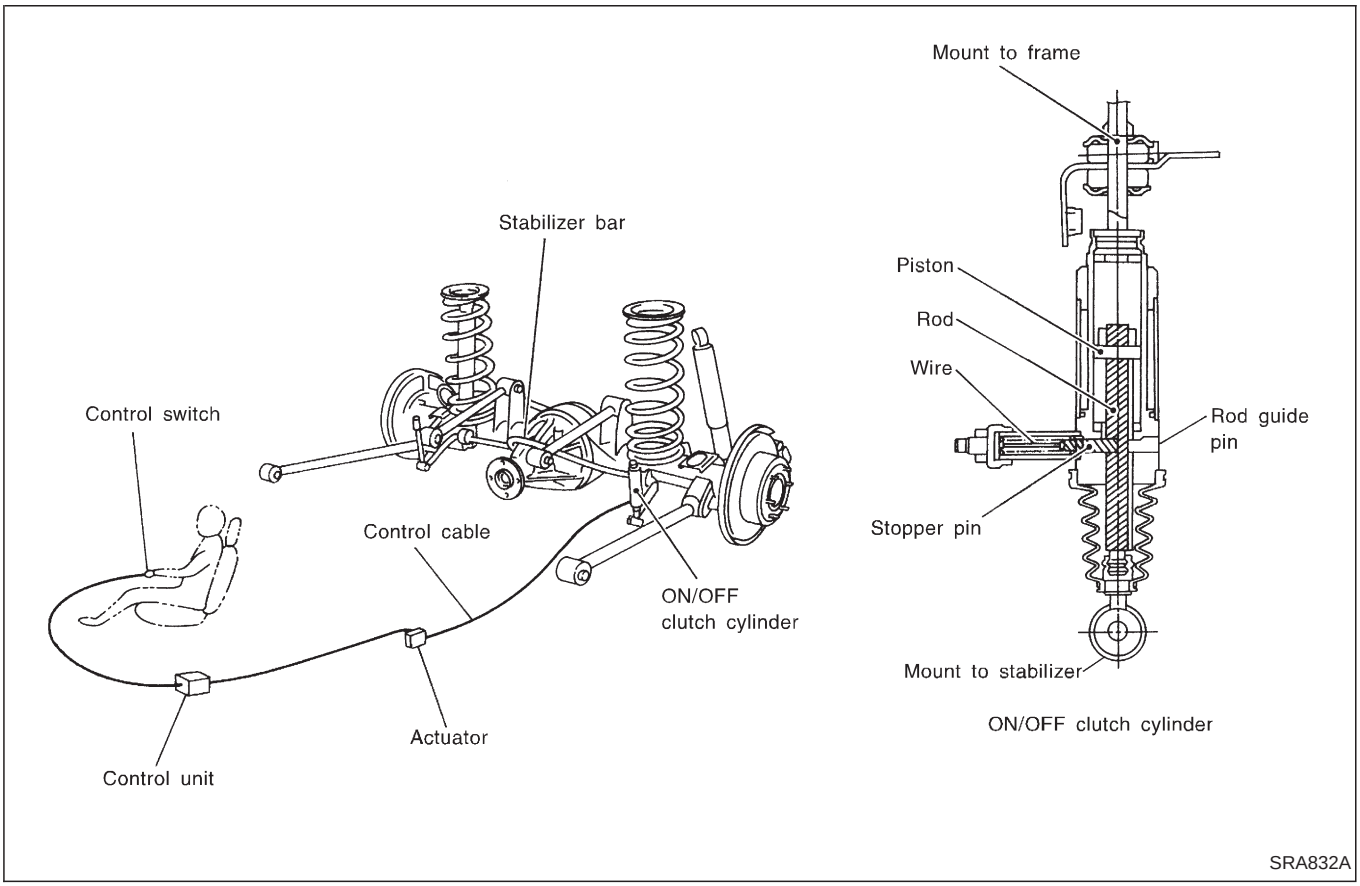
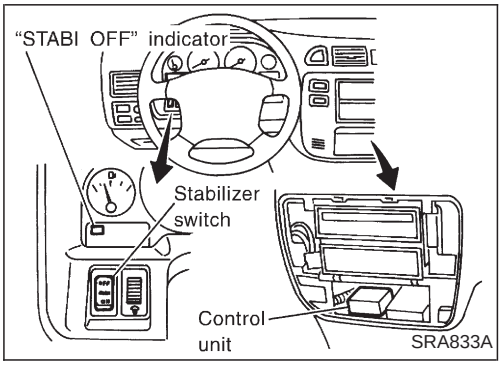
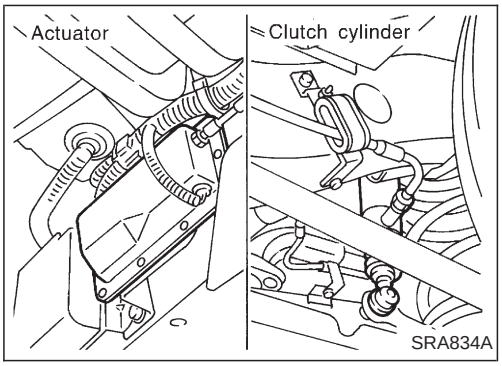
System Components



