

TAF 5-Speed Transmission Kit Instruction Manual

Product number	02-04-0071 S-Touring
	02-04-0075 Super Street

Adaptation model and chassis numbers	Monkey/Gorilla (Z50J-1300017 ~ 2699999)
	(AB27-1000001 ~ 1899999)
	Monkey BAJA (Z50J-1700001 ~)
	CD50 (CD50-1300001 ~ 1330600)

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 torque band in comparison with the standard 3·4 open ratio transmission.

⊙ This kit is for use with a type B kick starter spindle. Before installation, be sure to check your frame No.

⊙ Installation of the transmission needs the processing of the left side crankcase. Do the work correctly, referring to the figure.

⊙ This instruction manual covers the installation work only after the procedures of the engine removal from the body, and removal and disassembly of a cylinder head, cylinder, piston, flywheel, starter assembly, clutch assembly, primary driven & drive gears, oil pump and cam chain. For instructions about the removal work, please refer to the relative genuine service manual for you to work properly.

~ feature ~

○ This return type transmission kit is increased the durability compared to our current 5-speed transmission.

○ The center gear shift fork is also increased the durability.

○ In order to increase the durability of each gear, the stroke of the shift fork is designed to be shorter and quick so that the gear can be also designed to be thicker.

○ This kit includes a right side crankcase cover gasket and a center crankcase gasket.

○ Adopted a new inverted taper dog shape in the meshing part of each gear to further improve the gear disengagement prevention effect.

Gear Ratio		
Item No.	02-04-0071	02-04-0075
Kind	S-Touring	Super Street
1st speed	2.357 (33/14)	2.357 (33/14)
2nd speed	1.611 (29/18)	1.764 (30/17)
3rd speed	1.190 (25/21)	1.400 (28/20)
4th speed	0.958 (23/24)	1.136 (25/22)
5th speed	0.807 (21/26)	1.000 (24/24)

This 5-Speed Transmission Kit is compatible with a stock clutch, heavy duty clutch, and Special Clutch Kit.

☆ Cautions for Installation ☆

○ Remove all the stock washers, and use the supplied thrust washers only.

○ For the installation of this Kit onto the 12V Monkey, Monkey BAJA, inside of the left side crankcase needs processing.

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

■ Do the work correctly using right special tools when required. And be sure to apply engine oil or grease to the specified portions.

■ Be sure to tighten bolts and nuts with a torque wrench to the specified torque.

■ Always use new gaskets and seals. And as for other parts to be reused, carefully check them for wear or damage, and in case wear or damage is detected, always replace these worn or damaged parts with new ones.

■ The installation of this Kit will change the gear-change pattern to the return system of 1-down-4-up. Change gear only when you have let throttle fully back to idle position. Changing gears forcibly or at high engine revolutions will cause the gear to get damaged or worn out.

■ Before riding, always check every hardware like screws and nuts for slack and for unusual sounds. When you notice something unusual with your motorcycle while riding down a road, immediately stop riding and check what has gone wrong with the motorcycle.

■ When you start the engine with a kick starter, press down the starter arm hard at the time 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 a racing motorcycle, if you start the engine by moving it forward, disengage the clutch after the gear change, and push it forward. A violent shock to the gear may cause gear to get damaged.

