
**CHAPTER 6.
CARBURETORS**

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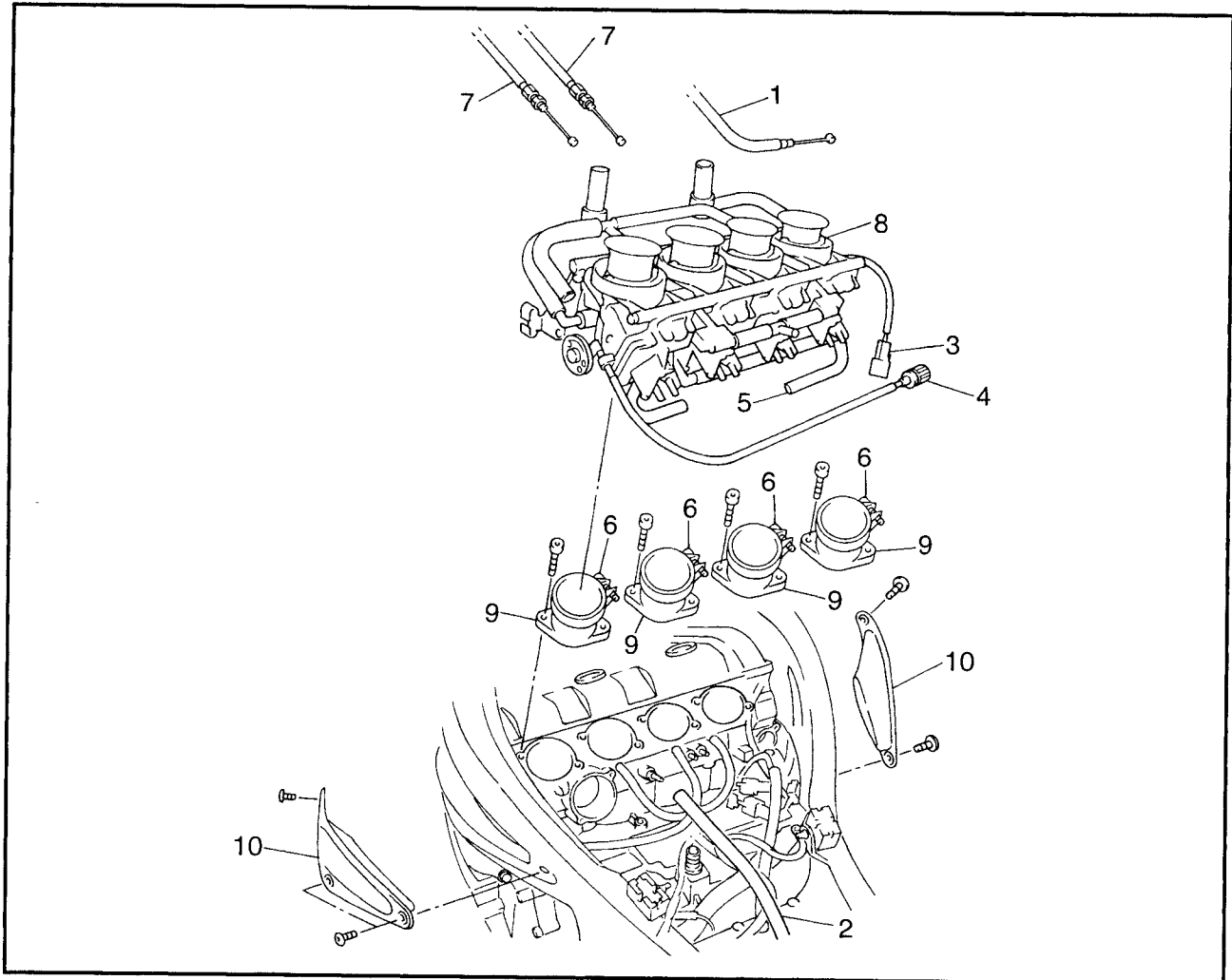
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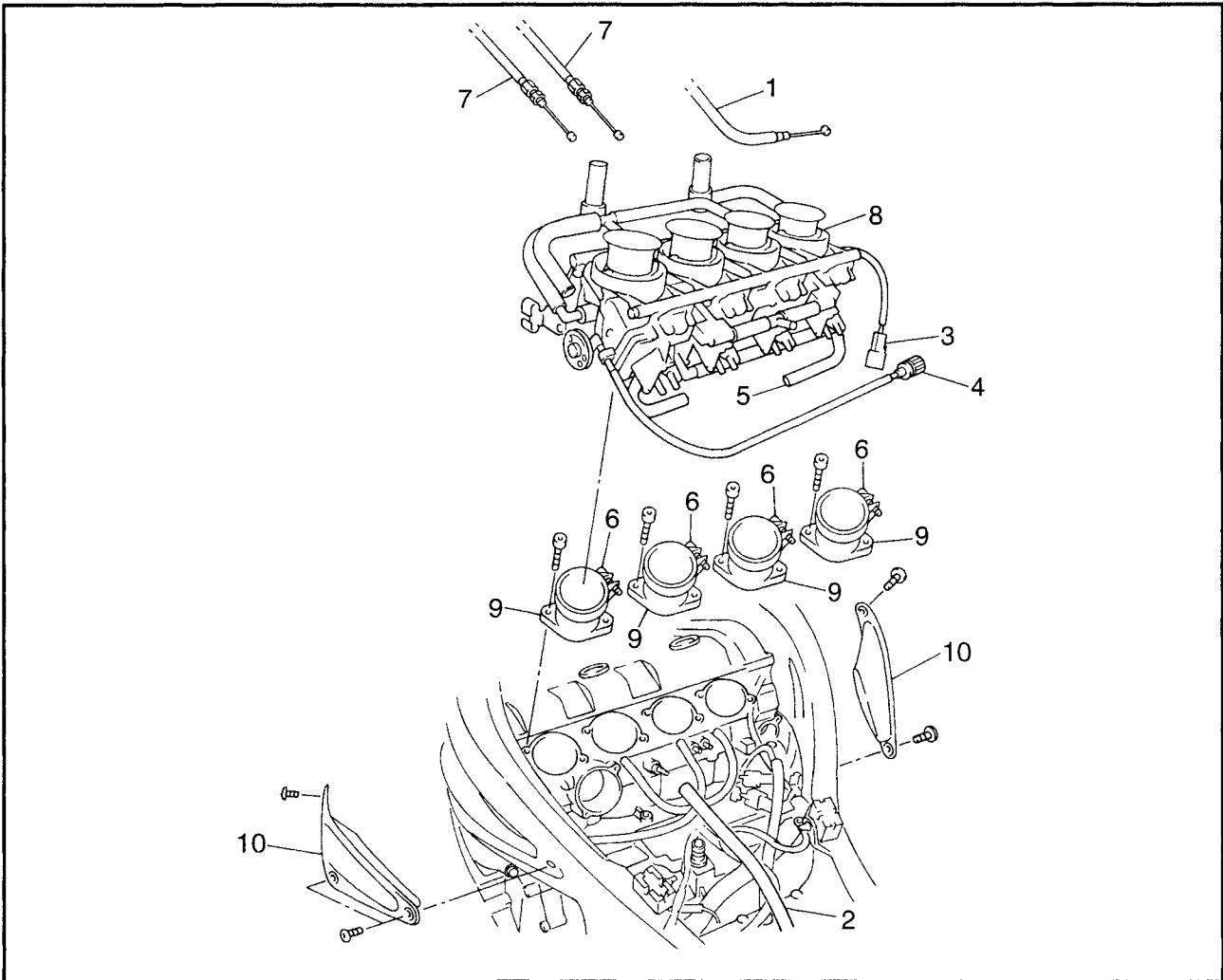
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CARBURETORS

