# SERVICE INFORMATION

## GENERAL

WARNING

- *Gasoline is extremely flammable and is explosive under certains condition. Work in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the work area or where gasoline stored.*
- *If the engine must be running to do some work, make sure the area us well ventilated. Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness and may lead to death. Run the engine in an open area or with an exhaust evacuation system in an enclosed area.*

ATTENTION

- *Do not bend or twist the control cable. Damaged control cable will not operate smoothly and may stick or bind.*

- When disassembling fuel system parts, note the locations of the O-rings. Replace them with new ones on reassembly.
- Before disassembling the carburetor, place the suitable container under the carburetor drain tube loosen the bolt and drain the carburetor.
- After removing the carburetor, wrap the intake port of the engine with a shop towel or cover it with piece of tape to prevent any foreign material from dropping into the engine.

NOTE

- If the vehicle is to be stored for more than one month, drain the float bowls. Fuel left in the float bowls may cause clogged jets resulting in hard starting or poor driveability.

## SPECIFICATIONS

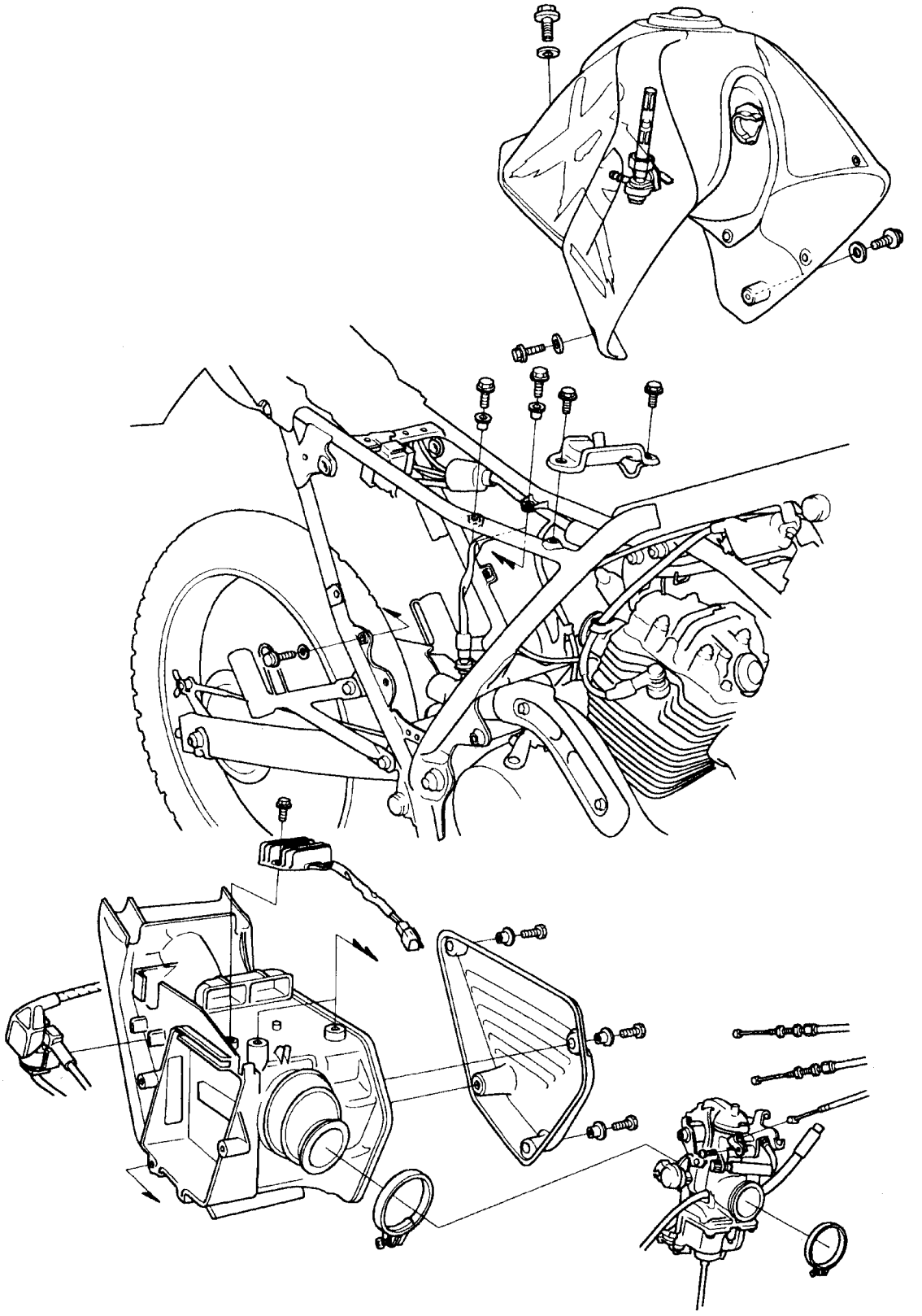
| | |
|---|---|
| Fuel tank capacity | 8.5 liter (2.25 US gal, 1.87 Imp gal) |
| Throttle grip free play | 2-6 mm (1/6-1/4 in) |

**Carburetor specifications**

| ITEM | SPECIFICATIONS |
|---|---|
| Identification number | PD 9AD (2LA), PD9AE (DK) |
| Venturi diameter | 26 mm (1.02 in) |
| Float level | 14.0 mm (0.55 in) |
| Pilot screw opening | 1 3/8 turn out (2LA) 1-3/4 turns out (DK) |
| Idle speed | 1.400 ± 100 $min^{-1}$ (rpm) |
| Main jet | # 112 (2LA), #115 (DK) |
| Slow jet | # 42 |
| Jet needle clip position | 3rd groove |

## TOOL

| | |
|---|---|
| Float level gauge | 07401-0010000BR |



# TROUBLESHOOTING

**Engine won't start**
- Too much fuel getting to the engine
  - Air cleaner clogged
  - Flooded carburetor
- Intake air leak
- Fuel contaminated/deteriorated
- No fuel to carburetor
  - Fuel strainer clogged
  - Fuel tube clogged
  - Fuel valve stuck
  - Float level misadjusted
  - Fuel tank breather hole clogged

**Lean mixture**
- Fuel jet clogged
- Float valve faulty
- Float level too low
- Fuel line restricted
- Carburetor air bent tube clogged
- Intake air leak
- Throttle valve faulty

**Rich mixture**
- Choke valve in ON position
- Float valve faulty
- Float level too high
- Air jets clogged
- Flooded carburetor

**Engine stall, hard to start, rough idling**
- Fuel line restricted
- Ignition malfunction
- Fuel mixture too lean/rich (pilot screw adjustment)
- Fuel contaminated/ deteriorated
- Intake air lead
- Idle speed misadjusted
- Float level misadjusted
- Fuel tank breather hole clogged

**Afterburn when engine braking is used**
- Lean mixture in slow circuit

**Backfiring or misfiring during acceleration**
- Ignition system malfunction
- Fuel mixture too lean

**Poor performance (driveability) and poor fuel economy**
- Fuel system clogged
- Ignition system malfunction

# CARBURETOR

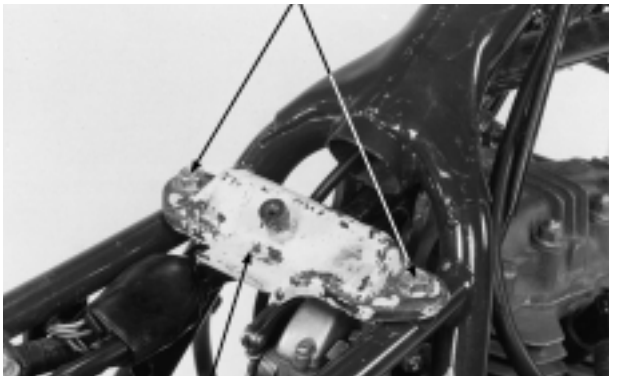
## REMOVAL

**WARNING**

- Gasoline is extremely flammable and is explosive under certain condition. Work in a well ventilated area. Do not smoke or allow flames or sparks in the work area or where gasoline is stored.
- Wipe up spilled gasoline at once.

