No. OM-FC209-101



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User Manual

Model: "FLEX GEAR" GLX-FC209





GLK FLEX GEAR 시스템 Version 3.0

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Customer Service

GLK Co., Ltd.

If you have any questions about GLK FLEX GEAR, please contact us or the place of purchase.

We will respond to you at the GLK customer center or the place of purchase.

Please contact us through the following contact information:

- 1. Please read the user manual included with this product.
- 2. Please access the website address: www.flexgear.co.kr
- 3. Please contact our office number: 031-999-6799
- 4. Please contact us by email: <u>flexgear@flexgear.co.kr</u>
- 5. Please read the product usage precautions and use it correctly.
- 6. After installing FLEX GEAR for customer information registration, please send customer information to the head office.

User manual guide

- Specifications or appearance may change without notice due to product improvement.
- This manual describes how to operate the GLK FLEX GEAR system.
- guide:
- Includes precautions to avoid possible product malfunction or damage.
- note:

Includes instructions for optimal use and supplementary notes.

FLEX GEAR parts guide

Parts

Please check the components below. For detailed dimensional data for each part, please refer to the 'Spec Data' page.

] FLEX GEAR





Left

Right

Bracket





Sliding Bracket

Middle Bracket Mount Bracket

* Brackets have different shapes and names depending on the model and year of the motorcycle.

0

Control Box



Cable



Battery Cable





FLEX GEAR Cable x 2 ea

FLEX GEAR Functions

ACautions

Before operating the FLEX GEAR, please read all attached warnings and instructions before using it to prevent personal injury or property damage.

FLEX GEAR Tip

• You can comfortably stand on your motorcycle when stopped.

If you are driving in the city, you will often be waiting for a signal at an intersection. With the FLEX GEAR, you don't have to support the motorcycle with both legs.

• This is convenient for repeating stops when the vehicle is jammed.

Due to the nature of large motorcycles, when the vehicle is congested, stopping repeatedly causes fatigue to accumulate. Depending on the road conditions, you can use the FLEX GEAR to drive comfortably.

Helps avoid falling when turning or making U-turns in narrow alleys.

When reversing, there are many things you need to pay attention to, such as centering the motorcycle, checking the surrounding environment, and securing visibility. With the FLEX GEAR, you can focus more on the external environment to prevent accidents.

Since motorcycles can't speed on narrow roads, it's even harder to stay centered. With FLEX GEAR, you can only focus on the direction of the steering wheel when driving slowly on narrow roads.

• Convenient for moving your motorcycle in a parking lot or garage.

There may be times when you are stuck in a parking space by an outside vehicle and cannot ride your motorcycle. In this case, you will have to pull the motorcycle to get it out. With the FLEX GEAR, you can move heavy bikes comfortably, reducing the risk of tripping and other accidents.

Helps prevent slipping at gas stations or underground parking lots with slippery floors.

It's really hard for a rider to get up a motorcycle that has fallen over. With the FLEX GEAR, you don't have to worry about losing your center of gravity and falling.

• When stopped, passengers in the rear seat can feel comfortable.

If you have two or more people on a motorcycle, it becomes even more difficult to balance. If you use the FLEX GEAR, you can minimize the shaking caused by the passenger.

Parts name & Functions

Switch



Parts name

	Image	Name
2		Switch

*Switch may be provided differently for each motorcycle model.

Functions

A manual switch is used to prevent unintentional movement of the FLEX GEAR while riding a motorcycle. The FLEX GEAR takes about 2 seconds to complete.

- 1. When the green button on the switch is pressed, the FLEX GEAR goes up.
- 2. If the button on the switch is not pressed, the FLEX GEAR will not move.
- 3. When the red button on the switch is pressed, the FLEX GEAR goes down.

Control Box & Cable



컨트롤박스 변경 예정

Name

Image	Name	
	Control Box	
Image	Name	
	Switch Cable	
	Power Cable	
20	FLEX GEAR Cable	

Function

The LED sensor on the control box indicates the operating status of the FLEX GEAR.

If the LED sensor does not light, check the connection status of each cable.

