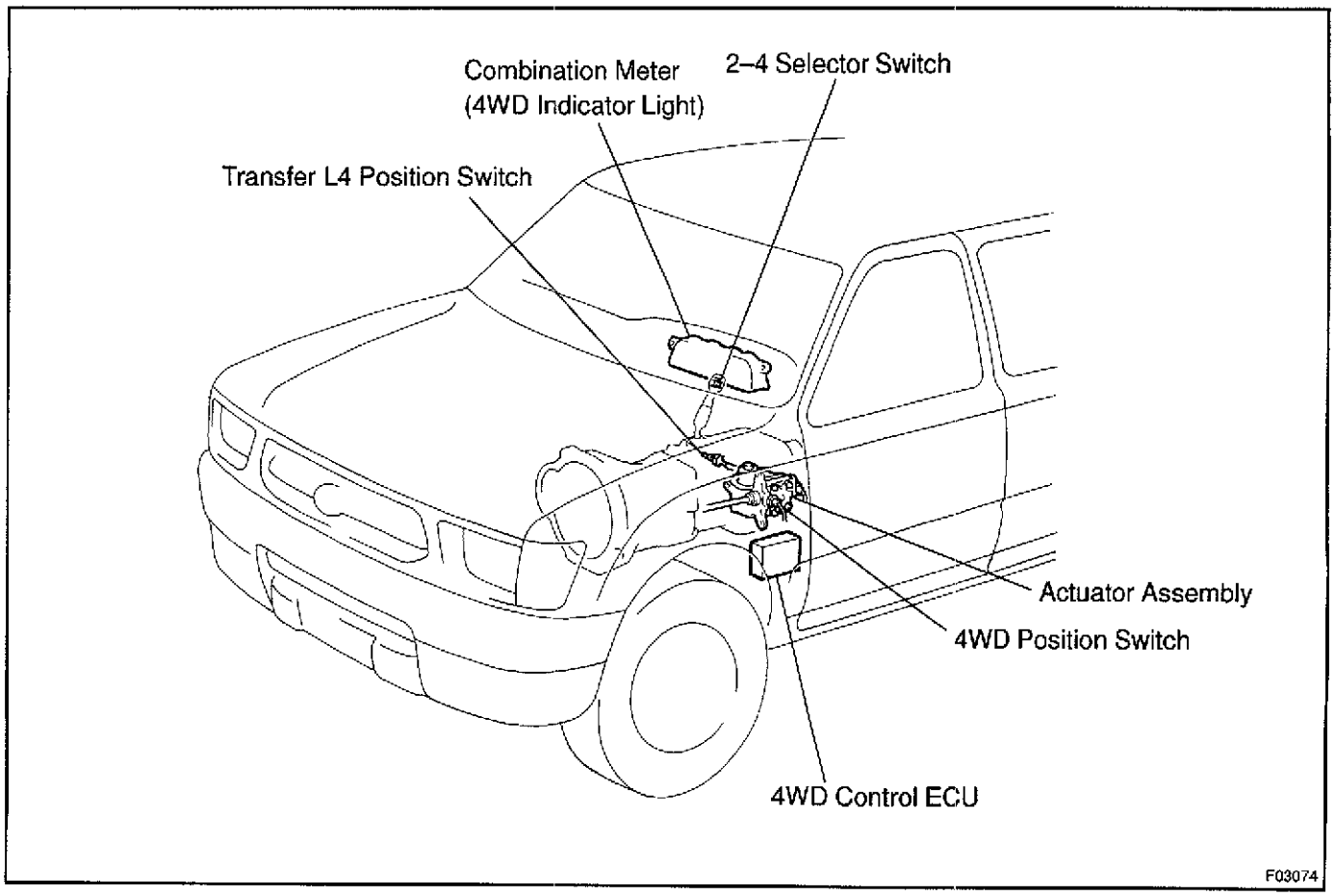
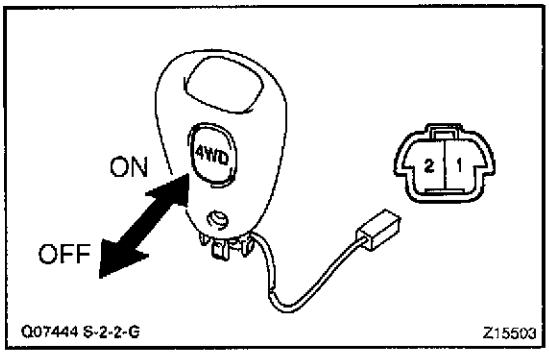
ONE TOUCH 2–4 SELECTOR SYSTEM