Remove the both side covers, seat and fuel tank.

BOLTS



SUPPORT BRACKET

Remove the bolts and fuel tank support bracket.
Loosen the drain screw and drain the fuel into an approved gasoline container.

THROTTLE CABLE LOCK NUT

Loosen the cable lock nuts and remove the throttle cable from the throttle drum.

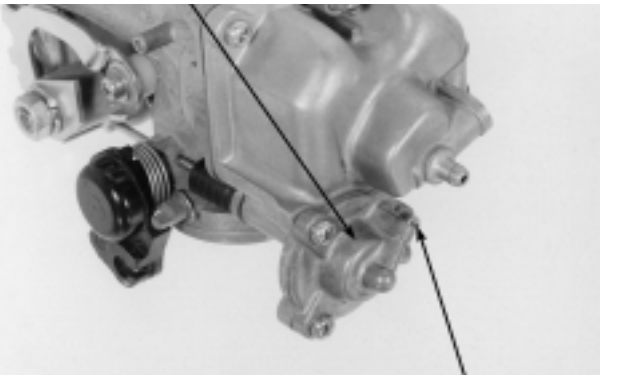
CHOKE CABLE

SCREW

Loosen the cable clamp screw and disconnect the choke cable.
Loosen the carburetor insulator band and connecting tube band screws, then remove the carburetor upward.

DIAPHRAGM COVER

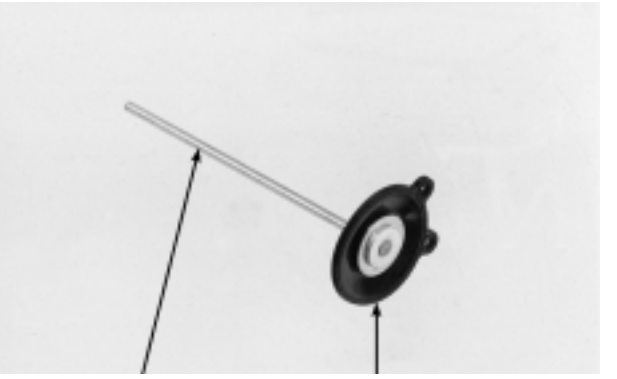
## DISASSEMBLY



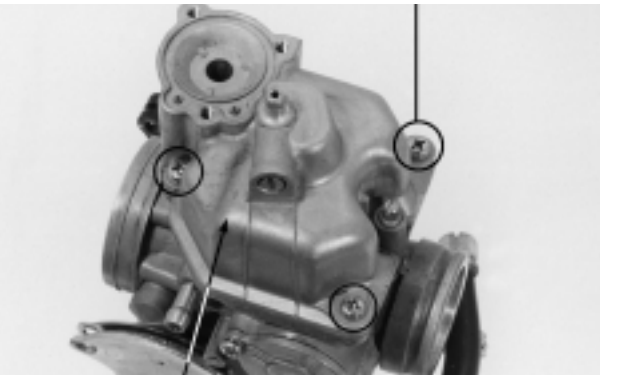
SCREW

Remove the three screws and the accelerator diaphragm cover.
Remove the diaphragm spring and diaphragm.

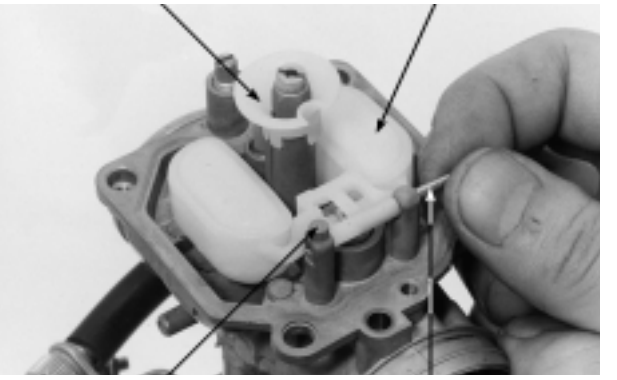
Check the diaphragm for a tear deterioration.
Check the rod for wear and trueness.



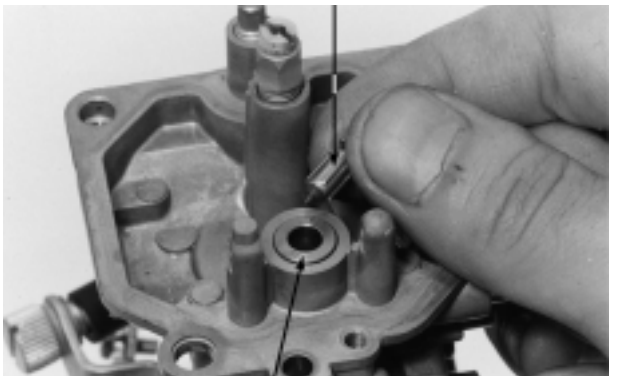

Remove the following:
– Screws
– Float chamber




– Float pin
– Float
– Float valve
– Baffle plate

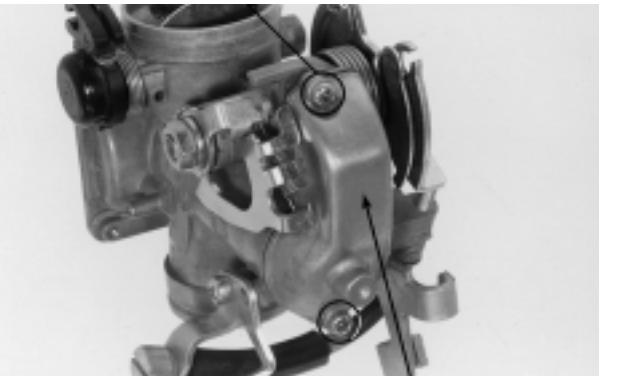



Inspect the float valve seat for grooves and nicks.
Check the operation of the float valve.



