S-Stage Kit Instruction Manual					
Product number         01-05-0259 (With camshaft)         Adaptation model         Address V125 (CF46A-1000001 ~ )           Adaptation model         (CF4EA-1000001 ~ )         (CF4EA-1000001 ~ )					
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. <b>© If the description, such as photos or Illustration different with this part.</b>					
Caution about fuel to use					
This product is so designed to achieve a higher compression ratio than stock engines. As for the fuel, high-octane gasoline should always be used. In case regular gasoline is used, abnormal combustion will take place, and the engine cannot achieve its original performance. Moreover, it is highly likely that the piston will be damaged, leading to a serious failure of the motorcycle. Before installing this kit, make sure that no regular gasoline remains in the fuel tank. In case regular gasoline is remaining in the fuel tank, do replace it with high-octane gasoline.					
Cautions about spark plug Be sure to change the spark plug to CR8HSA (NGK) or U24FSR-U (DENSO). Subsequently, choose and use a right spark plug with the right level, depending on the degree of burning of the spark plug electrode section					
Cautions about F.L. controller					
The serious failure of the engine may take place when S-Stage Kit only is used. Please never fail to use an F.I. controller together.					
☆Please read carefully before use ☆					
<ul> <li>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 this Instruction Manual.</li> <li>We shall be held free from any kind of warranty whatsoever of products other than this product if the glitch takes place on the other products than this one after the installation and use of this product.</li> <li>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.</li> </ul>					
<ul> <li>Please install the products correctly, referring to the relative genuine service manual for the above-mentioned models of the motorcycles.</li> <li>Please do installation with right tools and great care following the installation instruction. This instruction manual, as well as service manuals, is prepared with those persons in mind who have basic skills and knowledge. Therefore, we recommend those who are inexperienced in the installation or do not have enough tools to ask a technically-reliable specialist shop for the work.</li> <li>You are not allowed to drive your motorcycle on public roads after the installation of this Kit.</li> <li>If you make modifications to any product supplied here, we shall be held free from any guarantee of the product.</li> </ul>					
© You are requested not to contact us about the combination of our products with other manufacturers'. © Some of bolts, nuts, dowel pins, and packings will be reused. However, be sure to replace worn-down or severely-damaged ones with new ones.					
A Caution When the handling of ignoring this diamley, preparty demoge and hymen shows the accumption of what injury					
<ul> <li>When performing the work, etc., be sure during the cold (when the engine and the multier is cold). (It may cause burns.)</li> <li>This Kit is intended for closed course competition purposes only. So you are prohibited from driving the motorcycle fitted with this Kit on public roads.</li> <li>When performing the work, it should be made to propose the tools for the isb. (Prockage of parts, it may cause injury.)</li> </ul>					
<ul> <li>In when performing the work, it should be made to prepare the tools for the job. (breakage of parts, it may cause injury.)</li> <li>Do the work must always specified torque using a torque wrench. (Damage of bolts and nuts, and cause of dropout.)</li> <li>The product and the frame, might have edges or protrusions. Please go to protect your hands when you work. (It may cause injury.)</li> </ul>					
<ul> <li>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.)</li> <li>Gasket always use new parts. Also, parts can be re-used may be checked, if wear or damage, it is always replaced with new parts.</li> </ul>					
$\square$ desket always use new parts. Also, parts can be rejused may be checked, if wear of damage, it is always repraced with new parts.					
A Warning assumed.					
<ul> <li>If you start the engine, be sure in a well-ventilated place. In the sealed such place, please do not start the engine. (There is a risk of carbon monoxide poisoning.)</li> <li>During operation, when an abnormality occurs, immediately stop the vehicle in a safe place, please stop running.</li> </ul>					
(it may lead to an accident.) ■ When performing the work, do the work safely stabilize the vehicle in a horizontal location.					
<pre>((here 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.)</pre>					
<ul> <li>when carrying out the inspection and maintenance, etc., it found damaged parts, replace the damaged parts to avoid possible to reuse the parts. (There is a risk that lead to accidents Continued use.)</li> <li>Plastic bags of product packaging, you can either be stored in a place that is out of reach of children, it should be discarded.</li> </ul>					
(When the children or wearing, there is a risk of suffocation.) ■ 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 high risk of explosion, work in a well-ventilated place. (Otherwise it may cause a fire.)					
© 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.					
© Reep this manual stored until this product is discarded.					
TEL: +81-721-25-1357 FAX:+81-721-24-5059 e-mail:english@takegawa.co.jp URL http://www.takegawa.co.jp Please contact with your name and country name provided. (Only English please)					

