



Instruction Manual for Rear Disk Brake Kit

(For stock step)

Item No. : 0 9 1 0 2 4 5 4

Fits : Monkey and Gorilla

Thank you for purchasing one of our TAKEGAWA-made products.

A high-powered engine requires all the stronger stopping power accordingly. We have designed the rear caliper to be a floating type for the correct stopping power. This will reduce the kickback and hopping which take place at the time of braking, and the stable stopping power can be expected even in the wet conditions. We request you to carefully read this Instruction Manual to understand the instructions before using the products.

Please note that, in some cases, the illustrations and photos may vary from the actual hardware.

Requirements for installation

This product is for exclusive use in motorcycles equipped with either a stock clutch cover or our TAKEGAWA's die-cast clutch cover. (Please note, however, that this product cannot be mounted on motorcycles equipped with our TAKEGAWA's cast aluminum clutch cover.)

This kit is designed and developed for exclusive use in motorcycles equipped with our TAKEGAWA-made long swing arm.

A sidestand of 09-12-072 or 09-12-040 is need.

Use a kick starter arm to match the muffler.

For the installation of this Kit, our TAKEGAWA-made 10inch disk-brake wheels are necessary.

For installation of this Kit on a 12V motorcycle, a driven sprocket for a 6V motorcycle is necessary.

Read all instructions first before starting the installation.

CAUTION

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

Work only when the engine and muffler are cool. (Otherwise, you will get burned.)

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.)

Be careful that the brake fluid does not contact your skin. After work, wash your hands thoroughly with water. (Otherwise, you will have a rough skin.)

Please handle the brake fluid with great care, because the brake fluid, if spilled on painted surfaces, resin parts, or rubber products, will deteriorate or damage these parts. If the fluid is spilled on these parts, wash them immediately with water. Otherwise, the spill of the brake fluid will damage or deteriorate these parts.

WARNING

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

Installation of this Kit requires processing. Please take precautions to protect your eyes, face and hands for safety's sake.

(If metal fragments or others get in your eyes, this may cause your vision loss.)

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 malfunction could lead to accidents.)

Keep plastic bags for packing the products out of children's reach, or discard them.

(If children get them on, there will be a danger of their suffocating.)

Make sure that your motorcycle is secure on flat level ground for safety's sake.

(Otherwise, your motorcycle could overturn and injure you while you are working.)

Do not get oil or grease on the brake disk rotor or brake pad. If oil & / or grease adhere to these parts, change the brake pad and degrease the brake disk rotor. Otherwise, oil or grease adherence may lead to accidents.

We recommend that the brake be installed by a qualified motorcycle technician at a well-equipped facility.

(Otherwise, the improper installation may cause accidents.)

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.)

We have listed up these precautions for your correct use of the products and for the prevention of dangers or damages to you and other people. These are the envisioned dangers or damages arising from the wrong handling and installation. We do request you, therefore, to take these important safety precautions against dangers.

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.

