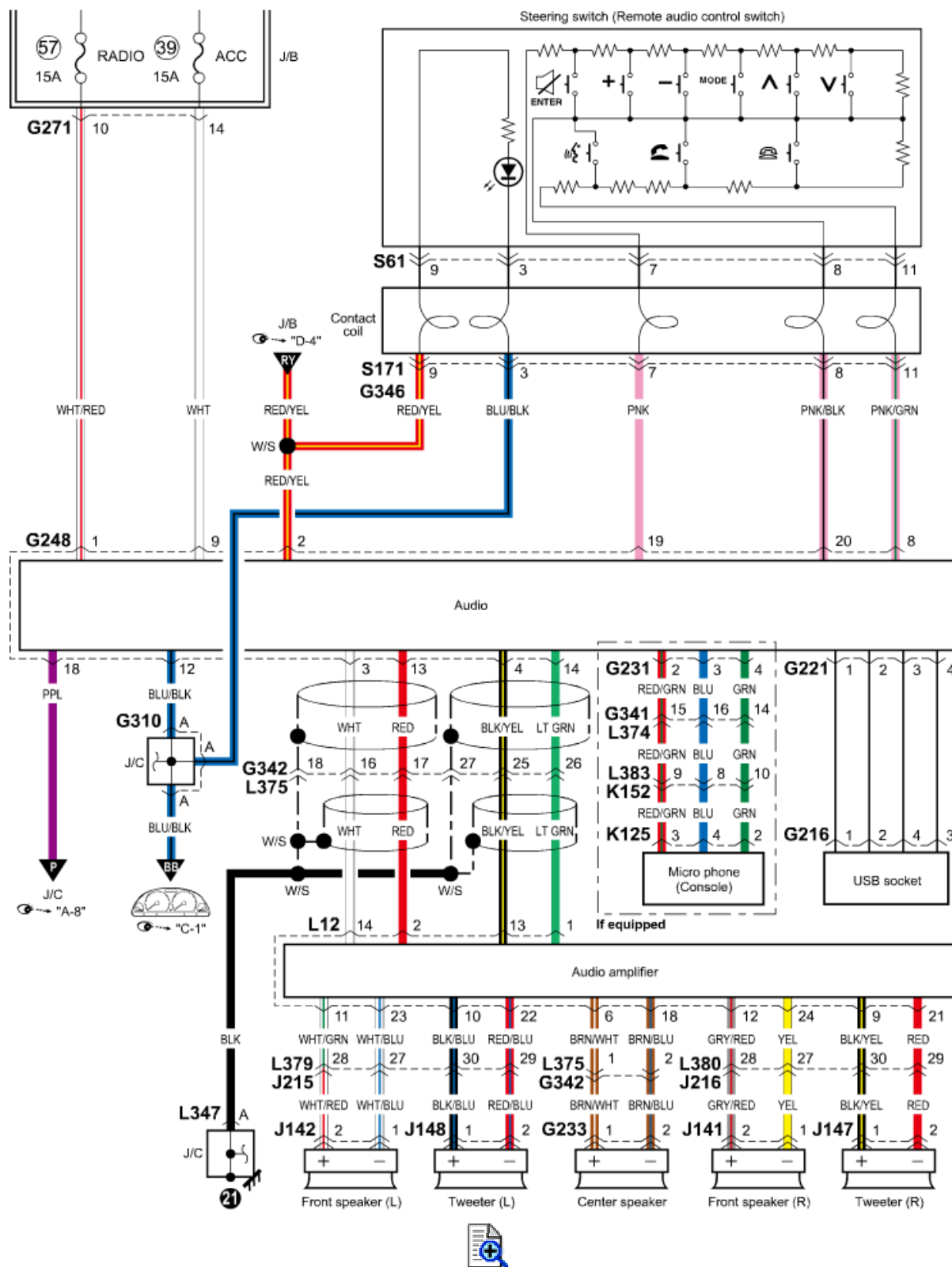
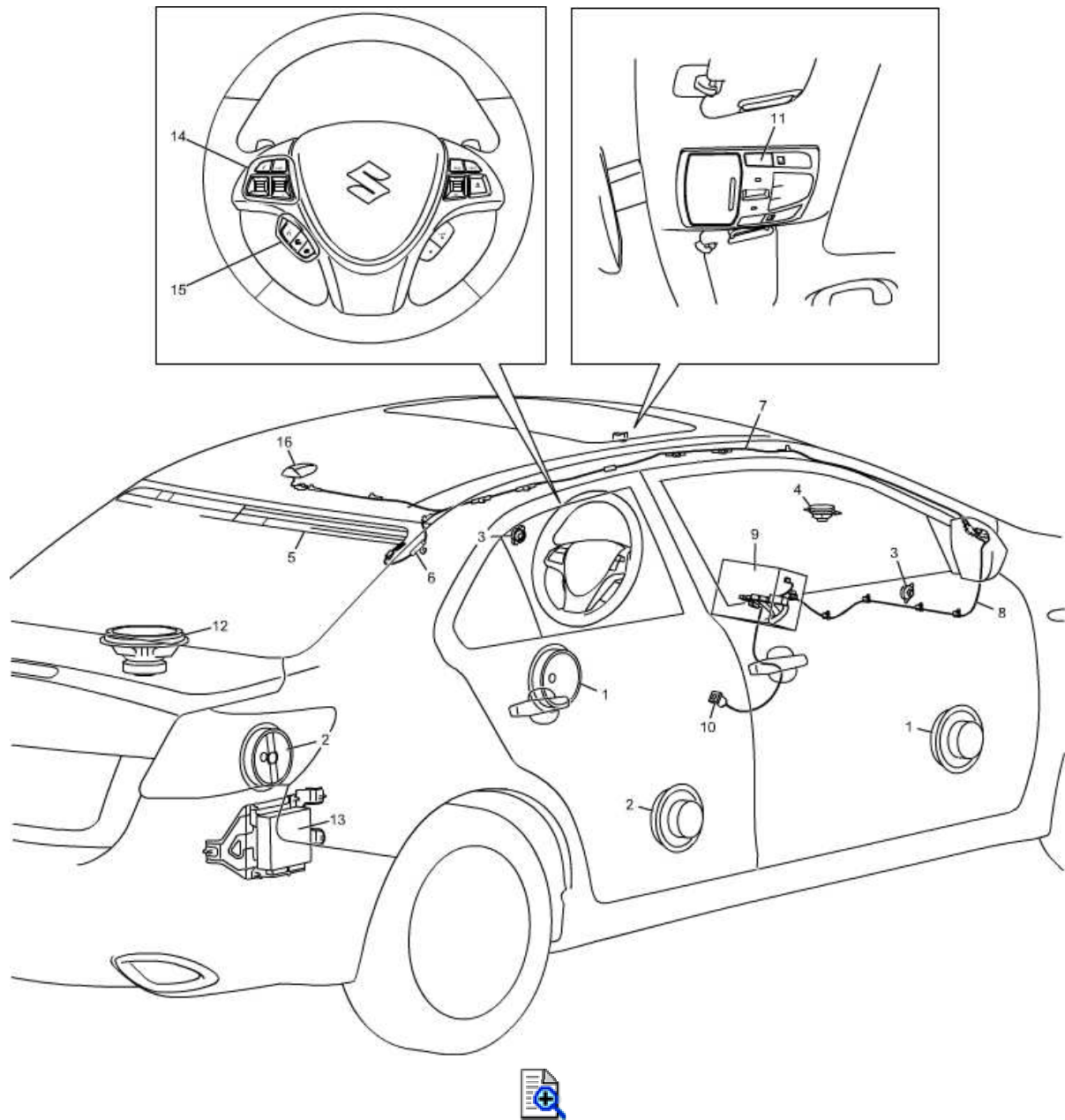