SCREW

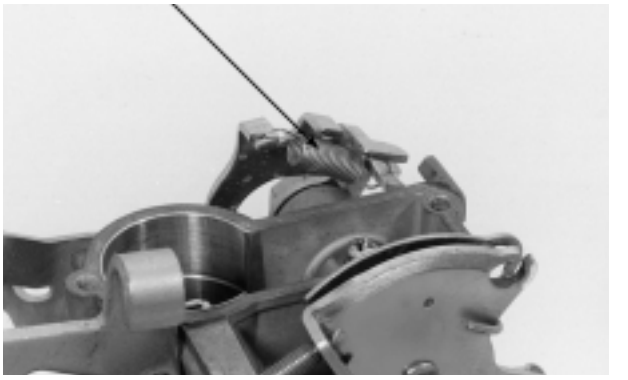
Remove the following:
– Screws
– Carburetor top cover



CARBURETOR TOP COVER

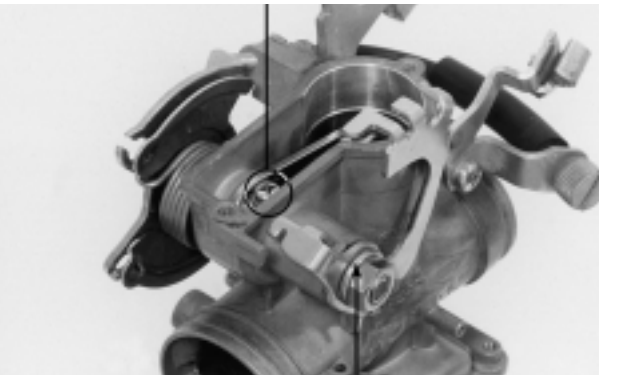
SPRING

– Spring



SCREW

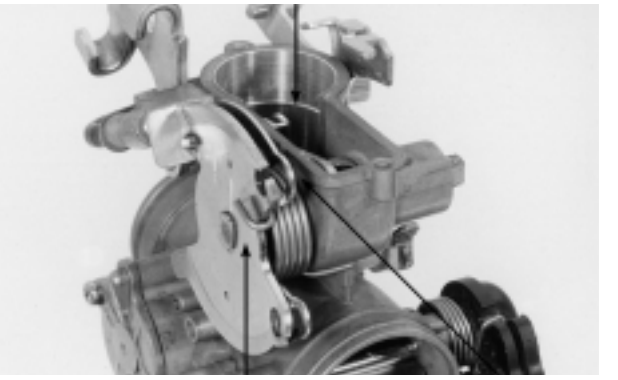
– Throttle link attaching screw
– Nut/washer



NUT/WASHER

THROTTLE VALVE ASSEMBLY

– Washer
– Throttle drum/spring
– Throttle valve assembly



THROTTLE DRUM/SPRING WASHER

– Main jet/jet needle holder/jet needle
– Slow jet
– Pilot screw

NOTE

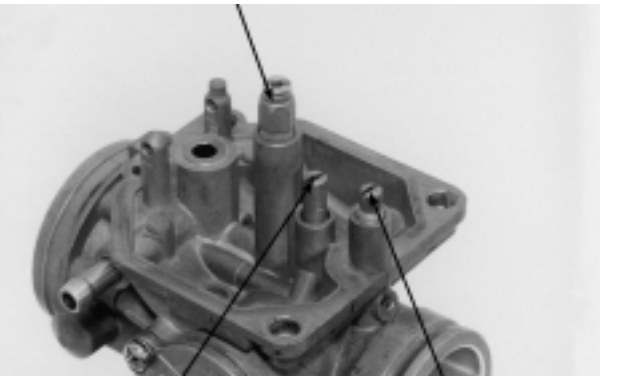
- Do not try to remove the float valve seat from the carburetor body.
- Before removing the pilot screw, record the number of turns until it seats lightly. Use this as a reference for reinstallation.
- Remove the jet needle by pressing it out from the throttle valve side carefully.

ATTENTION

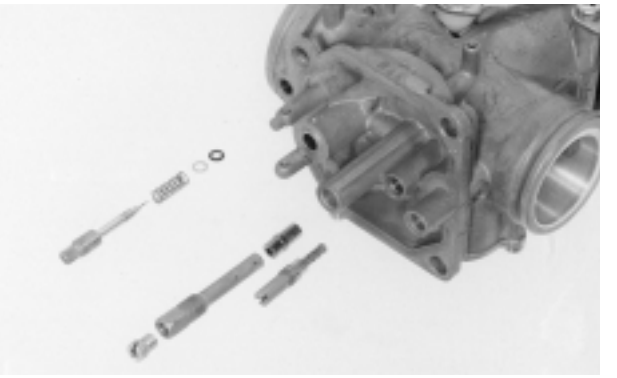
- *Damaged the pilot screw seat will occur if the screw is tightened against the seat.*

Clean the jets with compressed air.
Inspect the jets for wear or damaged and replace if necessary.

MAIN JET/JET NEEDLE HOLDER/JET NEEDLE

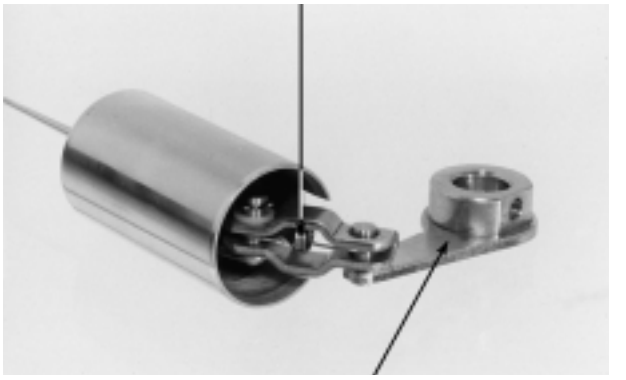


SLOW JET PILOT SCREW



SPRING

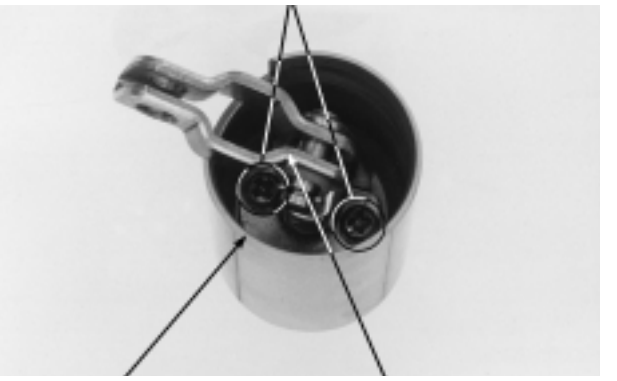
Remove the spring and link arm.



LINK ARM

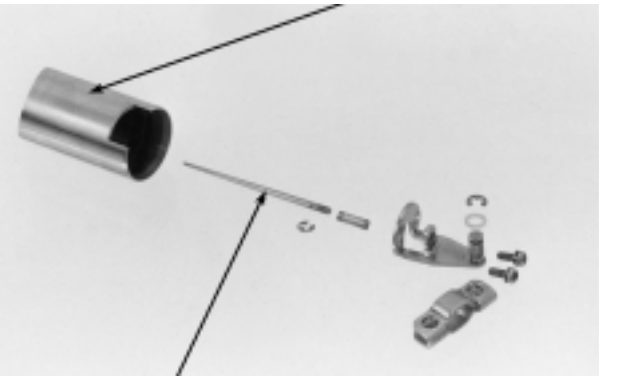
SCREWS

Remove the screws and the set plate from the throttle valve.