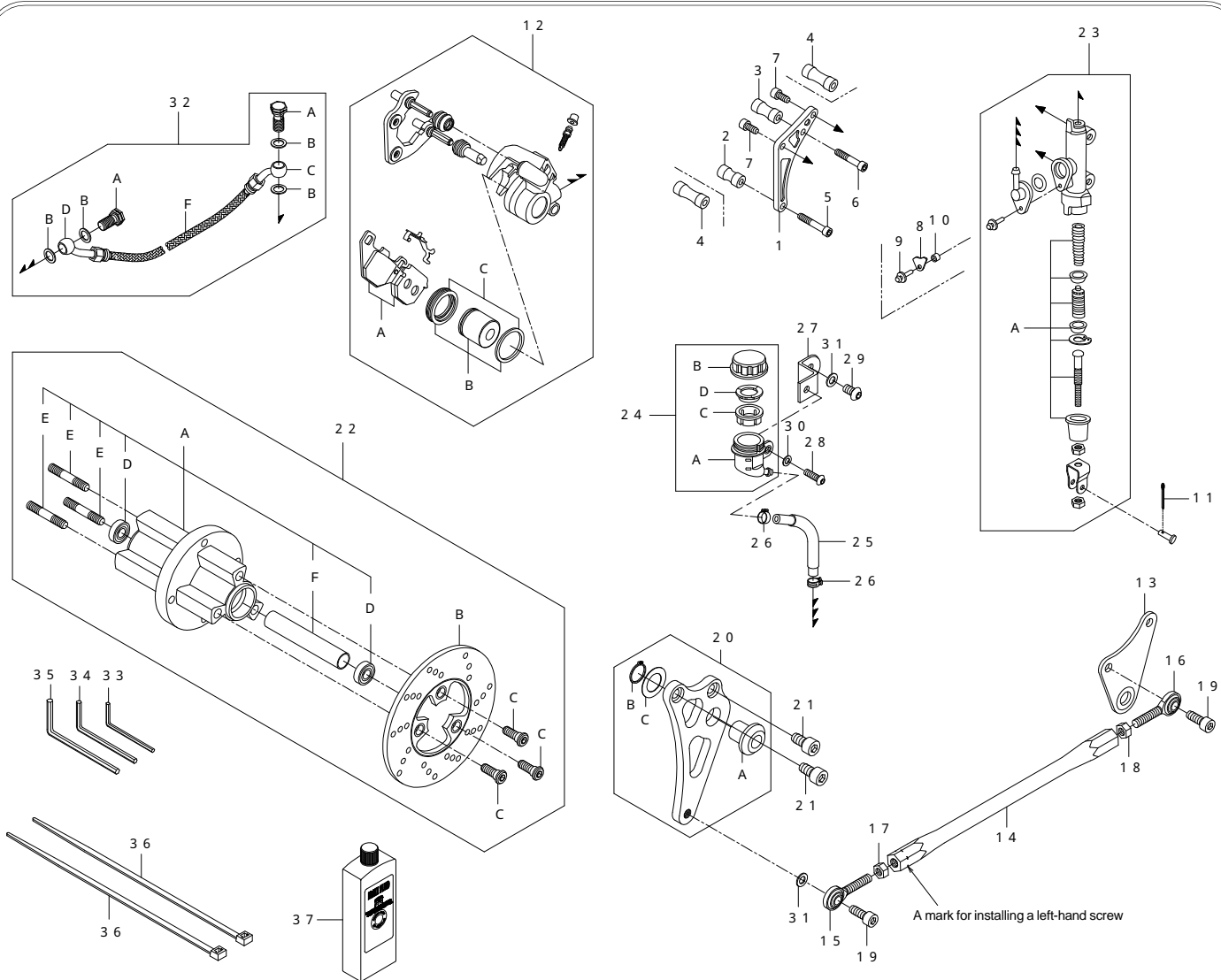
When ordering repair parts, please quote Item No above and reference Nos in the figures in this Manual. Should you have any questions about the Kit, please kindly contact your local motorcycle dealer.

This manual should be retained for future reference.

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.

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.

