

SS5-Speed Transmission Kit Instruction Manual

Product number	02-04-0200 (Street)
	02-04-0201 (Super street)
	02-04-0202 (S-Touring)

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 5-speed transmission is a close-ratio type which enables the effective use of the torque band in comparison with the standard 3- or 4-speed wide-ratio transmission.
The Street Transmission uses a start-and-acceleration-oriented 1st gear, and the gear ratio is so designed to be user-friendly even for street use.
- ◎ The Super street transmission has all the more sporty gear ratios with the 4th and 5th gears of the Street transmission rendered close-ratio.
- ◎ A kick starter spindle supplied in this Kit is a B-type. So, before installation, be sure to check the frame number of your motorcycle.
- ◎ For the installation of the transmission, the left side crankcase needs processing, which please do correctly referring to the figure.
- ◎ This instruction manual refers to the work after the removal of an engine from the body, and removal and disassembly of a cylinder head, cylinder, piston, flywheel, starter assembly, clutch assembly, primary driven gear, driven gear, oil pump and cam chain.
For instructions about such removal work,
please refer to the relative genuine service manual for your proper work.
- ◎ Before riding, check the all transmission, gear and drive train that move and operate smooth and properly.

This 5-Speed Transmission Kit is compatible with a stock clutch, heavy duty clutch, and Special Clutch Kit with 5 clutch friction disks. Motorcycles with a frame number between Z50J-1300017 and 1805927 are equipped with an A-type spindle. So, be sure to replace the spindle with a B-type spindle.

B-Type Kickstarter Spindle Kit: 02-04-0011

☆ Precautions in installing ☆

- Unfasten all the stock washers, and instead, use thrust washers included in the Kit.
- The inside of the left side crank case of 12V Monkey needs processing.

Gear ratio

Item No.	02-04-0200	02-04-0201	02-04-0202
Kind	Street	Super street	S-touring
1st speed	2.357 (33/14)	2.357 (33/14)	2.357 (33/14)
2nd speed	1.764 (30/17)	1.764 (30/17)	1.611 (29/18)
3rd speed	1.400 (28/20)	1.400 (28/20)	1.190 (25/21)
4th speed	1.136 (25/22)	1.136 (25/22)	0.958 (23/24)
5th speed	0.958 (23/24)	1.000 (24/24)	0.807 (21/26)

