

Dealer's Manual

ROAD	MTB	Trekking
City Touring/ Comfort Bike	URBAN SPORT	E-BIKE

Front Derailleur

DEORE

FD-M4100

FD-M5100

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IMPORTANT NOTICE

- **This dealer's manual is intended primarily for use by professional bicycle mechanics.** Users who are not professionally trained for bicycle assembly should not attempt to install the components themselves using the dealer's manuals. If any part of the information on the manual is unclear to you, do not proceed with the installation. Instead, contact your place of purchase or a distributor for assistance.
- Make sure to read all manuals included with the product.
- Do not disassemble or modify the product other than as stated in the information contained in this dealer's manual.
- All manuals and technical documents are accessible online at <https://si.shimano.com>.
- For consumers who do not have easy access to the internet, please contact a SHIMANO distributor or any of the SHIMANO offices to obtain a hardcopy of the User's Manual.
- Please observe the appropriate rules and regulations of the country, state or region in which you conduct your business as a dealer.

For safety, be sure to read this dealer's manual thoroughly before use, and follow it for correct use.


The following instructions must be observed at all times in order to prevent personal injury and physical damage to equipment and surroundings.

The instructions are classified according to the degree of danger or damage which may occur if the product is used incorrectly.

 DANGER	Failure to follow the instructions will result in death or serious injury.
 WARNING	Failure to follow the instructions could result in death or serious injury.
 CAUTION	Failure to follow the instructions could cause personal injury or physical damage to equipment and surroundings.

TO ENSURE SAFETY

⚠ WARNING

- Be sure to follow the instructions provided in the manuals when installing the product. Only use SHIMANO genuine parts. If a component or replacement part is incorrectly assembled or adjusted, it can lead to component failure and cause the rider to lose control and crash.
-  Wear approved eye protection while performing maintenance tasks such as replacing components.

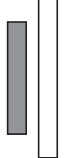
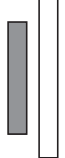
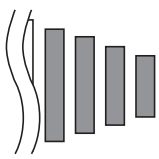
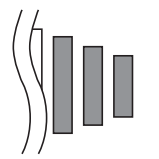
Be sure to also inform users of the following:

- Be careful not to let the hemming of your clothes get caught in the chain while riding. Otherwise, you may fall off the bicycle.

NOTICE

Be sure to also inform users of the following:

- If gear shifting operations do not feel smooth, wash the shifting unit and lubricate all moving parts.
- When the chain is in any of the positions shown in the figures, the chain may come into contact with the front chainring or front derailleur and generate noise. If noise is a problem, shift the rear sprocket to the next largest gear or the one after it.

	Double	
	10-speed	11-speed
Front chainring		
Rear sprocket		

For installation to the bicycle, and maintenance:




- For frames with suspension, the chainstay angle will vary depending on whether the bicycle is being ridden or not being ridden.

- When the bicycle is not being ridden and the chain is positioned on the front largest chainring and the rear smallest sprocket, the outer plate of the front derailleur may touch the chain.
- Use an OT-SP41 outer casing and a cable guide for smooth operation.
- If excess play in the links is so great that gear shifting adjustments cannot be made, replace the shifting unit.
- Products are not guaranteed against natural wear and deterioration from normal use and aging.
- For maximum performance we highly recommend SHIMANO lubricants and maintenance products.

The actual product may differ from the illustration because this manual is intended mainly to explain the procedures for using the product.

LIST OF TOOLS TO BE USED

The following tools are needed for installation, adjustment, and maintenance purposes.

Tool	
	2 mm hexagon wrench
	4 mm hexagon wrench
	Hexalobular [#10]

INSTALLATION/REMOVAL

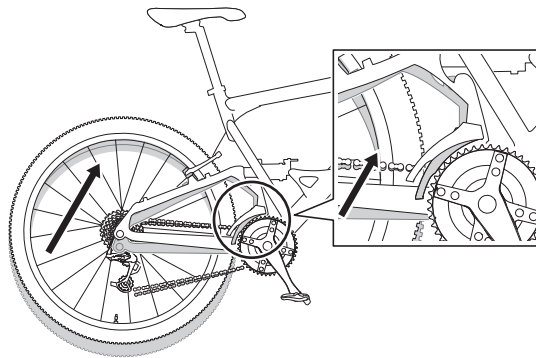
Installing the front derailleur

NOTICE

- When installing parts onto a carbon frame/handlebar, confirm the recommended tightening torque with the carbon frame or handlebar manufacturer. This will prevent damage to the frame/handlebar due to over-torquing or inadequate securing of the components.