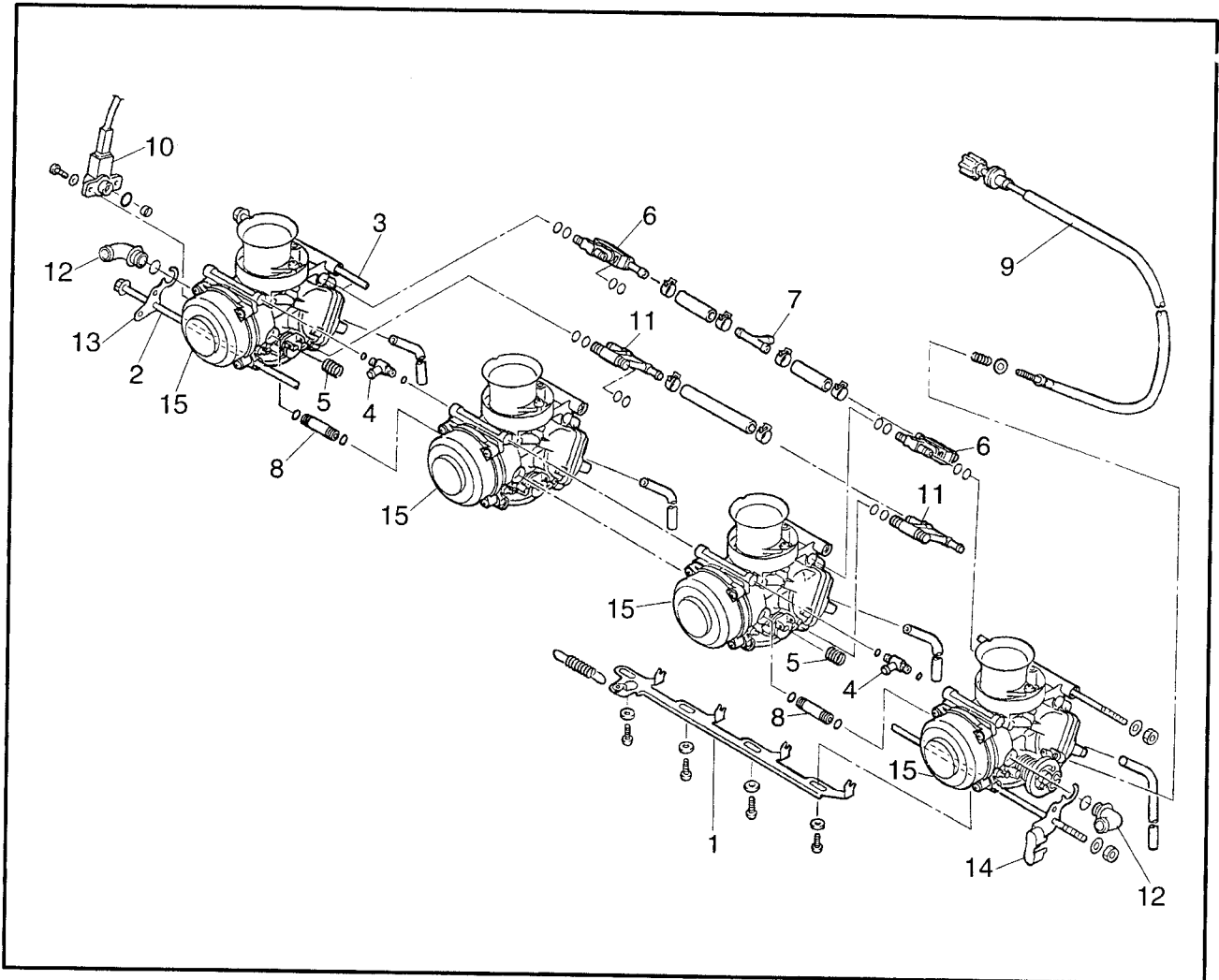
CARBURETORS



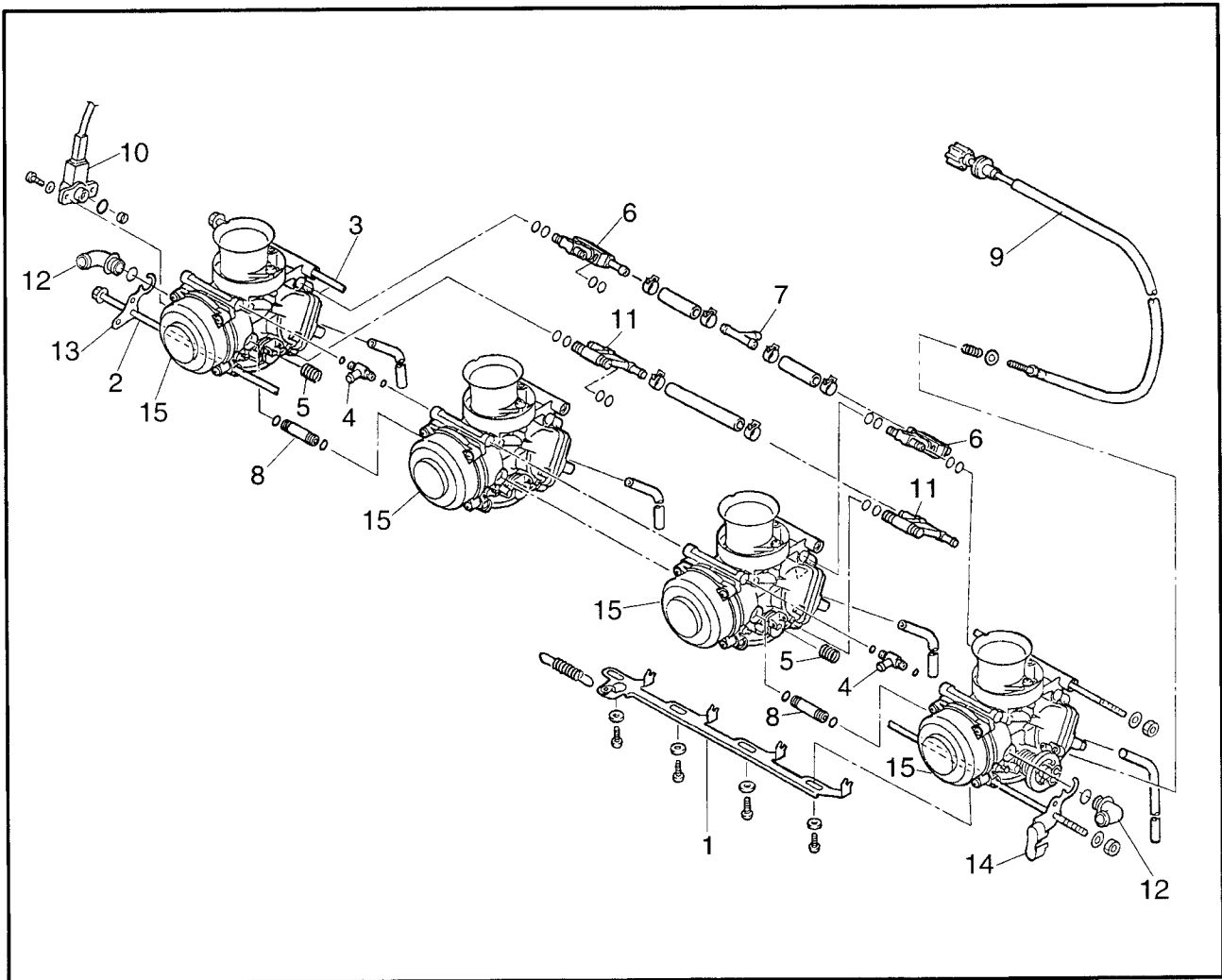
Order	Job/Part	Q'ty	Remarks
	Removing the carburetors		
	Rider seat and fuel tank		Remove the parts in the order listed. Refer to "Seats" and "FUEL TANK" in chapter 3.
	Air filter case and heat protector plate		Refer to "AIR FILTER CASE AND IGNITION COILS" in chapter 3.
1	Starter cable	1	
2	Fuel hose	1	
3	Throttle position sensor coupler	1	Disconnect
4	Throttle stop screw	1	