- ① Left FLEX GEAR : Lifting
- ② Left FLEX GEAR : Completed
- ③ Left FLEX GEAR : Landing
- ④ Left FLEX GEAR : Completed
- ⑤ Power
- 6 Right FLEX GEAR : Completed
- ⑦ Right FLEX GEAR : Landing
- ⑧ Right FLEX GEAR : Completed
- ③ Right FLEX GEAR : Lifting





Function

① FLEX GEAR Landing / Lifting position control



more you push the landing limit sensor into the motorcycle, the more the FLEX GEAR will unfold, and more you pull it outward, the less it will unfold.

e more you push the lifting limit sensor into the motorcycle, the more the FLEX GEAR folds, and the m you pull it outward, the less it folds.

2 Auto fuse / Circuit breakers



Auto fuse prevents motor overload. If the auto fuse protrudes about 10mm,After 10 seconds, press to return to the original position.

*If the auto fuse protrudes, the FLEX GEAR does not work.



③ FLEX GEAR install up/down position control



With the bolts in the photo tightened all the way

<- If you unscrew the bolt again The FLEX GEAR position goes down.

If the bolt is re-tightened -> The FLEX GEAR position goes up.



After connecting the sliding bracket and the FLEX GEAR, adjust the installation height through the tightening degree of the bolts. After that, use the mood bolts to fix the position.

④ Shock Absorption - Rubber Suspension

* For details, refer to the 'Installation'



By locating the cushioning rubber at the inner point where the main housing and the middle frame are connected, external shocks from the road are minimized.

⑤ Manual operation function

Use minus(-) screwdriver.

If the FLEX GEAR does not work,

You can manually manipulate the FLEX GEAR using a minus screwdriver.

Right FLEX GEAR

Turn clockwise = Lifting

Turn counterclockwise = Landing

Install

Bracket & FLEX GEAR install

Cautions

Please check the installation manual for your motorcycle.

Parts of the motorcycle frame may be damaged in order to assemble the bracket (but only for some models).

If the installation of the bracket is hindered by accessories other than the FLEX GEAR, please remove the accessory.

Goldwing 1800 after 2018y







Remove the motorcycle side cover and footrest cover

Remove the muffler cover





Attach the assembled bracket to the front of the blue circle and the back of

the red circle of the motorcycle using 'bolt A' and a spring washer.

Connect the 'middle bracket' and 'mount bracket' using 'bolt B'.



Reassemble the motorcycle's muffler cover.

Bracket parts



Connect 'Sliding Bracket' to 'Intermedia' using 'Bolt C'.



Goldwing 1800 before 2017y







Remove the seat of the motorcycle. Remove the appropriate cover from the motorcycle.



5



Remove the motorcycle's bumper.



Connect the 'mount bracket' using 'bolt A' and 'nut' to the bumper position.

Connect the 'middle bracket' to the 'mount bracket' using 'bolt B'.

Connect the 'sliding bracket' to the 'middle bracket' using 'bolt C'.Position the wrench bolt hole of the 'sliding bracket' toward the front of the motorcycle.

Bracket parts



Goldwing 1500







Connect the blue wire of the switch to ACC The switch is fixed to the handle grip. (Fix it to the left or right.)

Remove the seat, cover, footrest, etc.





There is interference in the part marked in red, so I cut it with a grinder

Fix the bracket as shown in the picture.(The bracket in the photo may differ from the actual bracket)





Fasten the footres bracket with bolt "D".



Fix the mount bracket and the intermediate bracket using bolt "B". Then, use bolt "A" to secure it to the motorcycle.

Secure the slide bracket using bolt "C".

Bracket parts



* Bracket modeling is subject to change due to design modification * Bracket bolt dimensions are subject to change due to modelin modifications.

Harley Davidson



Remove the saddle bag, side cover and seat from the motorcycle.







Bracket parts





Loosen the frame fixing bolts of the motorcycle.

After inserting the 'Spring washer' into the blue circle bolt hole of the 'Mount bracket', connect the assembled bracket to the motorcycle frame using 'Bolt C'.



