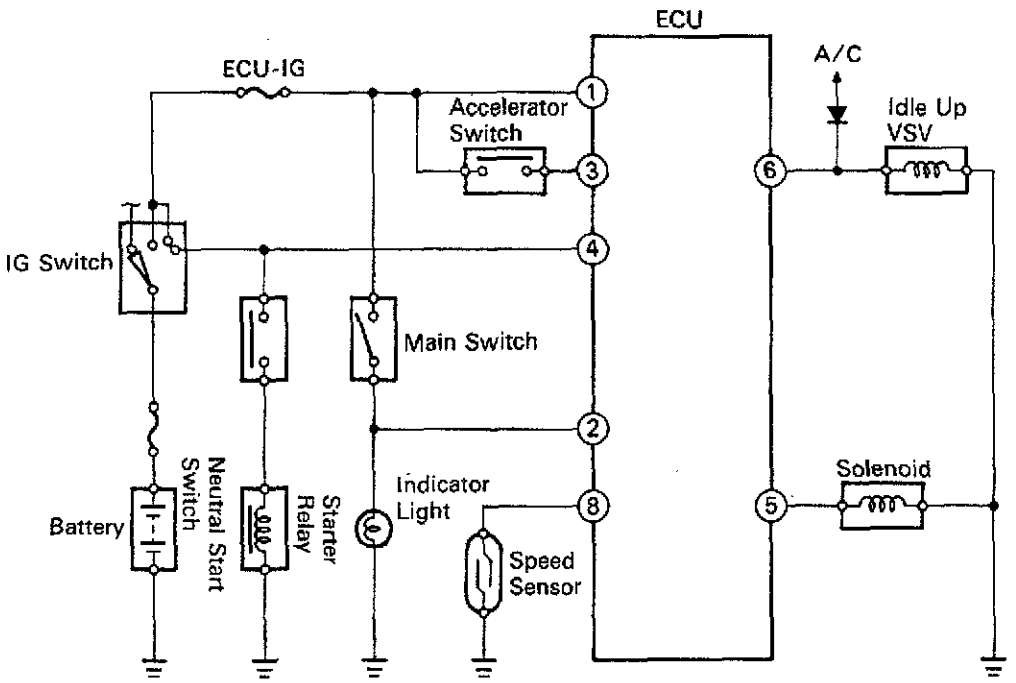
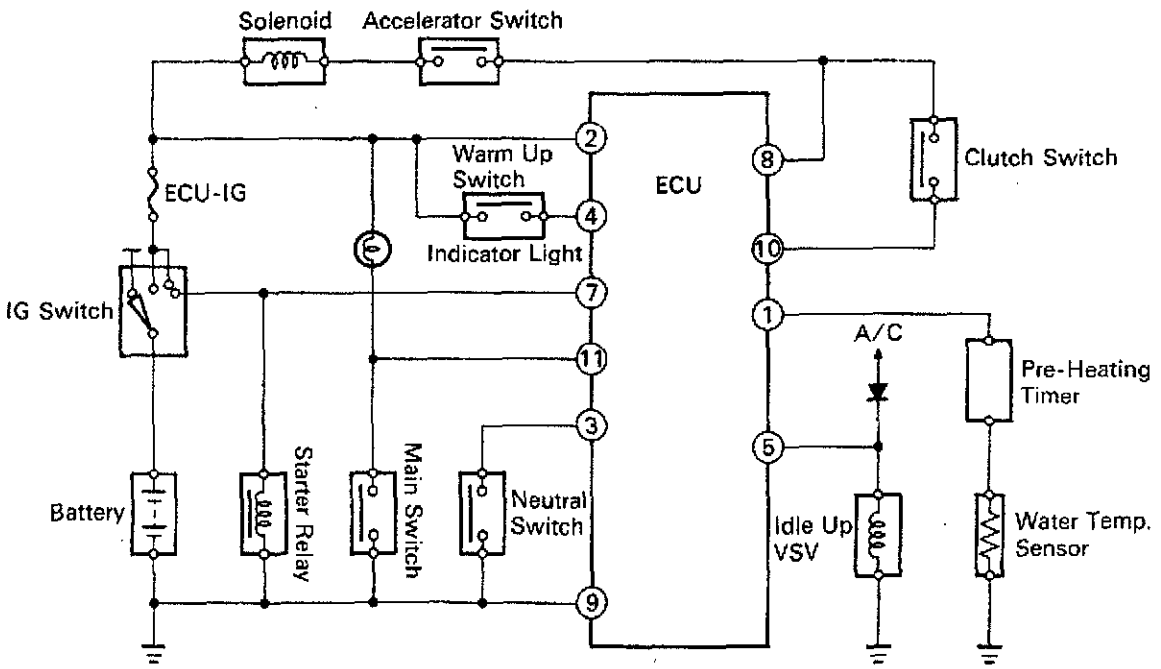
EXHAUST RETARDER
WIRING DIAGRAM

BROLW-01

(A/T)