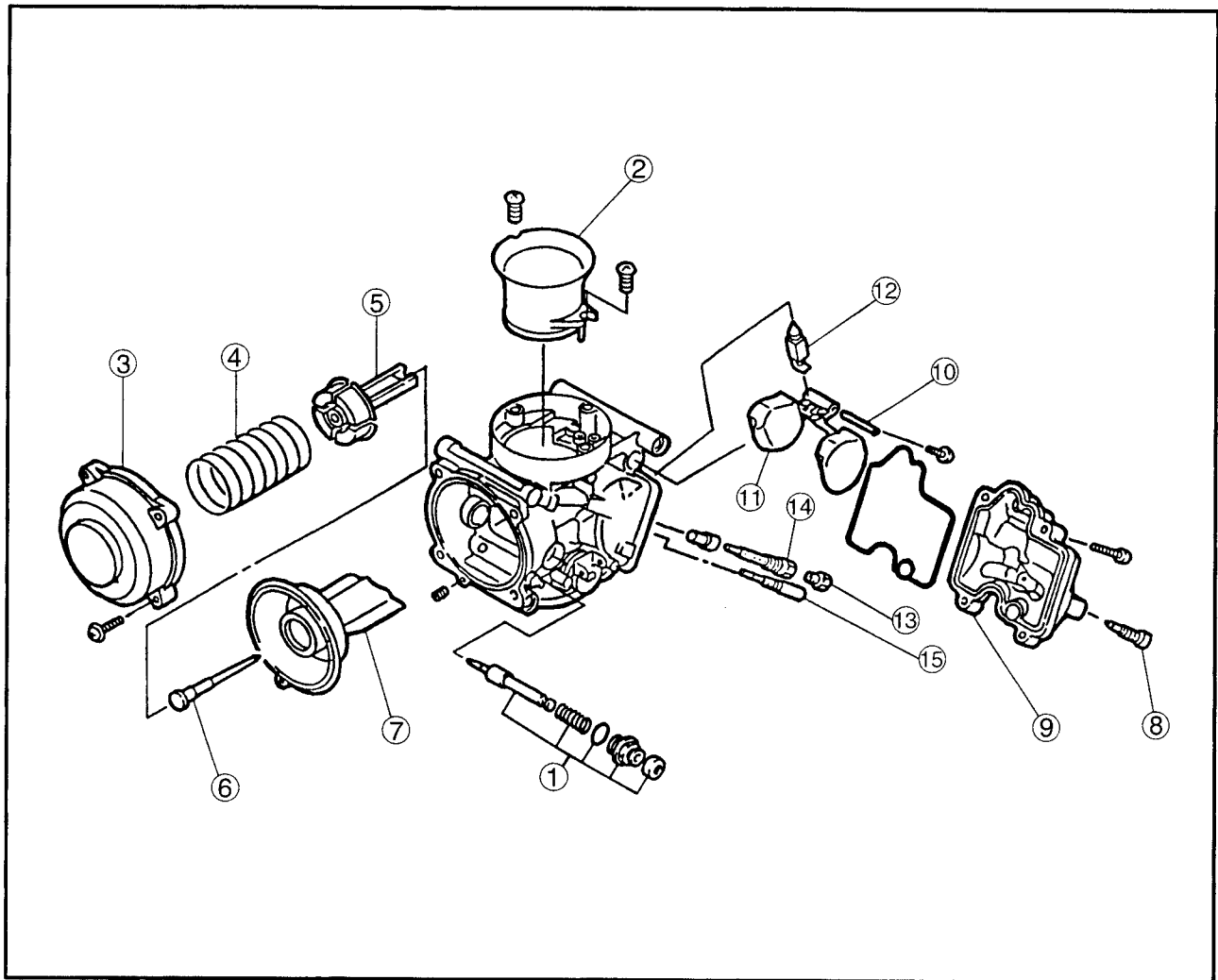
Order	Job/Part	Q'ty	Remarks
5	Therm bypass hose	2	For installation, reverse the removal procedure.
6	Carburetor joint clamp screw	4	
7	Throttle cable	2	
8	Carburetor assembly	1	
9	Carburetor joint	4	
10	Side cover	2	