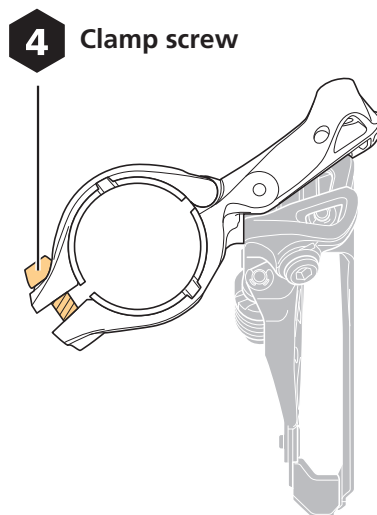
Installing on bicycles with rear suspension

For installation and SIS adjustment procedure, make sure to test the shifting operation while the suspension is in the approximate geometry it will be ridden in.



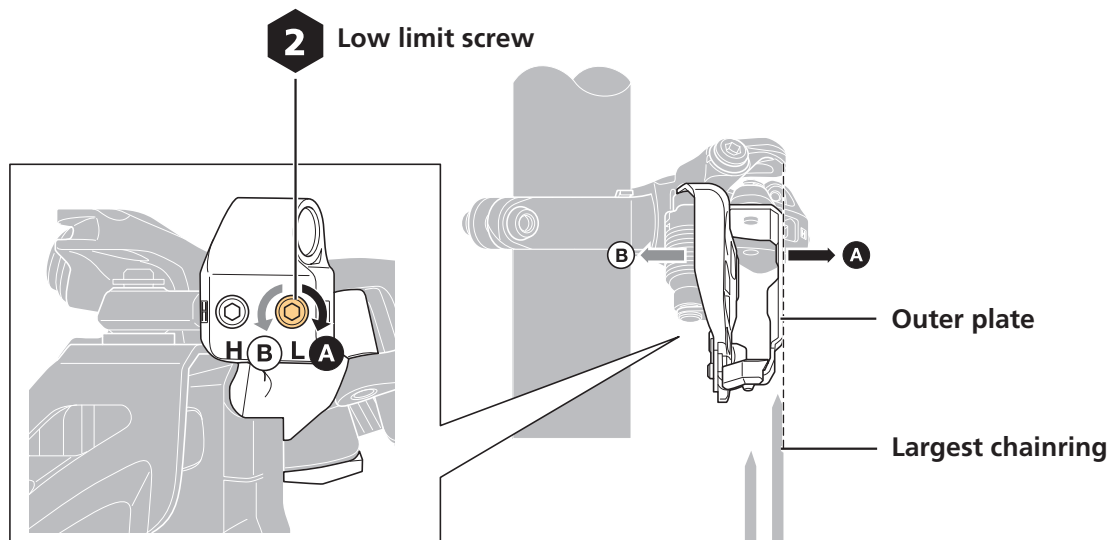
Band type

1. Temporarily attach the clamp screw.



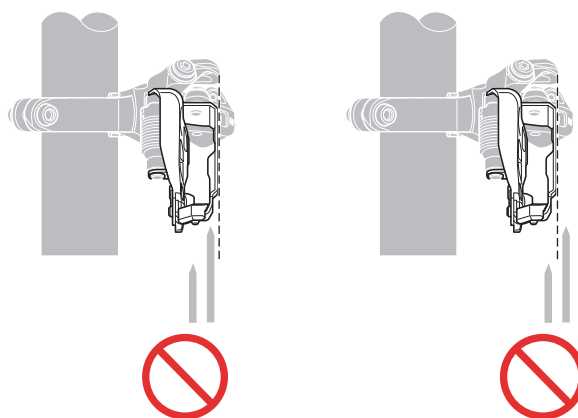
2. Adjust the position of the outer plate.

Use the low limit screw to align the outer plate with the flat surface of the largest chainring.



