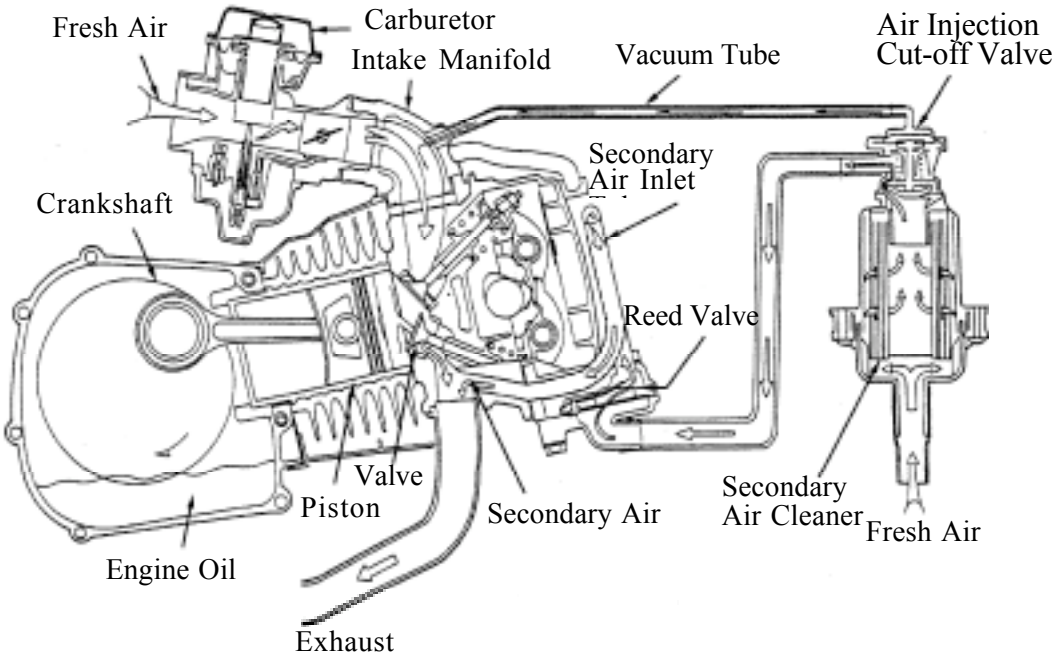
EXHAUST EMISSION CONTROL SYSTEM DIAGRAM



EXHAUST EMISSION CONTROL SYSTEM

The exhaust emission control system adopted in this model utilizes the reed valve to draw secondary air into the exhaust system for re-combustion by means of exhaust pulsation so as to minimize the exhaust emission.

FUNCTION

Item	Purpose	Function
Secondary Air Cleaner	Filter secondary air.	It filters the fresh air drawn for re-burning to prevent dirt or dust from affecting the operation of the air injection cut-off valve.
Air Injection Cut-off Valve	Prevent exhaust muffler noise and backfiring at sudden deceleration.	The air injection cut-off valve usually opens to lead air into the exhaust muffler in which air is re-burned to reduce CO. When the throttle valve closes suddenly, the air injection cut-off valve is actuated by vacuum to close and cut off secondary air in order to prevent exhaust muffler backfiring due to air in the exhaust system.
Reed Valve	Control the secondary air inlet to reduce CO.	When the motorcycle speed is less than 50km per hour, the reed valve operates to draw secondary air into the exhaust system for re-combustion.

SERVICE INFORMATION

GENERAL INSTRUCTIONS

- During operation, be careful to avoid scalding caused by the exhaust muffler.
- Note the locations of tubes for proper installation.
- Replace any damaged tube with a new one.
- Make sure to tighten the connector of each tube securely

TOOLS

- Vacuum pump－

SPECIFICATIONS

Air injection cut-off valve actuating pressure－
250mm/Hg－ 30 liter/min.