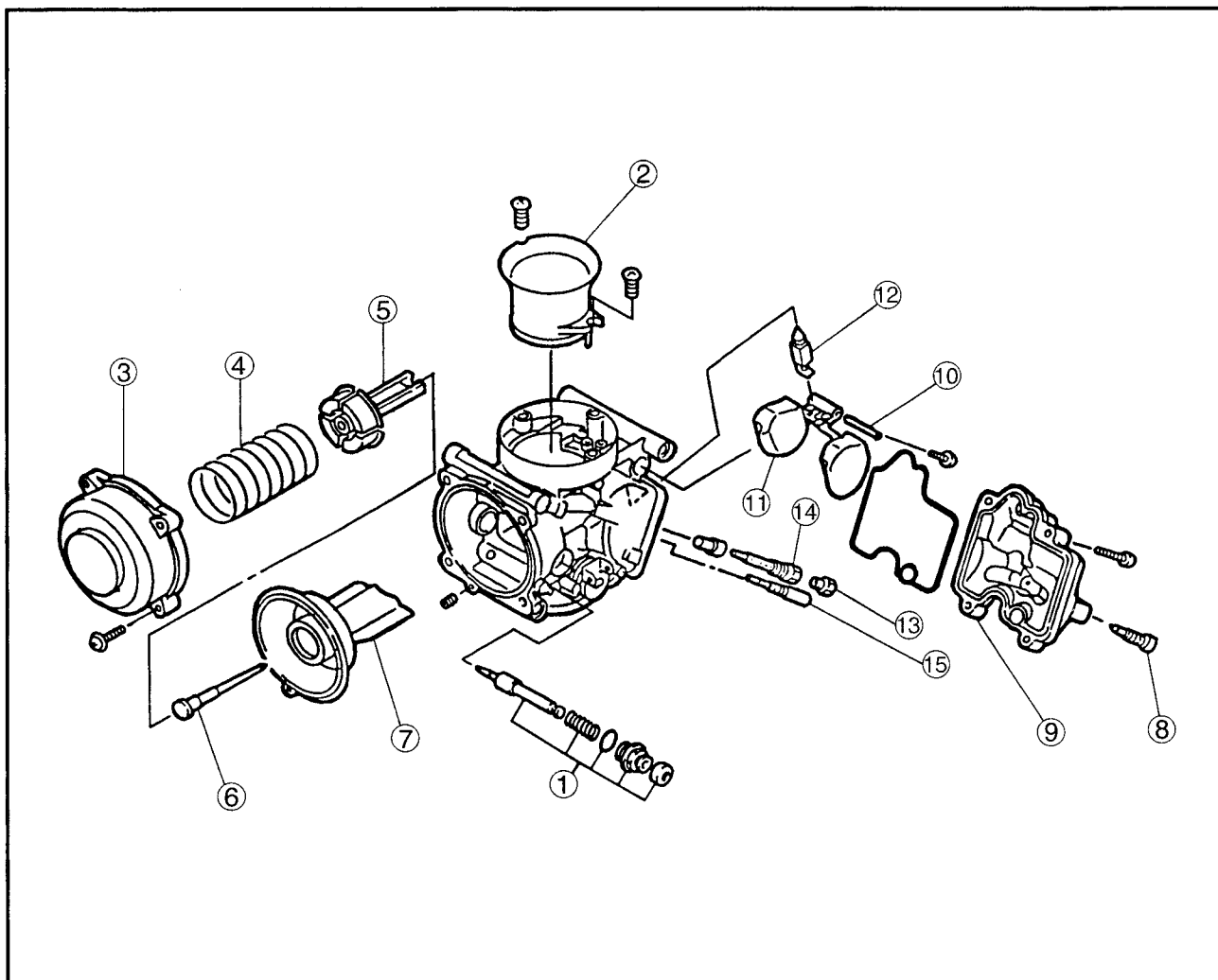
Order	Job/Part	Q'ty	Remarks
	Separating the carburetors		
1	Starter plunger link	1	Remove the parts in the order listed.
2	Connecting bolt	1	
3	Connecting bolt	1	
4	Hose joint	2	Refer to "ASSEMBLING THE CARBURETORS"
5	Spring	2	
6	Fuel feed pipe	2	Refer to "ASSEMBLING THE CARBURETORS"
7	Fuel feed pipe	1	
8	Pipe	2	
9	Throttle stop screw	1	
10	Throttle position sensor	1	
11	Water pipe	2	



