

NOTE

- Make sure the throttle valves smoothly open and close.
- For TP sensor setting procedure, refer to "TP Sensor Adjustment in Section 1C (Page 1C-4)".

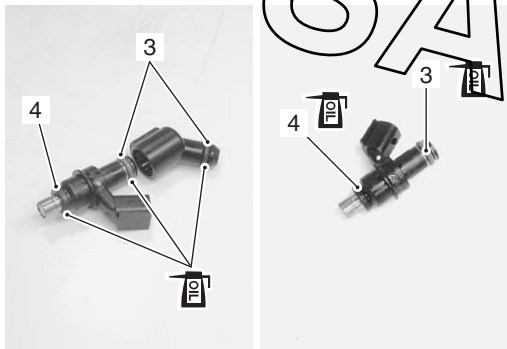


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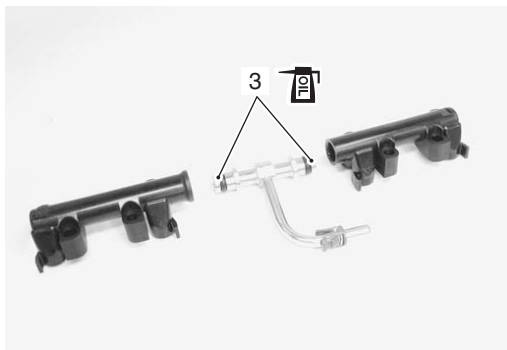
- Apply thin coat of engine oil to the new O-rings (3) and cushion seals (4).

CAUTION

Replace the O-rings and cushion seals with new ones.



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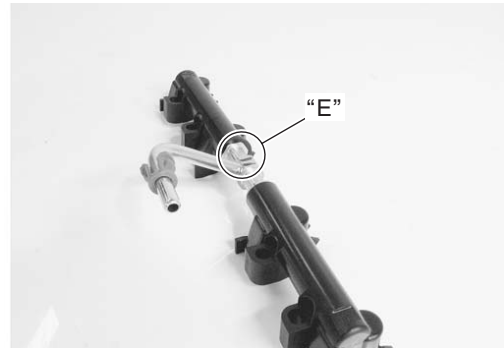


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- Assemble the fuel delivery pipes as shown in the figure.

CAUTION

Be careful not to twist the fuel delivery pipe T-joint when installing the fuel delivery pipes, or joint part "E" of the fuel delivery pipe may get damage.



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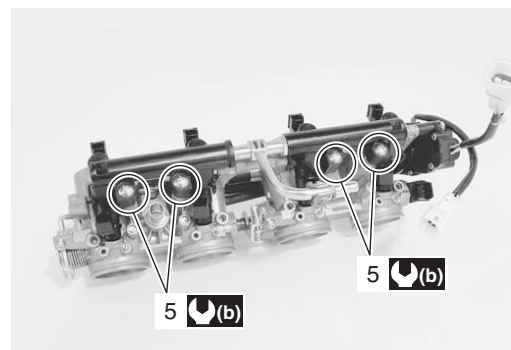
- Install each fuel injector by pushing it straight to the delivery pipe.

CAUTION

Never turn the injector while pushing it.

- Install the fuel delivery pipe assembly to the throttle body.
- Tighten the fuel delivery pipe mounting screws (5) to the specified torque.

Tightening torque
Fuel delivery pipe mounting screw (b): 3.5 N·m (0.35 kgf-m, 2.5 lb-ft)



I823H1140029-04

Throttle Body Inspection and Cleaning

B823H11406012

Refer to “Throttle Body Disassembly and Assembly (Page 1D-12)”.

Cleaning

▲ WARNING

Some carburetor cleaning chemicals, especially dip-type soaking solutions, are very corrosive and must be handled carefully. Always follow the chemical manufacturer’s instructions on proper use, handling and storage.

- Clean passageways with a spray-type carburetor cleaner and blow dry with compressed air.

▲ CAUTION

Never clean the throttle body main bore. Do not use wire to clean passageways. Wire can damage passageways. If the components cannot be cleaned with a spray cleaner it may be necessary to use a dip-type cleaning solution and allow them to soak. Always follow the chemical manufacturer’s instructions for proper use and cleaning of the throttle body components. Do not apply carburetor cleaning chemicals to the rubber and plastic materials.

Inspection

Check following items for any defects or clogging. Replace the damaged part if necessary.

