Big Carburetor Kit (KEIHIN PE24) Instruction Manual

(Race use ONLY)

Product number	03-05-0221 (Carburetor kit) 03-02-0005 (Inlet pipe kit)

Adaptation model	Monkey・Gorilla	(Z50J-1300017 ～) (AB27-1000001 ～ 1899999)

Thank you very much for purchasing our products.
Thank you so you will comply with the following matters at the time of use.Before installation, please check your always kit contents.
If there is a point of notice event, Please contact us the dealer of purchase.

◎ If the description, such as photos or Illustration different with this part.

☆ Please read carefully before use ☆

◎ The use ignoring the instructions that are written in the manual, if the accident or damage has occurred, we can not assume any responsibility for compensation.
◎ This product installation and use, when a problem occurs to after market goods, guarantee other than this product, also can not assume any in any such matters.
◎ If it was the case or mounting that has been processed like a product, it will not be covered under warranty.
◎ It is not possible to inquire of the combination of other manufacturers.
◎ This product is the above-mentioned vehicle exclusive goods.Is not possible attached to the other vehicle. Please note.
◎ This product is for exclusive use with vehicles equipped with our head.
NOTE: This is NOT compatible with stock head.
◎ Please avoid as much as possible driving a motorcycle under rainy weather because the machine is likely to have engine trouble if water gets into the engine. And cover your machine with a vinyl sheet when washing it not to get the carburetor wet with water.
◎ Setting of a carburetor needs to be adjusted depending on the natural phenomena like the weather, temperatures, and motorcycles and carburetors themselves. Arrange the setting to match the engine and other conditions.
◎ As the throttle valves of the motorcycles with a frame No. from Z50J-1300017 to 1510400 does not open fully, the throttle pipes needs processing.

⚠ Caution When the handling of ignoring this display, property damage and human shows the assumption of what injury.

■ When performing the work, etc., be sure during the cold (when the engine and the muffler is cold). (It may cause burns.)
■ When performing the work, it should be made to prepare the tools for the job. (Breakage of parts, it may cause injury.)
■ Do the work must always specified torque using a torque wrench. (Damage of bolts and nuts, and cause of dropout.)
■ The product and the frame, might have edges or protrusions. Please go to protect your hands when you work. (It may cause injury.)
■ Be sure to each part inspection before operation, check the loosening of the threaded portion, be sure to securely tighten the specified torque if there is loose. (It may cause detachment of the parts.)

⚠ Warning When the handling of ignoring this display people died, shows the contents of the serious injury possibility is assumed.

■ During operation, when an abnormality occurs, immediately stop the vehicle in a safe place, please stop running.
(It may lead to an accident.)
■ When performing the work, do the work safely stabilize the vehicle in a horizontal location.
(There is a risk of injury vehicle collapsed while working.)
■ Inspection, maintenance, the instruction manual or, inspection methods such as service manuals, to protect the way, should be done correctly.(unsuitable inspection and maintenance, there is a risk that result to an accident.)
■ When carrying out the inspection and maintenance, etc., if found damaged parts, replace the damaged parts to avoid possible to reuse the parts. (There is a risk that lead to accidents Continued use.)
■ 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.
■ Plastic bags of product packaging, you can either be stored in a place that is out of reach of children, it should be discarded.
(When the children or wearing, there is a risk of suffocation.)

◎ Please note. Performance up, the design change, the product and the price in the cost up, etc. are subject to change without notice.
◎ Please be informed that we shall be held harmless against any claim against us whatsoever arising out of use of the products in racing and the like.
◎ Keep this manual stored until this product is discarded.