Product content					
Number	Product content	Quantity	Item Number	]	
1	Piston	1			
2	Piston ring set	1	00-01-1072	1	
3	Piston pin	1	00-01-1677 (with ④ clip)		
4	Piston pin circlip	2	00-01-0052 (6 pcs)		
5	Cylinder	1	00-00-1110		
6	Cylinder head gasket	1	00-00-1135		
7	Cylinder gasket	1	00-00-1118		
8	Cam shaft	1	01-08-0311		
9	Tensioner gasket	1	00-00-1330		
10	Weight roller (15g)	6	02-00-0004 (3 pcs)		
<ul> <li>※ A camshaft of No. 8 is not included in Item No. of 01-05-0258.</li> <li>※ Please order in the repair parts are always repair part number.</li> <li>If it is not the part number order, you may not be able to order.</li> <li>Please be forewarned.</li> <li>It should be noted.</li> </ul>					

please order a set part number.

#### About Screw

- Usually, counterclockwise rotation loosens the bolts and nuts, and clockwise rotation tightens them.
- When tightening a screw, at first tighten it by hand at tight as you can.
- To loosen a screw means turning a tightened screw around three or four times counterclockwise, and to unscrew it means turning it around counterclockwise until it comes off.
- To tighten a screw means to keep a screw from getting loose. The numeric valve as a guide at which a screw will not break or get loose when tightened is the so-called "tightening torque.
- If you do not have a torque wrench, please try to tighten a screw as tight as possible to the level where the screw will not break or get loose, though we can not take any responsibility for the screw breakage or getting loose. In case you do not use a torque wrench, you need to judge, only by intuition or using experience, the degree of tightening power at which the screw will break or get loose.
- Improper use of tools will result in breakage of the top of a bolt or screw.

#### Mounting procedure 💥 Please refer to the Genuine Service Manual for detailed mounting methods and specified torques that are not specifically described. Removal: ★ Clean every hardware by taking off all dirt like the dust and oil on each hardware as you detach the hardware. ★ Keep the removed bolts and nuts in an orderly manner so you can recall where to fix them later. O Removal of body cover: $\diamondsuit$ Detach 4 bolts and 2 clips in $\diamond$ Knot the removed intake pipe $\diamond$ Remove the tensioner adjuster order to remove a rear and throttle body around the cap $\Diamond$ Open the seat with a main key, combination lamp frame cover frame and detach a filler cap and and frame side lower cover. 7 bolts to remove a trunk box. ☆ If your motorcycle is equipped with a DC socket, remove the coupler. Tensioner adjuster cap $\Diamond$ Unfasten 4 bolts on the fan cowling and one on the O Removal of exhaust pipe: cylinder cowling. XAt this point, however, you O Removal of intake pipe $\diamondsuit$ Unfasten two exhaust pipe cannot remove the fan cowling nuts and throttle body: or cylinder cowling. $\diamond$ Unfasten the clip and remove Exhaust pipe nut the intake pipe hole cover. ♦ Unfasten 2 muffler mounting bolts Clin $\diamond$ Detach the throttle pulley Muffler mounting bolt cover. Throttle pulley cover $\diamond$ Securely attach the filler cap. ♦ Unfasten 6 bolts to remove the rear carrier ♦ Remove the muffler and exhaust gasket. $\diamond$ Loosen the crank bolt on the O Removal of fan cowling intake pipe. and cylinder cowling: ◇Take off the spark plug cap. $\diamond$ Unfasten the upper mount bolt on the rear shock absorber. and raise the rear of the vehicle. $\diamondsuit$ Detach two each of bolts and clips to remove the maintenance lid No.2. bolt $\diamond$ Unfasten the intake-pipe Clip Plug cap mounting bolt, and then detach both the intake pipe and Bolt $\diamond$ Remove the engine temperature Upper mount bolt throttle body. sensor coupler. ♦ Remove the blow-bye hose. Intake-pipe mounting bolt

SPECIAL PARTS

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

 $\diamond$  Through the space made after the rear of the body is lifted, pull down the fan cowling and pull the cylinder cowling upward to remove them. (Be careful not to hit the temperature sensor coupler or let it get out of position)



- $\diamond$  Tighten the upper mount bolt on the rear shock absorber loosely for now.
- $\diamond$  Detach the engine temperature sensor and spark plug.



#### O Removal of cylinder head cover:

♦ Unfasten 2 cylinder head bolts to remove the cylinder head cover.