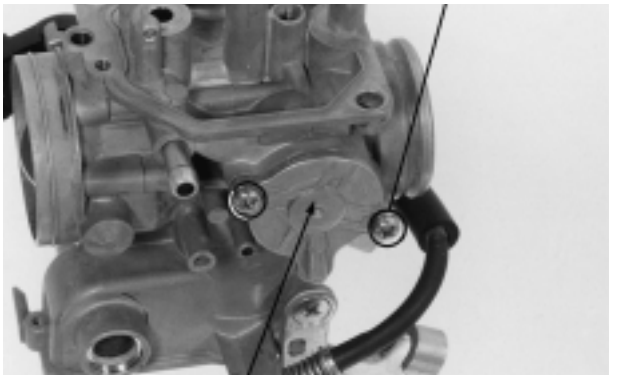


THROTTLE VALVE SET PLATE

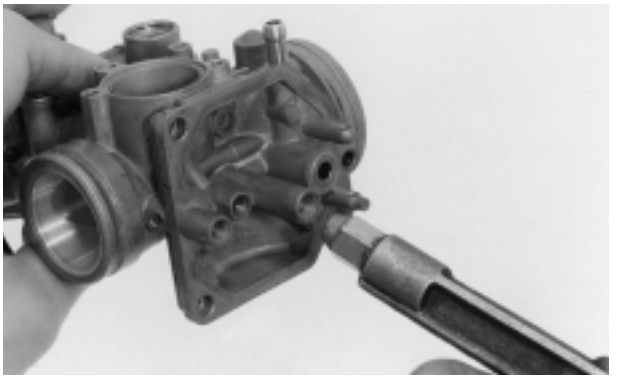
Inspect the throttle valve for wear or scratches.
Inspect the jet needle for damage.



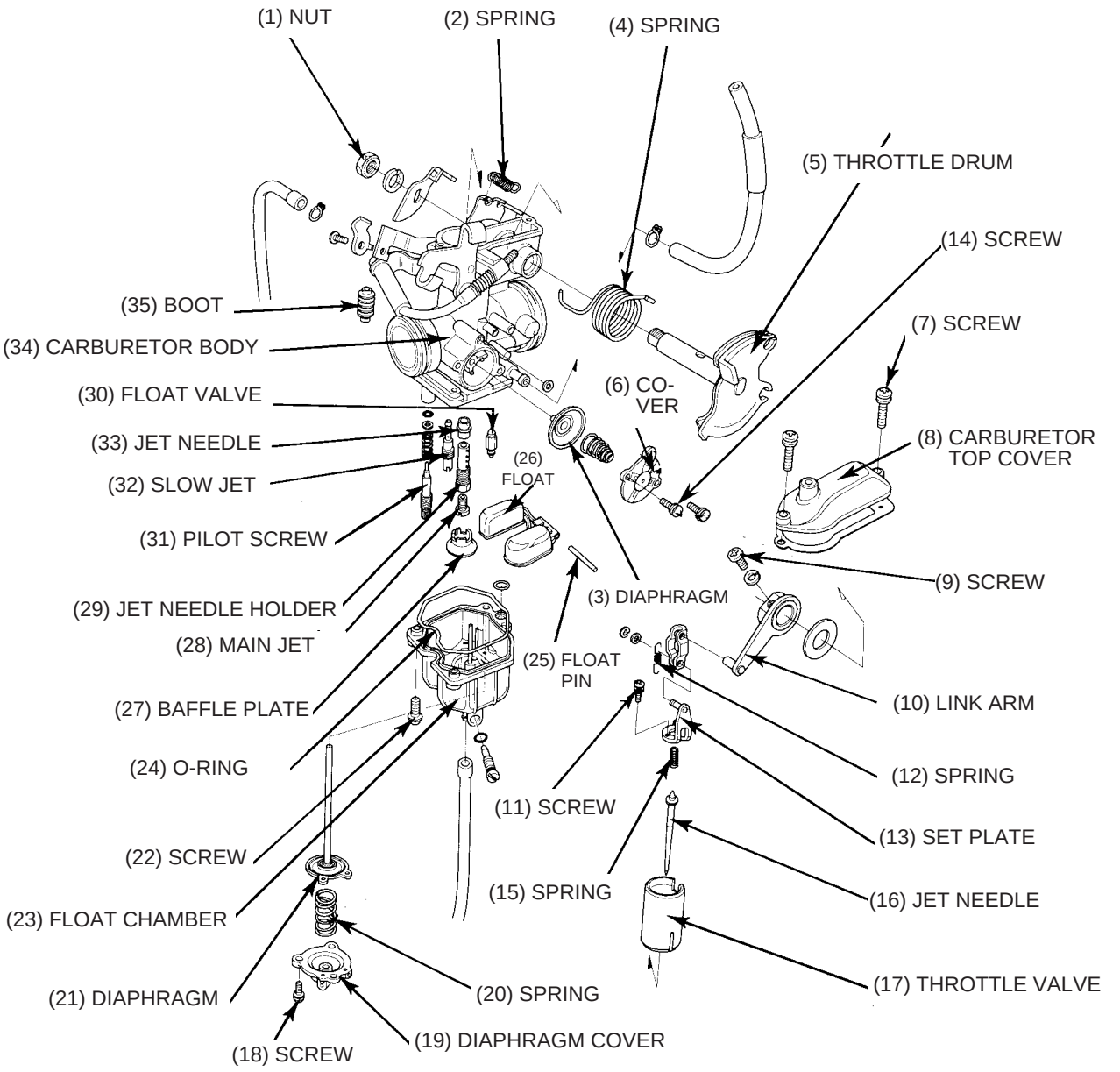

Remove the following:
– Two screws
– Cover
– Spring
– O-ring
– Diaphragm



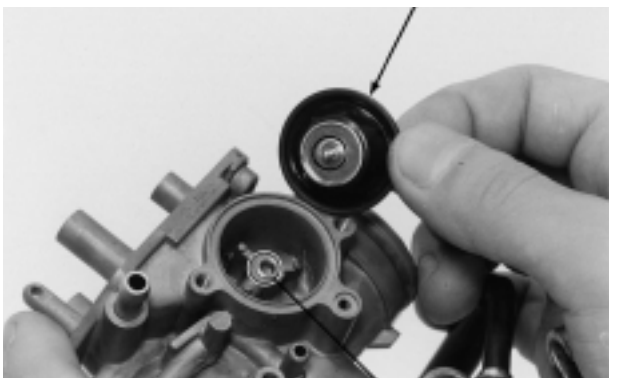

Blow open all carburetor body openings with compressed air.