LOCATION

TR03K-01



TR03L–01

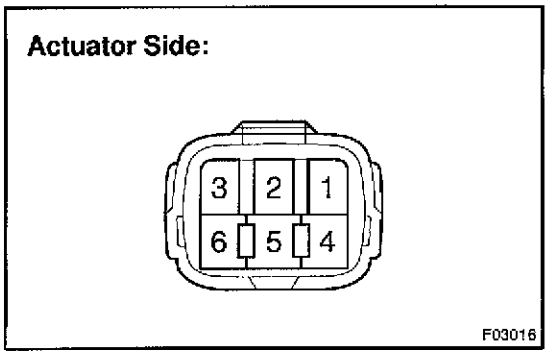


INSPECTION

1. INSPECT 2–4 SELECTOR SWITCH CONTINUITY

Switch position	Tester connection to terminal number	Specified condition
OFF	1 – 2	No continuity
ON	1 – 2	Continuity

If continuity is not as specified, replace the shift lever knob.

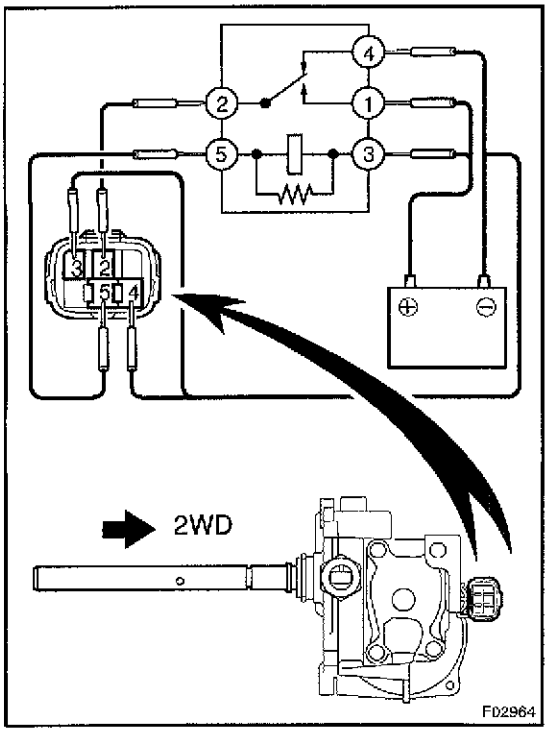


2. INSPECT ACTUATOR RESISTANCE

(a) Using an ohmmeter, measure the resistance between terminals 2 and 3.
Standard resistance: 0.3 – 100 Ω