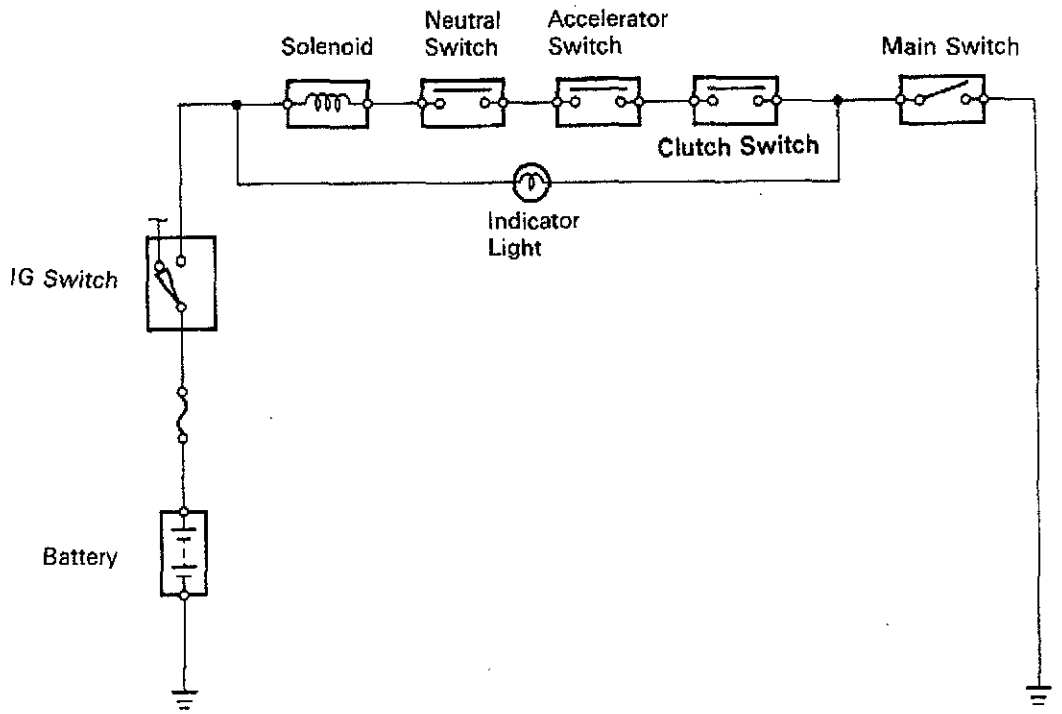
(M/T Cold Area Spesification)



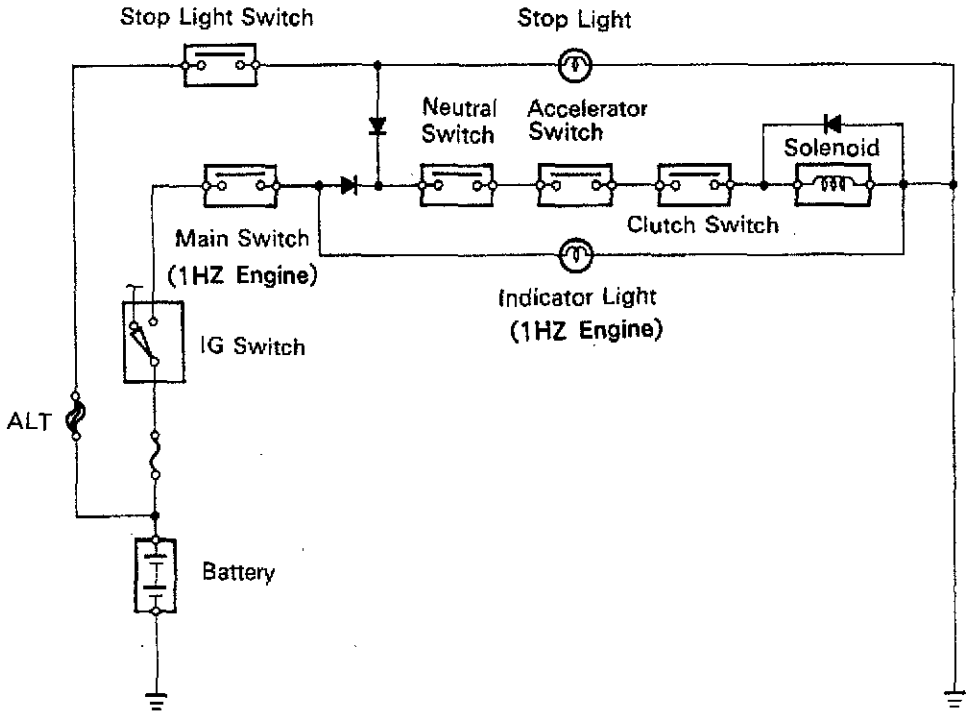
R06523
R06524

207218

(M/T)



(Hong Kong Model)



