



Instruction Manual for Piston & Cylinder Bore Up Kit Kit, 68cc, for Live Dio

Item No. : 0 1 - 0 5 - 4 4 2 2

Compatible models and frame Nos :

Live Dio	SK50MR	AF34-1000001 ~ 1084598	Live Dio ST	SK50MT-	AF35-1414329 ~ 1458440		
	SK50MS	AF34-1200001 ~ 1314577		Live Dio J	SK50MY-	AF34-3000001 ~	
	SK50MT	AF34-1500001 ~ 1564424			SK50MY-	AF34-3000001 ~	
	SK50MV	AF35-1500001 ~		Live Dio ZX	SK50MR-	AF35-1000001 ~ 1080618	
	SK50MV-YA	AF35-1500001 ~			SK50MS-	AF35-1200001 ~ 1266550	
	SK50MW	AF35-1700001 ~			SK50MT-	AF35-1400001 ~ 1459965	
	SK50MY	AF35-2000001 ~			SK50MT-YC	AF35-1400001 ~ 1458875	
	SK50MY-	AF35-2000001 ~			SK50MV-	AF35-1500001 ~	
	Live Dio Cesta	SK50MS-			AF34-1233145 ~	SK50MV-YB	AF35-1500001 ~
		SK50MW-			AF34-2000001 ~	SK50MV-YC	AF35-1500001 ~
Live Dio SR	SK50MR-	AF35-1000001 ~ 1078328	SK50MW-		AF35-1700001 ~		
	SK50MS-	AF35-1200001 ~ 1267150	SK50MW-YD		AF35-1700001 ~		
	SK50MT-	AF35-1400001 ~ 1459615	SK50MY-		AF35-2000001 ~		

Read all instructions first before starting the installation.

- Thank you for purchasing one of our TAKEGAWA-made products. Please strictly follow the following instructions in installing and using the kit.
- Before installing the kit, please be sure to check the kit contents. Should you have any questions about the kit, please contact your local motorcycle dealer.

Do running-in more than 100 km at 40 km / h or less. Besides, the accelerator opening must be at 1 / 2 or less. For running-in, inject engine oil to the fuel tank in the ratio of gasoline to engine oil at 100:1.

Set a main jet of a stock carburetor higher by about #5 to #10 notches.

Be sure to always use unleaded high-octane petrol.

A spark plug is included in the kit, and determine the heat value of a spark plug depending on how much it is burnt. And always use a resistor plug.

These products cannot provide satisfactory power with a normal CDI unit. Please replace the CDI unit with a suitable one.

In some cases, the provided cylinder may interfere because of the individual difference in sizes of the stock crankcases.

After installing the cylinder to the crankcase, check for interference. If there is interference, never fail to modify the stock crankcase before installation.

We do not take any responsibility for any accident or damage whatsoever arising from the use of the kit 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 the products.

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

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

Please note that this kit is designed for exclusive use in the above-mentioned compatible models and frame numbers only and that it cannot be mounted on any other models.

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

For installation, please prepare tools and work with reference to the installation procedures with enough care. Besides, this instruction manual, as well as a HONDA's service manual, is prepared with those persons in mind who have basic skills and knowledge. Therefore, we recommend those who are technically inexperienced or do not have enough tools to ask a technically-reliable specialist shop for the work.