- O-rings
- Throttle valves
- Secondary throttle valves
- Vacuum hoses
- ISC valve hoses
- Fuel delivery pipes
- Cushion seals
- Fuel injectors

ISC Valve Visual Inspection

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Visually inspect the ISC valve if necessary.

- Inspect the ISC valve for any carbon deposition defects. Clean or replace the ISC valve if necessary.



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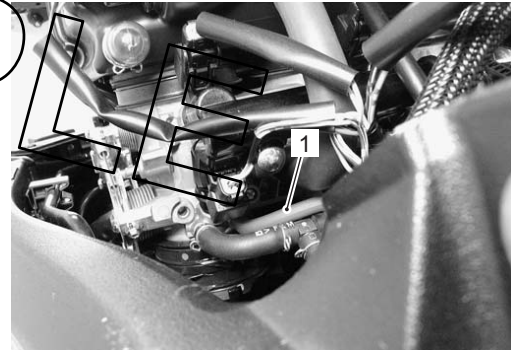
Throttle Valve Synchronization

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Use of SDS Tool

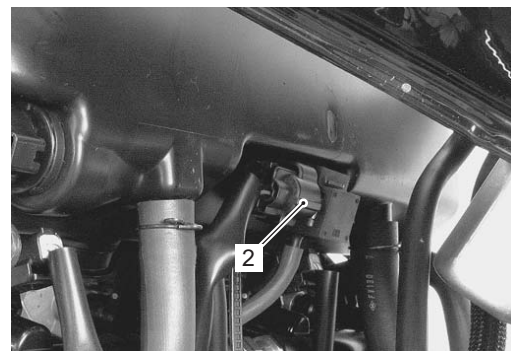
Check and adjust the throttle valve synchronization among four cylinders.

- 1) Lift and support the fuel tank. Refer to “Fuel Tank Removal and Installation in Section 1G (Page 1G-10)”.
- 2) Disconnect the respective vacuum hoses (1) from each vacuum nipple on the throttle body.



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- 3) Disconnect the IAP sensor coupler (2).



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1D-17 Engine Mechanical:

4) Connect the respective vacuum tester hoses to each vacuum nipple.



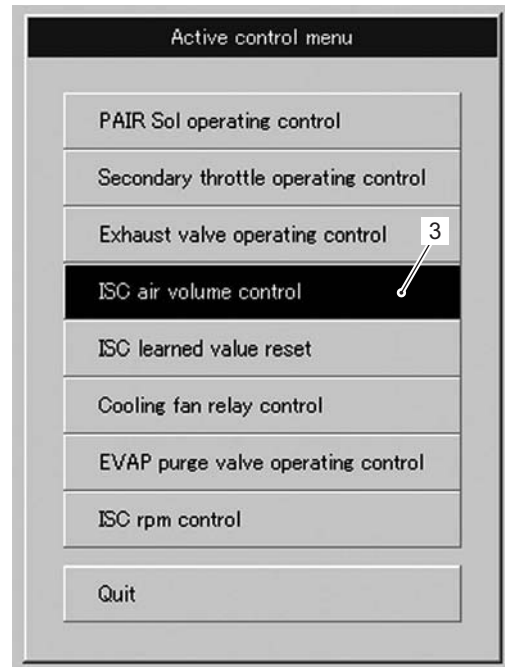
I823H1140526-02

- 5) Set up the SDS tool. (Refer to the SDS operation manual for further details.)
- 6) Start the engine.
- 7) Click “Date monitor”.
- 8) Warm up the engine (Engine coolant temp. more than 80° (176 °F)).

<input type="checkbox"/> Cooling fan relay	Off	
<input type="checkbox"/> Secondary throttle actuator position sensor	10.2	%
<input type="checkbox"/> Engine coolant / oil temperature	87.3	°C
<input type="checkbox"/> Engine speed	1171	rpm
<input type="checkbox"/> PAIR control solenoid valve	Off	
<input type="checkbox"/> Intake air temperature	22.1	°C

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- 9) Click “Active control”.
- 10) Click “ISC air volume control” (3).



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11) Click “ON” button (4) to fix the ISC air volume of four cylinders.

NOTE

When making this synchronization, be sure that the water temperature is within 80 – 100 °C (176 – 212 °F).