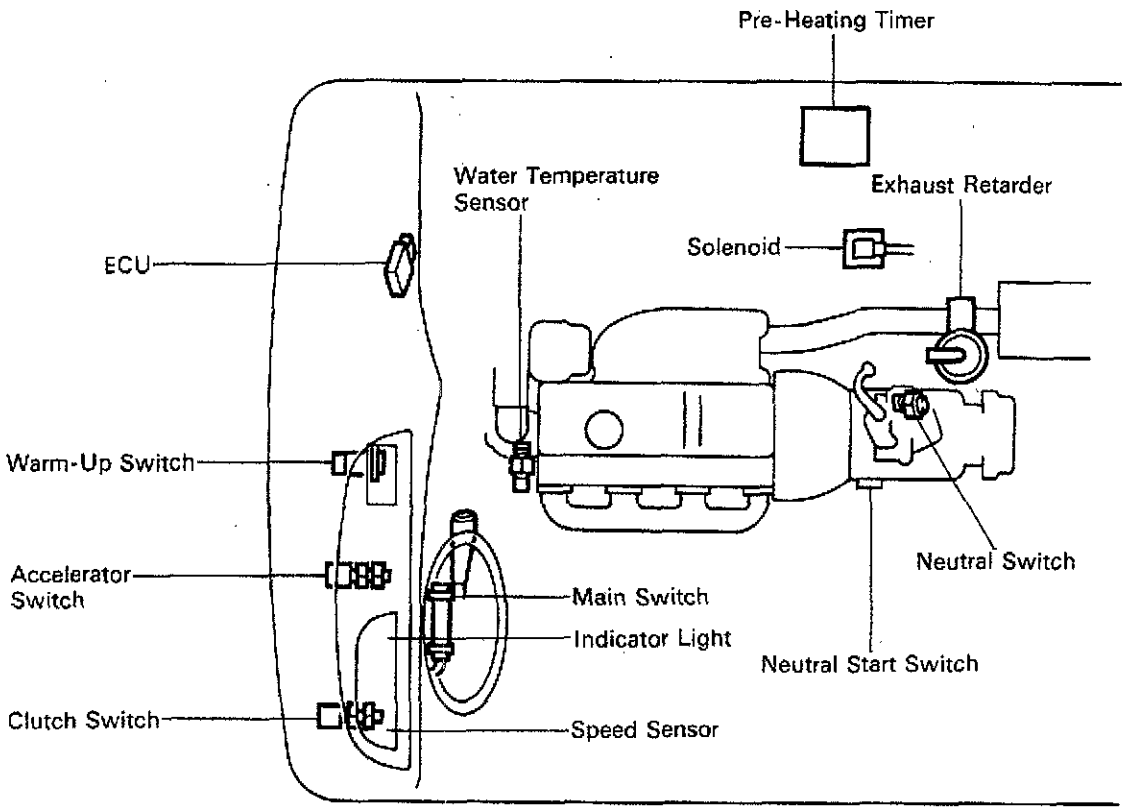
R06525
R06526

Z07219

BR

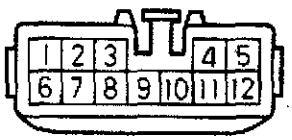
BR0LX-01

SYSTEM PARTS LOCATION



Exhaust Retarder ECU

(Cold Area Spesification M/T)



(A/T)



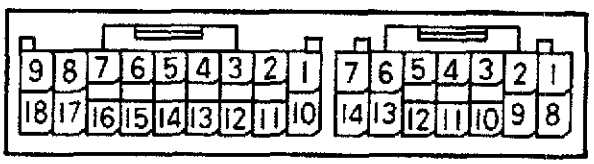
Accelerator Switch



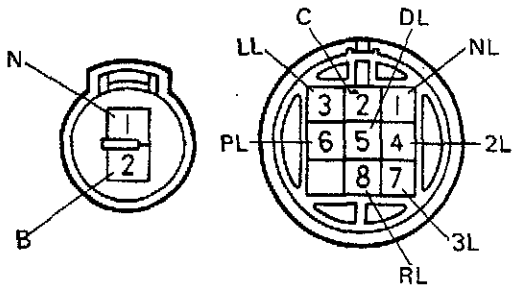
Clutch Switch



Main Switch



Neutral Start Switch (A/T)



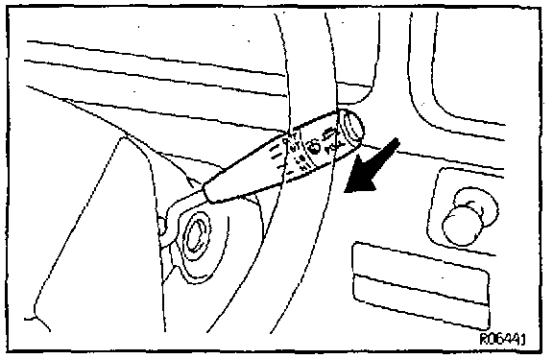
Solenoid



Neutral Switch (M/T)



R06522

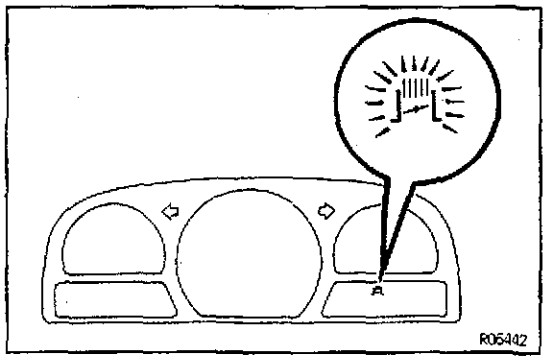


ON–VEHICLE INSPECTION

BR0LY-01

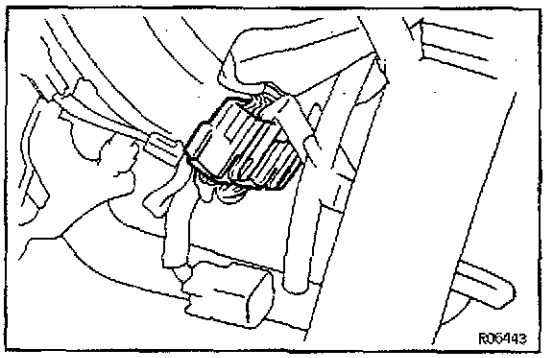
INSPECT INDICATOR LIGHT OPERATION

(a) *Turn the ignition switch ON.*
(b) Turn the main switch on.



(c) Check that the warning light goes on.