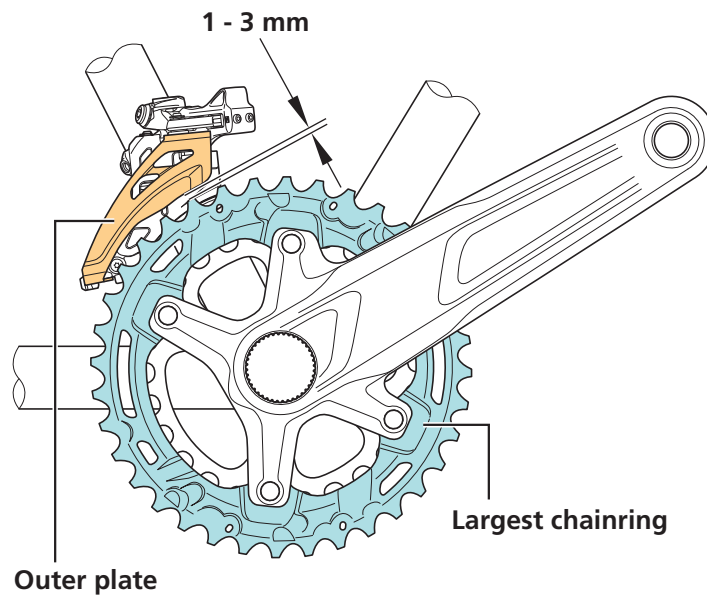
NOTICE

- Do not position the outer plate as shown in the figure.



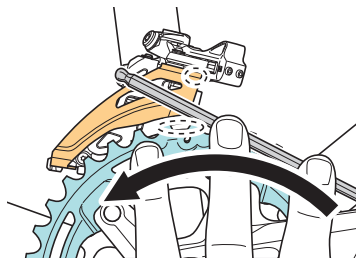
3. Adjust the height.

Adjust the installation height so that the distance from the tips of the teeth on the largest chainring is 1 - 3 mm.

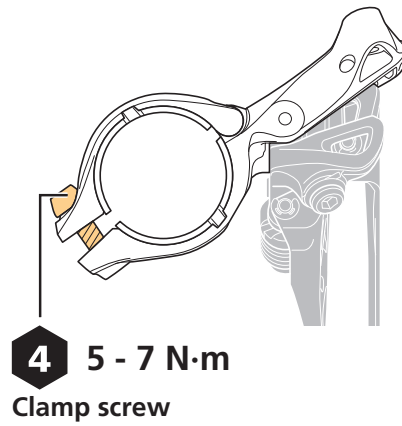


4. Adjust the installation position.

As shown in the figure, hold a tool such as a hexagon wrench against the flat surface of the largest chainring and make sure that the front derailleur is installed so that it is parallel with the front chainring.