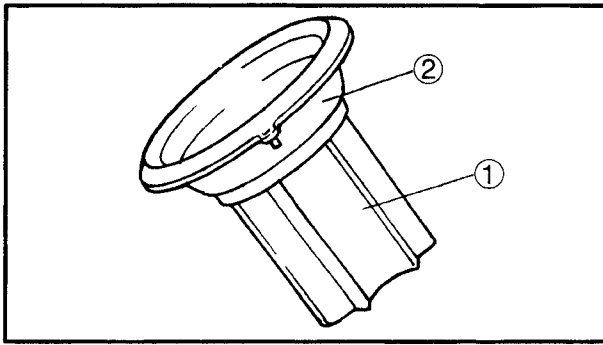
Order	Job/Part	Q'ty	Remarks
12	Balance pipe	2	For installation, reverse the removal procedure
13	Balance pipe bracket	1	
14	Throttle cable bracket	1	
15	Carburetor	4	



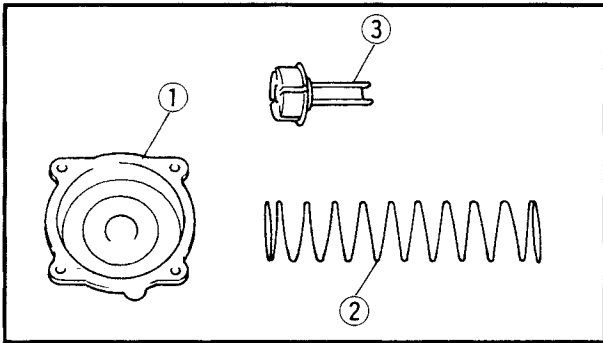
Order	Job/Part	Q'ty	Remarks
	Disassembling the carburetor		Disassemble the parts in the order listed. NOTE: _____ The following procedure applies to all of the carburetors.
①	Starter plunger	1	
②	Air funnel	1	
③	Vacuum chamber cover	1	
④	Piston valve spring	1	
⑤	Jet needle holder	1	
⑥	Jet needle kit	1	
⑦	Piston valve	1	Refer to "ASSEMBLING THE CARBURETORS."
⑧	Fuel drain bolt	1	
⑨	Float chamber	1	
⑩	Float pivot pin	1	



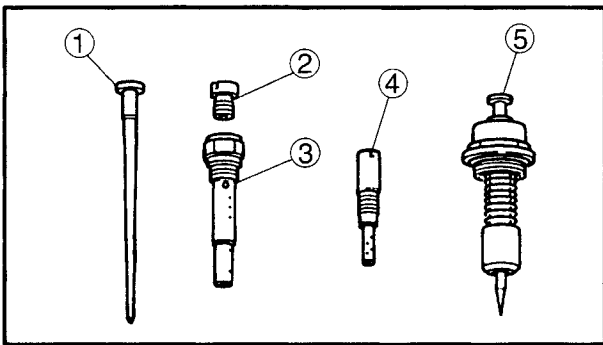
Order	Job/Part	Q'ty	Remarks
①	Float	1	For assembly, reverse the disassembly procedure.
②	Needle valve	1	
③	Main jet	1	
④	Main jet holder	1	
⑤	Pilot jet	1	