BMW K1600



* This is optional.

Use the bolt hole on the cover of the motorcycle. Use the two bolt holes (red circles) on the motorcycle frame. If you want to fix the FLEX GEAR bracket more firmly, make a hole in the blue circle position on the motorcycle frame a install the bracket with 3 bolts.





Tighten the bolt using a nut on the back of the hole of 'Bolt A'. (If the blue circle part is proce and bolted, this part is also bolted with a nut

Connect the 'Mount bracket' to the motorcycle frame using 'Bolts A and B'.



Connect 'Sliding bracket' to 'Mount bracket' 'Bolt D'.

Connect 'Middle bracket' to 'Mount bracket' using 'Bolt C' and spring washer.

Bracket parts



Indian





Use the bolt hole (red circle) where you refine red the bumper. To further secure the FLEX GEAR bracket, use a drill and tap to drill additional holes i the yellow hole locations on the motorcycle frame. Install the bracket with a total of 3 bolts. * Required.



eßicved GEAH mal holes i cle frame.



Connect 'Middle bracket' and 'Mount bracket' using 'Bolt B'.

Bracket parts



Connect the assembled bracket using 'Bolt A' to the location where the motorcycle bumper was removed. Remove the seat of the motorcycle



Connect 'Sliding bracket' to 'Middle bracket' using 'Bolt C'.



Kawasaki VN1700 Voyager



Fix the mount bracket using "A" and "B" bolts at the place where the footrest was removed.(It is recommended to work after removing the muffler cover as there is interference.)



Fasten the foot stand bracket using bolt "C" and install the slide bracket using bolt "D".

Connect the blue wire of the switch to ACC switch cable into the control box.

Bracket parts



FLEX GEAR install





Insert the FLEX GEAR into the slot of the sliding bracket and fasten it. Push up the fastened FLEX GEAR along the sliding bracket.



After raising the FLEX GEAR to the top of the sliding bracket, insert the 'Spring washer' into the hole of the sliding bracket, and then use the 'M10 55mm' bolt to connect the FLEX GEAR to the bracket.



Assemble the 'Bracket cover' using 'M6 10mm' bolts.



Adjust the height of the FLEX GEAN the 'M10 55mm' bolt. Recommendation: It is recommended to lower the FLE GEAR while the driver is riding and that both wheels touch the ground.



After adjusting the height, use the 'M10 10mm' bolt to fix the installation position of the FLEX GEAR.

Control Box & Cable connection

Cautions

Control box positioning may vary by motorcycle model. You will work by opening the seat or saddle bag of the motorcycle. Please check the manufacturer's manual for details on the contents.

but, Even with the same motorcycle model, the manual may differ depending on the situation of the motorcycle you have. Please check and install the safest and most appropriate location in the motorcycle interior.

Control box install position



Position the control box under the seat or inside the saddlebag. * Check the most appropriate location according to the motorcycle model you have.

Cable connection to Battery



Connect the power cable to the battery inside the motorcycle.

(The black line is -, the red line is +.) * Depending on the motorcycle model, the location of the battery may be different.* Check the +/- terminals of the battery cable before connecting.





Connect the power cable to the control box.* Check the +/terminals of the power cable before connecting.



Secure the switch to the handlebar. * Fix the switch according to the user's convenience. (Left/Right, Up/Down)



Run the switch cable along the line inside the motorcycle cover or fuel tank to the handlebar. Position the switch wire so that it cannot be seen from the outside of the motorcycle.

Tip.

First, pass a thin wire through the inside of the motorcycle weave the switch cable to the wire in the handle part. Connect the switch cable to the control box by pulling the the interior of the motorcycle. Tip.

Tightening the switch wire may cause the wire to break whis moved. Please take your time and work.





* In the case of Honda Goldw battery and ACC+ wire are low inside the side cover of the m * The ACC+ line is located di depending on the motorcycle For more details, please check manufacturer's manual.

When starting the motorcycle, connect the ACC+ line (which is included with the switch cable) to the power line.



* When the motorcycle ignition is off, the FLEX GEAR should not operate.