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



No.	Part name	Qty	Repair Part Item No.	In packs of	No.	Part name	Qty	Repair Part Item No.	In packs of
1	Master cylinder bracket	1	43521-GEF-T00	1	22-C	Disk bolt	3	90105-165-T00	1
2	Collar, 24.5 mm	1	43532-GEF-T00	1	22-D	Bearing, 6201-LLB	2	BW-03-0006	1
3	Collar, 29.5 mm	1	43533-GEF-T00	1	22-E	Stud bolt	3	00-00-0006	3
4	Collar, 35.5 mm	2	43534-GEF-T00	1	22-F	Distance collar	1	44631-165-T01	1
5	Socket cap screw, 6 x 70	1	BW-00-0003	2	23	Rear master cylinder assembly	1	06-08-1731	1
6	Socket cap screw, 6 x 75	1	BW-00-0023	2	23-A	Master cylinder piston set	1	06-08-0012	1
7	Socket cap screw, 6 x 16	2	BW-00-0088	4	24	Reserver tank COMP.	1	06-08-0006	1
8	Connector swing plate	1			24-A	Cup COMP.	1	06-08-0013	1
9	Screw, 4 x 16	1	06-08-0011	1	24-B	Cap	1	06-08-0007	1
10	Collar, 8 x 5 x 5	1			24-C	Diaphragm	1	06-08-0008	1
11	Split pin	1			24-D	Diaphragm plate	1	06-08-0009	1
12	Rear brake caliper assembly	1	06-08-1732	1	25	Oil hose	1	06-080-0008	1SET
12-A	Disk pad set	1			26	Hose clamp	2	000-03-053	4
12-B	Piston set	1			27	Reserver tank stay	1	43610-181-T00	1
12-C	Piston seal set	1			28	Button head screw, 6 x 20	1	BW-00-0010	5
13	Torque rod bracket	1	50520-165-T11	1	29	Button head screw, 8 x 15	1	BW-00-0098	4
14	Torque rod	1	51531-165-T60	1	30	Plain washer, 6 mm	1	BW-01-0001	10
15	Rod end, SMR1-8L	1	BW-03-0004	1	31	Plain washer, 8 mm	2	BW-01-0002	10
16	Rod end, SMR1-8	1	BW-03-0005	1	32	Brake hose set	1		
17	Hex nut, 8mmL	1	BW-02-0019	2	32-A	Banjo bolt	2	09-071-010	1
18	Hex nut, 8mm	1	BW-02-0020	2	32-B	Sealing washer	4	00-07-0010	10
19	Socket cap screw, 8 x 25	2	BW-00-0094	4	32-C	Banjo, 45 degrees	1	09-071-009	1
20	Rear caliper bracket COMP.	1	43101-GEF-T00	1	32-D	Banjo, 25 degrees	1	09-071-008	1
20-A	Bracket sleeve	1	43114-GEF-T00	1	32-F	Brake hose, 600 mm	1	06-080-0009	1
20-B	Snap ring, 17 mm	1	BW-01-0046	1	33	Hex bar wrench, 4 mm	1		
20-C	Shim ring	1	BW-01-0048	1	34	Hex bar wrench, 5 mm	1		
21	Socket cap screw, 8 x 12	2	00-00-0047	4	35	Hex bar wrench, 6 mm	1		
22	Rear wheel hub assembly	1	06-08-164	1	36	Insulation lock, 200 mm	2	09-071-042	10
22-A	Rear wheel hub COMP.	1	42600-165-T00	1	37	Brake fluid (BF-4)	1	06-08-0019	1
22-B	Rear disk rotor	1	45223-181-T50	1					

Please order repair parts by indicating the Repair Part Item No. as listed above. As you see from the list, there are some parts for which we are not in a position to accept your order in the quantity of one. In this case, please order the required parts as a set part unit.

Check the kit contents.

△Note : Prepare tools suitable for your work.

△Note : Make sure that the engine and muffler are cool.

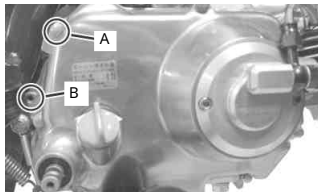
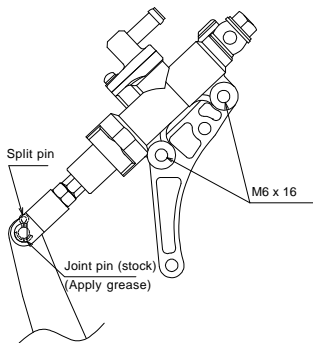
△Warning : Secure your motorcycle on level ground.

Separate the brake rod from the kick starter arm and a stock rear brake pedal.