### O Removal of cam sprocket:

- $\Diamond$  Align the alignment mark ( $\Delta$ ) on the outside of the cooling fan with the alignment T mark  $(\Delta)$  on the magnet cover by rotating the cooling fan nut. And align the mark-off line on the cam chain sprocket with the cylinder head upper surface to set the piston at the TDC (Top Dead Center) on the compression stroke.
- ★ If the cam top does not face the combustion chamber at this point, give the cooling fan one additional turn so the piston is at the TDC.



♦ With the extra-fine flat-tip screw driver, turn the screw on the cam chain tension adjuster all the way to the right. Compressing the push rod, lock the adjuster, and remove the cam chain tensioner adjuster and gasket.



- $\diamondsuit$  With a wrench, prevent the cooling fan nut from rotating, and unfasten 2 bolts.
- ♦ Remove the decompression cam stopper, decompressor arm, return spring, and resin washer on the cam shaft.





Remove the cam shaft sprocket. ★ Be careful not to let the cam chain down towards the crankcase.



# O Removal of cylinder head:

◇First, unfasten two cylinder head side nuts, and then four cylinder head nuts by loosening them diagonally in a few steps.



※ If your head and cylinder are of a shape with those in the photo. remove a total of three side nuts.



- $\diamondsuit$  Remove four washers and then the cylinder head.
- ★When removing the cylinder head, lift it up vertically, holding it at both sides. And in case it does not come off easily, give it a light shock with a plastic hammer so it may be separated.
- $\diamond$  Detach two dowel pins and the cylinder head gasket.
- ★ You will be reusing these two dowel pins.



#### O Removal of cam shaft:

♦ Loosen the locking nut on the rocker arm and then the adjusting screw.



- ◇ Pull out the pin on the cam sprocket mounting surface on the cam shaft.
- \*Keep this pin for re-use later.



 $\diamond$  Unfasten the cam shaft retainer screw to remove the cam shaft retainer.

- $\Diamond$  Pull out two rocker arm shafts to remove the rocker arm
- ※ In case the rocker arm shafts does not get detached easily, screw in an 8mm-thread-1.25pitch bolt to pull out the rocker arm shafts.



 $\diamond$  Remove the cam shaft.



## O Removal of cylinder:

 $\Diamond$  Pull out the cam chain guide upward to remove the cylinder. ★ When removing the cylinder,

lift it up vertically, holding it at both sides. And in case it does not come off easily, give it a light shock with a plastic hammer so the cylinder head may be detached.









Mounting procedure 💥 Please refer to the Genuine Service Manual for detailed mounting methods and specified torques that are not

SPECIAL PARTS



 $\diamond$  Through the space made after the rear of the body is lifted, attach the cylinder cowling and fan cowling. And install the cylinder cowling with a bolt and the fan cowling with four bolts. ☆ Fit the cylinder fin firmly in



♦ Tighten the upper mount bolt on the rear shock absorber.

⚠ Note: Be sure that you protect specified torque. Upper mount bolt Torque :  $29N \cdot m$  (2.  $9kgf \cdot m$ )

 $\diamond$  Install the cap of the cam chain tensioner adjuster. ⚠️ Note: Be sure that you protect

specified torque.

☆ If you are using our M5 sensor

of Item No. 07-04-0552, please enlarge a hole for the engine temperature sensor for the shroud to pass through.



♦ Connect the blow-bye hose to the cylinder head cover.



 $\Diamond$  Install the spark plug cap.



#### O Installation of intake pipe and throttle body:

♦ Fit the intake pipe into the air cleaner outlet tube.

- ◇Place the O-ring between intake pipe and insulator, and between insulator and cylinder head, and tighten the intake pipe mounting bolt.
- ♦ Tighten the clamp bolt on the air cleaner outlet tube.
- ∧ Note: Be sure that you protect specified torque. Clamp bolt Torque: 10N • m (1.0kgf • m) Intake pipe mounting bolt Intake pipe



Insulator



♦ Install the intake pipe hole cover with the clip.



### O Installation of exhaust pipe:

- ♦ Install the exhaust pipe gasket.
- $\diamond$ Fit the flange of the exhaust pipe into the stud bolt on the cylinder head for now.
- ♦ Temporarily hold the flange on the exhaust pipe with two exhaust pipe nuts, and the muffler stay with two muffler clamp bolts



♦ First, tighten two exhaust pipe nuts to the specified torque, and then two muffler clamp bolts to the specified torque. ⚠️ Note: Be sure that you protect specified torque. Exhaust pipe nut Torque :  $23N \cdot m$  (2.  $3kgf \cdot m$ )

Muffler clamp bolt Torque :  $23N \cdot m$  (2.  $3kgf \cdot m$ )



# O Installation of body cover:

◇Install frame cover, frame side lower cover and rear combination lamp with four bolts and two clips





