



Instruction Manual for KEIHIN PD22 Carburetor Kit

For exclusive use with R-Stage & Regular Head

Item No.	03-05-111(Carburetor kit)	03-02-035(Manifold kit)
Fit	Monkey	Frame Nos Z50J-1300017 ~
Fit	Gorilla	Frame Nos Z50J-1300027 ~
Fit	Monkey BAJA	Frame Nos Z50J-1700001 ~

- We are flattered that you have purchased one of TAKEGAWA's products. Please strictly follow the following instructions in installing and using the products.
- Before fitting the products, please be sure to check the contents of the kit. Should you have any questions about the products, please kindly contact your dealer.

Please note that, in some cases, the illustrations and photos may vary from the actual hardware.

Please do read the following before installation.

We do not take any responsibility for any accident or damage whatsoever arising from the use of the products not in conformity with the instructions in the manual.

We shall be held free from any responsibility or compensation whatsoever for any glitch in the parts other than ours if the glitch takes place after the installation and use of these products.

If you make modifications to the products, we shall be held free from any guarantee of the products.

You are kindly requested not to contact us about the combination of our products with other manufacturers'.

A stock air cleaner cannot be installed with this Carburetor Kit. The engine will go wrong if the engine gets wet. So, please refrain from driving in the rain. Besides, before washing your vehicle, cover the carburetor with a plastic sheet or the like to prevent water from getting into it.

The supplied carburetor is factory preset as described at the bottom of this page. As the setting should be adjusted according to the parts used, reset the carburetor to match your engine.

Do the installation work correctly referring to Honda's genuine service manual for the above-mentioned applicable models.

Caution The following show the envisioned possibility of injuries to human bodies or property damages as a result of disregarding the following cautions.

- Always use a torque wrench to screw bolts and nuts tight and securely to the specified torque. (Improper torque could cause these parts to get damaged or fall off, resulting in accidents.)
- Work only when the engine and the muffler are cool. (Otherwise, you will burn yourself.)
- Prepare right tools for the work, (Otherwise, the installation with improper tools could cause breakage of parts or injuries to yourself.)

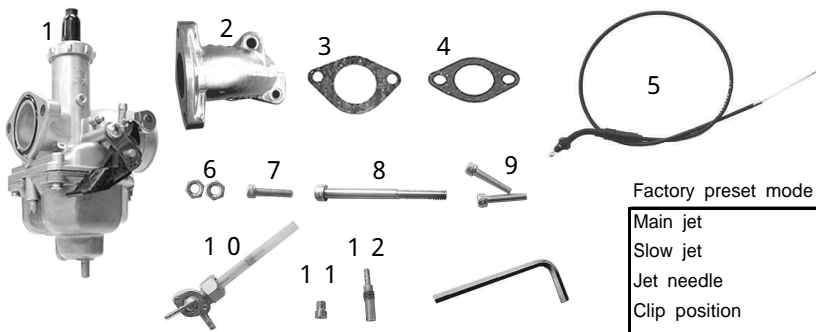
Warning The following show the envisioned possibility of human death or serious injuries to human bodies as a result of disregarding the following cautions.

- Those who are technically unskilled or inexperienced are required not to do the work. (Improper installation could lead to a driver's falling down or accidents as a result of parts breakage.)
- Before riding, always check every section for oil leak and slack in parts like screws. Besides, when you notice something abnormal with your motorcycle while riding down a road, stop riding immediately and park your motorcycle in a safe place to check. (Otherwise, the abnormality could lead to an accident.)
- Always drive the engine in a well-ventilated place, and do not switch the engine on in an airtight place. (Otherwise, you will suffer from carbon monoxide poisoning.)
- Before doing work, place the motorcycle on level ground to stabilize the position of your motorcycle for safety's sake. (Otherwise, your motorcycle could fall down and injure you while you are working.)
- As gasoline is highly flammable, never place it close to fire. Make sure that nothing flammable is near the gasoline. Since vaporized accumulation of gasoline is at the high risk of explosion, work in a well-ventilated place.

Please be informed that, mainly because of improvement in performance, design changes, and cost increase, the product specifications and prices are subject to change without prior notice.

This manual should be retained for future reference.