G-1 Audio System Circuit Diagram (with Audio Amplifier)



Audio System Component Location



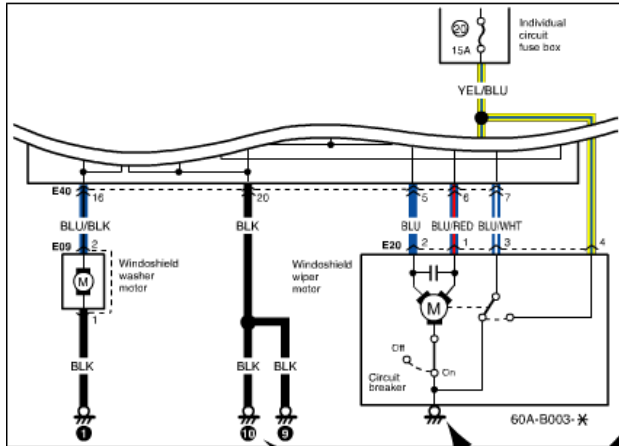
1. Front speaker	7. Radio antenna feeder cable (roof)	13. Audio amplifier (if equipped)
2. Rear speaker	8. Radio antenna feeder cable (instrument panel)	14. Steering switch (audio control switch)
3. Tweeter	9. Audio unit	15. Steering switch (hands-free switch) (if equipped)
4. Center speaker	10. USB socket	16. XM antenna (if equipped)
5. Printed radio antenna	11. Microphone (if equipped)	
6. Radio antenna amplifier	12. Sub woofer (if equipped)	

How to Read Ground Point

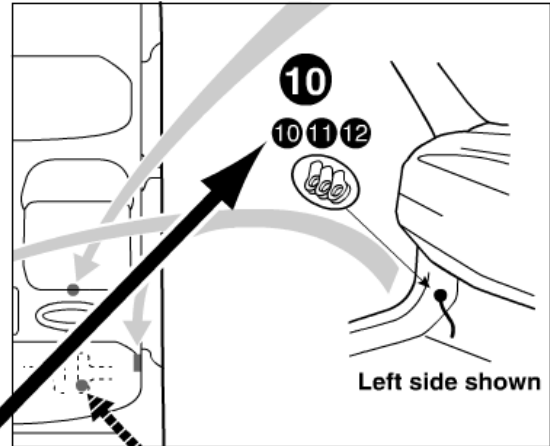
Refer to [System Circuit Diagram](#).