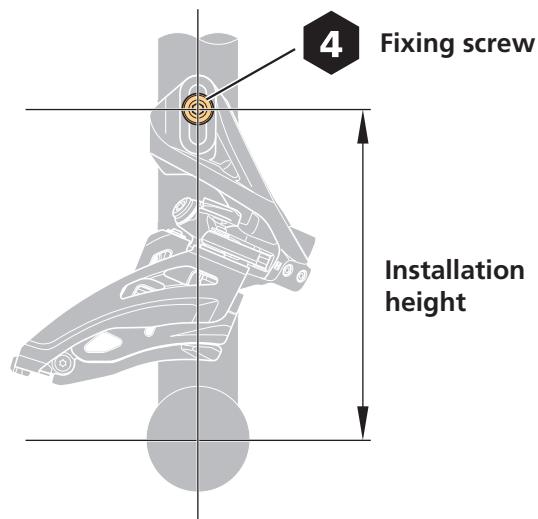


5. Secure the clamp screw.



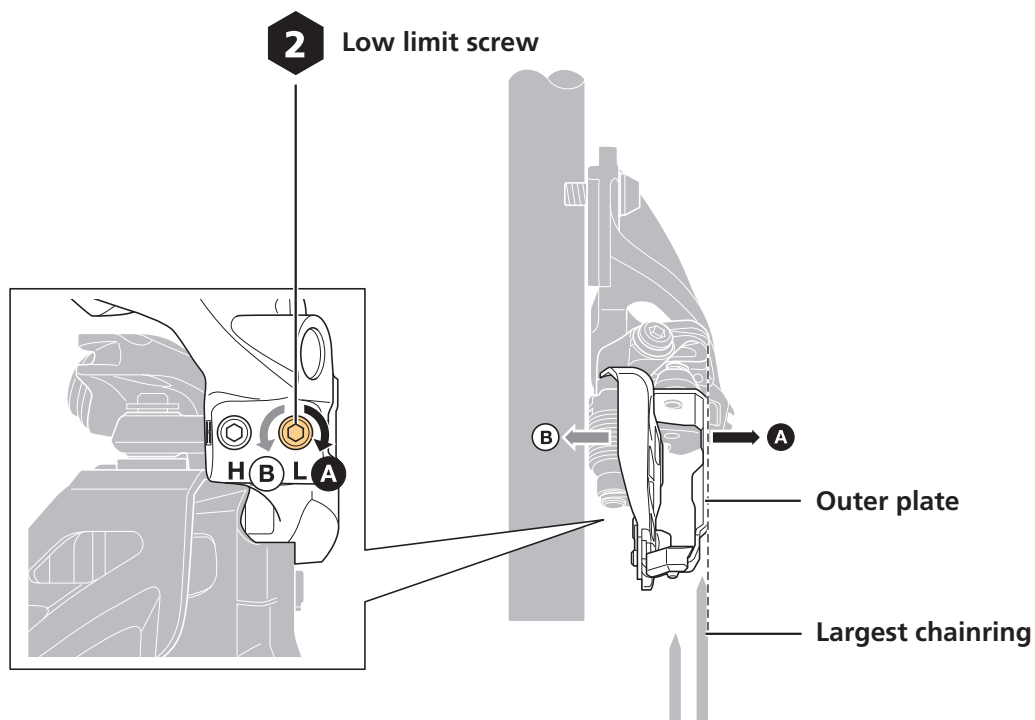
Direct mount type

1. Temporarily install the front derailleur to the frame.



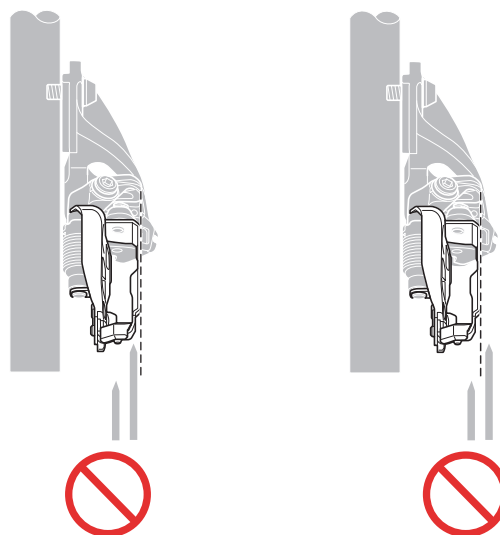
2. Adjust the position of the outer plate.

Use the low limit screw to align the outer plate with the flat surface of the largest chainring.



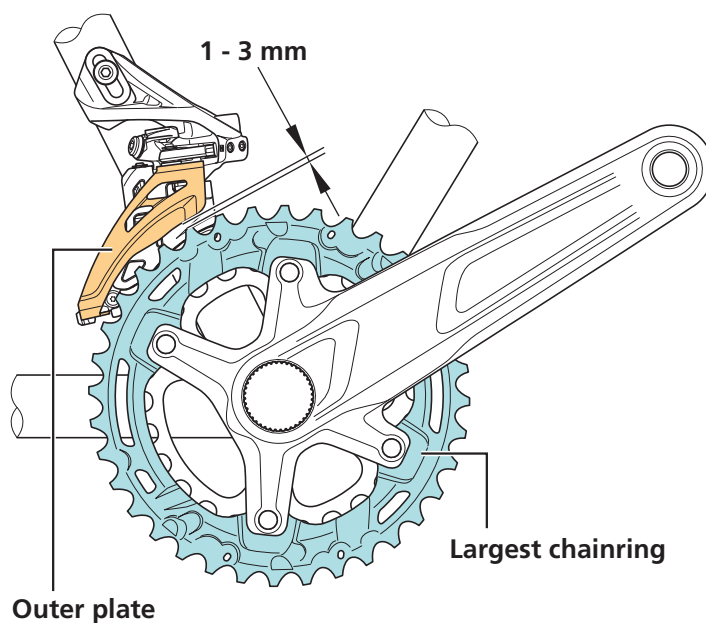
NOTICE

- Do not position the outer plate as shown in the figure.