Roll rigidity is increased by activating the stabilizer function (turning the stabilizer ON) on good roads. On rough roads, deactivating the stabilizer function (turning the stabilizer OFF) reduces stabilizer swing-back behavior. As a result, the stabilizer release device serves to increase driving capability and riding comfort on rough roads. The stabilizer release device is electrically activated (turned ON) or deactivated (turned OFF) by the stabilizer switch in the driver's compartment.





System Description

CONTROL UNIT

The stabilizer control unit controls the actuator motor using the stabilizer switch and a signal sent from the vehicle speed sensor. When vehicle speed exceeds 20 km/h (12 MPH), the stabilizer control unit maintains the clutch cylinder position and activates the stabilizer function, regardless of the position of the stabilizer switch. The system is provided with a timer function to cut the actuator activating power output in about 15 seconds, in consideration of a possible system abnormality.

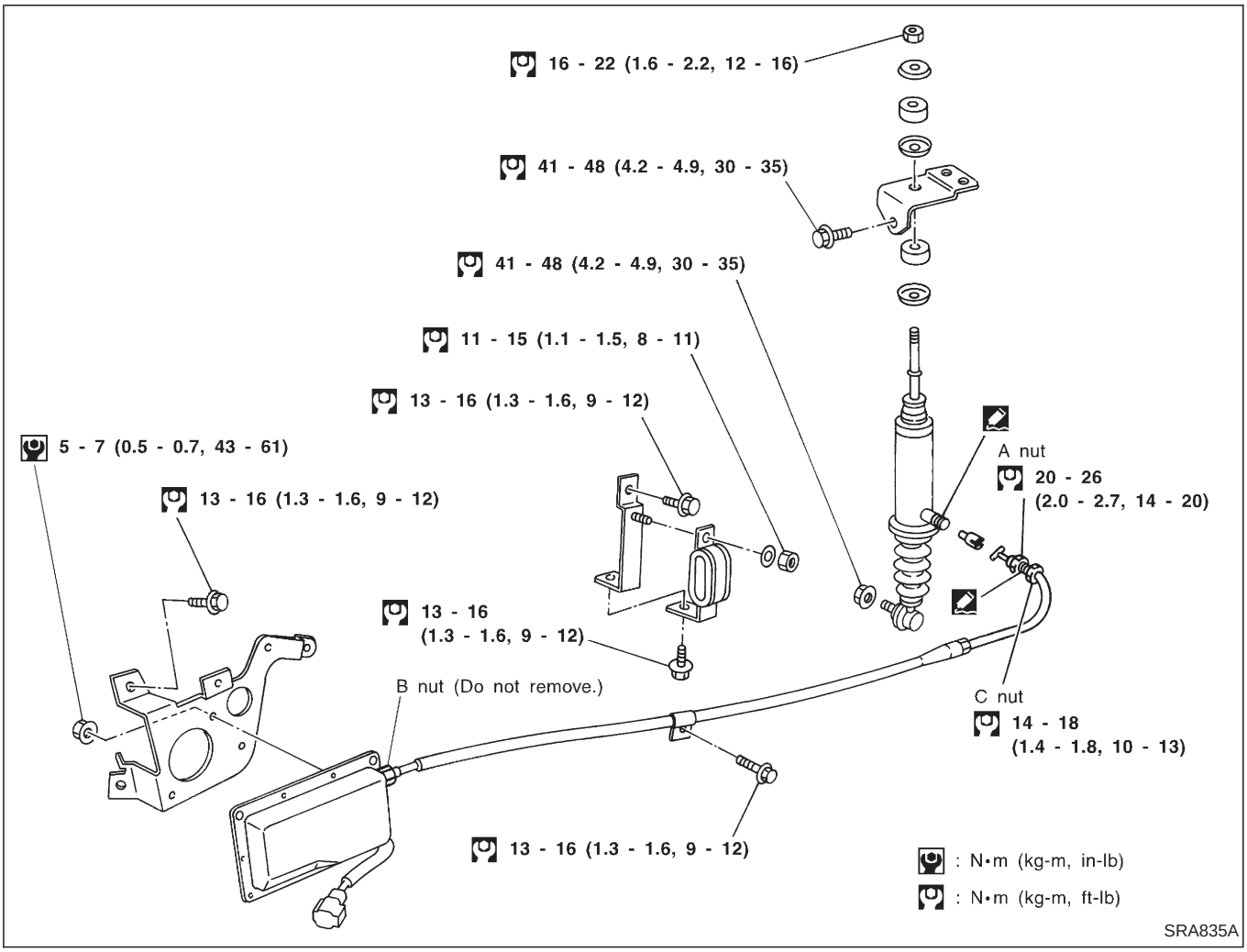
ACTUATOR

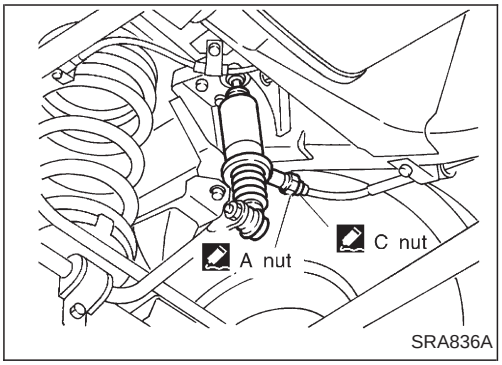
The actuator motor is turned on by a signal sent from the control unit. When the motor operates, the cable moves to activate the stopper pin at the end of the cable.

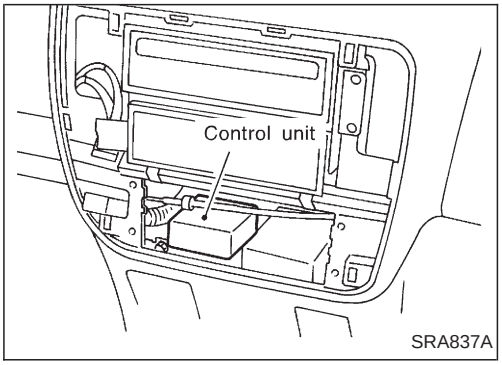
CLUTCH CYLINDER

The stopper pin (at the end of the cable) moves in and out of the cylinder (toward the piston rod or away from the piston rod) to turn the stabilizer ON or OFF.