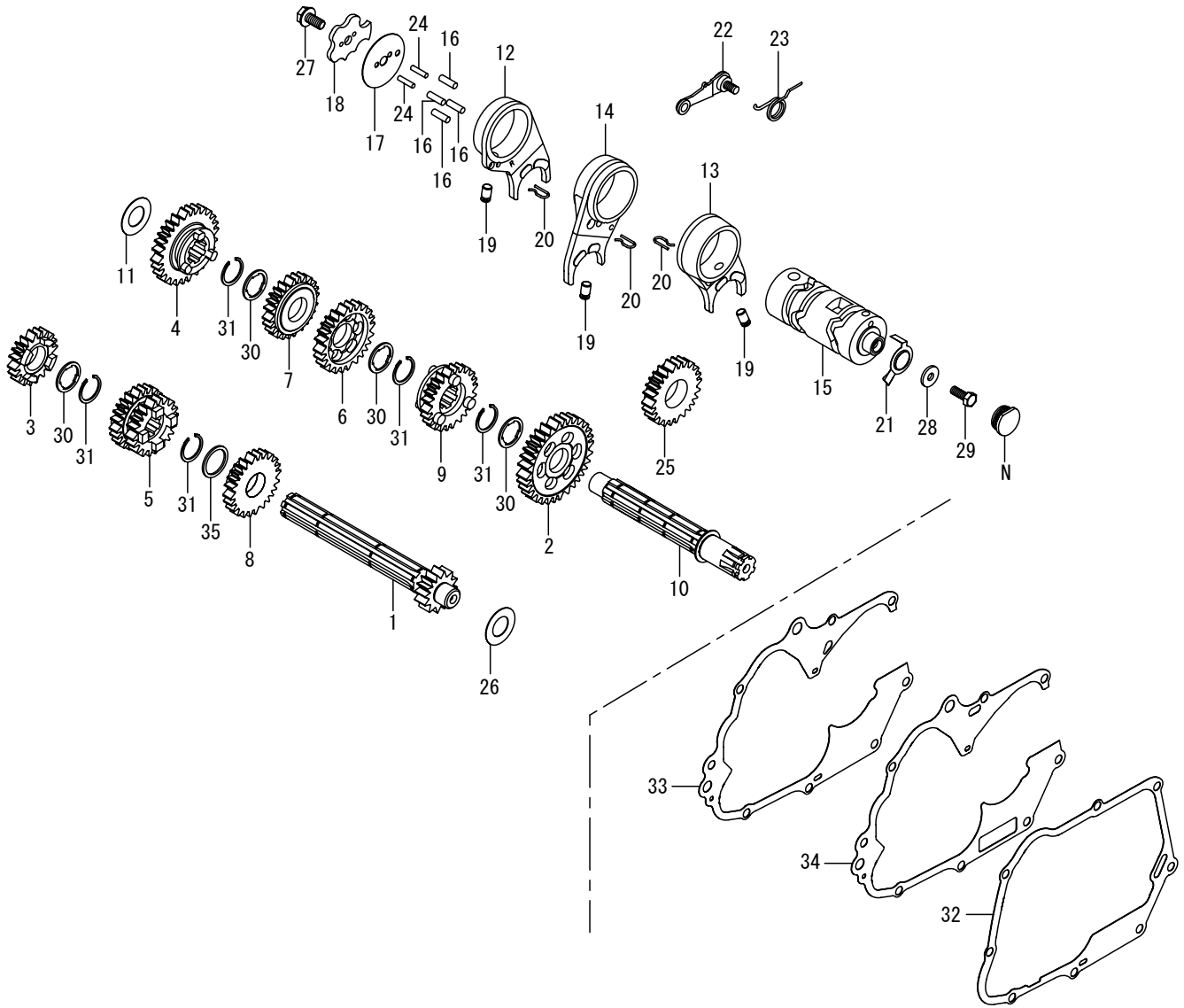
■ Please never use this Kit in combination with other manufacturers ignition-system parts, because it is likely that, if ignition-system parts of other manufacturers' make are used, the gear may get damaged owing to impact shock felt at the time of starting the engine with a kick starter.

⊙ Please note. Performance up, the design change, the product and the price in the cost up, etc. are subject to change without notice.

⊙ 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)



※ A component marked “N” shows a genuine part.

02-04-0071 (S-Touring)			
Number	Product content	Quantity	Item Number
1	Main shaft (14T)	1	00-02-0341
2	Counter shaft first gear (33T)	1	23421-086-T01
3	Main shaft second gear (18T)	1	23431-086-T10
4	Counter shaft second gear (29T)	1	23441-086-T10
5	Main shaft third/fourth gear (21T/24T)	1	23451-086-T10
6	Counter shaft third gear (25T)	1	23461-086-T10
7	Counter shaft fourth gear (23T)	1	23481-086-T10
8	Main shaft fifth gear (26T)	1	23491-086-T10
9	Counter shaft fifth gear (21T)	1	23501-086-T10
10	Counter shaft	1	23221-165-T21

02-04-0075 (Super Street)			
Number	Product content	Quantity	Item Number
1	Main shaft (14T)	1	00-02-0341
2	Counter shaft first gear (33T)	1	23421-086-T01
3	Main shaft second gear (17T)	1	23431-GEL-T11
4	Counter shaft second gear (30T)	1	23441-GEL-T10
5	Main shaft third/fourth gear (20T/22T)	1	23451-GEL-T11
6	Counter shaft third gear (28T)	1	23461-GEL-T11
7	Counter shaft fourth gear (25T)	1	23481-GEL-T11
8	Main shaft fifth gear (24T)	1	23491-GEL-T11
9	Counter shaft fifth gear (24T)	1	23501-GEL-T10
10	Counter shaft	1	23221-165-T21