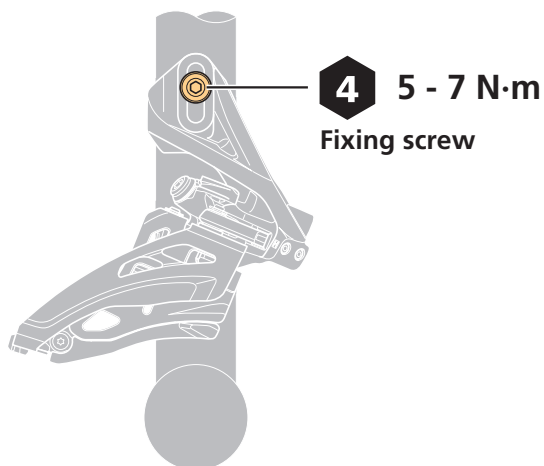


3. Adjust the height.

Adjust the installation height so that the distance from the tips of the teeth on the largest chainring is 1 - 3 mm.



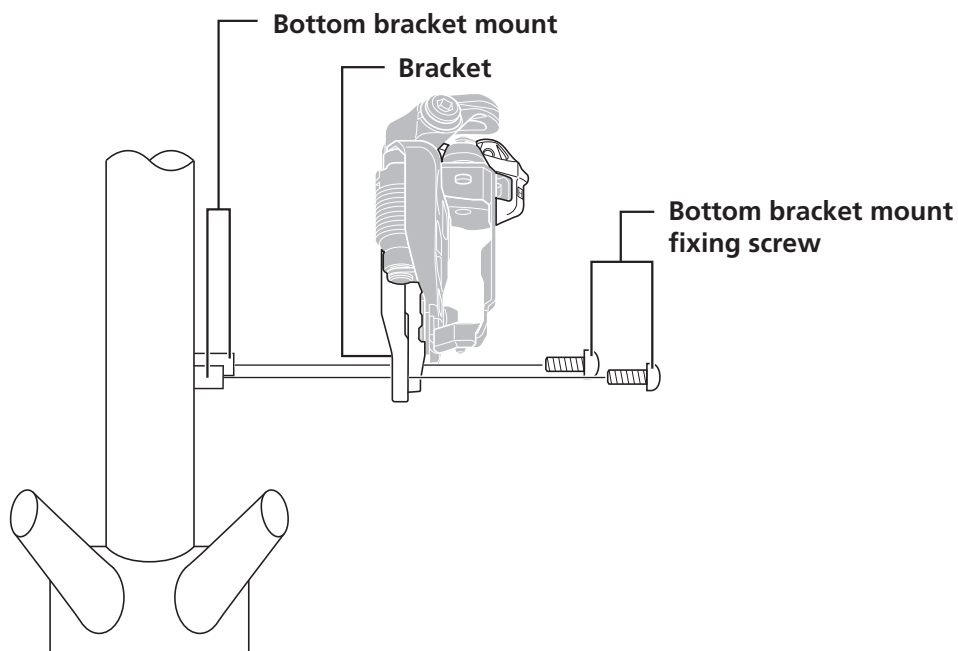
4. Secure the front derailleur to the frame.



E Type

1. Temporarily install the front derailleur to the frame.

Secure with the bottom bracket mount fixing screws.

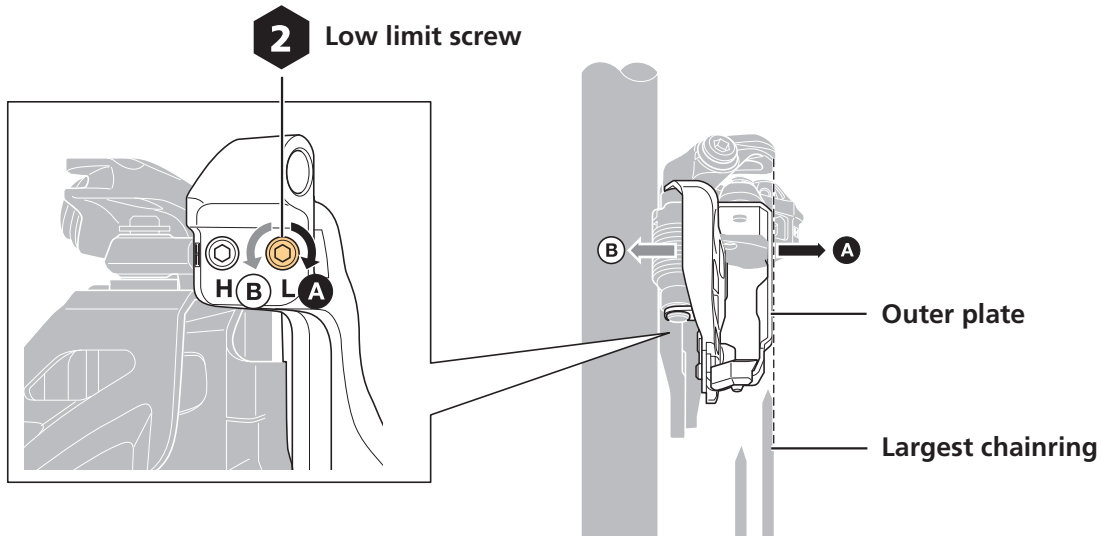


NOTICE

- The bottom bracket mount fixing screws are not included with SHIMANO components.