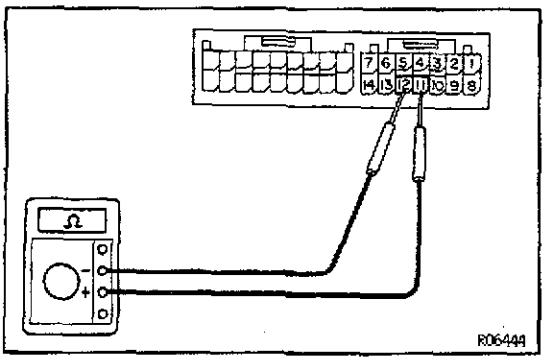
BR



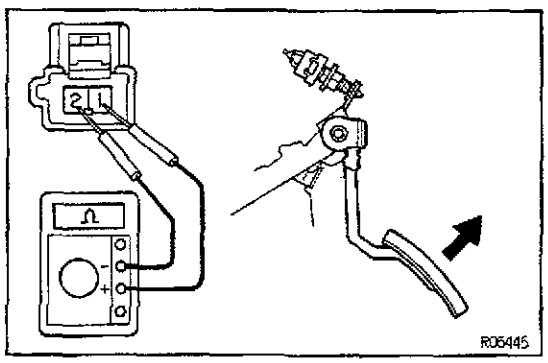
MAIN SWITCH INSPECTION

BR0LZ-01

1. **REMOVE CONNECTOR**
Disconnect the 2 connectors and remove the turn signal switch connector from the steering column.



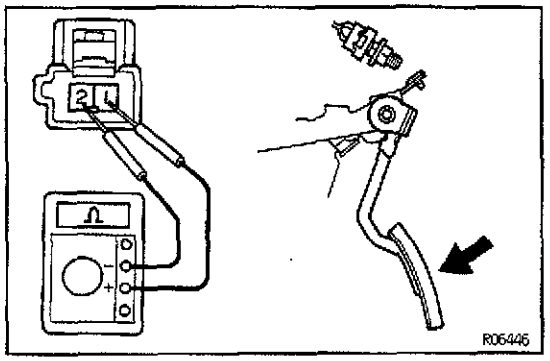
2. **INSPECT SWITCH CONTINUITY**
(a) Check that there is continuity between terminals 11 and 12 with the main switch is *"ON"*.
(b) Check that there is no continuity between terminals 11 and 12 with the main switch is *"OFF"*.
3. **INSTALL CONNECTOR**
Install the turn signal switch connector to the steering column and connect the 2 connectors.



ACCELERATOR PEDAL SWITCH INSPECTION

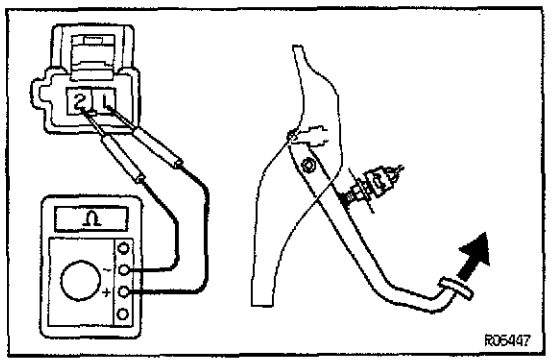
BR0MO-01

1. **DISCONNECT ACCELERATOR SWITCH CONNECTOR**
2. **INSPECT SWITCH CONTINUITY**
(a) Check that there is continuity between terminals 1 and 2 with the pedal is released.



(b) Check that there is no continuity between terminals 1 and 2 with the pedal is depressed.

3. CONNECT ACCELERATOR SWITCH CONNECTOR



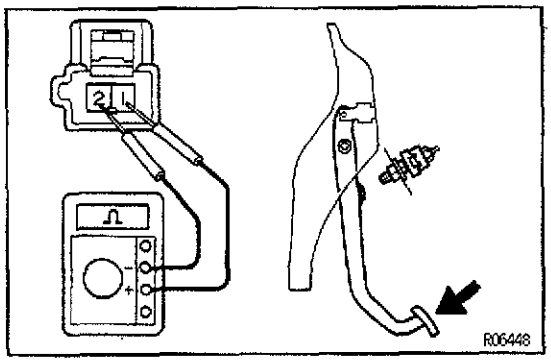
CLUTCH PEDAL SWITCH INSPECTION

4R0M1-01

1. DISCONNECT CLUTCH SWITCH CONNECTOR

2. INSPECT SWITCH CONTINUITY

(a) Check that there is continuity between terminals 1 and 2 with the pedal is released.

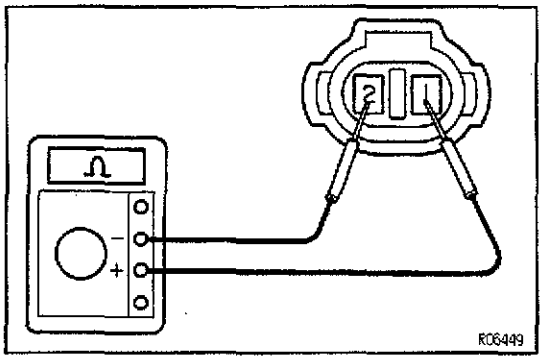


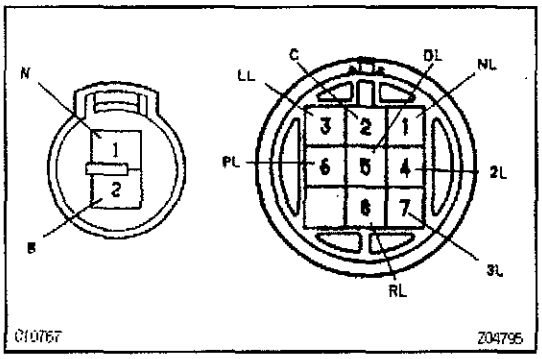
(b) Check that there is no continuity between terminals 1 and 2 with the pedal is depressed.

3. CONNECT CLUTCH SWITCH CONNECTOR

BR0M2-01

NEUTRAL SWITCH INSPECTION





INSPECT SWITCH CONTINUITY

(M/T)

(a) Check that there is no continuity between terminals 1 and 2 with the shift lever is shifted.

(b) Check that there is continuity between terminals 1 and 2 with the shift lever is neutral position.

(A/T)

Check that there is continuity between the following terminals.