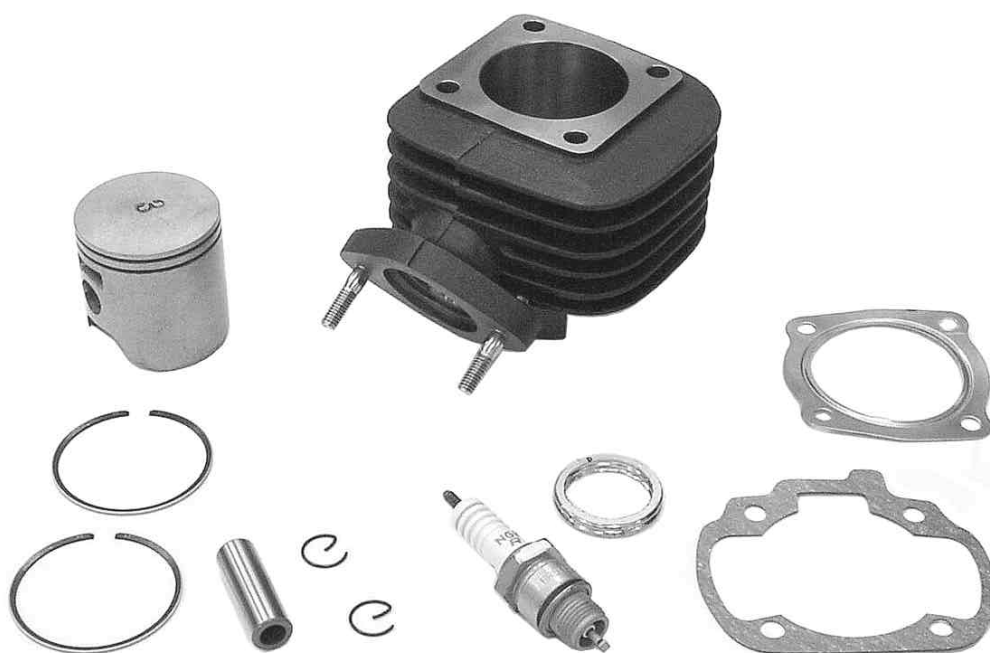
Some of bolts, nuts, and bearings will be reused. However, be sure to replace worn-down or severely-damaged ones with new ones.

CAUTION The following show the envisioned possibility of injuries to human bodies and property damage as a result of disregarding the following cautions.

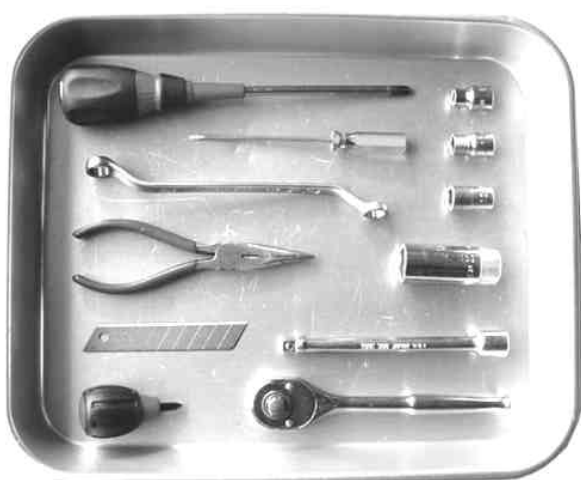
- Please always try to ride a motorcycle at legal speed on the public road, abiding by the law.
- Work only when the engine and muffler are cool. (Otherwise, you will get burned.)
- Do the installation with right tools. (Otherwise, breakage of parts or injuries to you may take place.)
- Always use a torque wrench to screw bolts and nuts tight and securely to the specified torque. (Otherwise, these parts may get damaged or fall off, resulting in accidents.)
- As some products and frames have sharp edges or protruding portions, please work with your hands protected. (Otherwise, you will suffer injuries.)
- Before riding, always check every hardware like screws for slack. If you find slack ones, screw them securely up to the specified torque. (Otherwise, improper tightening may cause parts to come off.)
- Always use new gaskets and packings. And check those parts, to be reused, for wear and damage. If you find worn or damaged parts, replace them with new ones.
- Some of bolts, nuts, and bearings will be reused. However, be sure to replace worn-down or severely-damaged ones with new ones.
- Check carefully those parts to be re-used such as gaskets and packing, and in case wear or damage is detected, always replace the worn or damaged parts with new ones.

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

- Always start the engine in a well-ventilated place, and do not turn on the engine in an airtight place. (Otherwise, you will suffer from carbon monoxide poisoning.)
- When you notice something abnormal with your motorcycle while riding, immediately stop riding and park your motorcycle in a safe place to check what has gone wrong. (Otherwise, the abnormality could lead to accidents.)
- Before doing work, make sure your motorcycle is secure on level ground for safety's sake. (Otherwise, your motorcycle could overturn and injure you while you are working.)
- Check or carry out maintenance of your motorcycle correctly according to the procedures in the instruction manual or service manual. (Improper checking or maintenance could lead to accidents.)
- If you find damaged parts when checking and performing maintenance of your motorcycle, do not use these parts any longer, and replace them with new ones. (The continued use of these damaged parts as they are could lead to accidents.)