SPECIAL PARTS TAKEGAWA
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Please contact with your name and country name provided. (Only English please)

Product content

Number	Product content	Quantity	Item Number
1	Carburetor ASSY.	1	03-03-0074
※2	Inlet pipe	1	00-00-1488
※3	Carburetor insulator	1	00-03-0209
※4	Clamp band (30-45mm)	1	00-00-0050
※5	Inlet pipe gasket	1	00-03-0009 (3 pcs)
※6	Socket cap screw, 6x50	1	00-00-0727 (5 pcs)
※7	Socket cap screw, 6x20	1	00-00-0721 (5 pcs)
※8	Socket cap screw, 6x15	2	00-00-0718 (5 pcs)
9	Fuel tube, 250mm	1	00-03-0203 (500mm)
10	Throttle cable COMP., 810mm	1	09-02-0081
	Hex wrench, 5mm	1	————

※marks indicate the contents of a inlet pipe kit.
∴Please order in the repair parts are always repair part number.
If it is not the part number order, you may not be able to order.
Please be forewarned.
It should be noted, In the case of parts that can not be separately shipment, please order a set part number.

Factory preset mode of the carburetor

Main jet	#108
Slow jet	#48
Jet needle	36S
Clip position	3rd groove
Throttle valve	1SC
Cutaway	#3.0
Air screw opening	1-1/2

● Setting parts
☆ Main jet
#82、#85、#88、#90、#92、#95、#98、#100、#102、#105、#108、#110、#112、#115、#118、#120、#122、#125、#128、#130、#132、#135、#138、#140、#142、#145、#148、#150、#152、#155、#158、#160、#162、#165、#168、#170、#172、#175、#178、#180、#182、#185、#188、#190、#192、#195、#198、#200
☆ Slow jet
#38、#40、#42、#45、#48、#50、#52、#55、#58、#60

● To achieve a higher performance
☆ Our Standard High Throttle Kit (09-02-0223) is compatible.
☆ Our Curl Air Funnels for PE24 Carburetor are compatible.
(Red anodized : 03-01-0015 / Polished : 03-01-0016)
☆ Our Round Tapered Air Filters are compatible.
(Type1 : 03-01-101 / Type2 : 03-01-107 / High Flow Filter : 03-01-1074)

■ Mounting procedure ※Please refer to the Genuine Service Manual for detailed mounting methods and specified torques that are not specifically described.

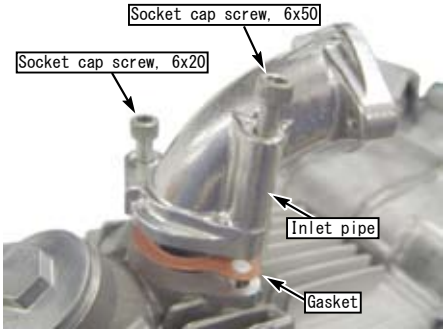
◎ The following procedures start after removing seat, fuel tank, carburetor, manifold, air cleaner(air filter) and throttle cables. Refer to genuine service manual to remove the parts.

※ To start the work, stand your vehicle securely on a flat surface and the engine must be cool.

○ Attach an earth cable to the frame with the bolt on the air cleaner bracket.

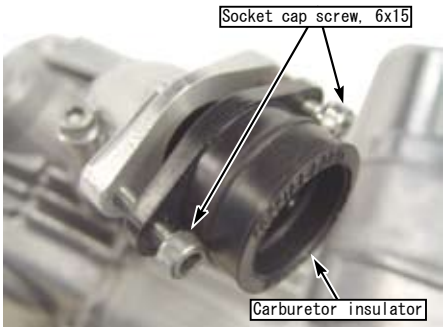
○ Put the inlet pipe gasket between the cylinder head and inlet pipe, and install the inlet pipe with using socket cap screws (6x20/6x50).

⚠ Note: Be sure that you protect specified torque.
Socket cap screw, 6x20/6x50
Torque : 10N・m (1.0kgf・m)

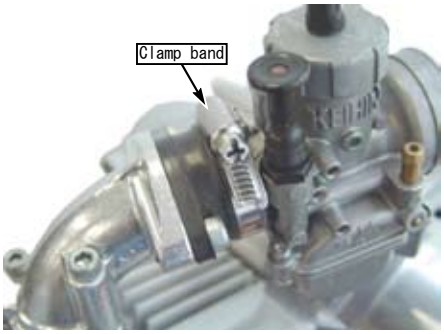


○ Fasten the insulator to the inlet pipe with two socket cap screws.