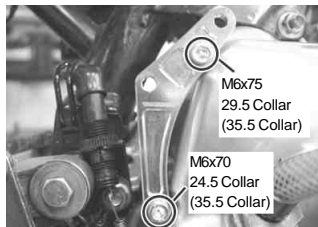
With a socket cap screw, tighten the master cylinder and master cylinder bracket from the rear side, to the specified torque.

△NOTE : Be sure to follow the specified torque.

Torque: 10 N·m (1.0 kgf·m)



With reference to the photo below, detach bolts A and B.



The collars in brackets are those to be used with a die-cast clutch cover.

In the case of a stock clutch cover:

Install the clutch cover, 29.5mm collar, 24.5mm collar and master cylinder bracket in this order, and tighten them with a supplied bolt to the specified.

△Note : Be sure to tighten to the specified torque.

Torque: 10 N·m (1.0 kgf·m)

In the case of a die-cast clutch cover:

Install the clutch cover, 35.5mm collar, and master cylinder bracket in this order, and tighten them with a supplied bolt to the specified torque.

△Note : Be sure to tighten to the specified torque.

Torque: 10 N·m (1.0 kgf·m)

With a stock joint pin and split pin, fasten the lower joint in the master cylinder and the rear-brake-pedal arm.



Turn the push rod on the master cylinder, and adjust the location of the brake pedal. And tighten the hex nut.

△Note : Be sure to tighten to the specified torque.

Torque: 10 N·m (1.0 kgf·m)

Install the kick starter arm.

△Note : Be sure to tighten to the specified torque.

Torque: 12 N·m (1.2 kgf·m)

Raise the rear tire off the ground on a maintenance stand.

△Warning : Make sure your motorcycle is secure on level ground.

Detach the rear axle nut, rear axle shaft and rear wheel assembly.

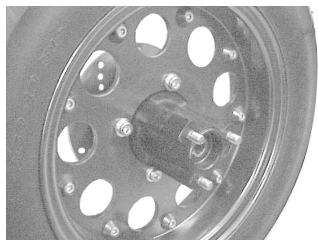


In case a stock swing arm is used on your motorcycle, cut off a panel stopper on the axle holder.

△Warning : Be sure to wear protective materials for the protection of your eyes during your work.

Attach the tube and tire to a TAKEGAWA-made disk aluminum wheel.

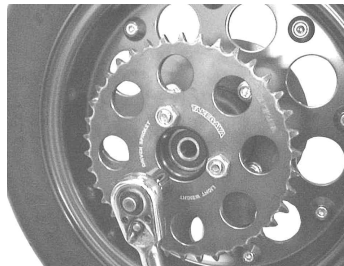
When you are using tires with directional property, be careful about the way in which they rotate. (The air valve should be on the chain-line side.)



Install and fasten tightly the rear hub assembly to the rear wheel with the supplied flange cap screw. (Install it so the air valve is on the opposite side of the disk rotor.)

△Note : Be sure to tighten to the specified torque.

Torque: 27 N·m (2.7 kgf·m)

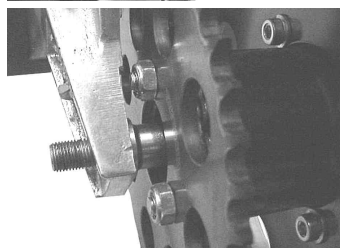
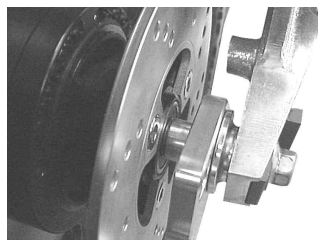


Install and fasten the driven sprocket to the rear hub assembly with a stock nut.

A 6V driven sprocket is needed for a 12V motorcycle.

△Note : Be sure to tighten to the specified torque.