No.	Part Names	Qty
1	Cylinder	1
2	Piston	1
3	Piston ring	2
4	Piston pin	1
5	Piston pin circlip	2
6	Cylinder head gasket	1
7	Cylinder gasket	1
8	Exhaust pipe gasket	1
9	Spark plug, BR8HSA	1



Tools to use for installation:

- Cross slot screw driver, medium size
- Flat tip screwdriver, super fine
- Closed wrench, 10-12
- Long-nose plier
- Cutter knife or scraper
- Stubby cross slot screwdriver
- (This screw driver to be used for installing the kit onto bikes with frame Nos AF34-2000001 ~ and AF35-1500001 ~ .)
- Box wrench, 8 mm
- Box wrench, 10 mm
- Box wrench, 12 mm
- Box plug wrench, 20.6 mm
- Extension bar, medium size
- Ratchet wrench
- Others: waste cloth, 2-stroke oil

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.

Installation Procedures

Make sure your bike is secure on a center stand on flat ground.

Do the work hereafter only when the engine and muffler are cool.

Removal:

Take off all dirt like the dust and oil on each part as you detach them.

Keep all the detached bolts and nuts in an orderly manner so you can recall where to reinstall them.

1 . Removal of covers and the like:



Remove side covers, under cover, floor steps, luggage box and body cover.

2 . Slide fuel tank:



Remove four bolts on the fuel tank along with a floor plate.

Tool to use: Closed wrench, 10 - 12



Slide the fuel tank so it does not hinder the work. Place a waste cloth between the tank and the frame to protect the frame from getting scratched.

3 . Removal of muffler:



Remove two cap nuts on the cylinder side.

Tool to use: Closed wrench, 10-12



Remove two bolts on the stay.

Tools to use:

Box wrench, 12 mm

Extension bar, medium size

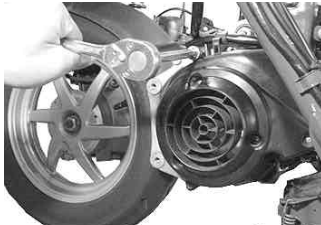
Ratchet wrench



4 . Removal of fan cover:



Remove a fuel tube from the fan cover.



Detach three bolts and tapping screw (in the case of bikes with frame Nos AF34-2000001 ~ and AF35-1500001 ~), and then a fan cover.

Tools to use:

Box wrench, 10 mm

Extension bar, small size

Ratchet wrench,

Stubby cross slot screwdriver



Remove the wires.

5 . Removal of air duct cover.



Loosen the bolt.

Tools to use:

Box wrench, 8 mm

Extension bar, medium size

Ratchet wrench



Loosen a tapping scrw.

Tool to use:

Cross slot screwdriver, large size



Remove the air duct cover.



Prize the connecting rubber to detach it.

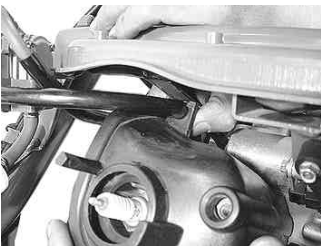
6 . Removal of shroud on the cylinder:



Remove a plug cap.



In the case of bikes with frame Nos of AF34-2000001 ~ and AF35-1500001 ~ , remove two bolts.



Remove a negative pressure tube from the shroud.



Remove the shroud.

7 . Remove the plug:



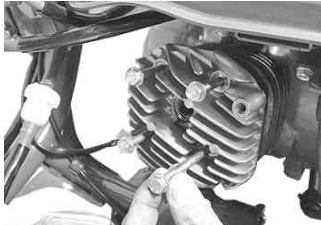
Tools to use:

- Box plug wrench, 20.6 mm
- Ratchet wrench

8 . Removal of cylinder head and cylinder:



Loosen four bolts diagonally in a few steps.
Tool to use: Box wrench, 10 mm



Remove the cylinder head.
If it is hard to remove it, hit it lightly with a plastic hammer.

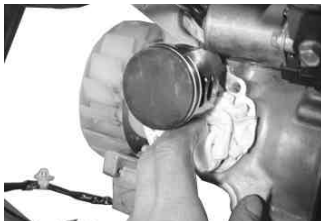


Remove the cylinder.



Remove the gasket.