Removal and Installation







1. Loosen the lock nut C, and loosen the A nut. Remove the cable from the clutch cylinder.

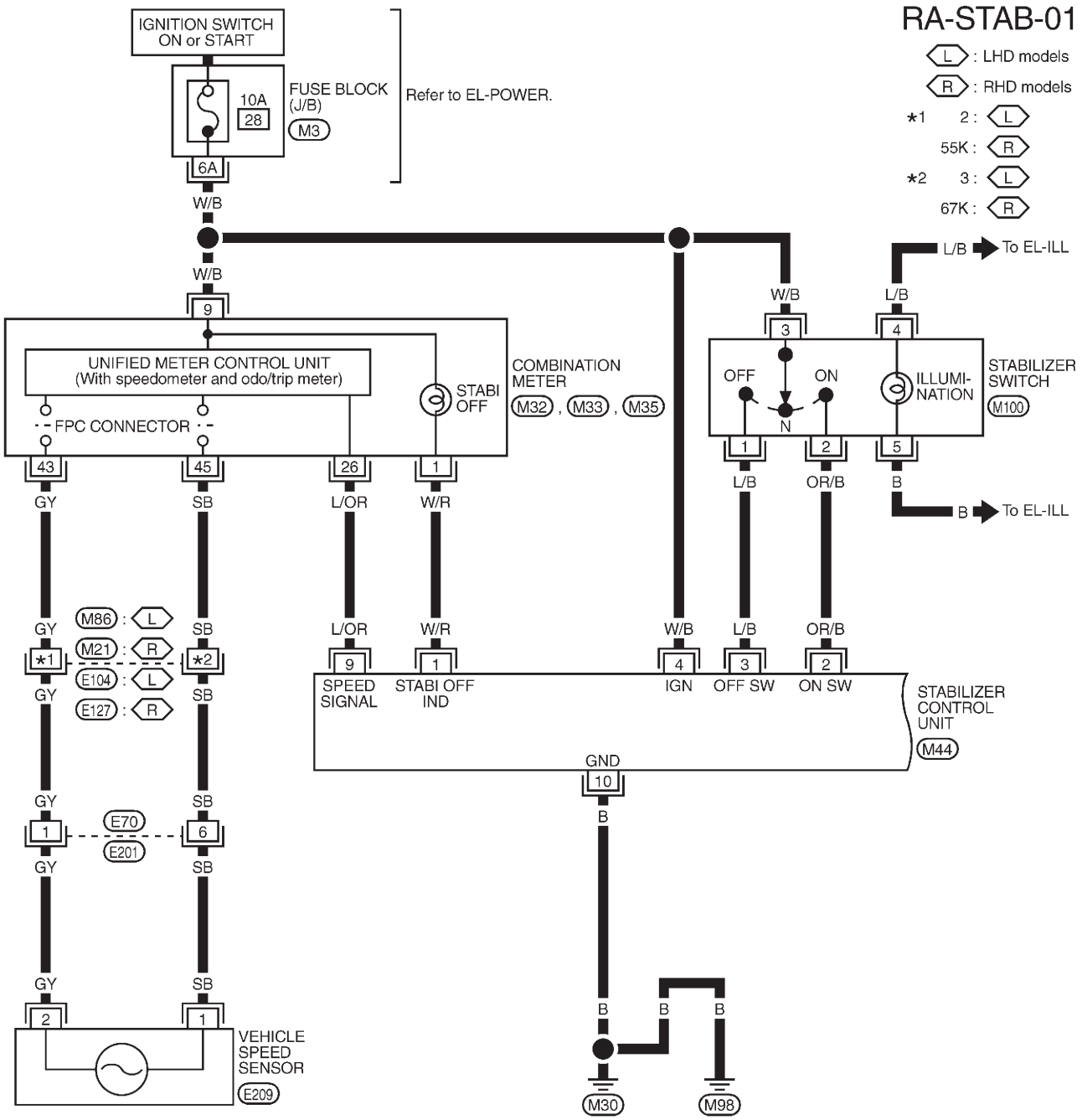
CAUTION:

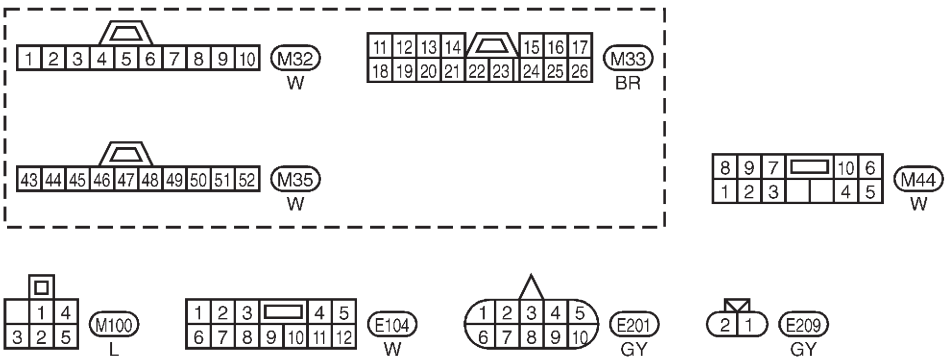
- **Do not remove the B nut because this requires the inner cable extension adjustment.**
- **Before installing the A and C nuts, use seal tape to wrap the clutch cylinder thread area and cable thread area.**