Refer to [Ground \(Earth\) Point](#).

"SYSTEM CIRCUIT DIAGRAM"



"GROUND POINT"



10

Device body grounding is not given the ground point number.

CROSS-REFERENCE

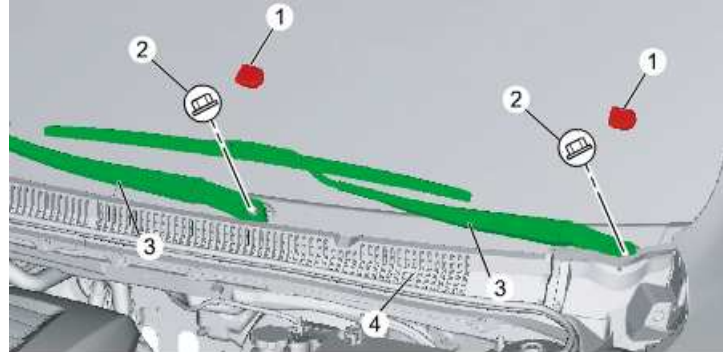


9D

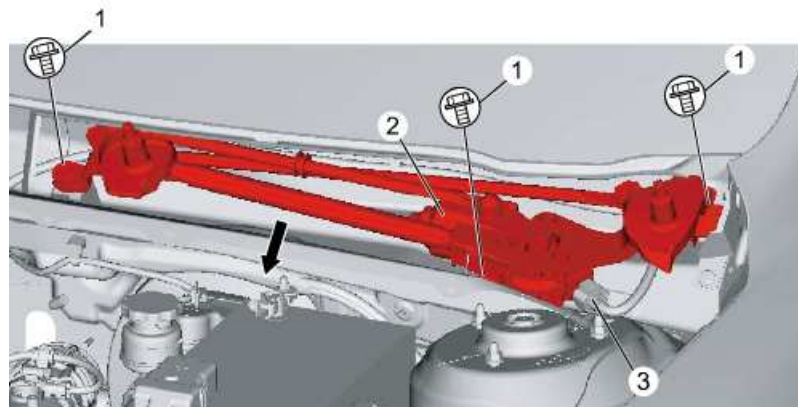
Wiper Motor Removal and Installation

Removal

- 1) Remove pivot caps (1) and wiper arm nuts (2), and remove wiper arms (3).
- 2) Remove cowl top garnish (4).



- 3) Disconnect wiper motor connector (3).
- 4) Remove wiper motor bolts (1) and remove wiper motor (2).



Installation

Reverse removal procedure noting the following points.

- Tighten wiper motor bolts in numerical order ("1" through "3") to specified torque.