9 . Plugging in of waste cloth:



Cover the crankcase with a waste cloth to protect dust or hardware from getting into the crankcase.

1 0 . Removal of piston:

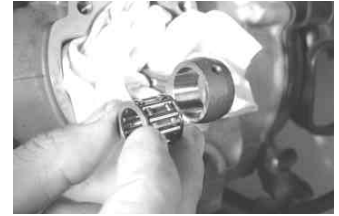


Remove one of circlips.

Tool to use: Flat tip screwdriver, extra fine

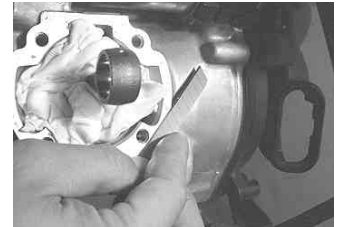


Pull out the piston pin to remove the piston.



Remove the bearing.

1 1 . Clean the cylinder-mounting surface.



Remove the gasket residues with a cutter knife or scraper.



Clean the cylinder with a waste cloth.

Installation:

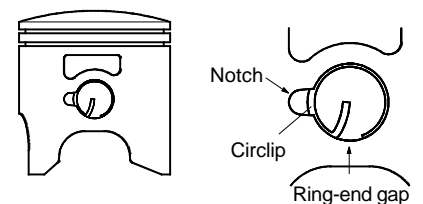
1 . Attach one of the circlips to the provided piston.



Tool to use: Needle nose plier

Turn the circlip to make sure that it is firmly fixed.

Place a circlip in a location so its end gap does not meet with the notch.



2 . Install two piston rings with the stamped surfaces facing upward.



Install the rings with the stamped surfaces facing upward.

3 . Apply engine oil to hardware.



Apply engine oil to the piston ring.



Apply oil to the piston hole.



Apply oil to the piston pin.



Apply oil to bearing.

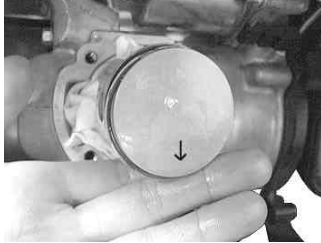
4 . Installation of piston:



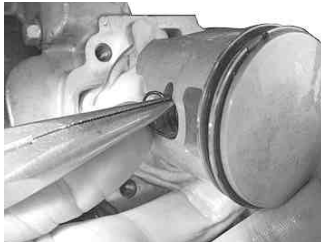
Put the bearing into the con'rod.



Install the piston with a piston pin.

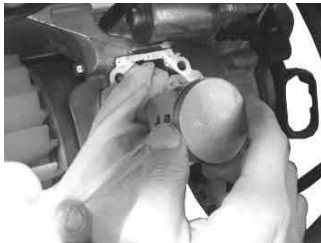


Install the piston so the arrow on it points downward.



Install a circlip to another hole.
Tool to use: Long nose plier

5 . Remove the plugged waste cloth.



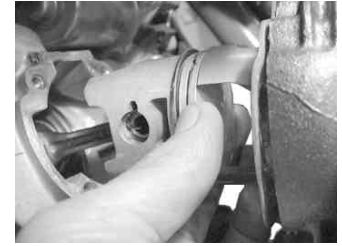
6 . Installation of cylinder:



Apply oil to the inside of the cylinder.



Install the cylinder gasket.



nocking point

Mesh the piston ring-end gap with the position-determining pin of the piston, and install the cylinder.



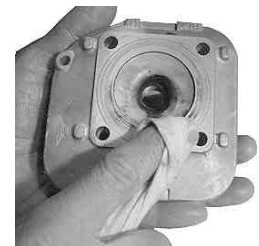
Double check! !

Holding the cylinder by hand to prevent it from moving, rotate the fan and move the piston. Unless the piston moves smoothly, the piston rings may not be attached correctly. In this case, do the cylinder installation again.



Wipe off thoroughly the dust and oil on the head-mounting surface.

7 . Installation of cylinder head:



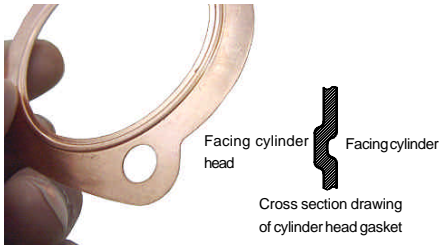
Wipe up the mounting surface.