Reed valve stopper clearance－ 6.6mm

TROUBLESHOOTING

High CO at idle speed

- Damaged or clogged reed valve
- Damaged or clogged air injection cut-off valve
- Clogged air cleaner

Exhaust muffler noise

- Faulty air injection cut-off valve
- Broken vacuum tube
- Faulty reed valve

Backfiring at sudden deceleration

- Damaged reed valve (malfunction)
- Faulty air injection cut-off valve (unable to close)
- Carburetor incorrectly adjusted
- Faulty air cut-off valve
- Leaking vacuum tube

MAINTENANCE SCHEDULE:

(1) PERIODIC MAINTENANCE

Item		Service Mileage	300	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000
Lubrication System	Engine oil		R		R		R		R		R		R		R		R	
	Oil filter screen		C		C			C					C					C
	Gear oil		R					R					R					R
	Motor oil filter							I					I					I
Fuel System	Fuel filter				I			I					I					I
	Fuel filter screen		C					C					C					C
	Carburetor				A			A					A					A
	Fuel line							I					I					I
Air Supply System	Air cleaner				C			R					R					R
	Charcoal canister				I			I					I					I
	Secondary air cleaner				I			R					R					R
	Secondary air inlet line												I					
	Intake manifold screw												I					
	Purge control valve				I			I					I					I
	Air lines							I					I					I
	Catalytic converter				I			I					I					I
Drive System	Cam chain				I			I					I					I
	Drive chain				I			I					I					I
	Drive belt				I			I					I					I
	Valve clearance				I			I					I					I
Ignition System	Spark Plug	4-stroke			I								R					
		2-stroke			I			R					R					R
	C.D.I.							I					I					I
	Ignition system wires							I					I					I
Other	Bolts and nuts			T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	Brake system			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Remarks			I: Inspect, A: Adjust, C: Clean, R: Replace, T: Tighten •During riding or inspection, if any part is found to be cleaned, adjusted or replaced, do it directly and take a record if the exhaust emission control system is not seriously affected. It must be reported and approved if the exhaust emission control system is seriously affected.															

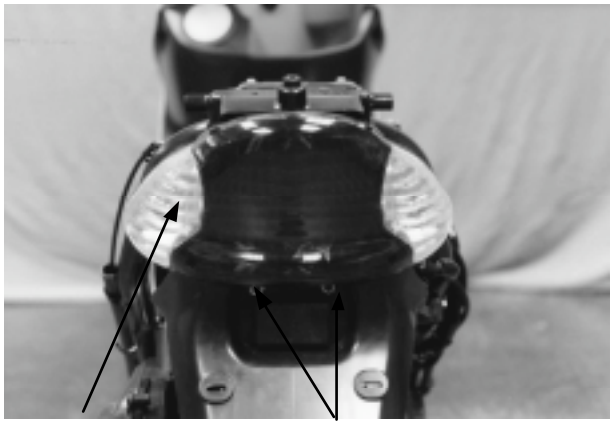
(2) IRREGULAR MAINTENANCE:

Item	Contents
Ignition system	Inspect and repair when obvious symptoms of ignition failure, engine overheating and stalling are found frequently.
Carbon deposit removal	Remove carbon deposits from the exhaust system, cylinder head and piston head when the engine horsepower decreases greatly during the service mileage of 10000_ 15000 km.
Transmission system	Perform CVT system maintenance and inspection when the engine performance decreases obviously.
Piston	Severe use in the first 1000 km may cause worn or seized cylinder, piston and piston rings. Clean or replace with new ones if necessary.

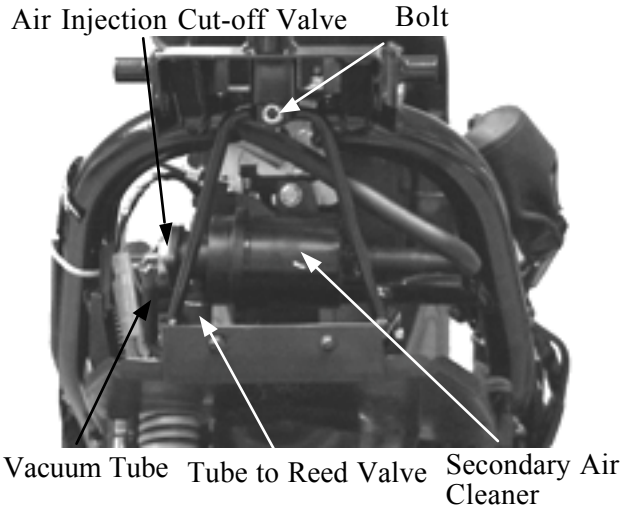
SECONDARY AIR CLEANER

REMOVAL

Remove the frame body covers.
Remove the two nuts attaching the rear light shell.
Remove the rear turn signal light bulb and replace with a new one.



Disconnect the secondary air cleaner connecting tube.
Remove the air cleaner attaching bolts and the air cleaner.