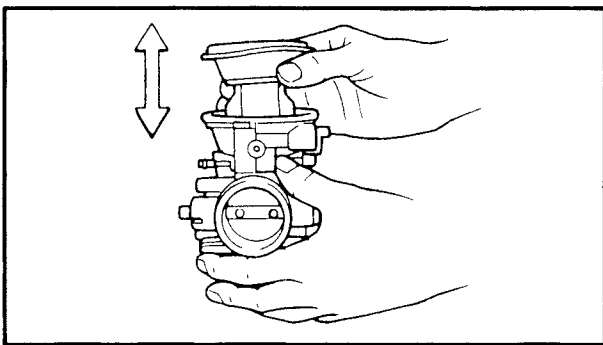
7. Check:
- piston valve ①
Damage/scratches/wear → Replace.
 - piston valve diaphragm ②
Cracks/tears → Replace.



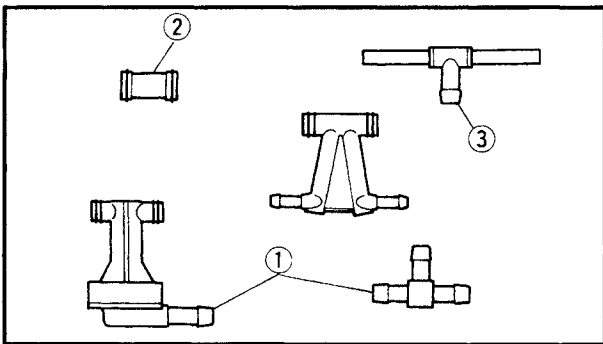
8. Check:
- vacuum chamber cover ①
 - piston valve spring ②
 - jet needle holder ③
Cracks/damage → Replace.



9. Check:
- jet needle kit ①
 - main jet ②
 - main jet holder ③
 - pilot jet ④
 - starter plunger ⑤
Bends/damage/wear → Replace.
Obstruction → Clean.
Blow out the jets with compressed air.



10. Check:
- piston valve movement
Insert the piston valve into the carburetor body and move it up and down.
Tightness → Replace the piston valve.



11. Check:
- fuel feed pipes ①
 - pipes ②
 - hose joint ③
Cracks/damage → Replace.
Obstruction → Clean.
Blow out the pipes with compressed air.



12. Check:
- fuel hoses
 - Cracks/damage/wear → Replace.
 - Obstruction → Clean.
 - Blow out the hoses with compressed air.

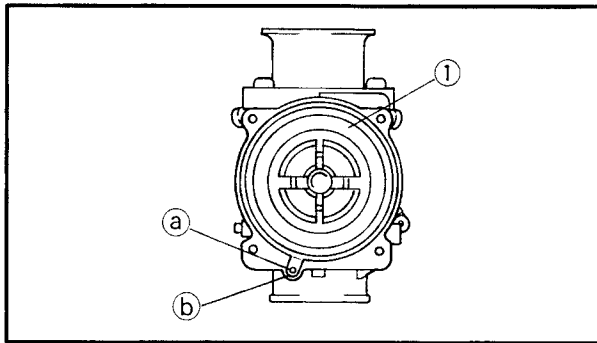
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ASSEMBLING THE CARBURETORS

The following procedure applies to all of the carburetors.

CAUTION:

- Before assembling the carburetors, wash all of the parts in a petroleumbased solvent.
- Always use a new gasket.



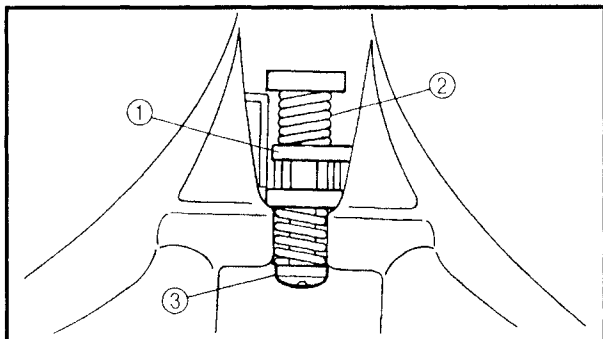
1. Install:
- piston valve ①
 - jet needle
 - jet needle holder
 - piston valve spring
 - vacuum chamber cover

NOTE:

- Install the end of the piston valve spring onto the spring guide on the vacuum chamber cover.
- Align the tab ① on the piston valve diaphragm with the recess ② in the carburetor body.