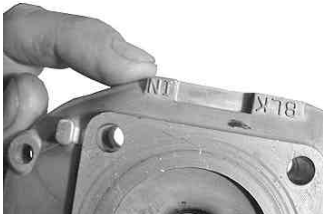
Install four bolts onto the cylinder head.



Attach the head gasket to the cylinder head.



As illustrated in the above fig., install the cylinder head gasket with the convex side toward the cylinder head.



Pay heed to the direction of installation.



With a box wrench, tighten it loosely for now.
Tool to use: Box wrench, 10 mm

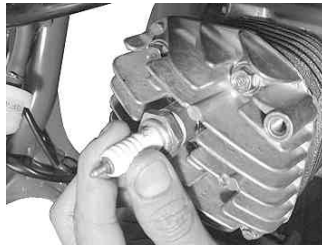


Cranking the kick starter a few times, fully tighten four bolts diagonally in a few steps.

Tools to use:
Box wrench, 10 mm
Ratchet wrench

Tightening torque: 10 N·m (1.0 kgf·m)

8 . Installation of plug:



First, finger tighten the plug.



Fully tighten the plug.

Tools to use:

Box plug wrench, 20.6 mm
Ratchet wrench

Tightening torque: 14 N·m (1.4 kgf·m)

9 . Installation of cylinder shroud:

Install the shroud.

Install two bolts, but only one onto bikes of frame Nos AF34-2000001 ~ and AF35-1500001 ~ .

Tools to use:

Box wrench, 10 mm
Ratchet wrench

Tightening torque: 10 N·m (1.0 kgf·m)



Install the negative pressure tube onto the shroud.

Install a connecting rubber

1 0 . Installation of air duct cover:

Install the air duct cover, and tighten the bolt.

Tools to use:

Box wrench, 8 mm
Extension bar, medium size
Ratchet wrench

Tightening torque: 10 N·m (1.0 kgf·m)

Install a tapping screw.

Tool to use:

Cross slot screwdriver, large size

Tightening torque: 4 N·m (0.4 kgf·m)

1 1 . Installation of fan cover:



Do the wiring to the fan cover.

Install the plug cap.

In the case of bikes of frame Nos AF34-2000001 ~ and AF35-1500001 ~ , attach the fan cover with three bolts and tapping screw.

Tools to use:

Box wrench, 10 mm
Extension bar, small size
Ratchet wrench,
Stubby cross slot screwdriver

Tightening torque:

for bolt: 10 N·m (1.0 kgf·m)

for bolt: 1 N·m (0.1 kgf·m)



Attach the fuel tube to the fan cover.

1 2 . Reinstall the fuel tank:



Put back the fuel tank where it was before, and fix it and a floor plate with four bolts.

Tool to use:

Closed wrench, 10-12

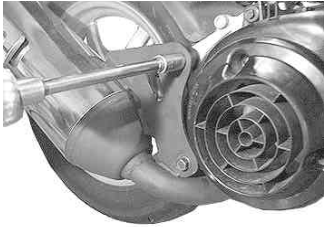
Tightening torque: 10 N·m (1.0 kgf·m)

1 3 . Installation of muffler:

Insert a provided exhaust gasket between cylinder and muffler, and install the muffler.



Loosely tighten bolts two each on the cylinder and stay.



First, fully tighten two bolts on the cylinder.

Tools to use:

Closed wrench, 10-12

Box wrench, 10 mm

Extension bar, medium size

Ratchet wrench,

Closed wrench, 12-14

Tightening torque:

for bolts on the cylinder:

18 N·m (1.8 kgf·m)

for bolts on the stay:

27 N·m (2.7 kgf·m)

1 4 . Installation of covers and the like:

Install side covers, under cover, floor steps, luggage box and body cover.

1 5 . Starting of engine:

Check every hardware like screws and nuts for slack.

Make sure that engine oil is remaining up to the specified level.

Start the engine in a safe and well-ventilated place with enough care. Leave the engine idling for about 5 minutes.

Check for any abnormality such as abnormal sounds from the engine and oil leakage from gaskets.

1 6 . About running-in:

Be sure to drive the first 500 km after the installation of the kit, keeping the throttle open down at 3 / 4 or narrower. Besides, never run at the top speed during this period.

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