Torque: 33 ~ 36 N·m (3.3 ~ 3.6 kgf·m)

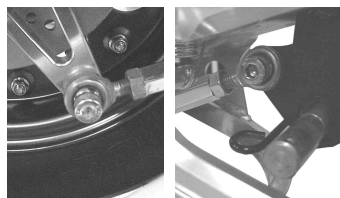


To the hub, attach the caliper bracket on the rear disk rotor side and a stock collar on the sprocket side, fit the rear axle shaft to the swing arm, and install the hub loosely for now (Lightly apply grease to the rear axle shaft.)



Screw the hex nut (left-hand screw) into the supplied rod end (8mm left-hand screw), and attach it to the side with the left-hand screw mark. And to the other side, attach the rod end (8mm right-hand screw). And see to it that both right and left rod ends are attached parallel to each other.

Set both rod ends so they stick out the same length.



Install and tighten the torque rod to the torque rod bracket attached to the frame and to the caliper bracket with an 8x25 socket cap screw.

△Note : Be sure to tighten to the specified torque.

Torque: 25 N·m (2.5 kgf·m)



Install and tighten the rear caliper assembly to the caliper bracket with the flat head screw.

△Note : Be sure to tighten to the specified torque.

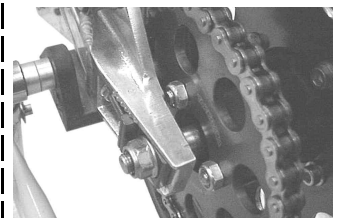
Torque: 25 N·m (2.5 kgf·m)



Install and tighten the rear brake hose COMP. to the master cylinder and rear caliper assembly with a banjo bolt placing sealing washers on both sides of the banjo.

△Note : Be sure to tighten to the specified torque.

Torque: 13 ~ 15 N·m (1.3 ~ 1.5 kgf·m)



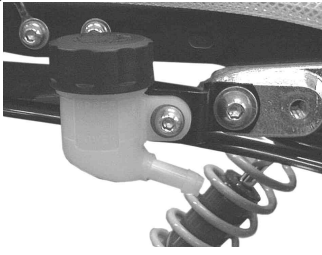
Adjust the drive chain, and tighten the rear axle nut to the specified torque.

△Note : Be sure to tighten to the specified torque.

Torque: 40 ~ 50 N·m (4.0 ~ 5.0 kgf·m)



Secure the brake hose with a Tie Wrap so it does not interfere with other parts, and cut off the excess portion of the Tie Wrap with a nipper.



Install the reserver tank stay to the oil cup COMP. with a plain washer button head screw.

△Note : Be sure to tighten to the specified torque.

Torque: 10 N·m (1.0 kgf·m)

Remove a seat.

Remove a carrier.

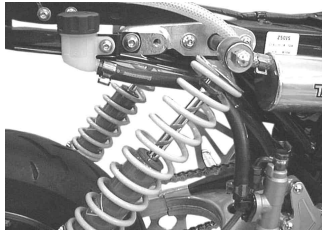
Remove the rear cowl if the TAKEGAWA-made Rear Cowl Kit is installed to your motorcycle.

If the TAKEGAWA-made Rear Cowl Kit is installed to your motorcycle, install the reserver tank stay to the tap on the seat stay with a plain washer and button head screw.

△Note : Be sure to tighten to the specified torque.

Torque: 23 N·m (2.3 kgf·m)

If your motorcycle is equipped with a carrier, install the reserver tank stay to the tap to which the carrier was attached.



After deciding on how to route the oil hose, cut the hose. And attach it to the union on the oil cup and to the connector on the master cylinder COMP., and hold it with a hose clamp.

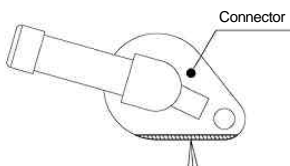
Before installing a down muffler, let out air following the instructions in the "Letting out the air."