**ASSEMBLY**

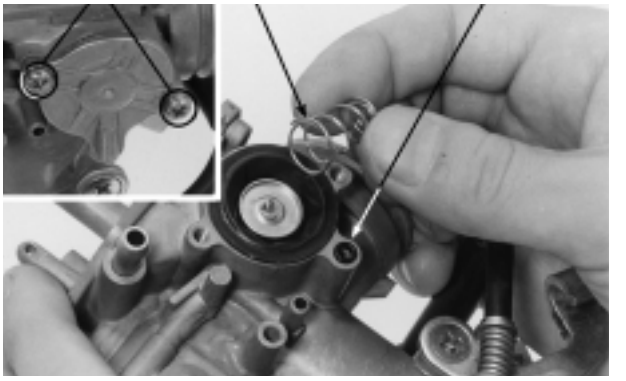



Install the diaphragm onto the carburetor body.



Install a new O-ring into the groove in the carburetor body.
Install the cover and tighten the screws securely.

SCREWS SPRING O-RING



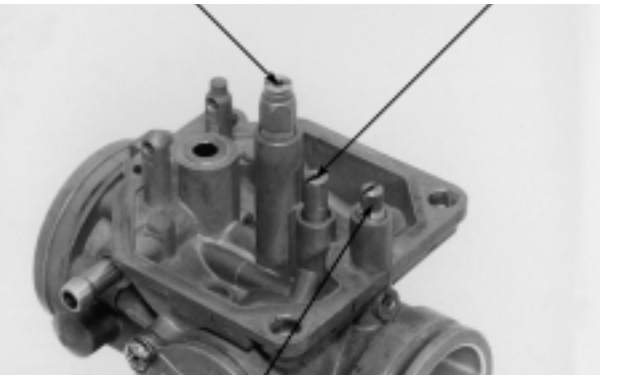
Install the following:
– Needle jet/needle jet holder/main jet
– Slow jet
– Washer/O-ring/spring/pilot screw

NOTE

- Install the pilot screw and return to its original position as noted during removal.

Perform pilot screw adjustment if a new pilot screw is installed.

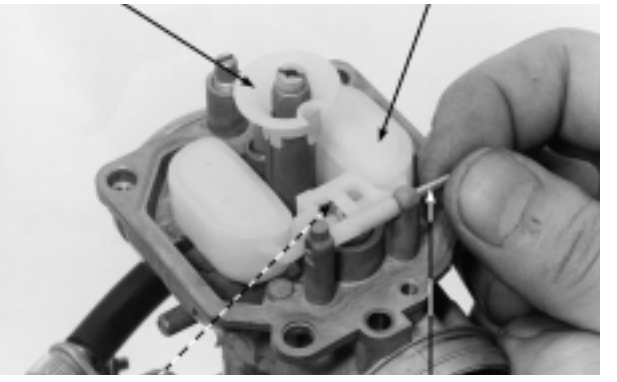
NEEDLE JET/NEEDLE JET HOLDER/
MAIN JET SLOW JET



WASHER/O-RING/SPRING/PILOT SCREW

Install the following:
– Float valve
– Float
– Float pin
– Baffle plate

BAFFLE PLATE FLOAT



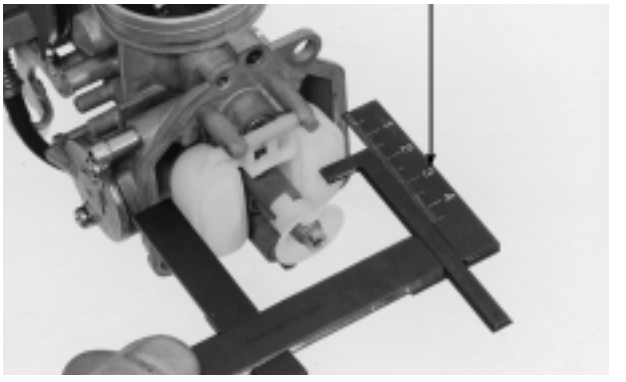
FLOAT VALVE FLOAT PIN

## FLOAT LEVEL INSPECTION

With the float valve seated and the float arm just touching the valve, measure the float level using the float level gauge.
**Float level: 14.0 mm (0.55 in)**

**TOOL:**
**Float level gauge 07401-0010000BR**

FLOAT LEVEL GAUGE



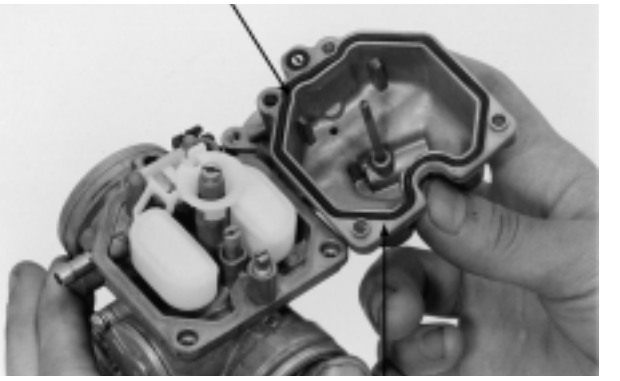
NOTE

- The float cannot be adjusted. Replace the float assembly if the level is out of specification.

O-RING

Install the O-ring into the groove in the carburetor body.

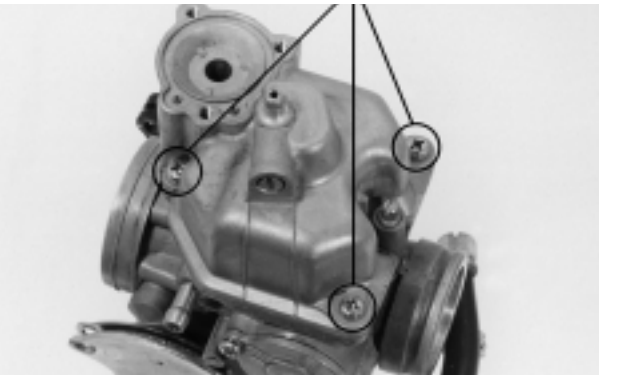
Install the float chamber aligning the overflow tube on the chamber with the hole in the baffle plate as shown.



FLOAT CHAMBER

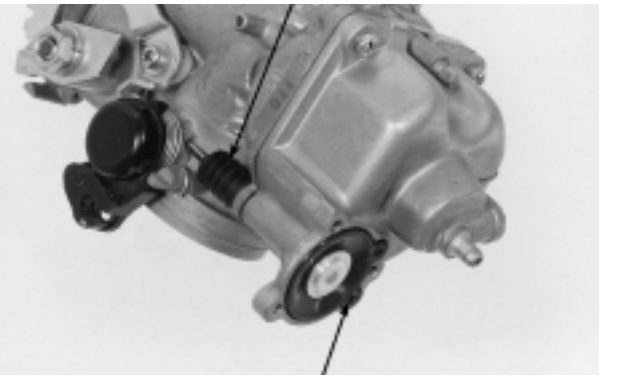
SCREWS

Install and tighten the float chamber screws.