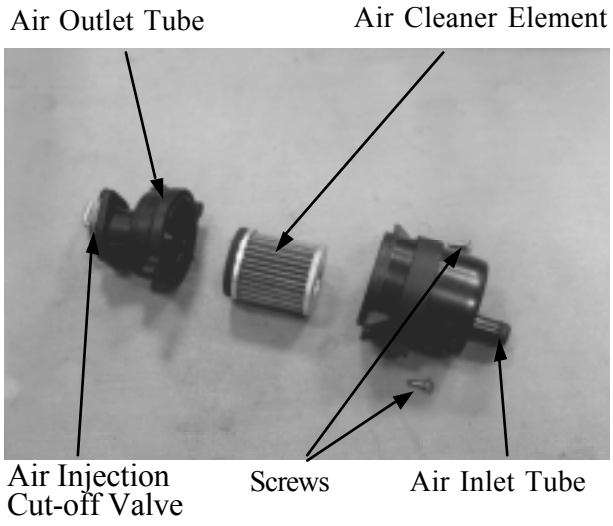
DISASSEMBLY

Remove the two screws attaching the air cleaner cover to remove the cover.
Remove the air cleaner element.
Inspect the air cleaner.

INSTALLATION

The installation sequence is the reverse of removal.

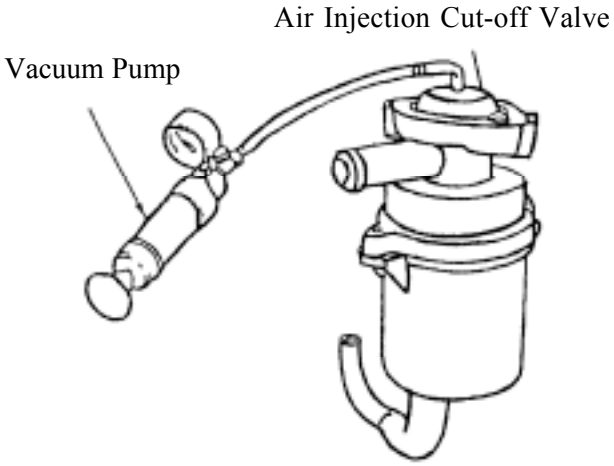
✱
- The secondary air cleaner must be assembled and installed properly to avoid dust entering the air cleaner.



AIR INJECTION CUT-OFF VALVE INSPECTION

Inspect the air injection cut-off valve flow using a vacuum pump. If the flow is not within the specified values, replace with a new one.

The flow should be at least 30 liter/min when a vacuum of 250mm/Hg is applied. The flow should be at least 1.6 liter/min when a vacuum of 320mm/Hg is applied. Check each connecting tube for cracks or damage and replace if necessary.



INSTALLATION

The installation sequence is the reverse of removal.

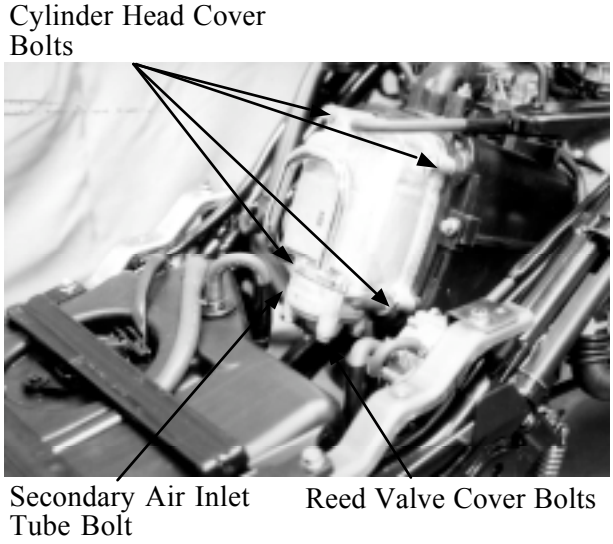
✱

- When installing, be careful not to bend or twist the tubes and check for proper installation.
- The tube length is very important to its performance, use the tube of same specification for replacement.