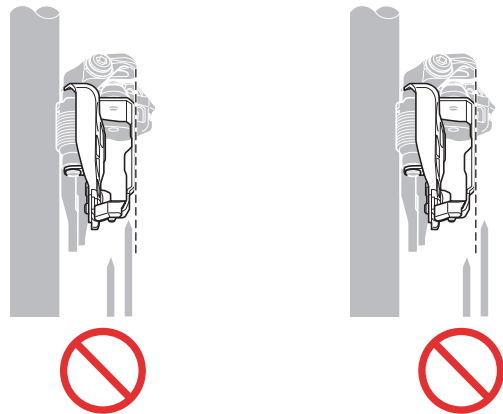
2. Adjust the position of the outer plate.

Use the low limit screw to align the outer plate with the flat surface of the largest chainring.



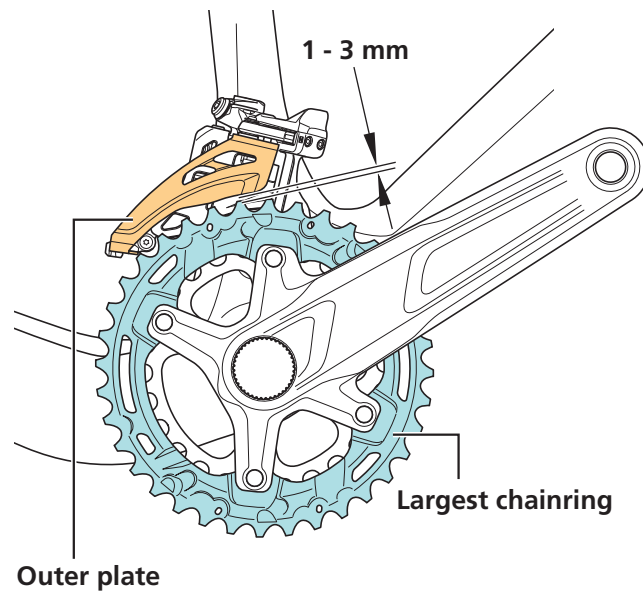
NOTICE

- Do not position the outer plate as shown in the figure.



3. Adjust the height.

Adjust the installation height so that the distance from the tips of the teeth on the largest chainring is 1 - 3 mm.



4. Secure the front derailleur to the frame.

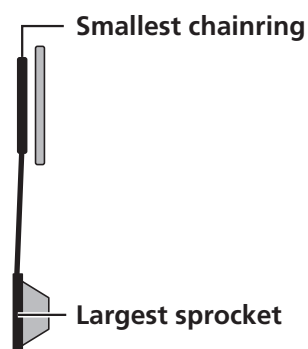
ADJUSTMENT

Before making adjustments, check the specifications of the bicycle.