Item	Value	Unit
<input type="checkbox"/> Engine speed	“A” → 1147	rpm
<input type="checkbox"/> Desired idle speed	1155	rpm
<input type="checkbox"/> ISC valve position	“B” → 57	step
<input type="checkbox"/> Manifold absolute pressure 1	146.7	kPa
<input type="checkbox"/> Engine coolant / oil temperature	94.2	°C
<input type="checkbox"/> Throttle position	28.4	°
<input type="checkbox"/> Secondary throttle actuator position sensor	2.0	%
<input type="checkbox"/> PAIR control solenoid valve	Off	

ISC air volume control

Spec

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“A”: Engine speed: Approx 1 150 rpm “B”: ISC valve position: Approx. 57 step

- 12) Check for the synchronization of vacuum from #1 to #4 cylinders.

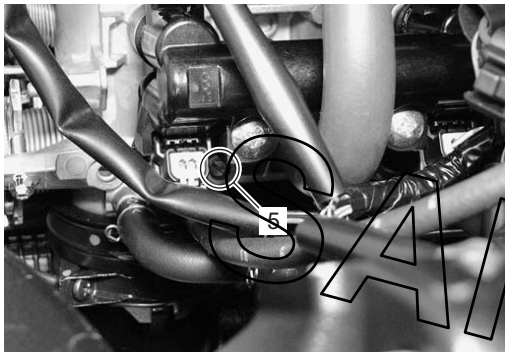


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- 13) Equalize the vacuum of the cylinders by turning each air screw (5) and keep it running at idling speed.

NOTE

Always set the engine rpm at idle rpm.



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- 14) If the adjustment is not yet correct, remove each air screw and clean them with a spray-type carburetor cleaner and blow dry with a compressed air. Also, clean the air screw passageways.

NOTE

- Slowly turn the air screw clockwise and count the number of turns until the screw is lightly seated.
- Make a note of how many turns were made so the screw can be reset correctly after cleaning.

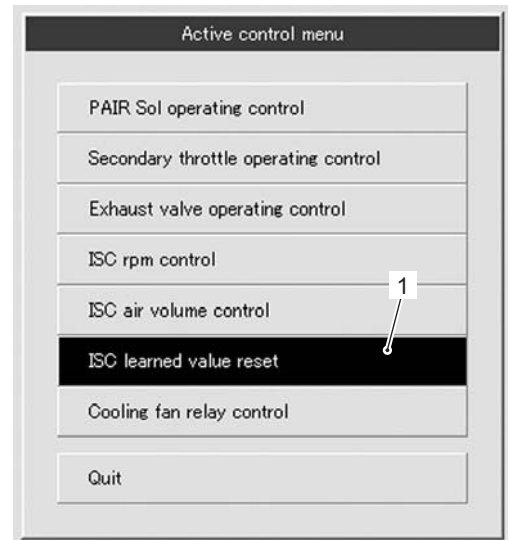
- 15) Repeat the procedures from 6) to 13).
- 16) Close the SDS tool and turn the ignition switch OFF.
- 17) Disconnect the vacuum tester and reinstall the removed parts.
- 18) After completing the throttle valve synchronization, clear the DTC and reset the ISC learned value using SDS tool. Refer to "ISC Valve Preset and Opening Initialization in Section 1C (Page 1C-9)".

ISC Valve Reset

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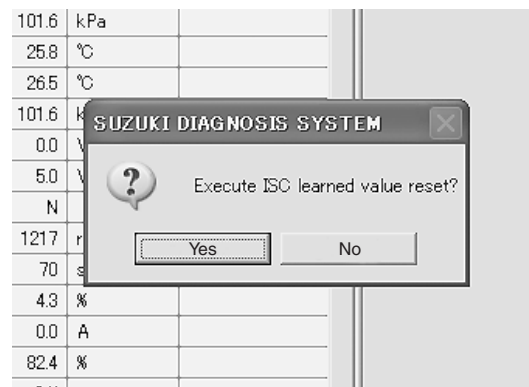
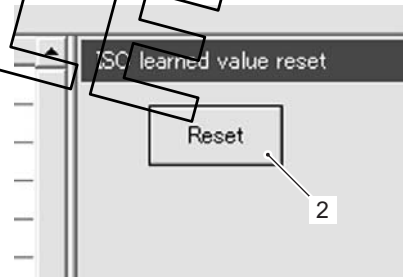
When removing or replacing the throttle body assembly, reset the ISC valve learned value in the following procedures:

- 1) Turn the ignition switch ON position.
- 2) Set up the SDS tools. (Refer to the SDS operation manual for further details.)
- 3) Click "Active control".
- 4) Click "ISC learned value reset" (1).



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- 5) Click "Reset" button (2) to clear the ISC learned value.



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