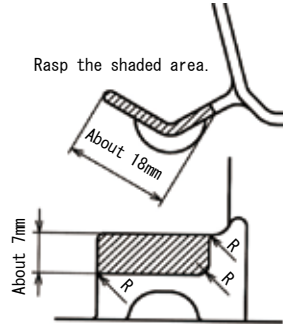
Common Parts			
Number	Product content	Quantity	Item Number
11	Thrust washer, 13.5mm	1	00-02-0055
12	Right gear shift fork	1	00-02-0014
13	Left gear shift fork	1	00-02-0016
14	Center gear shift fork	1	24231-181-T02
15	Gear shift drum	1	24301-181-T20
16	Shift drum pin, 4x10	4	00-02-0049 (5 pcs)
17	Gear 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	00-02-0048 (3 pcs)
20	Gear shift fork guide pin clip	3	24263-165-T00
21	Neutral switch rotor	1	00-02-0118
22	Gear shift drum stopper arm	1	00-02-0025
23	Gear shift drum stopper spring	1	24435-GEF-T00
24	Stopper plate setting pin	2	00-02-0054
25	Kick starter pinion (25T)	1	28211-165-T20
26	Thrust washer, 14mm	1	00-02-0047
27	Knock bolt, 6mm	1	00-02-0013
28	Gear shift drum side washer	1	00-02-0050
29	Hex bolt, 6x16	1	00-00-0032 (3 pcs)
30	Spline washer, 17mm	4	00-02-0023 (5 pcs)
31	External circlip, 17mm	5	00-02-0005 (5 pcs)
32	Right crankcase cover gasket	1	00-01-0095
33	Crankcase gasket (6V)	1	00-01-1032
34	Crankcase gasket (12V)	1	00-01-0096
35	Thrust washer S, 17mm	1	00-02-0024 (2 pcs)

※ 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.

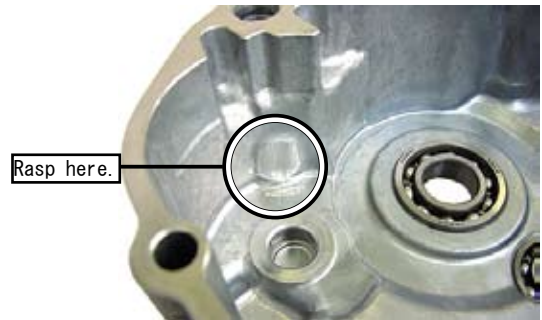
! Note Always work with gloves on to protect your hands. Otherwise, you may suffer injuries.

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.

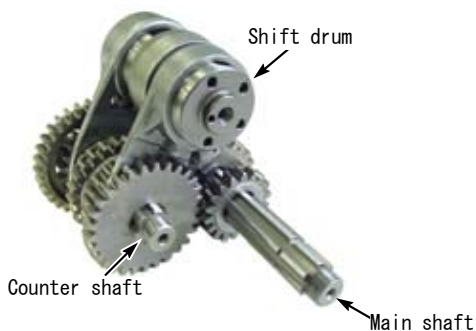


- In case a kick starter pinion and a left side crankcase interfere with each other, cut off the circled portion until the gear does not touch it any more.
- ※ Cover the bearings with a tape not to get any dirt, dust or chips into them.
- ※ Work with gloves on lest you should cut your hands with edges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

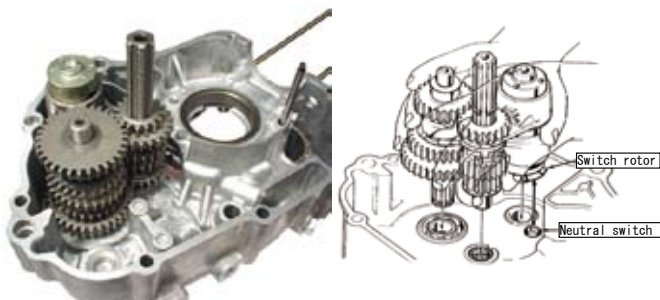


■ Mounting procedure ※ Please refer to the genuine service manual if the detail is not mentioned method and the specified torque.

1. 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.



2. 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.

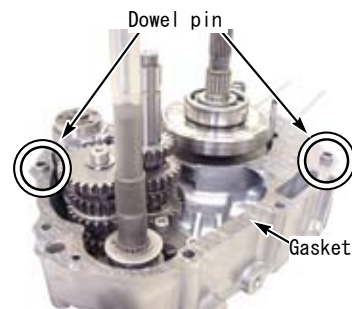


3. Remove, from the kick starter spindle, a 17mm washer, 20mm set ring, starter drive ratchet, 20mm set ring, 20mm thrust washer and starter pinion, in this order. Install the starter pinion included in the Kit onto the kick starter spindle, and install the above-mentioned parts in the opposite order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

4. 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. Install the crankcase bolts with the left crankcase face up.



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

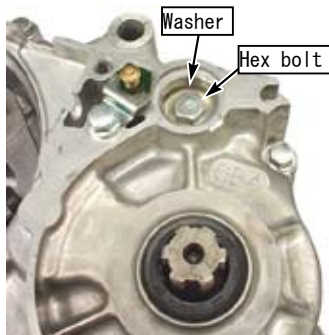
5. Tighten with the specified torque in a diagonal line outward from the center in 2-3 steps.