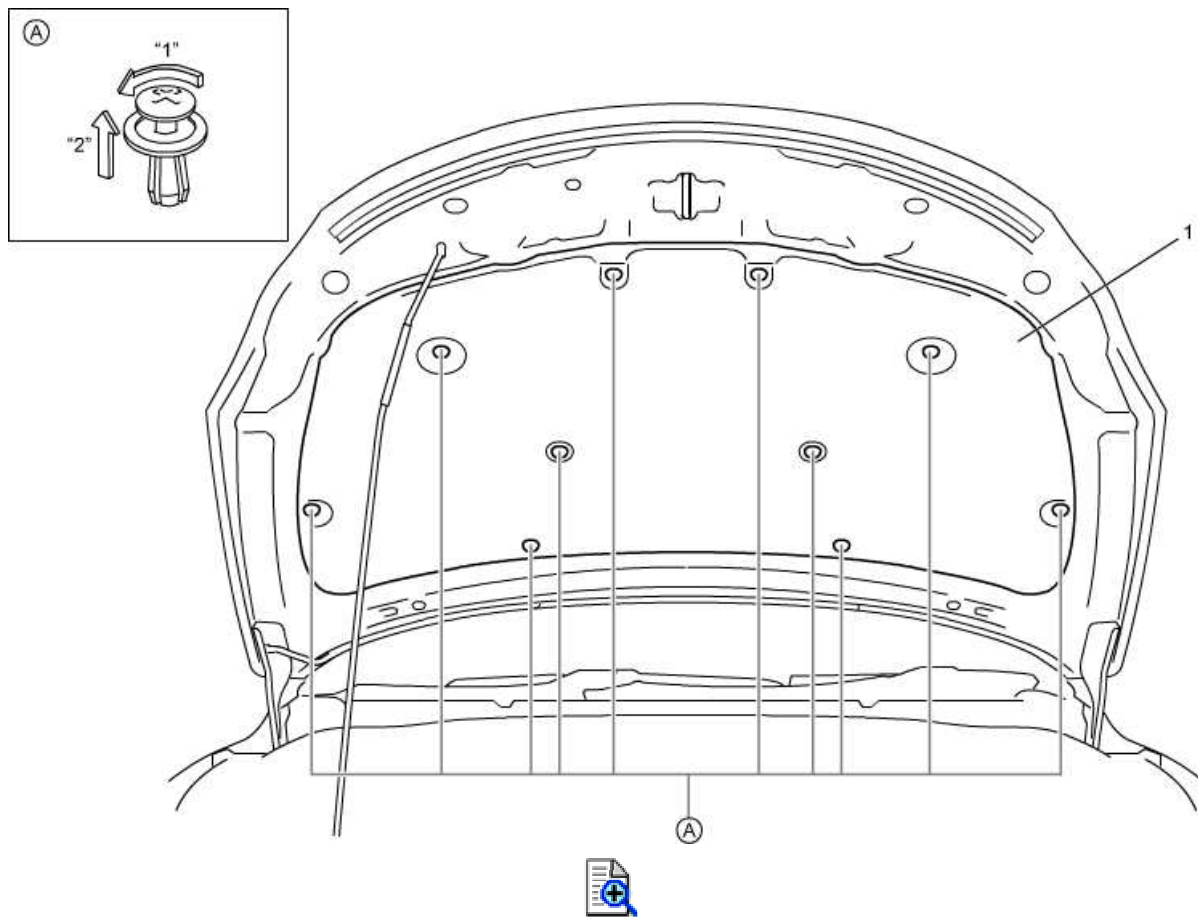
Tightening torque

Wiper motor bolt (a): 8.3 N·m (0.85 kg·m, 6.5 lbf·ft)

9H

Hood Silencer Removal and Installation

Remove and install parts referring to figure.



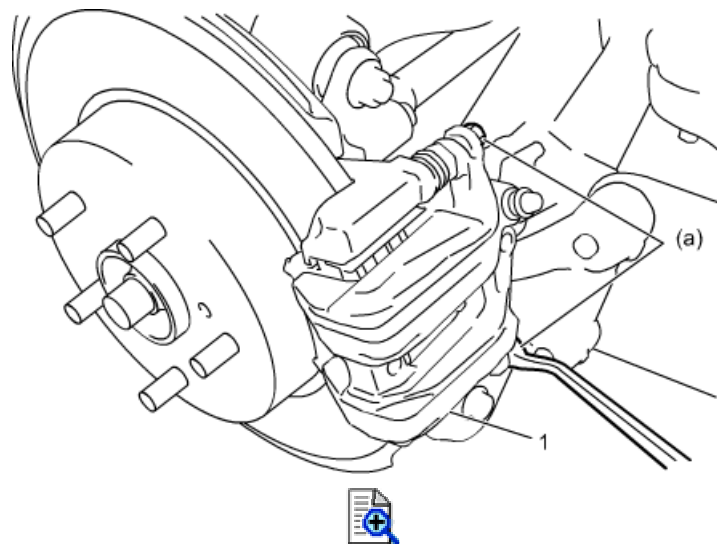
1. Hood silencer



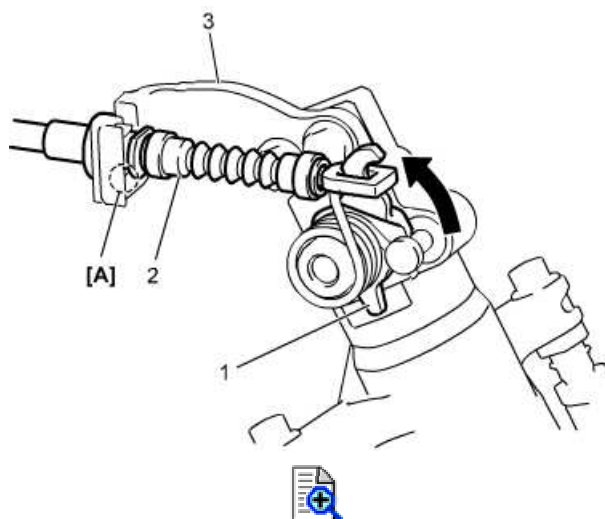
- 5)** Install rear caliper (1) to rear brake caliper carrier and tighten rear brake caliper pin bolts to specified torque.

Tightening torque

Rear brake caliper pin bolt (a): 23 N·m (2.3 kg-m, 17.0 lbf-ft)



- 6)** Pass parking brake cable through bracket.
- 7)** Align positions of parking brake cable (2) and bracket (3). Turn lever (1) in arrow direction and install cable (2) to lever (1).