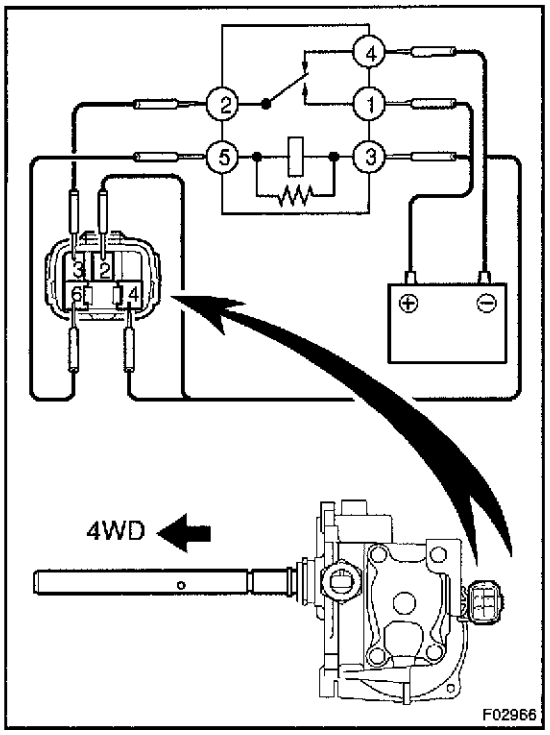
(b) Using an ohmmeter, measure the resistance between terminals 2 or 3 and body ground.
Standard resistance: More than 0.5 MΩ

If resistance value is not as specified, replace the actuator assembly.

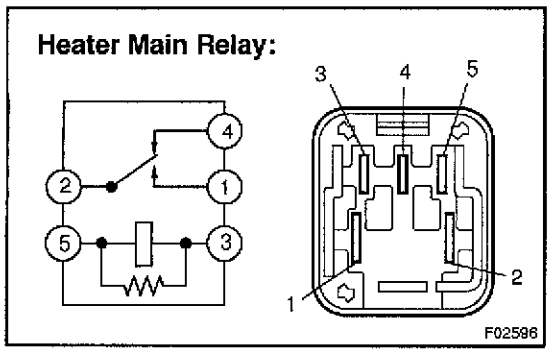


3. INSPECT ACTUATOR OPERATION

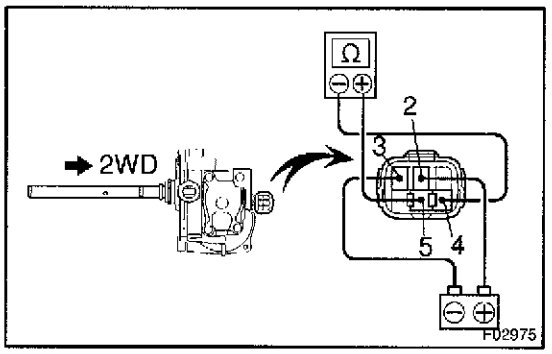
(a) Connect lines via a relay as shown in the illustration, then check that the actuator fork shaft moves to 2WD position.



(b) Connect lines via a relay as shown in the illustration, then check that the actuator fork shaft moves to 4WD position.



HINT:
When inspecting the operation described above, use a heater main relay.
If operation is not as specified, replace the actuator assembly.

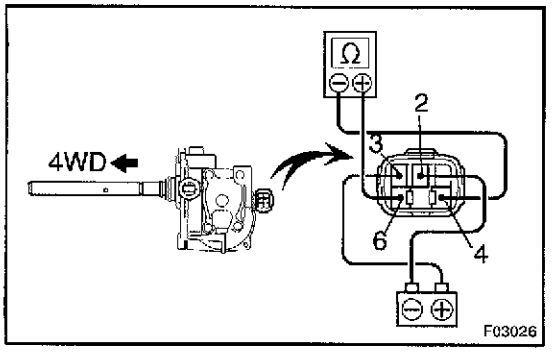


4. INSPECT LIMIT SWITCH CONTINUITY

(a) Connect the positive (+) lead from the battery to terminal 2 and the negative (–) lead to terminal 3.

(b) Connect the positive (+) lead from the ohmmeter to terminal 5 and the negative (–) lead to terminal 4.

(c) Check that continuity exists between terminals 4 and 5.



(d) Connect the positive (+) lead from the battery to terminal 3 and the negative (–) lead to terminal 2.

(e) Connect the positive (+) lead from the ohmmeter to terminal 6 and the negative (–) lead to terminal 4.

(f) Check that continuity exists between terminal 4 and 6.