2. Remove the clamp and other fasteners which secure the cable.
3. Remove the stabilizer actuator connector.
4. Remove the stabilizer actuator.
5. Remove the clutch cylinder.

6. Before removing the stabilizer control unit, remove cluster lid C and audio equipment. Refer to the BT section ‘‘INSTRUMENT PANEL’’.

Wiring Diagram



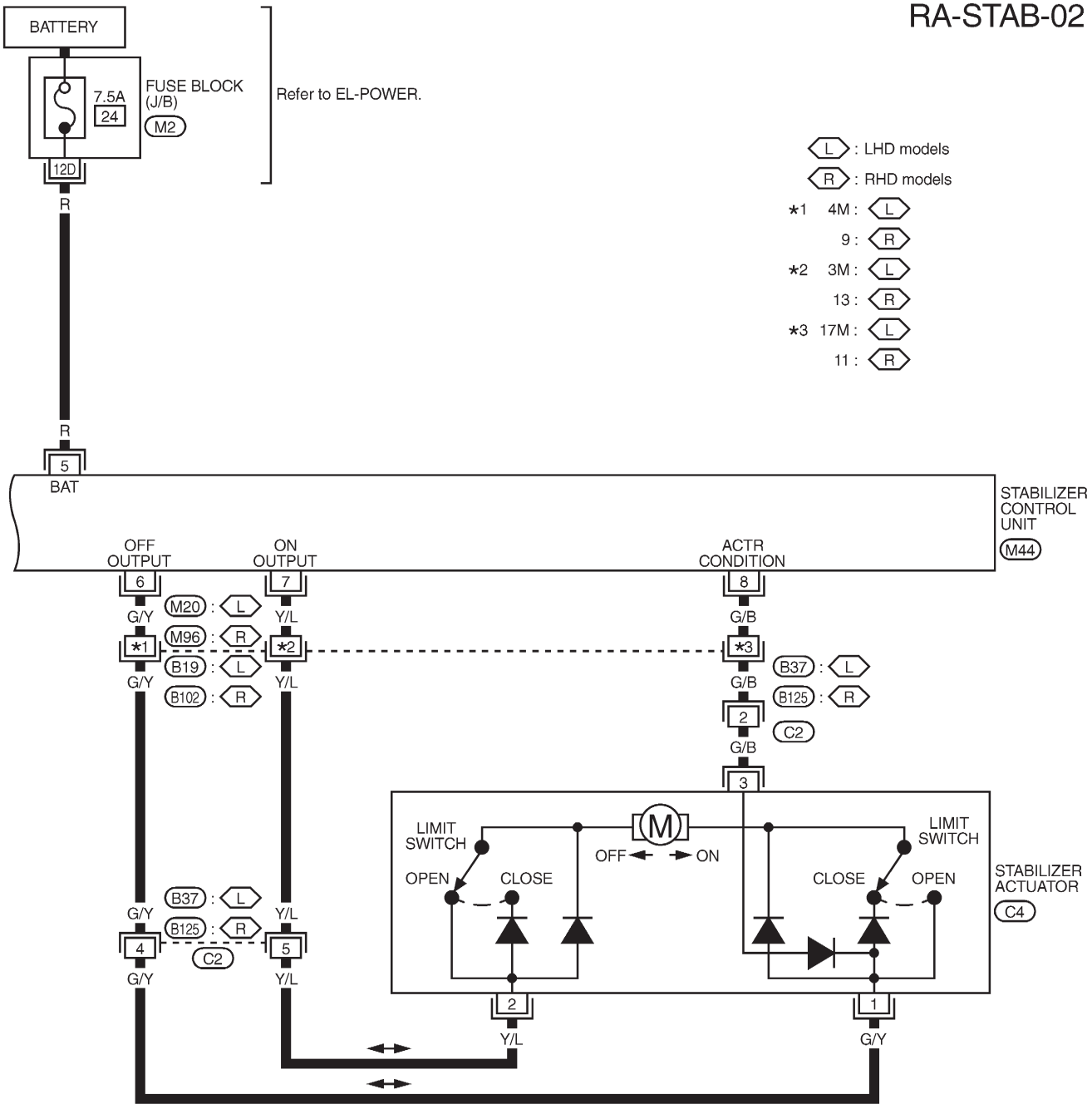


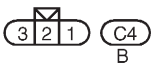
Refer to last page (Foldout page).
M21, E127
M3

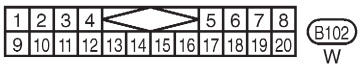
TRA001

Wiring Diagram (Cont'd)

RA-STAB-02







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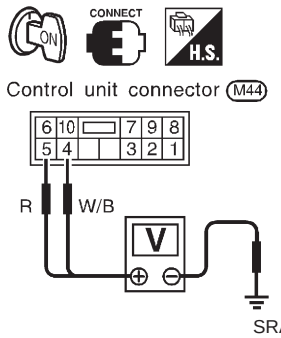
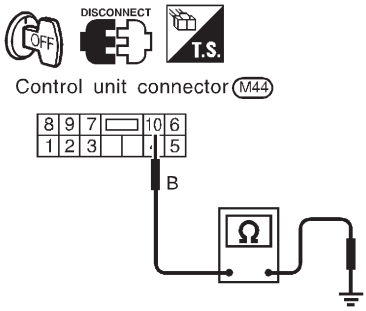
M20 , B19
M2

TRA002

A



B



Trouble Diagnoses

DIAGNOSTIC PROCEDURE 1

(POWER SUPPLY AND GROUND CIRCUIT CHECK)

A

CHECK POWER SUPPLY CIRCUIT FOR STABILIZER CONTROL UNIT.

1. Turn ignition switch ON.
2. Check voltage between control unit connector terminals ④, ⑤ and ground.
   Battery voltage should exist.

NG →

Check the following.
- 7.5A fuse 24 , 10A fuse 28