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

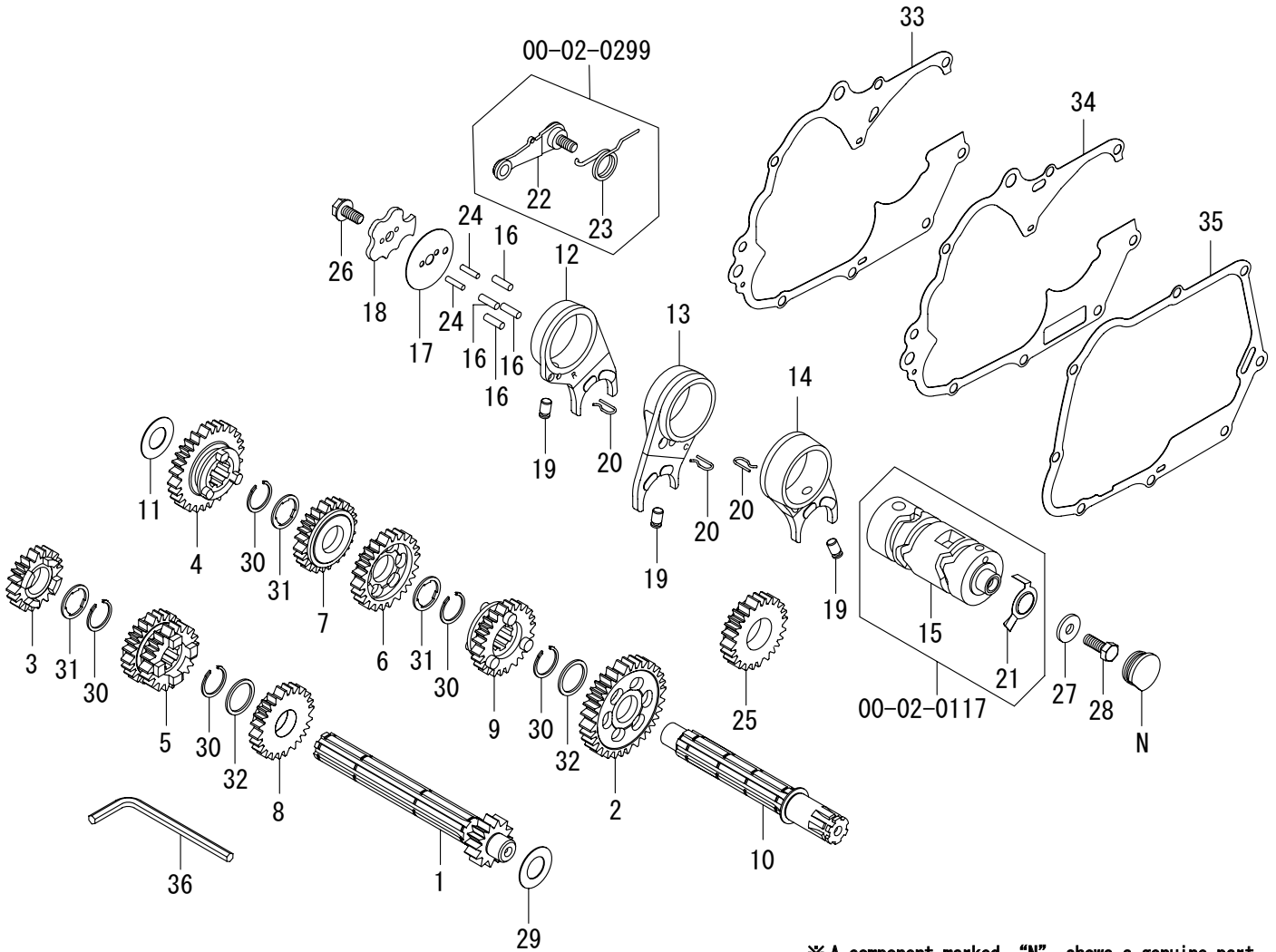
- Please do the work correctly, using the right special tools, when needed. And apply oil or grease to the designated portions.
- In tightening bolts and nuts, be sure to use a torque wrench and tighten them to the specified torque.
- As for gaskets and packings, always use new ones. In case you continue using these parts, carefully check them for wear or damage, and when detected, always replace these worn or damaged ones with new ones.
- The installation of this Kit changes the gear-change pattern to the return system of one down and four up. Shift gears securely only when you have let throttle back to an original position. Shifting gears forcibly or at high engine revolution will cause the gear to get damaged or worn out.
- Before driving, always check hardware for slack in bolts and other parts or for abnormal sound. And when you notice something unusual with your motorcycle while riding, immediately stop riding and park it in a safe place to check what has gone wrong with it.
- When you start the engine with a kick starter, press down the starter arm firmly just when you feel some resistance on the starter arm, or at the time the starter pinion and ratchet fit into each other. Otherwise, the gear will be damaged. And in the case of starting the engine of a racing motorcycle by moving it forward, disengage the clutch after the gear shift, and push it forward.
A violent shock to the gear may cause it to get damaged.
- Please never use this Kit together with other manufacturers' ignition-system parts because it is likely that the gear may get damaged owing to impact load felt at the time of starting the engine with a kick starter.

- ◎ 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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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



※ A component marked "N" shows a genuine part

02-04-0200 (Street)			
Number	Product content	Quantity	Item Number
1	Main shaft (14T)	1	00-02-0341
2	Counter shaft first gear (33T)	1	23421-165-T24
3	Main shaft second gear (17T)	1	23431-051-T10
4	Counter shaft second gear (30T)	1	23441-051-T11
5	Main shaft third/fourth gear (20T/22T)	1	23451-051-T11
6	Counter shaft third gear (28T)	1	23461-051-T31
7	Counter shaft fourth gear (25T)	1	23481-051-T21
8	Main shaft fifth gear (24T)	1	23491-051-T00
9	Counter shaft fifth gear (23T)	1	23501-051-T00
10	Counter shaft	1	23221-165-T12

02-04-0201 (Super Street)			
Number	Product content	Quantity	Item Number
1	Main shaft (14T)	1	00-02-0341
2	Counter shaft first gear (33T)	1	23421-165-T24
3	Main shaft second gear (17T)	1	23431-051-T10
4	Counter shaft second gear (30T)	1	23441-051-T11
5	Main shaft third/fourth gear (20T/22T)	1	23451-051-T11
6	Counter shaft third gear (28T)	1	23461-051-T31
7	Counter shaft fourth gear (25T)	1	23481-051-T21
8	Main shaft fifth gear (24T)	1	23491-165-T12
9	Counter shaft fifth gear (24T)	1	23501-165-T11
10	Counter shaft	1	23221-165-T12