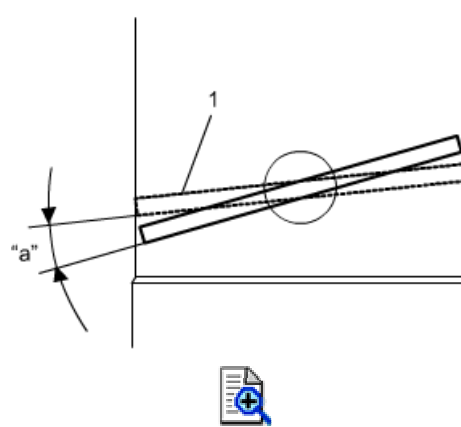
[A]: Positioning part

- 8)** Install E-ring (1) and fix parking brake cable (2).

Symptom	Diagnostic item	Electrical system																Hydraulic system	Transmission system																
		Engine system	Improper CVT fluid level	Line pressure out of specification	Select cable position	TCM	CAN communication	Power supply circuit	Transmission range sensor	Manual mode switch	Shift paddle switch	Primary pulley speed sensor	Secondary pulley speed sensor	Primary pressure sensor	Secondary pressure sensor	Secondary pressure control solenoid valve	Line pressure control solenoid valve	TCC solenoid valve	Lock-up / select switching solenoid valve	Stepper motor	CVT fluid temperature sensor	Valve body component	Oil pump	Torque converter	Pulleys and steel belt	Forward clutch	Reverse brake	Bearings	Planetary gear	Reduction gear	Final gear	Parking system			
Starting motor operates in ranges other than "P" or "N"		●																																	
Starting motor does not operate in "P" or "N" range		●																																	
Parking lock does not lock or cannot be released in "P" range					●																													●	
Engine stalls in "D" ("M") or "R" range when stopping		●	▲																				●		●										
Engine stalls in "P" or "N" range when stopping		●	▲																				●		●										
Low maximum vehicle speed		●	●	●							●	●	●	●	●	●	▲	▲	●	●	●	●	●	●	●	●	●			▲	▲				
Does not creep at all in "D" ("M") or "R" range		●	●	●					●		●	●	●	●	●	▲	▲	●	●	●	●	●	●	●	●	●	●			▲	▲	▲			
When decelerating, engine speed does not decrease to engine idle speed		●	▲					●			●											●		●											
Shift position does not indicated in information display						●	●		●																										
Vehicle moves in "P" range			▲		●				●														●			▲								●	
Vehicle moves in "N" range			▲		●	▲			●													●				●	●		▲						

(●:Applicable ▲:Possible)





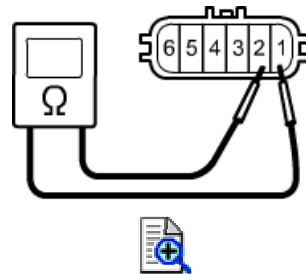
- 4) Check the following points:
 If check results are not satisfactory, replace throttle body assembly.
- Wire harness and connections
 - APP sensor:
 - TP sensor:
 - Throttle motor:

Throttle Motor Check

- 1) Disconnect connector from electric throttle body assembly with ignition mode of keyless push start system in "OFF".
- 2) Measure resistance between terminals "1" and "2" of throttle body assembly.
 If faulty condition is found, replace electric throttle body assembly.

Throttle motor resistance

0.3 – 100 Ω at 20 °C (68 °F)












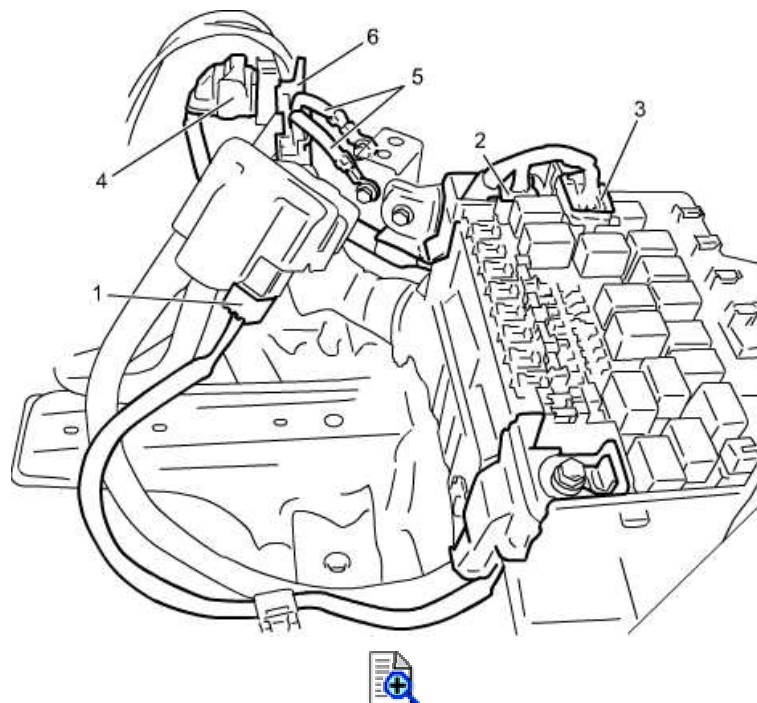
Throttle Position (TP) Sensor Performance Check