Connect the switch cable to the switch terminal on the control box.

Cable connection to FLEX GEAR



Connect the FLEX GEAR cable to the bottom of the motor box of the FLEX GEAR.

* Check the male/female FLEX GEAR cable before connecting.



3

Connect the FLEX GEAR cable to the control I * The FLEX GEAR cable is the same for left a right.

Tip.

Position the cable so that it does not come into contact with the muffler generating heat and secure it with cable ties.

Caution

Caution

Be sure to use it according to the instructions in the user's manual. Please read all user manuals carefully.

Warning

To avoid personal injury or property damage, before operating the FLEX GEAR Please read and fully understand all attached instructions, warnings, and instructions before use.

Prior driving practice is essential.

With FLEX GEAR, the driving characteristics of a four-wheeled motorcycle appear. Use both hands to operate the handle in the direction you are going.

2. Operate the FLEX GEAR with the motorcycle completely stopped.

If the FLEX GEAR is operated while driving, the driving direction may change depending on the road surface characteristics.

Also, one or both FLEX GEARs may not work due to mechanical failure.

3. Check that the FLEX GEAR is fully lifted before departure.

Operate the FLEX GEAR by pressing the switch until it is fully lifted. Make sure the FLEX GEAR is fully lifted.

Do not use the FLEX GEAR when parking.

When parking for a long period of time, a load is applied to the FLEX GEAR, shortening the life of the product.

5. Do not use FLEX GEAR on slopes.

Depending on the road surface, the driving direction may change.

67Do not use in poor road conditions.

To prevent damage to the FLEX GEAR, do not use it in places where the road conditions are not smooth, such as slopes, unpaved roads, and speed bumps. 7. Do not land your legs on the ground while the FLEX GEAR is landing.

If you land your feet on the ground while the FLEX GEAR is down, the center of gravity of the motorcycle will shift and there is a risk of an accident.

8. Do not insert your fingers or foreign objects into the working area of the FLEX GEAR.

9. Adjust the FLEX GEAR to match the bike's rear wheel height.

When the driver is on the motorcycle and lowering the FLEX GEAR, adjust the height so that both FLEX GEARs touch the ground.

If the height is lowered too much, be careful as the FLEX GEAR may continuously receive the load of the motorcycle when operating.

10. Prepare a minus screwdriver.

If the FLEX GEAR does not work, use a negative screwdriver to manually operate the FLEX GEAR.

Also, after driving, always re-tighten the bracket bolts to rearrange the bracket connection.

11. Do not use in case of rain.

As this product contains electronic components, it is recommended to avoid water and moisture as much as possible.

12. Always keep the motorcycle battery at 12-15v

How to use

A Caution

Mastery is required to learn how to use the FLEX GEAR.

- During pre-practice, lower your legs to the ground before operating the FLEX GEAR.
- Depart after confirming that the FLEX GEAR has gone up perfectly (lifting).
- Do not use the FLEX GEAR while driving at high speeds. (used under 20km/h)
- Please refer to the image below to help you understand. Be sure to ride while wearing safety equipment such as a helmet and protective equipment.

출발 & 정차 시



If the FLEX GEAR is in the lowered (landing) state, place your legs on the footrest and wait comfortably.



When starting out, lower your legs to the ground and operate your FLEX GEAR. Depart after confirming that the FLEX GEAR has gone up perfectly (lifting).



Ride the motorcycle with the FLEX GEAR raised (lifting).





Upon arrival, lower your feet to the ground and operate your FLEX GEAR. After the FLEX GEAR has descended (landing), place your feet on the footrest and wait comfortably.

Appendix

Q&A

• I changed my motorcycle. Can I use my existing FLEX GEAR?

Yes, it is possible. Dismantle the FLEX GEAR from the existing motorcycle. You can purchase the right bracket for your new motorcycle and reinstall it.

• I want to use a one-touch switch.

The manual switch is used to prevent unintentional FLEX GEAR operation while riding the motorcycle.

• Doesn't the FLEX GEAR cause the motorcycle to discharge?