○—○ : Continuity

Terminal / Shift position	B	N	C	PL	RL	NL	DL	3L	2L
P	○	○	○	○					
R			○		○				
N	○	○	○			○			
D			○				○		
2			○					○	
L			○						○

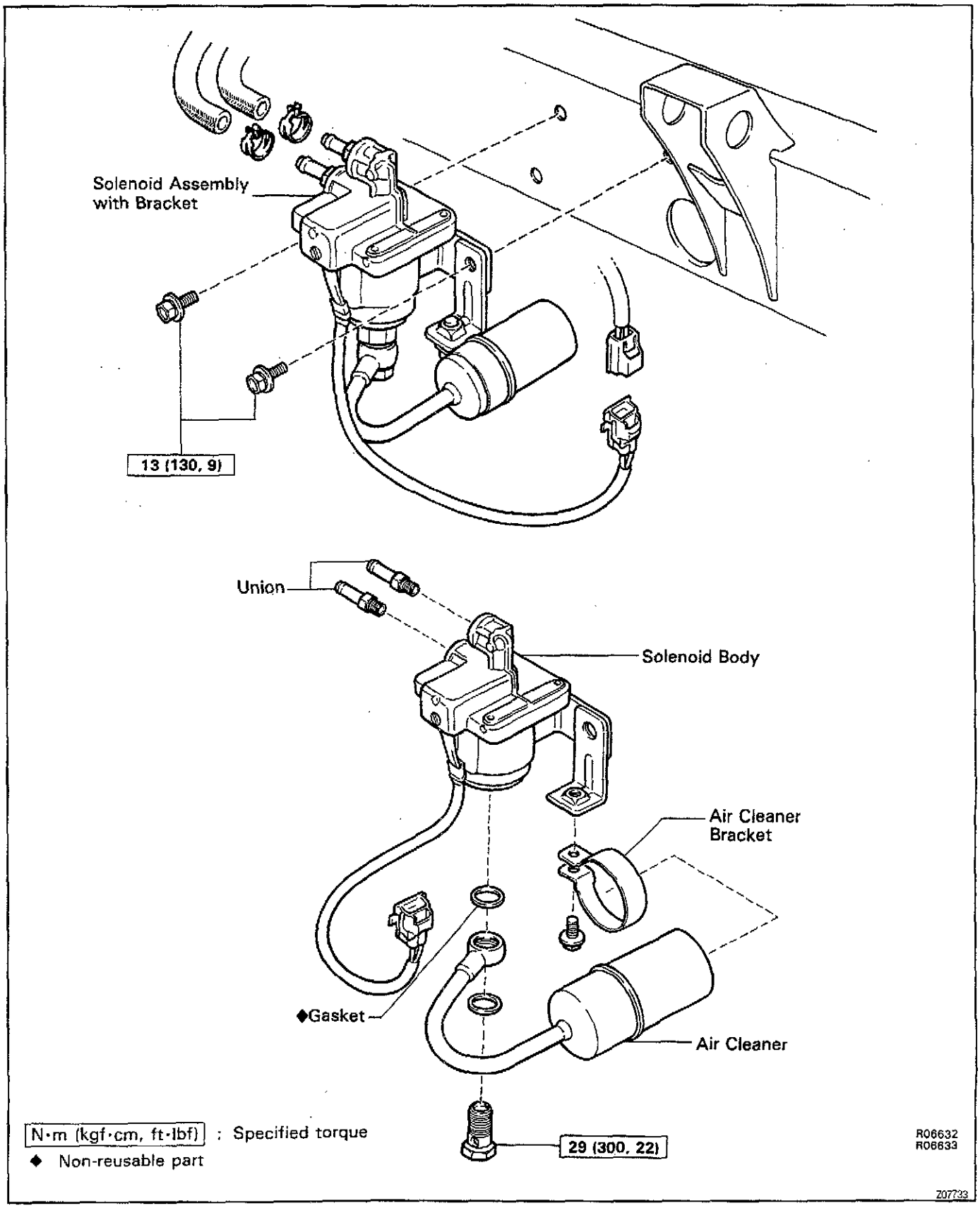
V02106

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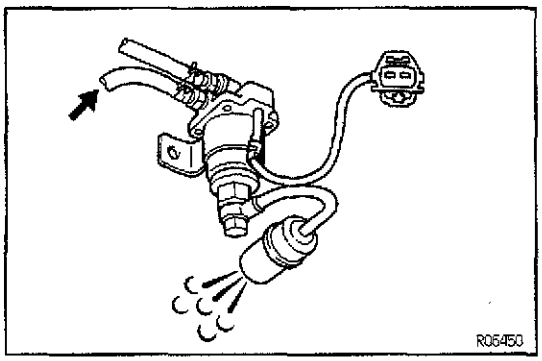
BRGM3-01

EXHAUST RETARDER SOLENOID REMOVAL AND INSTALLATION

Remove and install the parts, as shown.



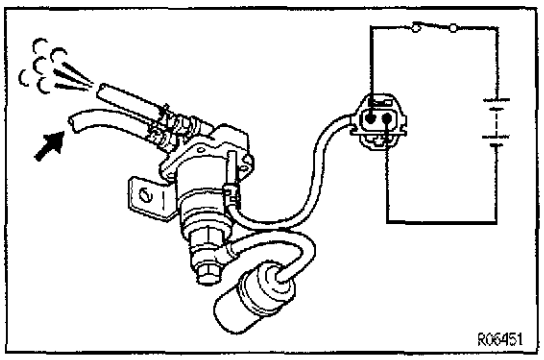
BR0M4–01



EXHAUST RETARDER SOLENOID INSPECTION

1. **REMOVE EXHAUST RETARDER SOLENOID**
2. **AIR TRAVEL CHECK**

(a) When blowing into the exhaust retarder side union, make sure that the air travels to the air cleaner.