BOOT

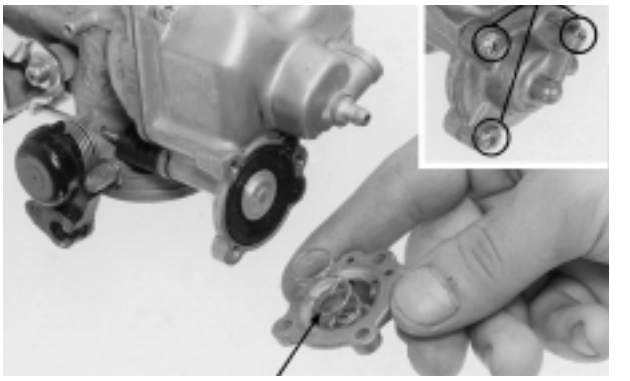
Install the accelerator diaphragm and dust boot.



DIAPHRAGM

SCREWS

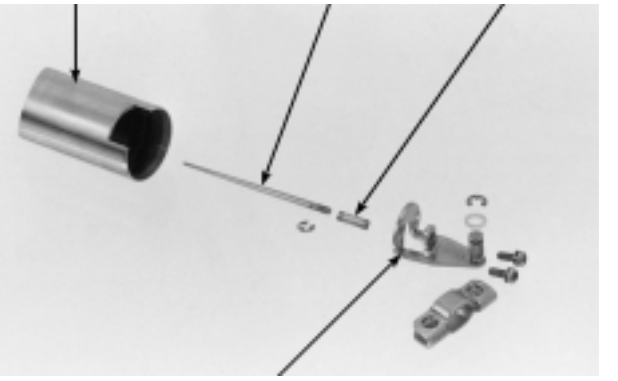
Install the diaphragm spring and cover.
Tighten the cover screws.



SPRING

THROTTLE VALVE JET NEEDLE SPRING

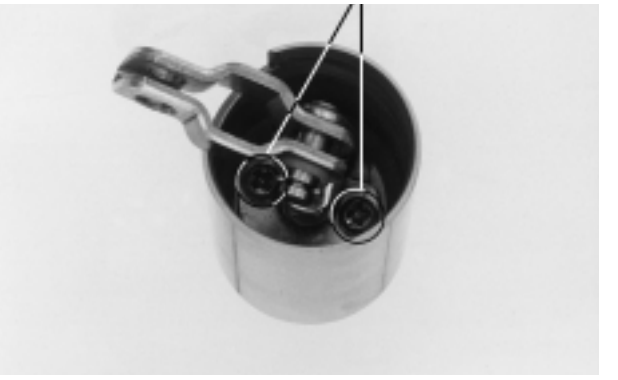
Install the jet needle into the throttle valve.
Install the spring on the set plate, then install the set plate into the throttle valve.



SET PLATE

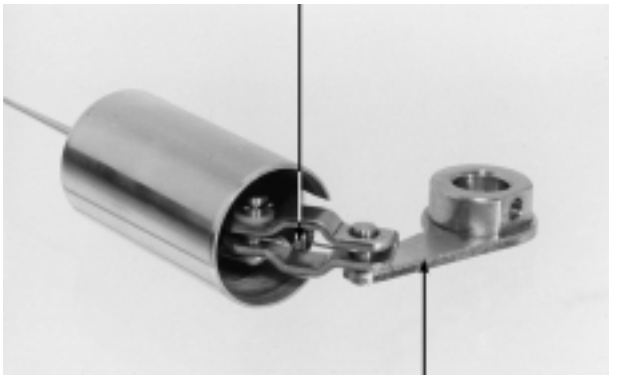
SCREWS

Install and tighten the screws.



SPRING

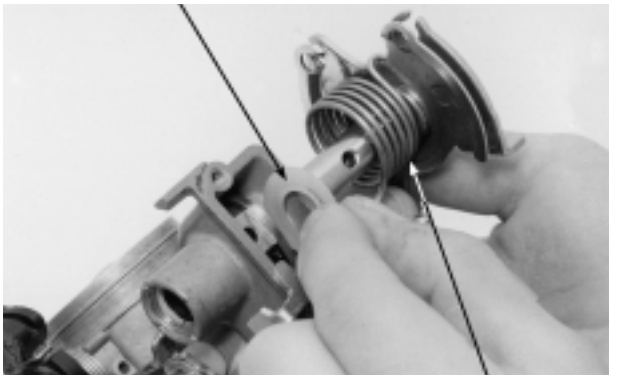
Install the link arm and spring.



LINK ARM

WASHER

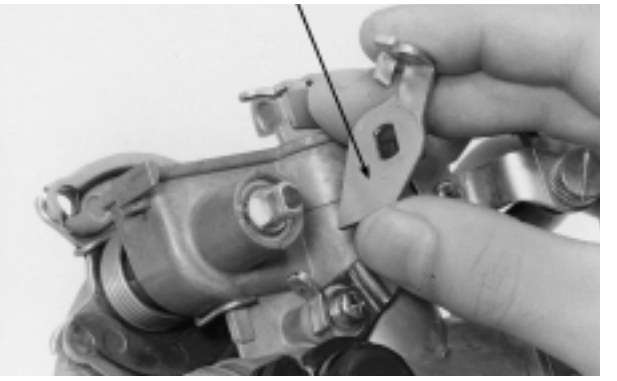
Install the throttle valve to the carburetor body.
Install the washer, throttle drum and spring.



WASHER/THROTTLE DRUM

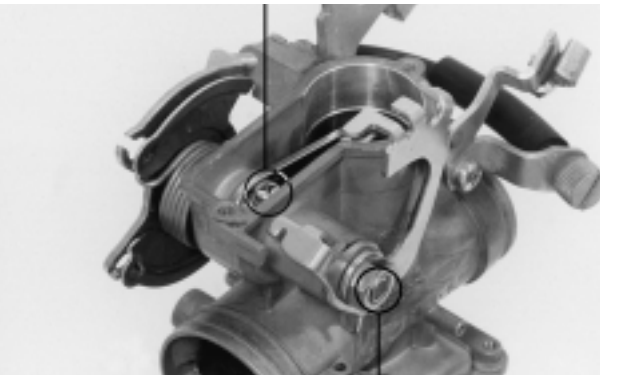
Install the throttle link aligning the cut-out of the link to the cut-out on the throttle drum.

THROTTLE LINK



Install the washer and nut, then tighten the nut securely.
Install and tighten the link arm screw.

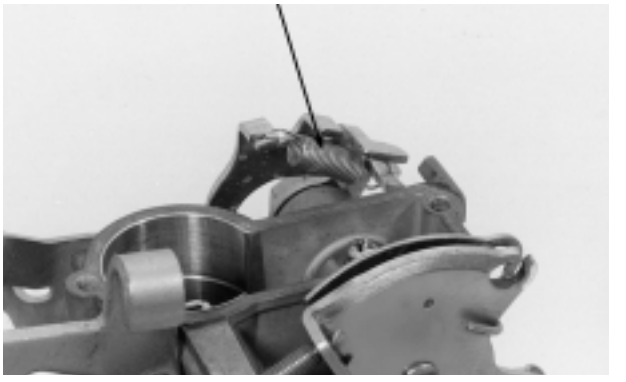
SCREW



NUT/WASHER

Install the spring as shown.