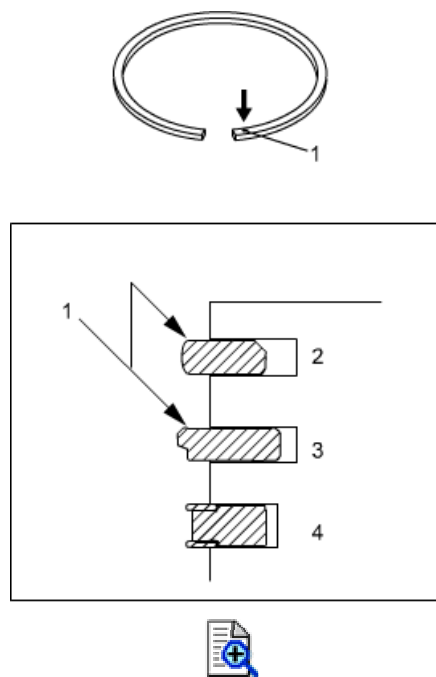
- 1) Remove air cleaner outlet hose with ignition mode of keyless push start system in "OFF".
- 2) Disconnect connector from electric throttle body assembly.
- 3) Check TP sensor (main and sub) output voltage as follows.
 If faulty condition is found, replace throttle body.
 - a) Connect 3 new 1.5 V batteries (1) in series and check that total voltage is 4.5 – 5.0 V.
 - b) Connect voltmeter (2) and batteries to TP sensor as shown in figure.

Engine Assembly Removal and Installation

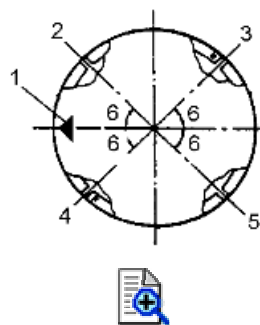
Removal

- 1) Relieve fuel pressure. 
- 2) Disconnect negative (-) and positive (+) cables at battery.
- 3) Disconnect ECM connectors. 
- 4) Remove ECM, battery, battery tray and battery bracket. 
- 5) Remove right and left side engine under covers.
- 6) Remove right and left side front fender lower linings.
- 7) Remove front bumper and front bumper lower cover. 
- 8) Remove engine cover.
- 9) Drain coolant. 
- 10) Drain the following oils and fluid if necessary.
 - Engine oil: 
 - Manual transaxle oil (M/T model): 
 - CVT fluid (CVT model): 
 - Transfer oil (4WD model): 
- 11) Disconnect the following electric wires, connectors and clamp:
 - Connector (1) in main fuse box
 - Connector (2) in fuse box No.1
 - Connector (3) in fuse box No.2
 - Engine harness connector to main harness connector (4) (CVT model)
 - Battery ground cable (5)
 - Engine harness clamp (6)
 - Front height sensor connector (7)

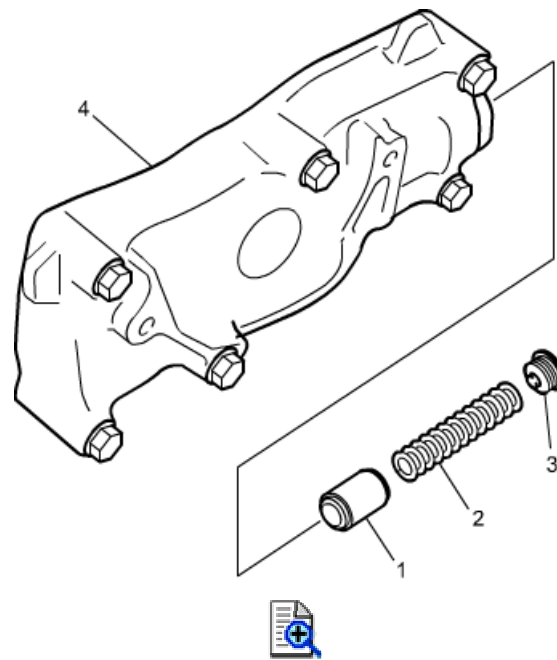




5) After installing three rings (1st, 2nd and oil rings), distribute their end gaps as shown in figure.



1. Front mark	4. 2nd ring end gap and oil ring spacer gap
2. Oil ring upper rail gap	5. Oil ring lower rail gap
3. 1st ring end gap	6. 45°



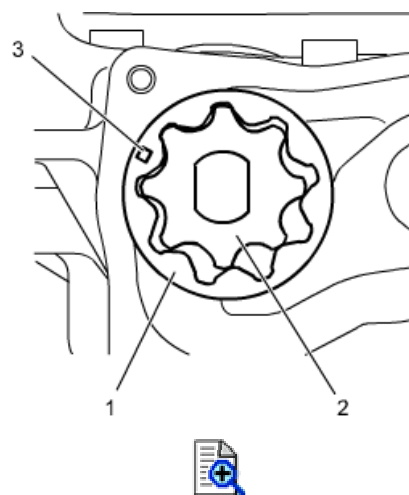
Reassembly

Reference: Oil Pump Inspection

- 1) Wash clean and then dry all disassembled parts.
- 2) Apply thin coat of engine oil to the following parts.
 - Inner rotor
 - Outer rotor
 - Inside surfaces of oil pump housing and oil pump cover.
- 3) Install outer rotor (1) and inner rotor (2) to oil pump housing.