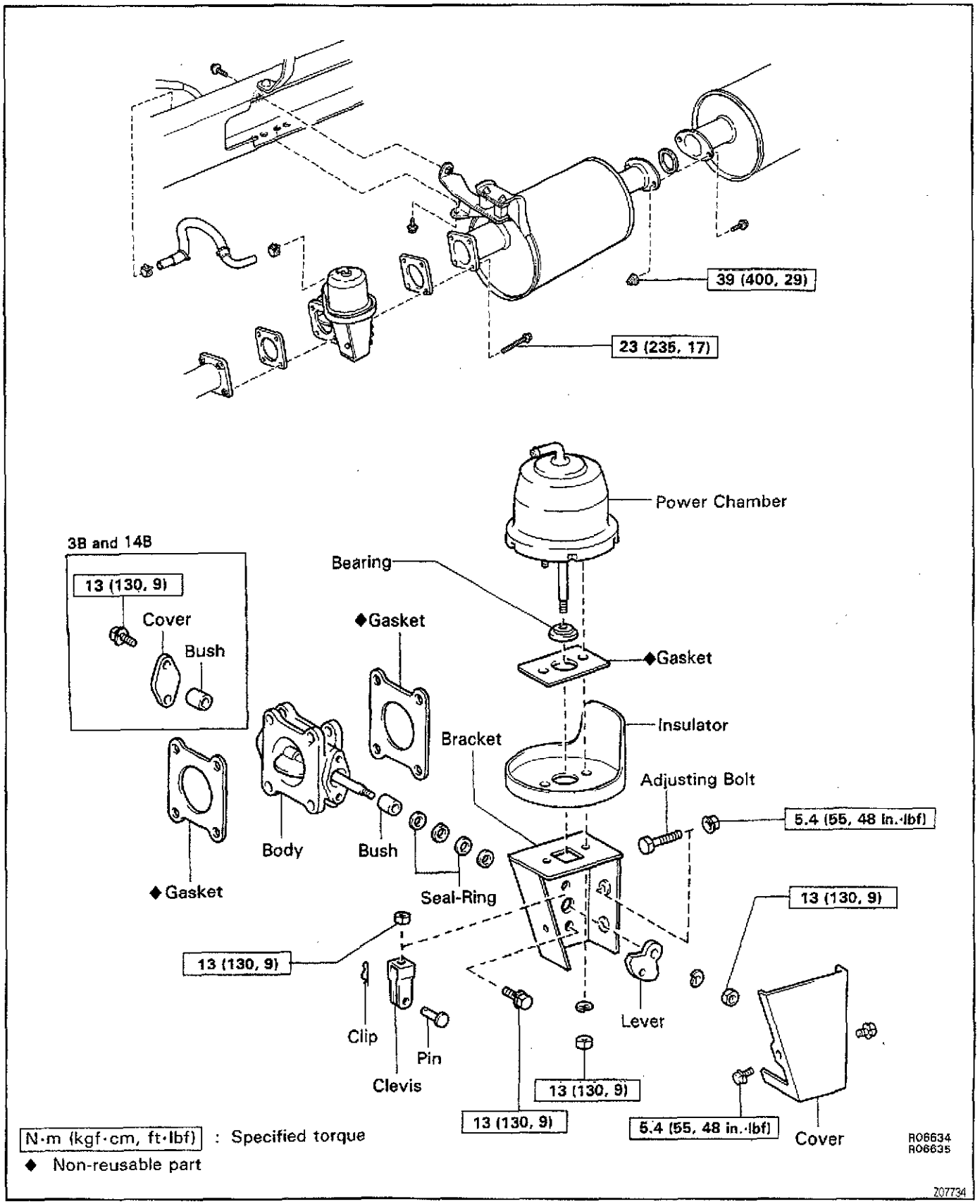
(b) Apply battery voltage to the connector.
(c) When blowing into the exhaust retarder side union, make sure that the air travels to the vacuum tank side union.

3. **INSTALL EXHAUST RETARDER SOLENOID**

BR0M5–01

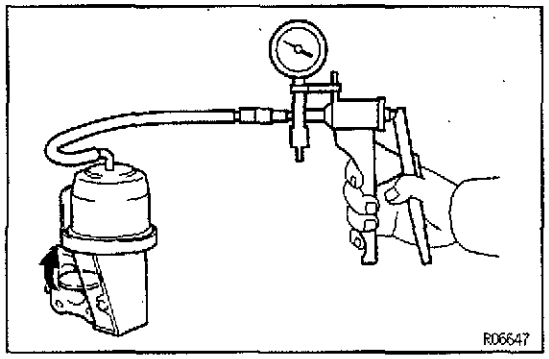
EXHAUST RETARDER REMOVAL AND INSTALLATION

Remove and install the parts, as shown.



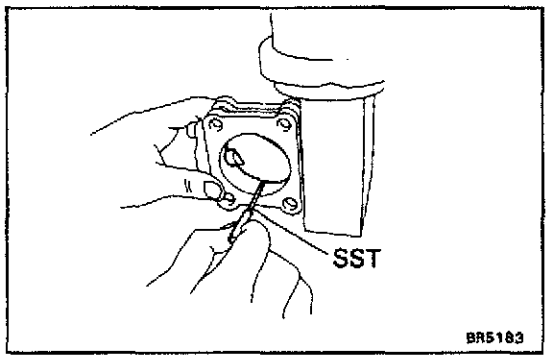
BR0M6-01

EXHAUST RETARDER INSPECTION



1. CHECK EXHAUST RETARDER CHAMBER

Apply a vacuum to the chamber and check for vacuum leakage and smooth movement of the valve. If problem is found, replace the exhaust retarder assembly.