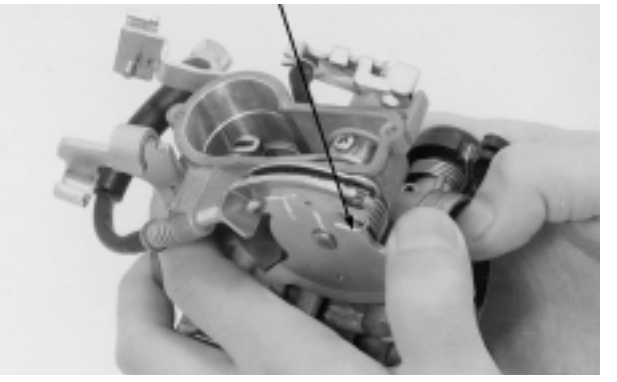
SPRING



Check the linkage operation as follow:

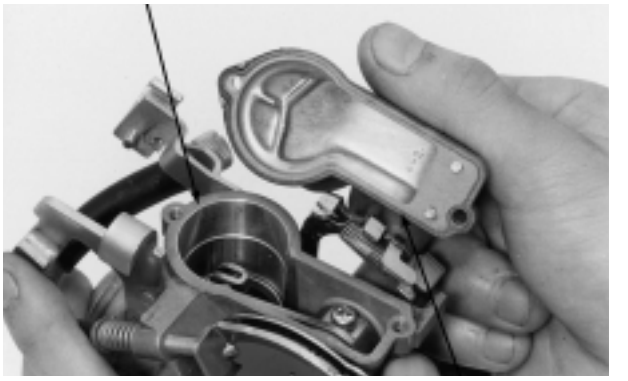
– Open the throttle slightly by pressing on the throttle drum. Then release the throttle.
Make sure that there is no drag.

THROTTLE DRUM



GASKET

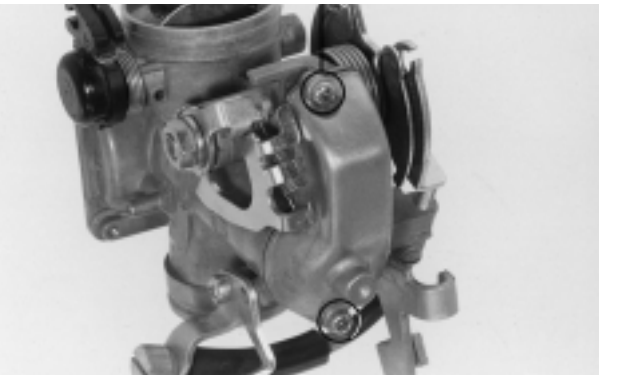
Install a new gasket onto the top cover.



TOP COVER

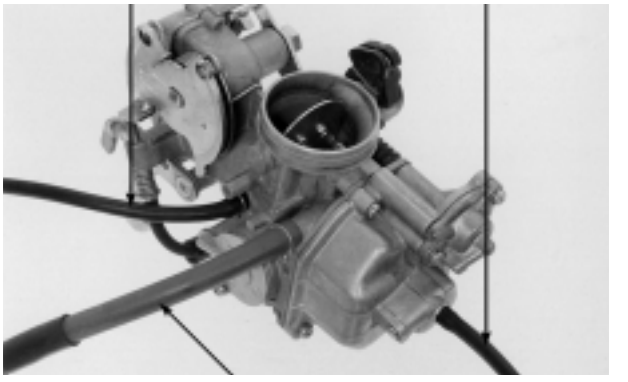
SCREW

Install and tighten the cover screws.



AIR VENT TUBE DRAIN TUBE

Install the following:
– Air vent tube
– Drain tube
– Fuel tube



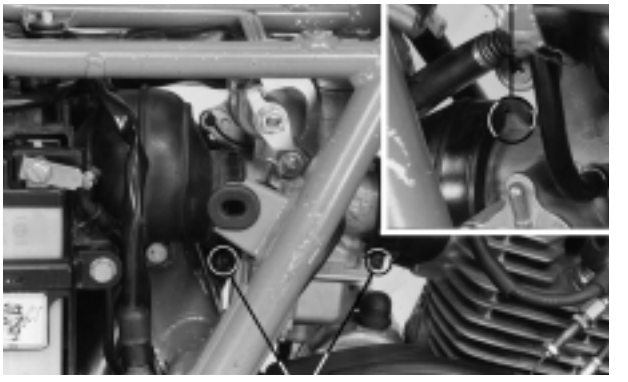
FUEL TUBE

ALIGN

# Installation

Installation is essentially the reverse order of removal.

Install the carburetor by aligning its intake pipe boss with the insulator groove.



INSULATOR SCREWS

NOTE

• Route the throttle and choke cables properly.

NOTE

- After installation, turn the fuel valve ON, and check that there is no fuel leaks.

Install the fuel tank support bracket and tighten the bolts.

Perform the following adjustment:
– Throttle grip free play
– Idle speed adjustment

SUPPORT BRACKET

BOLTS

# PILOT SCREW ADJUSTMENT

## IDLE DROP PROCEDURE

NOTE

- The pilot screw is factory pre-set and not adjustment can be done unless it is replaced.
- The engine must be warm for accurate adjustment. Then minutes of stop-and-go riding is sufficient.
- Use a tachometer with graduations of 50 $min^{-1}$ (rpm) or smaller that will accurately indicate a 50 $min^{-1}$ (rpm) change.

1. Turn the pilot screw clockwise until it seats lightly and then back it out to the specification.

**Initial opening: 1 3/8 turns out (2LA) 1-3/4 turns out (DK).**

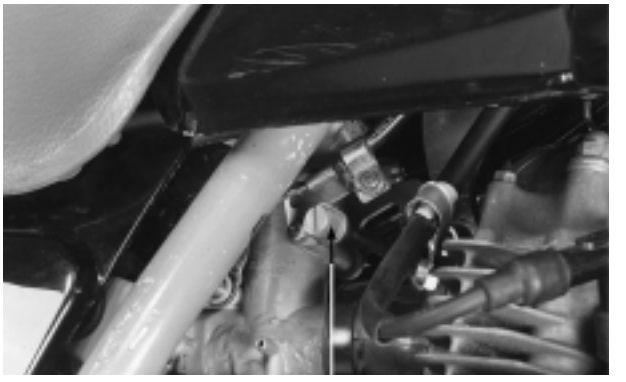
ATTENTION

- *Damaged the pilot screw seat will occur if the screw is tightened against the seat.*

2. Warm up the engine to operating temperature.
3. Stop the engine and connect the tachometer according to the tachometer manufacturer's operating instructions.
4. Start the engine and adjust the idle speed with the throttle stop screw.

**Idle speed: 1.400 ± 100 $min^{-1}$ (rpm).**

PILOT SCREW



THROTTLE STOP SCREW

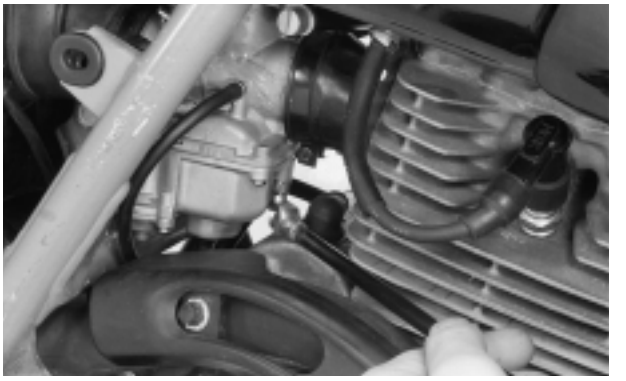
**LOW ALTITUDE SETTING (2LA type only)**

When the vehicle is to be operated continuously below 1,000 m (3,300 feet) the carburetor must be readjusted as following specifications.