CAUTION:

Noting the matchmark (3) side, reinstall the rotors in the original position.



- 4) Apply engine oil to relief valve (1) and spring (2), and install them to oil pump cover (4).
- 5) Tighten retainer (3) to specified torque.

Tightening torque

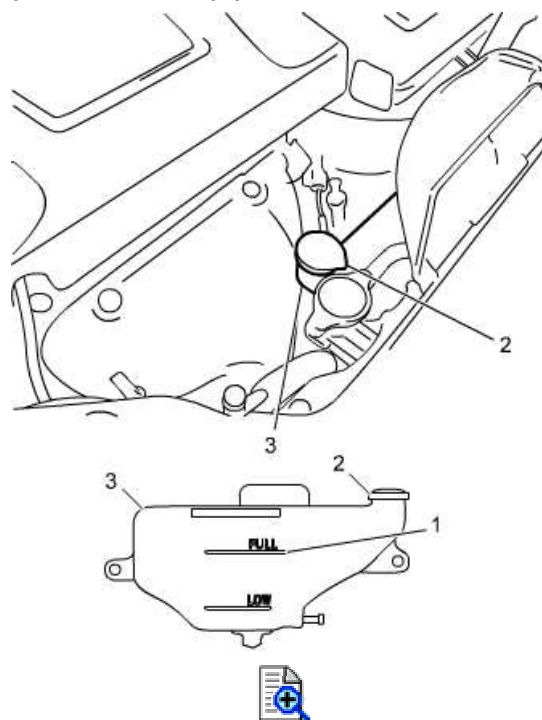
Retainer (a): 49 N·m (5.0 kg-m, 36.5 lbf-ft)

Cooling System Refilling

WARNING:

To avoid getting burned, do not remove cap while engine and radiator are still hot. Scalding fluid and steam can gush out under pressure if cap is taken off too soon.

- 1) Fill reservoir (3) with coolant up to "FULL" level mark (1).
- 2) Install reservoir cap (2) on reservoir (3).



- 3) Fill radiator with coolant up to bottom of radiator filler neck (1) and install radiator cap.

Recommended coolant

SUZUKI super long life coolant (coolant color: Blue):

Coolant specification

Freezing temperature: -36 °C (-33 °F)

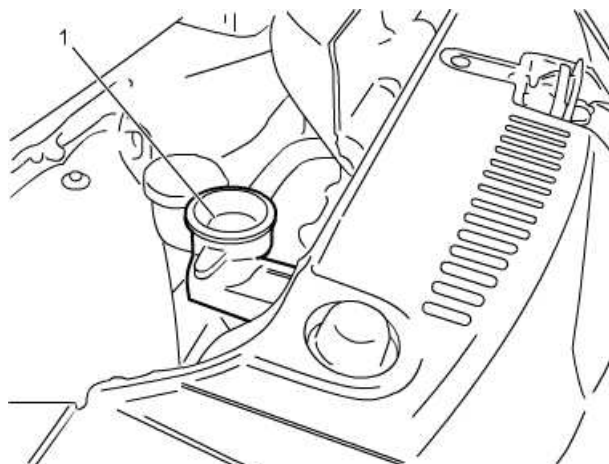
Antifreeze / anti-corrosion coolant concentration: 50%

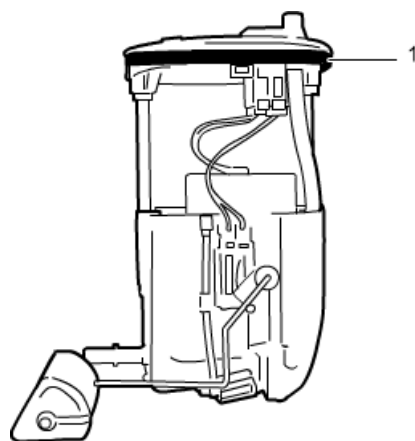
Coolant capacity

Engine, radiator and heater: 5.8 liters (12.26/10.21 US/Imp pt.)

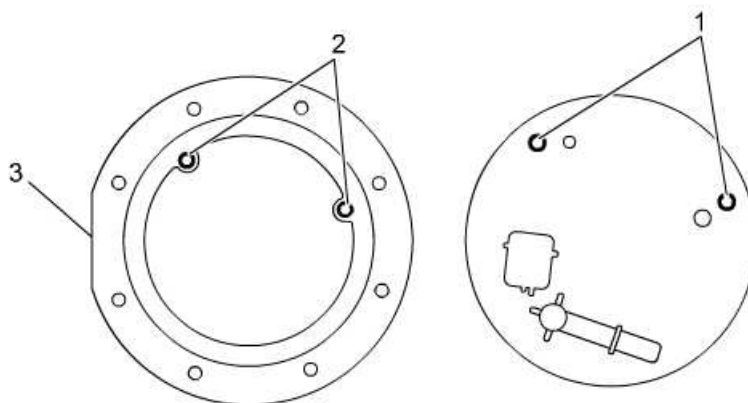
Reservoir: 0.8 liters (1.69/1.41 US/Imp pt.)