~ Kit Contents ~



Factory preset mode of the carburetor

Main jet	#95
Slow jet	#35
Jet needle	E2051G
Clip position	4th from the top
Throttle valve	74B
Air screw opening	1-1/4

No.	Part Name	Qty
1	Carburetor assembly	1
* 2	Inlet pipe	1
* 3	Carburetor gasket	1
* 4	Inlet pipe gasket	1
5	Throttle cable COMP. 810	1
* 6	Lock nut, 6 mm	2
* 7	Socket cap screw, 6x20	1
* 8	Socket cap screw, 6x70	1
* 9	Socket cap screw, 6x25	2
10	Fuel cock	1
11	Main jet, #105	1
12	Slow jet, #42	1
* TOOL	Hex wrench, 5mm	1

* marks indicate the contents of a manifold kit.

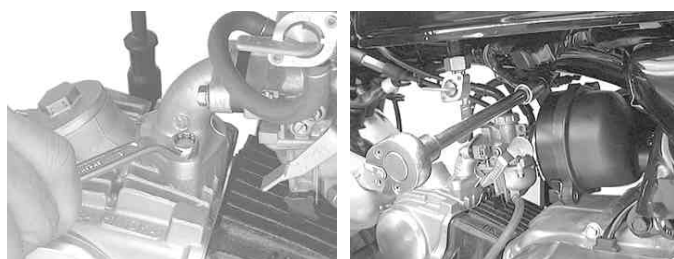
Installation Procedure

Please check the contents of this kit.

(Preparation)

⚠ CAUTION: Make sure that the engine and the muffler are cold enough!!
Stabilize the vehicle!!

- 1 In the case of the Gorilla and Monkey BAJA, demount the seat and drain the gasoline in the fuel tank. Close the fuel cock, pull out the fuel hose from the carburetor, and demount the fuel tank.
- 2 After making sure that the fuel cock is closed, open a drain cock on the carburetor, and drain the gasoline from the float chamber to a tray or something.
- 3 Unfasten the inlet-pipe holding bolt and air-cleaner mounting bolt, and detach the throttle valve from the carburetor. Demount the carburetor with all the air cleaner box and inlet pipe attached to it.
Be careful not to let any foreign material get into the intake port.



- 4 Unfasten the throttle valve from the carburetor. Separate the throttle valve from the throttle cable. And remove the top cover from the throttle cable.
- 5 Unfasten the pan screws on the throttle housing to disconnect the throttle cable. Wipe off dirt and worn-out grease.
Be careful not to lose the throttle housing or pan screws for reuse.
- 6 Fix the ground wire to the frame with the air-cleaner mounting bolt.

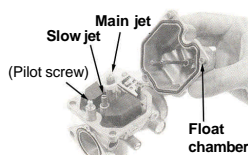


- 7 Keep those detached parts in a bag or the like.

(Installation)

⚠ CAUTION: Be sure to tighten to the specified torque with a torque wrench.

- 1 Temporarily attach the throttle cable to the under throttle housing, and connect the inner cable with the throttle pipe.
- 2 After applying grease to the sliding surface of the throttle, install the throttle housing. Then tighten the pan screws.
Torque=**8 N · m (0.8 kgf · m)**
- 3 Remove the float chamber from the PD22 carburetor, and replace the main and slow jets with those of the Kit.
- 4 Reinstall the float chamber in its original position.
- 5 Remove a top cover from the PD22 carburetor, and pull out the throttle valve spring and the throttle valve.



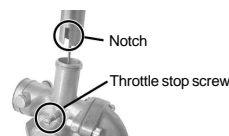
- 6 Place the carburetor gaskets between carburetor and inlet pipe, and tighten them to the specified torque with two M6x25 socket cap screws and two lock nuts.
Torque=**10 N · m (1.0 kgf · m)**



- 7 Run the supplied throttle cable up to the carburetor without stretching it too tight. Connect the throttle cable to the carburetor top. And connect the inner cable to the throttle valve while compressing the throttle valve spring.



- 8 Mesh the notch on the throttle valve with the throttle stop screw and install it to the carburetor.



- 9 Place the inlet pipe gaskets between cylinder head and inlet pipe, and tighten them to the specified torque with two M6x20 socket cap screws.
Torque=**10 N · m (1.0 kgf · m)**



In some cases, the carburetor and frame interfere with each other because of the margin of error in the frame sizes. In this case, please cut off the interfering portions.



- 10 Adjust the free play at the throttle grip to be about 5 mm with the adjuster of the throttle cable. Snap the throttle a few times to make sure that the throttle moves smoothly without sticking and that the throttle valve is fully open.
Also check that the throttle has free play even when a steering handle is turned all the way to the right and left.



- 11 If the fuel tank is removed, install and tighten a new fuel cock to the specified torque of 5 ~ 6N·m(0.5 ~ 0.6 kgf·m), and reinstall the fuel tank and mount the seat.