- Harness connector M44
- Harness for open or short between control unit and fuse

If NG, repair fuse, harness or connectors.

OK ↓

B

CHECK GROUND CIRCUIT FOR STABILIZER CONTROL UNIT.

1. Disconnect control unit connector.
2. Check continuity between control unit connector terminal ⑩ and ground.
   Continuity should exist.

NG →

Check the following.
- Harness connector M44
- Harness for open or short between control unit and ground

If NG, repair harness or connectors.

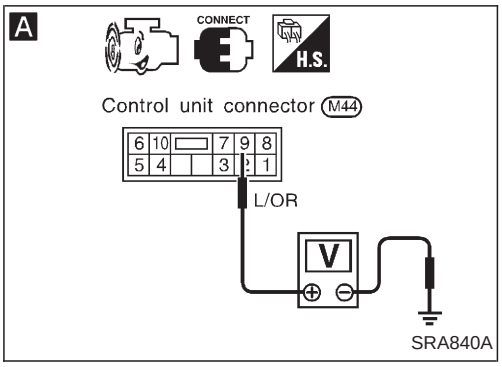
OK ↓

Power supply and ground circuit is OK.

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 2

(VEHICLE SPEED SENSOR CIRCUIT CHECK)



A

CHECK VEHICLE SPEED SENSOR CIRCUIT.

1. Jack up drive wheels.
2. Connect voltmeter between control unit connector terminal (9) and ground.
3. Slowly turn wheels.
4. Check deflection of voltmeter vary from 0 to 5 volts.

OK → Vehicle speed sensor is OK.

NG

Does speedometer operate normally?

No → Check speedometer and vehicle speed sensor circuit.

Yes

Check the following.