Installing the inner cable and adjusting the gear shifting operation

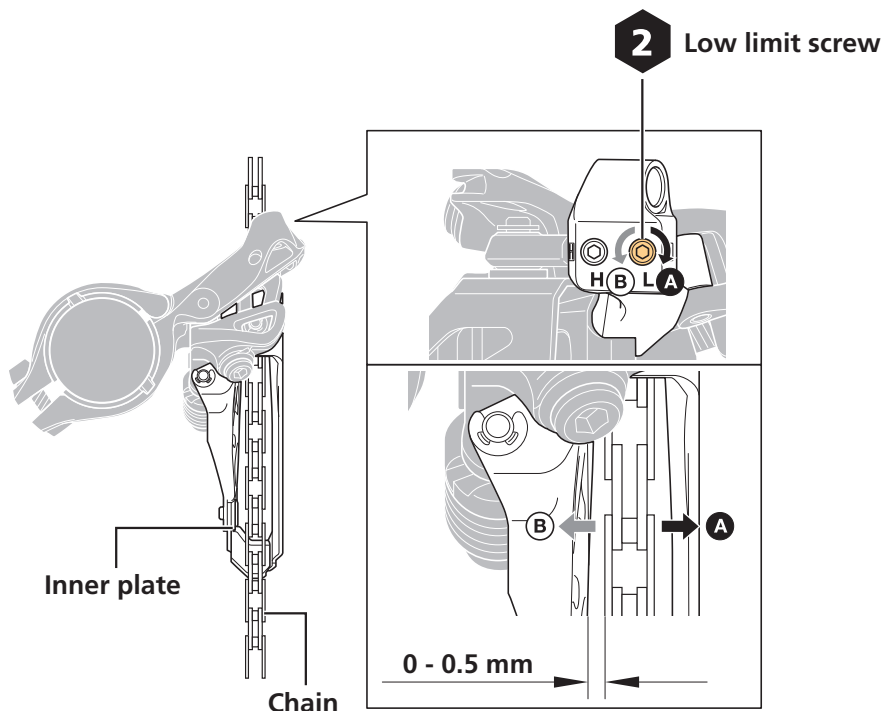
Adjusting the stroke on the low limit

1. Shift the chain to the smallest chainring and the largest sprocket.



2. Adjust the low position of the front derailleur.

Adjust the gap between the inner plate and chain to 0 - 0.5 mm.

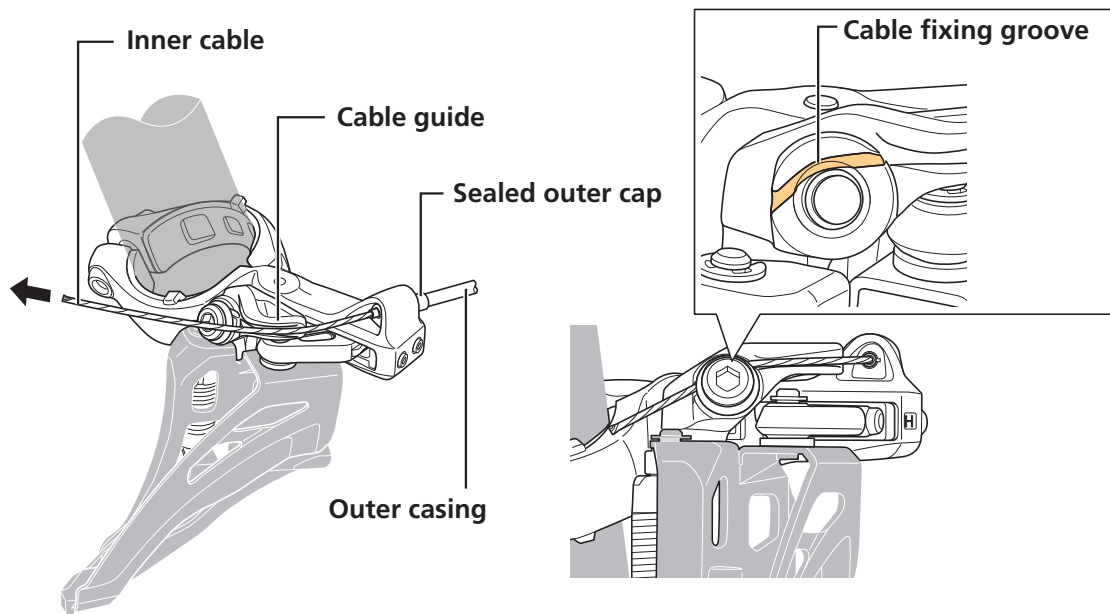


Connection and securing of the inner cable

1. Operate the release lever of the shifting lever and set it to the initial position (smallest chainring side).
2. Pass the inner cable through the front derailleur.

Pass the cable through the cable guide and along the cable fixing groove.

The cable fixing groove is located on the upper side of the inner cable fixing screw.

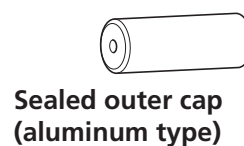


NOTICE

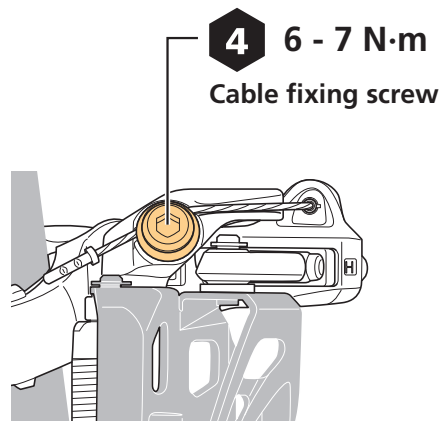
- The inner cable coating may become fluffy during inner cable installation or during use, but this does not affect function.