- 12 Adjust the fuel cock direction and the fuel tube length, then insert the fuel tube into the fuel cock and the carburetor, and attach the tube clip onto the fuel tube. Open the fuel cock and check every part for oil leak. (Do not leave the cock open for long hours.)



- 13 Pull the choke lever to start the engine, and check every hardware for intake air leak. Gradually release the lever and warm up the engine till the revolution becomes smooth, and finally release the lever fully back to its original position. In case, after the warm-up of the engine, the engine does not run idle, or idles away at high speed, adjust the setting with the throttle stop screw.

- 14 Adjust the setting to meet the motorcycle in a safe place with utmost care.

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How to Set the Carburetor

- When the carburetor does not match the engine and the engine fails, the engine failures are caused by either too dense or too lean air-fuel mixture.
- The engine failure symptoms for the engine are as follows:

When the air-fuel mixture is too dense:	When the air-fuel mixture is too lean:
<ul style="list-style-type: none"> • The explosion sound with a dull thud continues intermittently. • The engine malfunctions further if you use the choke. • The engine malfunctions when you warm it up. • The engine works well if the cleaner is detached. • The motorcycle belches dense (or, black) exhaust gas. • The plug smolders, getting blackened. 	<ul style="list-style-type: none"> • The engine overheats somewhat. • The engine starts working well if you use the choke. • The engine does not accelerate well. (No smooth acceleration) • Revolutions change, generating weak power. • The plug burns white.

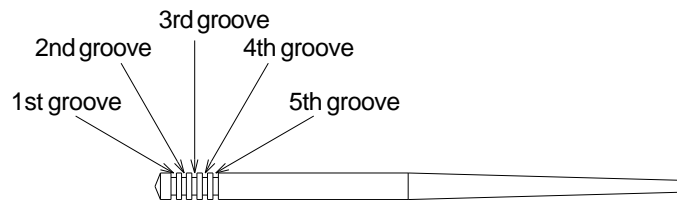
Set the carburetor only after warming up the engine, and then test-drive. And use a plug with the right heat value. Do the setting in the following manner, studying at what throttle opening position the engine starts failing.

Jet needle (Throttle position at 1/4 - 3/4)

Whether or not the engine revolution is in proportion to the throttle operation

- When the acceleration is not smooth or even, make the air-fuel mixture dense.
- Make the air-fuel mixture lean when the engine revolution goes up heavily and belches black gas.

The mixture ratio at this throttle position can be adjusted by the location of E-ring in the grooves. The air-fuel mixture becomes dense as the location of the E-ring moves down from the 1st to the 5th groove.



Main jet (The throttle position at 3/4 - 4/4)

The air-fuel mixture ratio at this throttle position can be adjusted by changing the number of the main jet. The larger the main jet numbers, the denser the mixture ratio becomes.

In view of the engine and muffler specifications, select the most appropriate main jet to get the highest revolutions.

Pilot jet (First of all, please adjust the air screw.)

- In case you have given more than three turns to the air screw to tighten it, use a pilot jet with a small number.
 - If you have tighten the air screw (clockwise) to the full, use a pilot jet with a larger number.
- Check whether you have made a right choice of the pilot jet by seeing if the engine starts up revolving smoothly from the idling to running at slow speed.
- When the engine revolves up unevenly, the pilot jet number is too small. (At idle)
 - When the motorcycle belches black exhaust gas and produces heavy exhaust sound, the pilot jet number is too big. (At idle)
 - After replacing the pilot jet, you need to readjust the airscrew.

Air screw

The air screw adjusts the air mass flow at the time of engine's revolving at slow speed. (At idling)

- Give the air screw a right turn The air-fuel mixture gets dense.
- Give the air screw a left turn The air-fuel mixture gets lean.

Loosen the tightened air screw back to the 1.5-turn position. And then from this position, give to the airscrew a right or left turn of 1/4 to 1/2 till the engine revolves at the highest speed.

Loosen the idle stop screw till you get the steady idling revolutions. And once again adjust the position of the airscrew to get the highest revolutions.

On how the barometric pressure, temperatures and humidity affect the setting:

- At highlands or at high altitudes, the barometric pressure and air density go down and the air gets into the carburetor in less amounts. This makes the air-fuel mixture dense which was adjusted at low altitudes.
- Under the weather conditions with very low temperatures, the air density increases, which makes the air-fuel mixture lean.
- Under the rainy and humid weather conditions, the air density decreases, which makes the air-fuel mixture dense.

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