02-04-0202 (S-Touring)			
Number	Product content	Quantity	Item Number
1	Main shaft (14T)	1	00-02-0341
2	Counter shaft first gear (33T)	1	23421-165-T24
3	Main shaft second gear (18T)	1	23431-181-T01
4	Counter shaft second gear (29T)	1	23441-181-T02
5	Main shaft third/fourth gear (21T/24T)	1	23451-181-T11
6	Counter shaft third gear (25T)	1	23461-181-T21
7	Counter shaft fourth gear (23T)	1	23481-181-T22
8	Main shaft fifth gear (26T)	1	23491-181-T11
9	Counter shaft fifth gear (21T)	1	23501-181-T11
10	Counter shaft	1	23221-165-T12

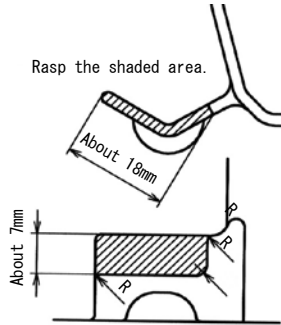
Common Parts			
Number	Product content	Quantity	Item Number
11	Thrust washer, 13.5mm	1	00-02-0055
12	Right gear shift fork	1	00-02-0014
13	Center gear shift fork	1	00-02-0015
14	Left gear shift fork	1	00-02-0016
15	Gear shift drum	1	_____
16	Shift drum pin, 4x10	4	00-02-0049 (5 pcs)
17	Gear shift drum side plate	1	00-02-0018
18	Gear shift drum stopper plate	1	24411-051-T01
19	Gear shift fork guide pin	3	00-02-0336
20	Gear shift fork guide pin clip	3	24263-165-T00
21	Neutral switch rotor	1	00-02-0118
22	Shift drum stopper arm COMP	1	_____
23	Shift drum stopper spring	1	_____
24	Stopper plate setting pin	2	00-02-0054
25	Kick starter pinion (25T)	1	28211-165-T31
26	Knock bolt, 6mm	1	00-02-0013
27	Gear shift drum side washer, 6x17x2.3	1	00-02-0050
28	Hex bolt, 6x16	1	00-00-0032 (3 pcs)
29	Thrust washer, 14mm	1	00-02-0047
30	External circlip, 17mm	5	00-02-0005 (5 pcs)
31	Spline washer, 17mm	3	00-02-0462 (5 pcs)
32	Thrust washer S, 17mm	2	00-02-0024 (2 pcs)
33	Crankcase gasket (6V)	1	00-01-1032
34	Crankcase gasket (12V)	1	00-01-0096
35	Right crankcase cover gasket	1	00-01-0095
36	Hex wrench, 5mm	1	_____

※ 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.

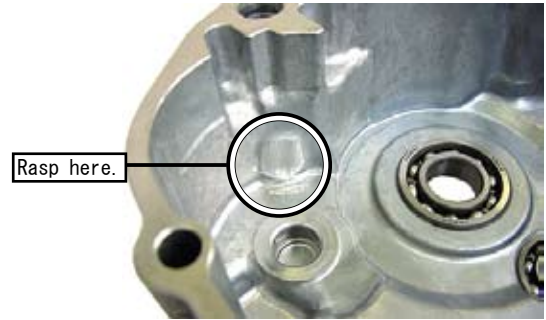
Caution Always work with gloves on to protect your hands. Otherwise, you may suffer injuries.

Left side crankcase

- Fold down the circled portion on the left side crankcase with a plier, and rasp the circled portion with a file or a hand grinder. Then wash the left side crankcase with water.
- ※ Cover the bearings with a tape not to get any dirt, dust or chips into them.
- ※ Work with gloves on lest you should cut your hands with edges of the case.



- In case a kick starter pinion and a left side crankcase interfere with each other on motorcycles with frame Nos from AB27- onwards, cut off the circled portion until the gear does not touch it any more.
- ※ Cover the bearings with a tape not to get any dirt, dust or chips into them.
- ※ Work with gloves on lest you should cut your hands with edges of the case.