2. CHECK VALVE BODY CLEARANCE AND OPENING ANGLE

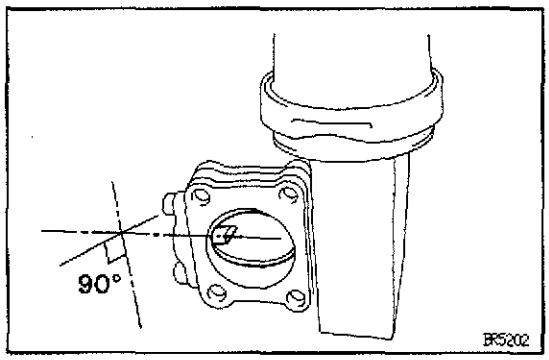
(a) Using SST, check the valve body clearance with the chamber in a vacuum.

SST 09240–00020

Standard clearance:

(3B and 14B) 0.1–0.4 mm (0.004–0.016 in.)

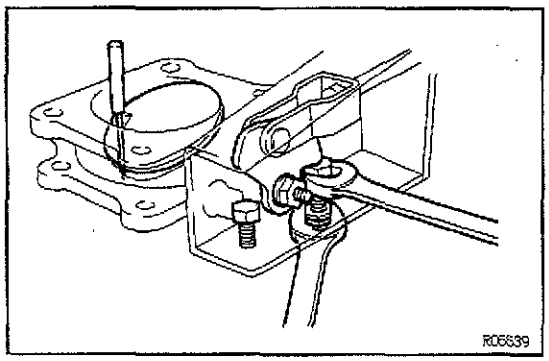
(1HZ) 0.2–0.3 mm (0.008–0.012 in.)



(b) With the valve fully opened, measure the angle of the valve to the body surface.

Opening Angle:

90°



3. IF NECESSARY ADJUST VALVE BODY CLEARANCE AND OPENING ANGLE

(a) Remove the cover.

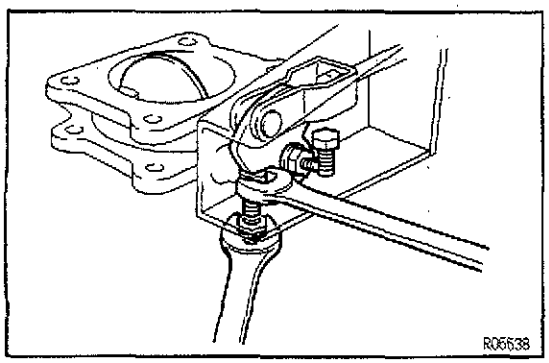
(b) Apply a vacuum to the chamber and close the valve.

(c) Adjust the valve body to the standard clearance with the adjusting bolt.

Standard clearance:

(3B and 14B) 0.1–0.4 mm (0.004–0.016 in.)

(1HZ) 0.2–0.3 mm (0.008–0.012 in.)



(d) Release the vacuum from the chamber and fully open the valve.

(e) Adjust the opening angle to the standard with the adjusting bolt.

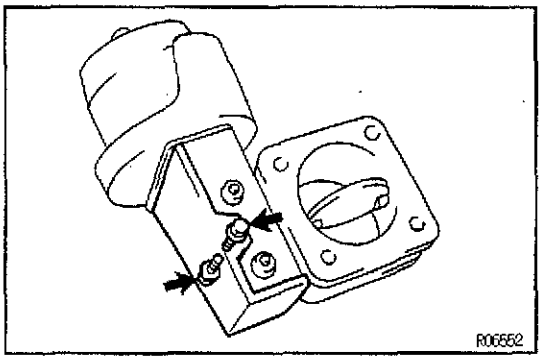
(f) Install the cover.

Opening Angle:

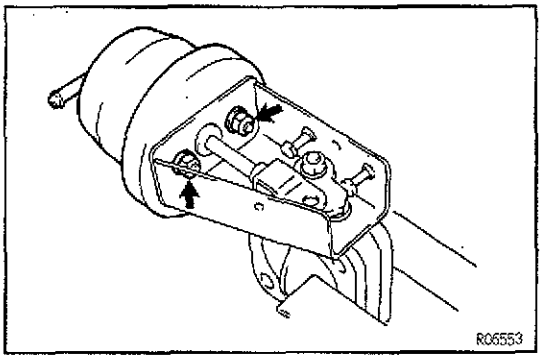
90°

EXHAUST RETARDER DISASSEMBLY

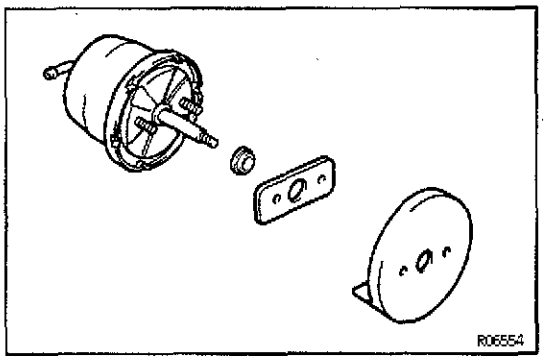
BRGM7-01



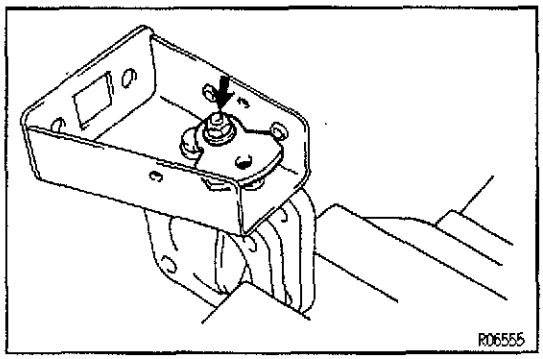
1. REMOVE BRACKET COVER
2. REMOVE CLIP AND PIN FROM CLEVIS



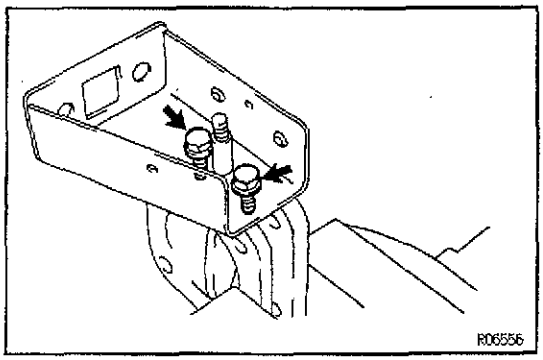
3. REMOVE CHAMBER FROM BRACKET
   Remove the nuts and chamber from the bracket.
4. REMOVE CLEVIS AND LOCK NUT



5. REMOVE INSULATOR, GASKET AND BEARING



6. REMOVE EXHAUST BRAKE LEVER
7. REMOVE ADJUSTING BOLTS

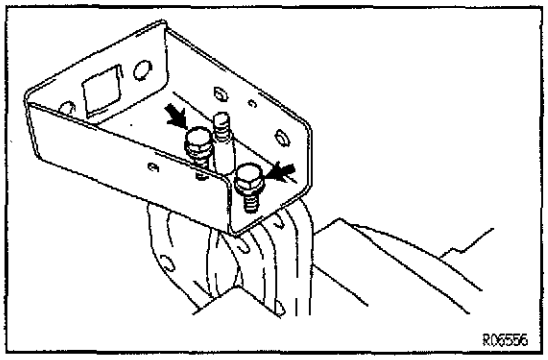


8. REMOVE VALVE BODY
   (a) Remove the bolts and bracket from the body.
   (b) Remove the seal–rings and bushing from the body.

BR0MA-01

EXHAUST RETARDER COMPONENTS INSPECTION

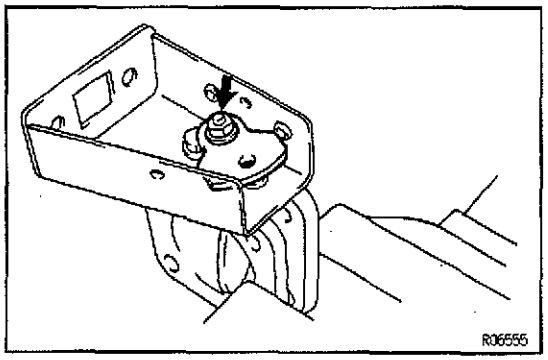
CHECK ALL PARTS FOR WEAR OR DAMAGE



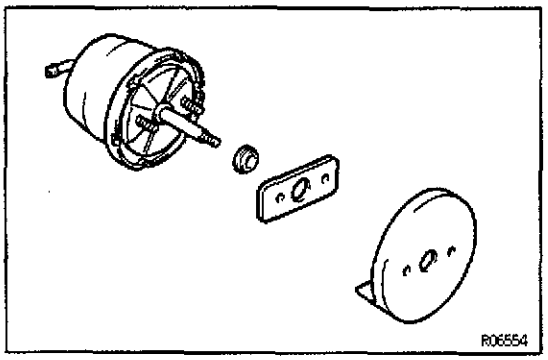
BR0MB-01

EXHAUST RETARDER ASSEMBLY

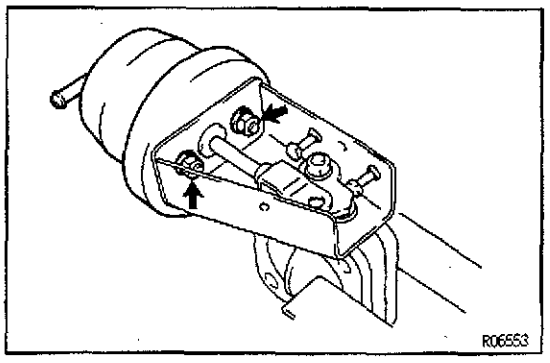
1. **INSTALL VALVE BODY**
(a) Install the seal–rings and bushing to the body.
(b) Install the bolts and bracket to the body.
Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)
2. **INSTALL ADJUSTING BOLTS**



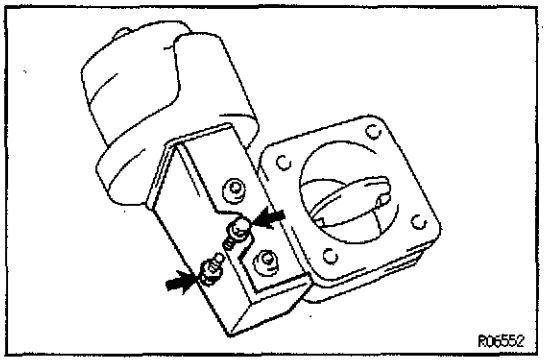
3. **INSTALL EXHAUST BRAKE LEVER**



4. **INSTALL INSULATOR, GASKET AND BEARING**
5. **INSTALL CLEVIS AND LOCK NUT**



6. **INSTALL CHAMBER TO BRACKET**
Install the nuts and chamber to the bracket.
7. **INSTALL CLIP AND PIN TO CLEVIS**
8. **ADJUST VALVE BODY CLEARANCE AND OPENING ANGLE**



9. INSTALL BRACKET COVER