- Harness connector (M44)
- Harness for open or short between control unit and combination meter

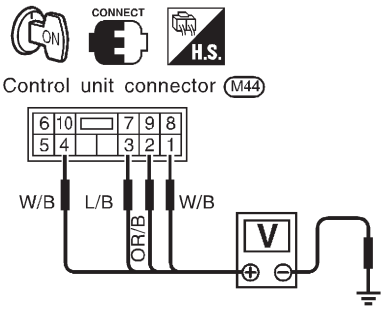
If NG, repair harness or connectors.

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 3

(STABILIZER SWITCH CIRCUIT CHECK)

A



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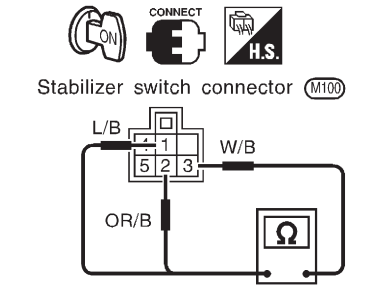


1. Turn ignition switch ON.
2. Turn stabilizer switch "OFF" to make sure stabilizer OFF illuminate.

NG → Check the following.
- 10A fuse 28
- Stabilizer off lamp bulb

OK

A

CHECK POWER SUPPLY FOR STABILIZER SWITCH.

1. Turn ignition switch ON.
2. Check voltage between control unit connector terminals ①, ②, ③, ④ and ground.

Stabilizer switch	Terminal	Volt
ON	① - Ground	Battery voltage
	② - Ground	Battery voltage
	③ - Ground	0
	④ - Ground	Battery voltage
OFF	① - Ground	0
	② - Ground	0
	③ - Ground	Battery voltage
	④ - Ground	Battery voltage

OK → Stabilizer switch circuit is OK.

NG

B

STABILIZER SWITCH CHECK.

Switch condition	Continuity between terminals	
	① - ③	② - ③
ON	No	Yes
OFF	Yes	No

NG → Replace stabilizer switch.

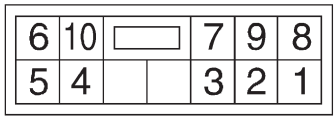
OK

Check the following.
- Harness connectors M32, M44, M100
- Harness for open or short between control unit and stabilizer switch, combination meter
- Combination meter

If NG, repair harness or connectors.

Trouble Diagnoses (Cont'd)

INSPECTION OF STABILIZER RELEASE DEVICE CONTROL UNIT



SRA853A

Terminal No.		Parts of check	Specifications	
+	–			
1	Body ground	Stabilizer off indicator	Key switch ON,	Stabilizer switch ON: 0 volts OFF: Approx. 0.6 volts
2		Stabilizer switch	Key switch ON	Stabilizer switch ON: Battery voltage (Approx. 12 volts) OFF: 0 volts
3			Key switch ON	Stabilizer switch ON: 0 volts OFF: Battery voltage (Approx. 12 volts)
4			Key switch	ON: Battery voltage (Approx. 12 volts) OFF: volts
5		Power supply	Always battery voltage (Approx. 12 volts)	
6		Stabilizer actuator	Key switch ON	Stabilizer switch ON: 0 volts OFF: After turning stabilizer switch "OFF", battery voltage (Approx. 12 volts) will exist for about 15 seconds, then drop to 0 volts.
7			Key switch ON	Stabilizer switch ON: After turning stabilizer switch "ON", battery voltage (Approx. 12 volts) will exist for about 15 seconds, then drop to 0 volts. OFF: 0 volts
8			Key switch	ON: Approx. 4 volts OFF: 0 volts
9		Vehicle speed sensor	During extremely low speeds	Varies from 0 volts to 5 volts
10		Ground	—	

General Specifications

Suspension type	5-link type rigid with coil spring
Shock absorber type	Double-acting hydraulic
Stabilizer	Standard equipment

Inspection and Adjustment

WHEEL BEARING

Total end play mm (in)	0 (0)
Wheel bearing preload at bearing cage bolt N (kg, lb)	8.8 - 42.2 (0.9 - 4.3, 2.0 - 9.5)