REED VALVE

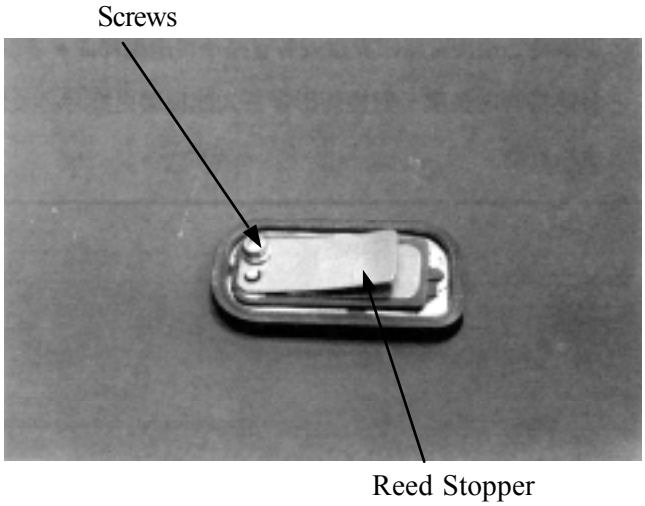
REMOVAL

Remove the met-in box and frame center cover.
Disconnect the secondary air inlet tube connector.
Remove the four cylinder head cover bolts and two secondary air outlet tube bolts.



INSPECTION

Remove the three screws attaching the reed valve cover and the reed valve.
Check the reed valve for damaged or weak reeds.
Check the reed valve seat for cracks, damage or clearance between the seat and reed.
Check the gasket and O-ring for damage or deterioration and replace if necessary.
Reed valve stopper clearance: 6.6mm



INSTALLATION

Install the reed valve in the reverse order of removal.

✱

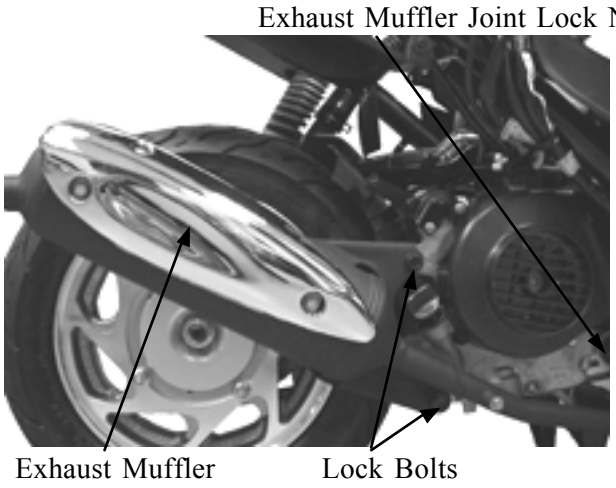
- When installing, be careful not to bend or twist the tubes and check for proper installation.

EXHAUST MUFFLER

REMOVAL

Remove the two exhaust muffler joint lock nuts and two exhaust muffler lock bolts. Remove the exhaust muffler.

✱
- The temperature of exhaust muffler is very high. Be careful to avoid burns during working.



INSPECTION

1. Inspect the exhaust muffler and joint for damage or crack. Replace if necessary.
2. Inspect the exhaust muffler joint packing collar for deformation or damage. Replace if necessary.

INSTALLATION

1. Install the exhaust muffler in the reverse order of removal.

✱
- A large amount of unburned mixture flowing into the high-heat catalytic converter will burn again and cause damage to the converter due to overheat. Pay attention to the following.
- Use 92# or 95# nonleaded gasoline only. (Leaded gasoline will cause catalytic converter failure.)
- During riding, do not turn the ignition switch OFF to avoid a large amount of unburned mixture flowing into the exhaust muffler.
- Faulty ignition system or fuel system will cause overheat and damage to the catalytic converter.

EXHAUST EMISSION RELATED SYSTEM INSPECTION

Clean or replace the air cleaner. (⇨3-4)
Clean and adjust the carburetor. (⇨3-5)
Inspect the auto bystarter system. (⇨5-4)
Clean and inspect the spark plug. (⇨3-4)
Inspect the ignition system. (⇨3-6)

EXHAUST EMISSION TEST AND ADJUSTMENT

1. Start the engine and warm up for several minutes. (Engine surface temperature 50℃_ 60℃)
2. Adjust the idle speed to 1900rpm.
3. Connect the emission tester sampling pipe to the exhaust muffler.
   Standard:
   CO: 2.5±0.5%
   HC: 700PPM max.
4. If CO or HC exceeds the specified values, adjust the carburetor pilot screw (P.S.) until CO and HC are within the specified standard values.
   P.S. Opening: 2±_ turns
5. If the adjustment of carburetor makes no difference, inspect exhaust emission related system. (⇨18-9)