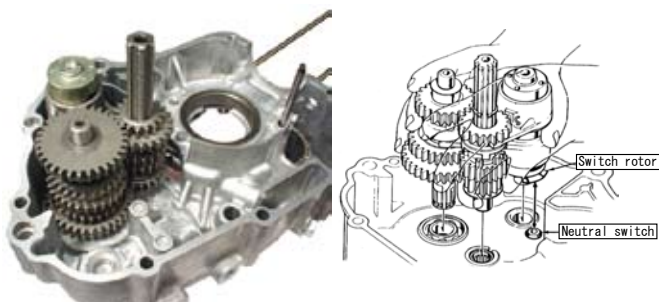


■ Mounting procedure ※ Please refer to the genuine service manual if the detail is not mentioned method and the specified torque.

- Apply grease to the lips of the oil seal of the left side crankcase shift spindle. Apply oil to the bearings of the right and left side crankcases. And place the left side crankcase on the pedestal. Apply oil to the rubbing surfaces of the gears on the sides of the mainshaft and countershaft. And mesh together the gears of the mainshaft and countershaft, and fit the hook of the shift fork into the grooves on the gear.



- Install into crankcase the main shaft, counter shaft and shift drum all together as a unit.
- ※ Do above installation with the transmission in neutral, or at the position where the neutral switch and switch rotor mesh together.
- ※ Never forget to install the thrust washer. As the stock washer is not to be used, remove it.
- ※ Install the shaft with care so the lip of the countershaft oil seal may not turn up.

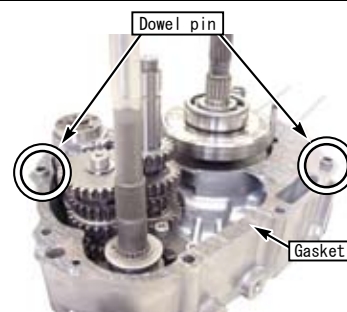


- Remove, from the kick starter spindle, a 17mm washer, 20mm set ring, starter drive ratchet, 20mm set ring, 20mm thrust washer and starter pinion, in this order. Install the starter pinion included in the Kit onto the kick starter spindle, and install the above-mentioned parts in the opposite order of removal.



- Meshing its friction spring with grooves in the left side crankcase, attach the starter spindle to the left side crankcase.
- ※ Apply engine oil to the starter pinion and starter spindle.
- Degrease the mating surfaces of the right and left side crankcases. And set a dowel pin and attach new gaskets. Put together the right and left side crankcases, and check that they fit together closely. With the left side crankcase up, place the bolts, and tighten first those placed in the middle, and then those placed outside but diagonally and alternately.

Caution Note: Be sure that you protect specified torque.
Bolt
Torque : 10N · m (1.0kgf · m)



■ Mounting procedure ※ Please refer to the genuine service manual if the detail is not mentioned method and the specified torque.

- Put together the right and left side crankcases.
With the left side crankcase up, place the crankcase bolts on the crankcase, and tighten them diagonally in a few steps to the specified torque.

⚠ Note: Be sure that you protect specified torque.
Crankcase bolt
Torque : 10N · m (1.0kgf · m)



- Setting the round corner of the gear shift drum side washer to face toward the shift drum, tighten a hex bolt to the specified torque.

⚠ Note: Be sure that you protect specified torque.
Hex bolt
Torque : 12N · m (1.2kgf · m)

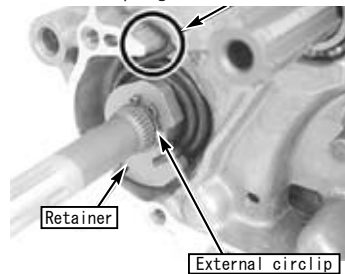


- Install the rubber plug.

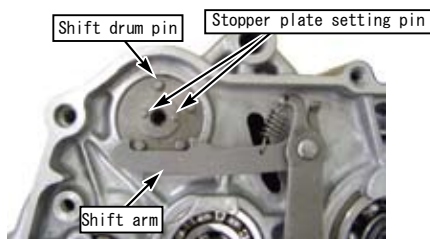


- Turn around the crankcase so the right side crankcase faces upwards. And install the kick starter spring and kick spring retainer to the starter spindle. And fit the spring end into the case with a click.
And install the external circlip.
※ Be careful not to get your fingers caught when fitting the spring into the case.

Fit the spring end into the case with a click.