The FLEX GEAR's control device allows current to flow only when the switch is operated. The operation time is less than 2 seconds, and the current is cut off during other times.

*** We have motorcycle models. Can I mount the FLEX GEAR?

If your motorcycle is not on the list of installations, please contact us. Depending on the motorcycle model, additional brackets may be provided, which may add to the cost.

Does it automatically operate when the speed is below a certain speed?

This feature is not currently supported. In some cases, the speed may be reduced due to cornering, etc., not for the purpose of slowing down or stopping. Also, the actual speed and the speed perceived by GPS may be different. The safest and most convenient way to operate the FLEX GEAR directly in the situation you want.

Check error

If one FLEX GEAR does not operate

- Auto fuse (circuit breaker) check: Check if the auto fuse (circuit breaker) located at the top of the FLEX GEAR protrudes. (YES=Extrude / NO=ExtrudeX)
- ② Manual operation check: Use a flat-head screwdriver to turn the slotted groove of the FLEX GEAR to check whether it operates manually. (YES=Manual operation / NO=Manual operation not possible) **Strong force may be required**
- ③ Cable check: Check if the cable connected to the bottom of the FLEX GEAR is disconnected or missing. (YES=no problem / NO=disconnection or missing)
- ④ Control box LED check: Check if the LED of the control box is normally displayed according to the operation status of the FLEX GEAR.
- ⑤ Cross test: Test the left and right FLEX GEAR cables connected to the control box by crossing them.
 - If the opposite FLEX GEAR does not work after crossing, replace the control box.
 - If the faulty FLEX GEAR still does not work after crossing the PCB or Replace the limit sensor.



If both FLEX GEARs do not work

- Check the cable: Check if the yellow power cable is disconnected or missing from the control box. (YES=no problem / NO=disconnection or missing)
- ② Control box LED check: Check if the red LED of the control box is displayed when the motorcycle is turned on. (YES=No problem / NO=Not confirmed)
- ③ Switch Check: Press the switch button and check if the green or yellow LED on the control box is displayed (YES=LED OK / NO=LED Not Checked)



Revision

Version	Revision subject	Date
Version 1.0	Publish user manual	08.23.2019
Version 2.0	Renewal of bolt dimensions and brackets	02.03.2020
Version 3.0	Integration & renewal of FLEX GEAR name and installation manual	11.29.2021

Warranty period and conditions

- 1) The warranty period includes a period of one year starting from the date of delivery of the product to the customer (A/S period may vary for each part)
- 2) All parts of the product are guaranteed by GLK. (for any defects that may arise during production, assembly or defective parts)
- If the product fails due to a general defect in materials within the warranty period, it will be repaired without requiring replacement of replacement parts or any other charge.
- 4) The product can be exchanged at the consumer's option if the following conditions are met: a) The product fails more than 6 times within the warranty period.
- 5) Exchange of the product is void if any of the following conditions are met:a) if the product is defective due to use contrary to the conditions specified in the user manual

b) the product has been developed, used, or repaired by unauthorized persons

c) using the product in connection with an inappropriate voltage or electrical installation without prior knowledge of our authorized service
d) in the event of a defect or damage to the Product during transit beyond GLK's responsibility

e) the appearance of the product is damaged or scratched while in the customer's possession

f) the product is damaged by use with an accessory or device purchased from another company or used in conjunction with an unauthorized serviceg) Damage caused by natural disasters such as fire, lightning, flood, earthquake, etc.

- 6) Whether or not damage is due to improper use shall be at the discretion of GLK.
- 7) There is no charge for the regular maintenance service provided by the manufacturer or importer within the warranty period.
- 8) The warranty must be kept within the warranty period. If the warranty card is lost, warranty service is not provided. A warranty must be provided when requesting repairs, otherwise the repair cost will be charged.
- 9) The warranty attached to the product sold must be completed, signed and stamped by GLK (or retailer) and the customer themselves. A copy of the customer must be provided to the customer immediately and the copy must also be sent to GLK.

"The warranty must indicate the item name, date, and serial number of the purchased item."