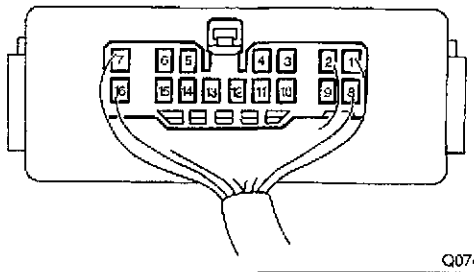
If continuity is not as specified, replace the actuator assembly.

5. INSPECT 4WD INDICATOR LAMP

Check the combination meter.

(See page BE–2)

From Back Side:



6. w/ One Touch 2–4 Selector System: INSPECT 4WD CONTROL ECU

Connect the wire harness side connector to the ECU and inspect wire harness side connector from the back side, as shown.

STANDARD VALUE OF ECU TERMINAL

Terminals (Symbols)	Condition	STD Voltage (V)
1 (IND) – 8 (GND)	• Engine Running • 2WD → 4WD (4WD Indicator light light up)	12 ~ 16 → 1.2 or less
3 (M1) – 2 (M2)	• Ignition switch ON • 2WD → 4WD (2–4 Selector switch ON or transfer shift lever L4 position)	0.5 or less → 10 – 14 (for about 5 seconds) then less than 0.5
	4WD (2–4 Selector switch ON or transfer shift lever L4 position) → 2WD (2–4 selector switch OFF and transfer shift lever H position)	10 ~ 14 (for about 5 seconds) then less than 0.5
	2WD (2–4 selector switch OFF and transfer shift lever H position)	10 ~ 14 (for about 5 seconds) then less than 0.5
4 (V4) – 8 (GND)	• Ignition switch ON • 4WD (2–4 Selector switch ON and transfer shift lever H position or 2–4 selector switch OFF and transfer shift lever L4 position) • A.D.D. VSV Temp. 20 °C (68 °F)	9 or less (after 0.1 second)
	• Ignition switch ON • 4WD (2–4 Selector switch ON and transfer shift lever H position or 2–4 selector switch OFF and transfer shift lever L4 position) • A.D.D. VSV Temp. 120 °C (248 °F)	13 or less (after 0.1 second)
5 (SPD) – 8 GND)	• Ignition switch ON • During driving	Repeatedly changes from below 0.5 or less to 4 or more
6 (4WD) – 8 (GND)	• Ignition switch ON • 4WD (2–4 Selector switch ON and transfer shift lever H position or 2–4 selector switch OFF and transfer shift lever L4 position)	2 or less
8 (GND) – Body Ground	Constant	Continuity
9 (RL–2) – 8 (GND)	• Ignition switch ON • 4WD (2–4 selector switch ON or transfer shift lever L4 position) → 2WD (2–4 selector switch OFF and transfer shift lever H position)	0.5 or less → 10 ~ 14 then 0.5 (after 5 seconds)
10 (RL–1) – 8 (GND)	• Ignition switch ON • 2WD (2–4 selector switch OFF and transfer shift lever H position) → 4WD (2–4 selector switch ON or transfer shift lever L4 position)	0.5 or less → 10 – 14 then 0.5 (after 5 seconds)
11 (V2) – 8 (GND)	• Ignition switch ON • 2WD (2–4 selector switch OFF and transfer shift lever H position) • A.D.D. VSV Temp. 20 °C (68 °F)	9 or less (after 0.1 second)
	• Ignition switch ON • 2WD (2–4 selector switch OFF and transfer shift lever H position) • A.D.D. VSV Temp. 120 °C (248 °F)	13 or less (after 0.1 second)
14 (L4) – 8 (GND)	Transfer shift lever H2 (2–4 selector switch OFF and transfer shift lever H position) → L4	10 ~ 14 → 0.5 or less

15 (2–4) – 8 (GND)	2–4 selector switch OFF → ON	10 ~ 14 → 2 or less
16 (IG) – 8 (GND)	Constant	10 ~ 14