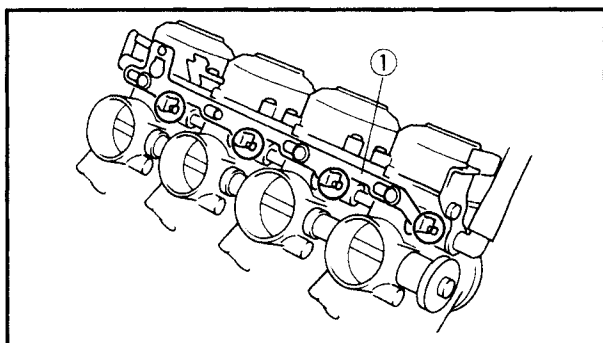


2. Install:
- pipes
 - fuel feed pipes
 - vacuum chamber pipe
 - vacuum chamber air vent hose
 - springs
 - float chamber air vent hoses
 - hose joint
 - spacers
 - copper washer
 - connecting bolts



NOTE:

- Do not tighten the connecting bolts yet.
- Install the throttle valve lever ① onto carburetors #2, #3, and #4 between the spring ② and synchronizing screw ③.



3. Install:
- starter plunger link ①

NOTE:

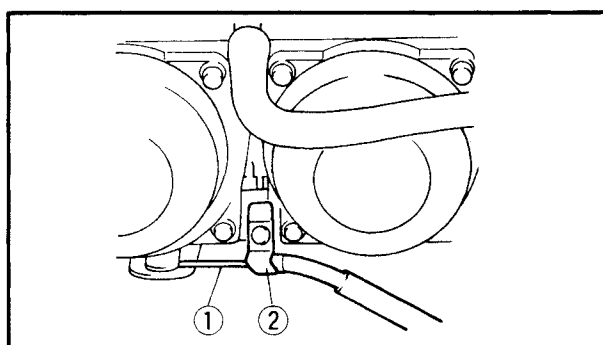
Install the starter plunger link ① onto each starter plunger.

4. Tighten:
- connecting bolts

7 Nm (0.7 m•kg, 5.1 ft•lb)

NOTE:

- Place the carburetor assembly on a surface plate with the intake manifold side down. Then, tighten the connecting bolts while pushing down the carburetor assembly with an even force.
- After tightening the connecting bolts, check that the throttle valve lever and starter plunger link operate smoothly.



5. Install:
- starter cable ①

NOTE:

Install the starter cable holder ② onto the starter cable.



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INSTALLING THE CARBURETORS

1. Adjust:

- carburetor synchronization

Refer to "SYNCHRONIZING THE CARBURETORS" in chapter 3.

2. Adjust:

- engine idling speed



Engine idling speed
1250 ~ 1350 r/min

Refer to "ADJUSTING THE ENGINE IDLING SPEED" in chapter 3.

3. Adjust:

- throttle cable free play



Throttle cable free play (at the flange of the throttle grip)
6 ~ 8 mm (0.24 ~ 0.31 in)

Refer to "ADJUSTING THE THROTTLE CABLE FREE PLAY" in chapter 3.

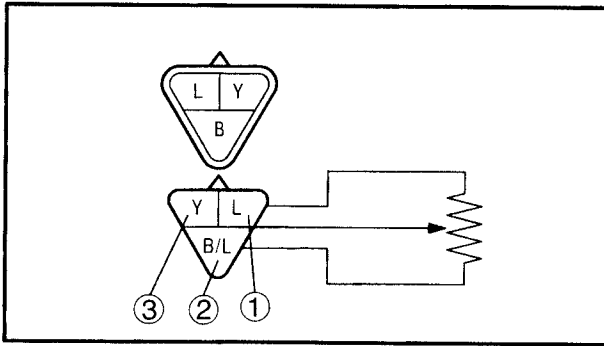


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CHECKING AND ADJUSTING THE THROTTLE POSITION SENSOR

NOTE:

Before adjusting the throttle position sensor, the engine idling speed should be properly adjusted.



1. Check:
 - throttle position sensor (installed on the carburetor)



- a. Disconnect the throttle position sensor coupler.
- b. Connect the pocket tester ($\Omega \times 1k$) to the throttle position sensor.

Tester positive probe → blue ①
Tester negative probe → black/blue ②

- c. Measure the throttle position sensor maximum resistance.
 Out of specification → Replace the throttle position sensor.

Throttle position sensor maximum resistance
 4.0 ~ 6.0 k Ω at 20°C (68°F)
 (blue – black/blue)

- d. Connect the pocket tester ($\Omega \times 1k$) to the throttle position sensor.

Tester positive probe → yellow ③
Tester negative probe → black/blue ②

- e. While slowly opening the throttle, check that the throttle position sensor resistance is within the specified range.

NOTE:

Check mainly that the resistance changes gradually when turning the throttle, since the readings (from closed to wide-open throttle) may differ slightly from those specified.

Out of specification or the resistance changes abruptly → Go to step (2).

Throttle position sensor resistance
 0 ~ 5 ± 1.0 k Ω at 20°C (68°F)
 (yellow – black/blue)