⚠ Note: Be sure that you protect specified torque.
Socket cap screw, 6x15
Torque : 10N・m (1.0kgf・m)



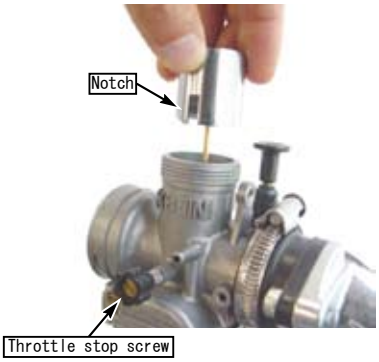
○ Install the carburetor into the insulator and tighten it with the clamp band.



○ Install the throttle cable on throttle housing and throttle tube.
Then install them on handle.

○ Remove the top cap from the carburetor, and detach the spring, retainer and throttle valve.
Route the throttle cable (DO NOT by force), and install the top cap, spring, retainer and throttle valve.

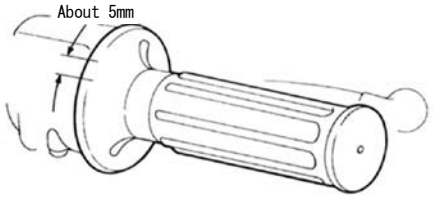
○ Fix the throttle valve to the carburetor by aligning a notch on the throttle valve with the throttle stop screw.



○ Adjust the free play at the throttle grip to be about 5 mm by turning an adjuster of the throttle cable.

※ Snap the throttle a few times to check how much the throttle valve opens and closes.

※ Also check that the throttle has free play even when a steering handle is turned all the way to the right or to the left.



○ Install fuel tank and seat referring to genuine service manual.
Install fuel tube and tube clip.

※ Cut off the fuel tube as the adequate length to connect the fuel tank and carburetor.

○ Open the fuel cock and ckeck for oil leaks.
(Do not leave the cock open for many hours.)
Pull the choke lever to start the engine. Gradually push the lever back and warm up the engine till the revolution becomes smooth, and finally push the lever back to its original location. In case the engine does not run idle after the warm-up of the engine, or the engine idling speed is high, adjust the setting by turning the throttle stop screw.
Adjust the setting with utmost care in a safe place to meet the specification of each motorcycle.

How to Set the Carburetor

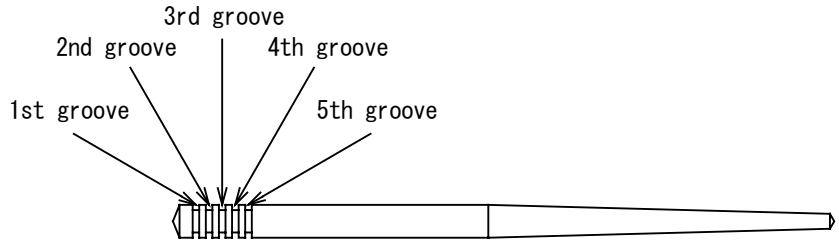
・When the carburetor does not match the engine and the engine fails, the engine failures are caused by either too dense or too lean air-fuel mixture.
・The engine failure symptoms for the engine are as follows:

When the air-fuel mixture is too dense:	When the air-fuel mixture is too lean:
・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.	・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.

○ Slow jet / 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 slow jet / pilot jet with a small number.
・If you have tighten the air screw (clockwise) to the full, use a slow jet / 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 slow jet / pilot jet number is too small. (At idle)
・When the motorcycle belches black exhaust gas and produces heavy exhaust sound, the slow jet / pilot jet number is too big. (At idle)
・After replacing the slow jet / 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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