- Fit four shift drum pins and two stopper plate setting pins into the gear shift drum, and install the gear shift arm onto crankcase.
※ Apply engine oil to the sliding surface of the shift spindle and gear shift arm.
※ Apply grease to the lip of the oil seal for the left side crankcase shift spindle.



- Install the gear shift drum side plate on the shift drum, meshing the holes on the shift drum side plate with the stopper plate setting pin.



- Fit the shift gear drum stopper plate into the stopper plate setting pin, keeping the marking on the plate visible.
And then, apply thread lock cement to the thread of the dowel bolt, and tighten it to the specified torque.

⚠ Note: Be sure that you protect specified torque.
Dowel bolt
Torque : 16N · m (1.6kgf · m)

Apply the screw locking agent
Laser marking



- Place the shift drum stopper spring in the shift drum stopper arm COMP., fit them into the gear shift drum stopper plate on the case, and tighten the bolt to the specified torque.
※ Be careful not to get your fingers caught when fitting the spring into the case.

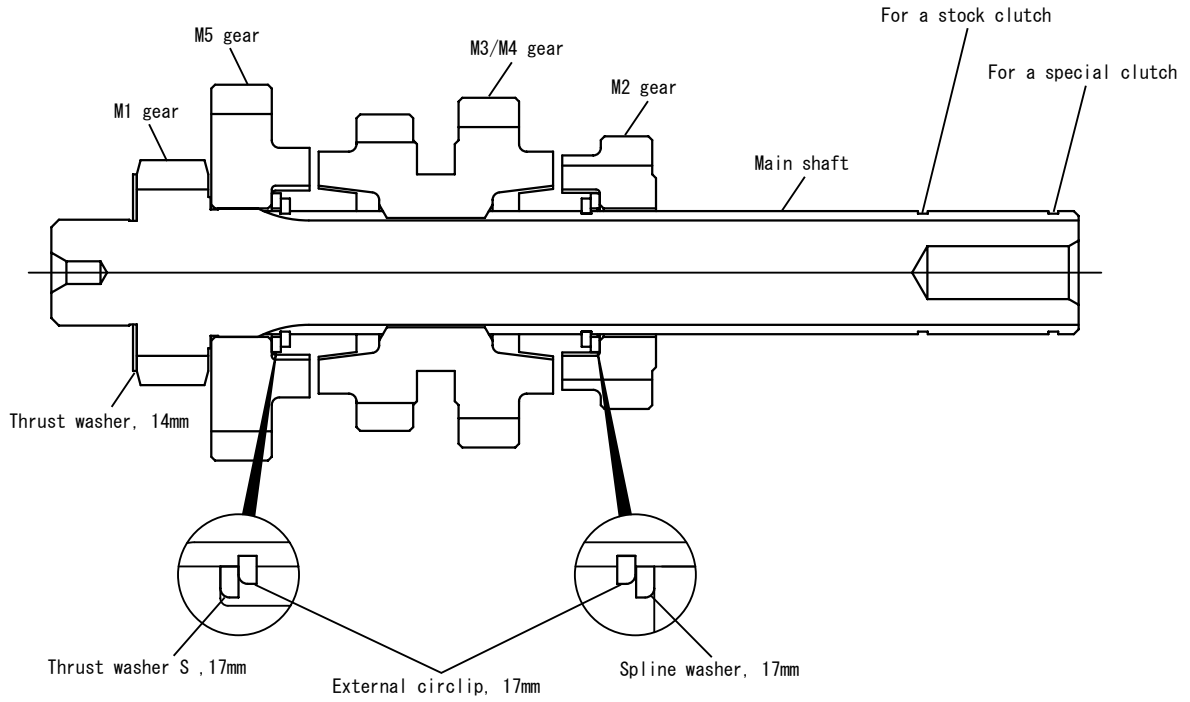
⚠ Note: Be sure that you protect specified torque.
Torque : 10N · m (1.0kgf · m)



- Turning the mainshaft with hands, turn the knock bolt on the gear shift drum stopper plate with a socket wrench, and check if the gears can shift smoothly.
Check that there is some free play in the mainshaft and countershaft in the direction of thrusting.
※ Do not turn the shift drum forcibly.

- Reinstall back the removed parts with reference to the service manual.
Shift the transmission into NEUTRAL, and start the engine.
Then check every component for oil leak. If nothing is wrong, do a test run at slow speed in a safe place to check how the transmission works.

Main shaft assembly



Counter shaft assembly