Total: 6.6 liters (13.95/11.61 US/Imp pt.)





- Align protrusions (1) on fuel pump with aligning hole (2) on fuel pump plate.
- Align straight portion (3) on fuel pump plate with specified position on fuel tank.



- Tighten fuel pump nuts to specified torque.

Tightening torque

Fuel pump nut: 10 N·m (1.0 kg-m, 7.5 lbf-ft)

Starting Motor Inspection

[Reference: Starting Motor Removal and Installation](#)

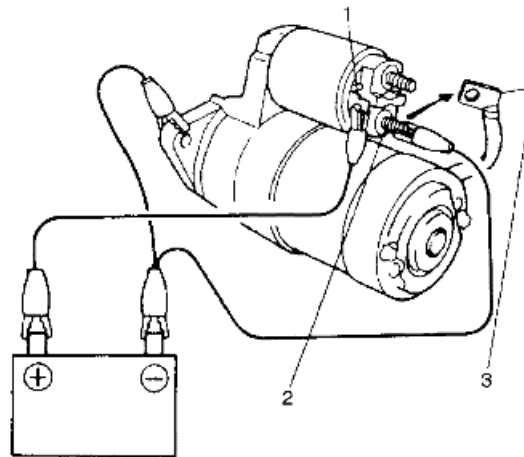
[Reference: Starting Motor Components](#)

Starting Motor Operation Check

CAUTION:

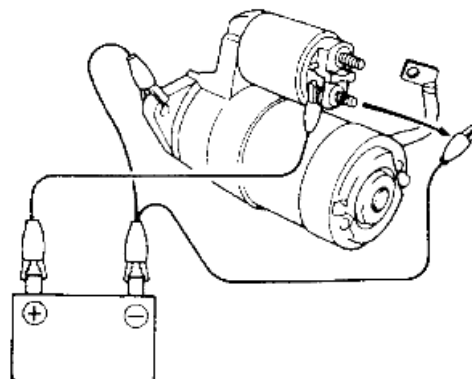
- When connecting cables to battery for the operation check, give enough care not to make an accidental short.
- Each test must be performed within 3 to 5 seconds to avoid burning of coil.

- 1) Perform pull-in test as follows.
 - a) Disconnect lead wire (3) from terminal "M" (2).
 - b) Connect battery to magnetic switch as shown in figure.
 - c) Check that plunger and pinion move outward.
If plunger and pinion do not move, replace magnetic switch.



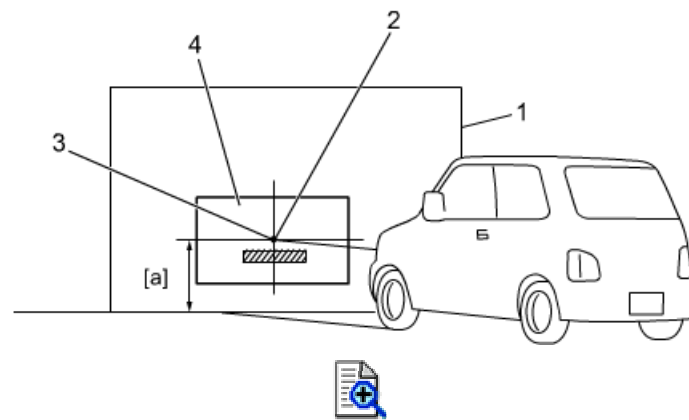
1. Terminal "S"

- 2) Perform hold-in test as follows.
 - a) From the state of step 1) with plunger and pinion in "out" position, disconnect negative (-) lead from terminal "M".
 - b) Check that plunger and pinion remain in "out" position.
If plunger and pinion return inward, replace magnetic switch.



"a": Elbow point adjustment range	"d": 20 mm (0.8 in.)
"a": About 420 mm (16.5 in.)	"e": 270 mm (10.6 in.)
"b": About 350 mm (13.8 in.)	1. Light center (Make a \varnothing 10 mm (\varnothing 0.4 in.) hole.)
"c": 150 mm (5.91 in.)	

- 2) Park vehicle on a level floor with front facing vertical wall (1).
- 3) Put a mark (3) on wall at same height as headlight center position (2).
- 4) Align light center hole made in screen (4) with mark on wall and fix screen with its horizontal edges parallel with floor surface.



[a]: Headlight center height

- 5) Locate vehicle 10 m (33 ft) away from screen (1) with its front directly against screen ([a]=[b]).