In case you install a Z-style muffler, do the following work:

In the case of installing a Z-style muffler:

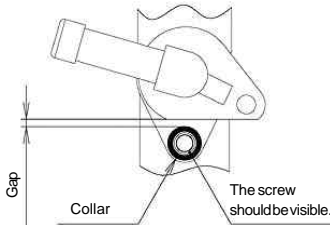
Detach a screw on the connector in the master cylinder.

Detach the connector on the master cylinder, and cut the heavy-lined portion, as shown in the figure below, about 1 mm with a file or something else.



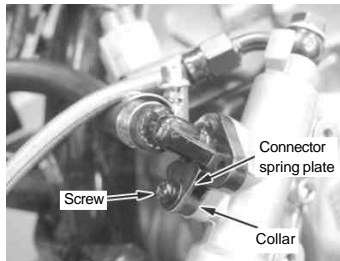
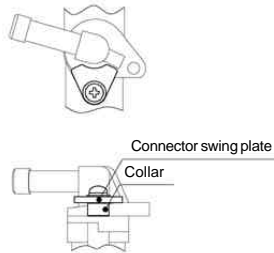
This portion needs grinding.

After grinding the connector, install it to the master cylinder in the direction as shown in the figure below, and check that there is no interference with the collar. After installing the collar, please see if the screw can be fastened. Moreover, check if there is no interference between the connector and the outside diameter of the collar.



The size and shape of the connectors vary among them. If it still interferes with the collar even after being cut 1 mm, then cut it more to the extent that it does not interfere any more.

Only after confirming that there is no more interference, attach a connector swing plate as shown in the figure below.



After attaching the connector swing plate, check that the connector is seated tight or it does not move.

If the connector is found firmly attached without any problem, apply screw locking agent to the thread part of the screw, and tighten it to the specified torque.

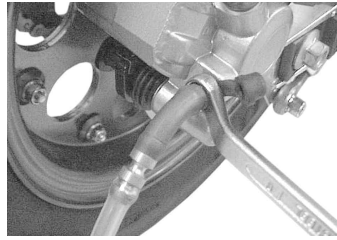
△Note : Be sure to tighten to the specified torque.

Torque: 1 N·m (0.15 kgf·m)

Letting out the air:

Detach the cap, diaphragm plate and diaphragm on the oil cup, and add the brake fluid up to the upper level mark on the oil cup.

△Notice : Never produce air bubble in the brake fluid container by shaking it.



Connect the transparent bleeder hose to the bleeder valve on the rear caliper, and place a suitable cup at the other tip of the hose to receive brake fluid.

Give the bleeder valve half a turn to ease it. And repeat kicking down on the brake pedal and releasing it until brake fluid comes down from the bleeder valve in sufficient amount.

Do the work, adding new brake fluid, but paying heed to the amounts of brake fluid.

When the air does not come out any more from the bleeder valve, operate the brake pedal to check if no more air is mixed.

If you find that no more air is mixed, tighten the bleeder valve to the specified torque.

△Note : Be sure to tighten to the specified torque.

Torque: 6 N·m (0.6 kgf·m)

Add the brake fluid up to the upper level mark on the oil cup, and attach the diaphragm and diaphragm plate cap.

△Warning : Never let the oil or grease adhere to a brake-disk rotor or brake pad. Should oil or grease adheres, degrease the rotor or change the pad.

Install the rear cowl and the seat to the motorcycle equipped with the TAKEGAWA-made Rear Cowl Kit .

In case your motorcycle is equipped with a carrier, detach a bolt which was holding the reserver tank, install the carrier, and install the oil cup by jointly fastening together one of four bolts holding the carrier and the reserver tank stay.

△Note : Be sure to tighten to the specified torque.

Torque: 24 N·m (2.4 kgf·m)

Install the seat.

Thoroughly wipe off dust and dirt on every hardware.

△Note : Be sure to tighten to the specified torque.

Torque: 24 N·m (2.4 kgf·m)

SPECIAL PARTS TAKEGAWA Co.,Ltd.

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