**MAIN JET: # 115**

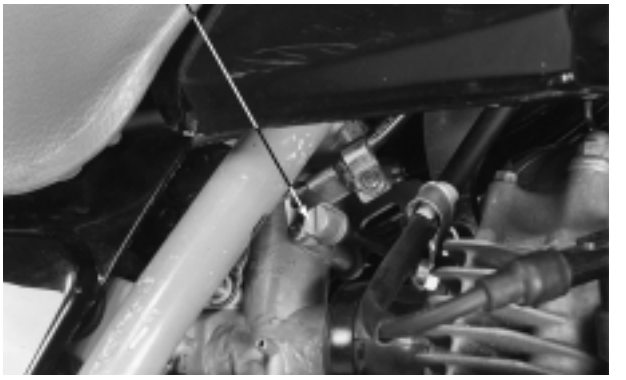
| | |
|---|---|
| **JET NEEDLE CLIP POSITION:** | **3rd groove from top** |
| **LOW ALTITUDE SETTING:** | **3/8 turn in from standard setting.** |

5. Turn the pilot screw 1/2 turn out from the initial setting.
6. If the engine speed increases by 50 $min^{-1}$ (rpm) or more, turn the pilot screw out by continual 1/2 turn increments until engine speed does not increase.



PILOT SCREW

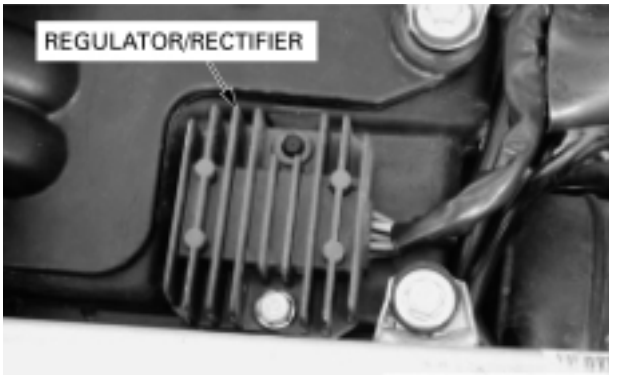
7. Adjust the idle speed with the throttle stop screw.
8. Turn the pilot screw in until the engine speed drops 50 $min^{-1}$ (rpm).
9. Turn the pilot screw 1/2 turn in from the position obtain step 8.
10. Adjust the idle speed with the throttle stop screw.



# AIR CLEANER CASE

## REMOVAL

Remove the following:
– Seat
– Both side covers
– Battery
– Starter relay switch
– Muffler




Loosen the air connecting tube band screw.

Remove the bolts and regulator/rectifier unit.
Remove the air cleaner case mounting bolts.
Pull the air cleaner case backward, then remove the case.


## INSTALLATION

Installation is in the reverse order of removal.

# FUEL TANK

## REMOVAL

**⚠ WARNING**

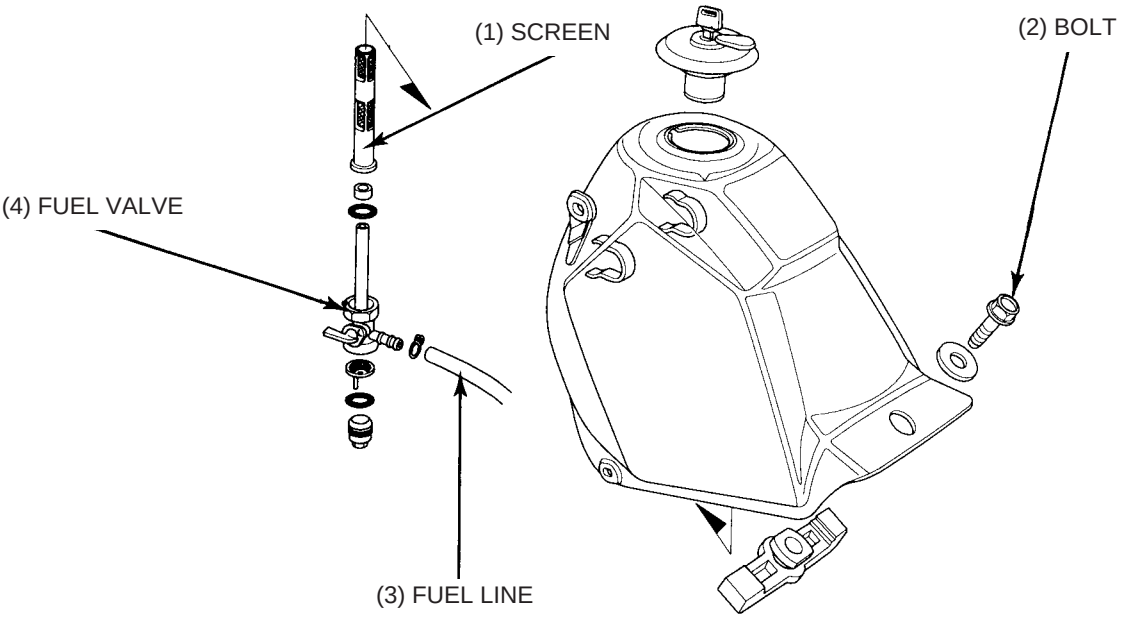
- *Gasoline is extremely flammable and is explosive under certain condition. Work in a well ventilated area. Do not smoke or allow flames or sparks in the work area or where gasoline is stored.*
- *Wipe up spilled gasoline at once.*

Remove the side covers and seat.
Turn the fuel valve OFF and disconnect the fuel tube.

Remove the shroud and fuel tank mounting bolts, then remove the fuel tank.
Installation is in the reverse order of removal.

NOTE

- After assembly, make sure there are not fuel leaks.



## NOTES

# HOW TO USE THIS MANUAL

This service manual describes the service procedure for the **XL200**.

- Throughout the manual, the following abbreviations are used to identify individual models.

| Code | Area (type) |
|---|---|
| DK | General Type |
| 2LA | Latin America |

Follow the Maintenance Schedule (Section 3) recommendations to ensure that the vehicle is in peak operation condition.

Performing the first scheduled maintenance is very important. It compensates for the initial wear that occurs during the break-in period.

Section 1 through 3 apply to the whole motorcycle, while section 4 through 18 describe parts of the motorcycle, grouped according to location.

Find the section you want on this page, then turn to the table of contents on page 1 of that section.

Most sections start with an assembly or system illustration, service information and troubleshooting for the section, the subsequent pages give detailed procedures.

If you don't know the source of the trouble, go to section 20 TROUBLESHOOTING.



# CONTENTS