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



6. Setting the round corner of the 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.

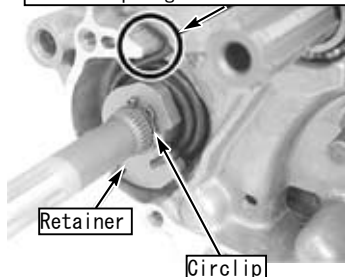


7. Turn around the crankcase so the right side crankcase faces upwards. And install the kick starter spring and kick spring retainer to the starter spindle. And fit the spring end into the case with a click.

And install the external circlip.

※ Be careful not to get your fingers caught when fitting the spring into the case.

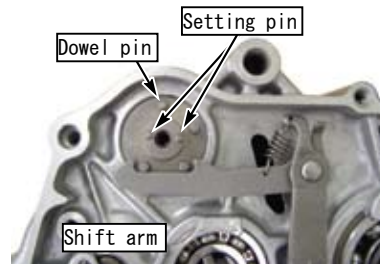
Fit the spring end into the case with a click.



8. Fit four dowel pins and two stopper plate setting pins into the 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.



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



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

Recommend LOCTITE:241

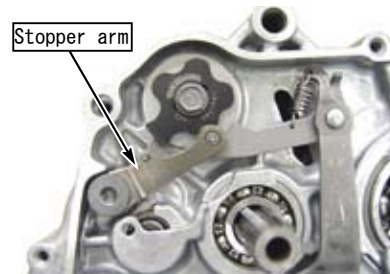
▲ Note: Be sure that you protect specified torque.
Knock bolt
Torque : 16N · m (1.6kgf · m)

Apply the screw locking agent.



11. Place the spring in the stopper arm, fit them into the stopper plate on the case, and tighten the bolt to the specified torque.

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



12. Turning the mainshaft with hands, turn the knock bolt on the stopper plate with a socket wrench, and check if the gears can shift smoothly.

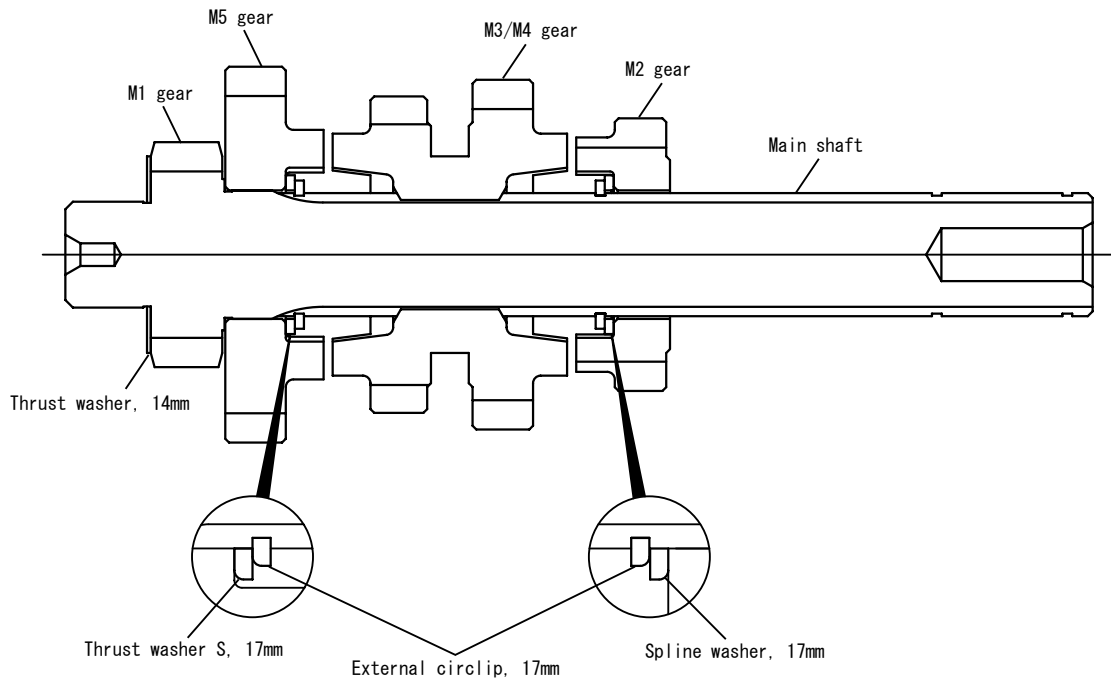
Check that there is some free play in the mainshaft and countershaft in the direction of thrusting.

※ 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