TECH TIPS

- If the motion of the rear derailleur is extreme, such as in bicycles with a rear suspension, replacing the sealed outer cap with the supplied aluminum type sealed outer cap is recommended.

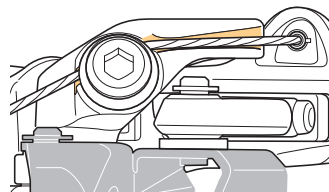


3. Secure the inner cable.



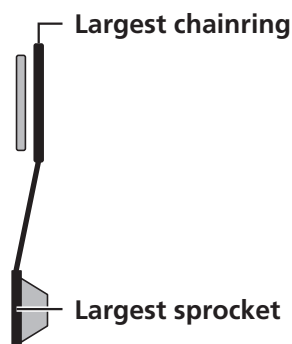
NOTICE

- Be sure to pass the inner cable along the cable fixing groove as shown in the figure. If the cable is not distributed along the groove, the gear shifting performance may become obstructed due to a reduction in the holding force, etc.



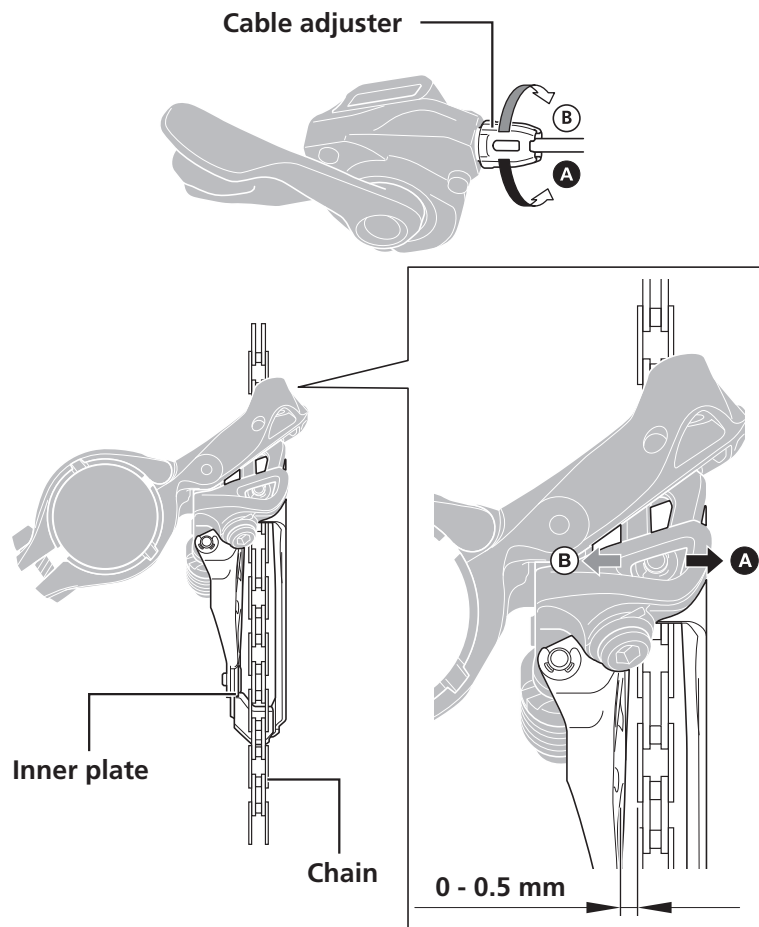
Adjusting the cable tension

1. Shift the chain to the largest chainring and the largest sprocket.



2. Adjust the low position of the inner plate.

Adjust the gap between the inner plate and the chain to 0 - 0.5 mm with the cable adjuster.

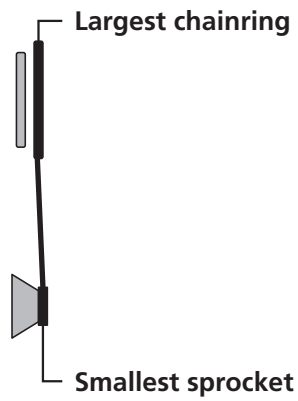


TECH TIPS

- Operate the lever once after adjusting with the cable adjuster and re-check the gap.

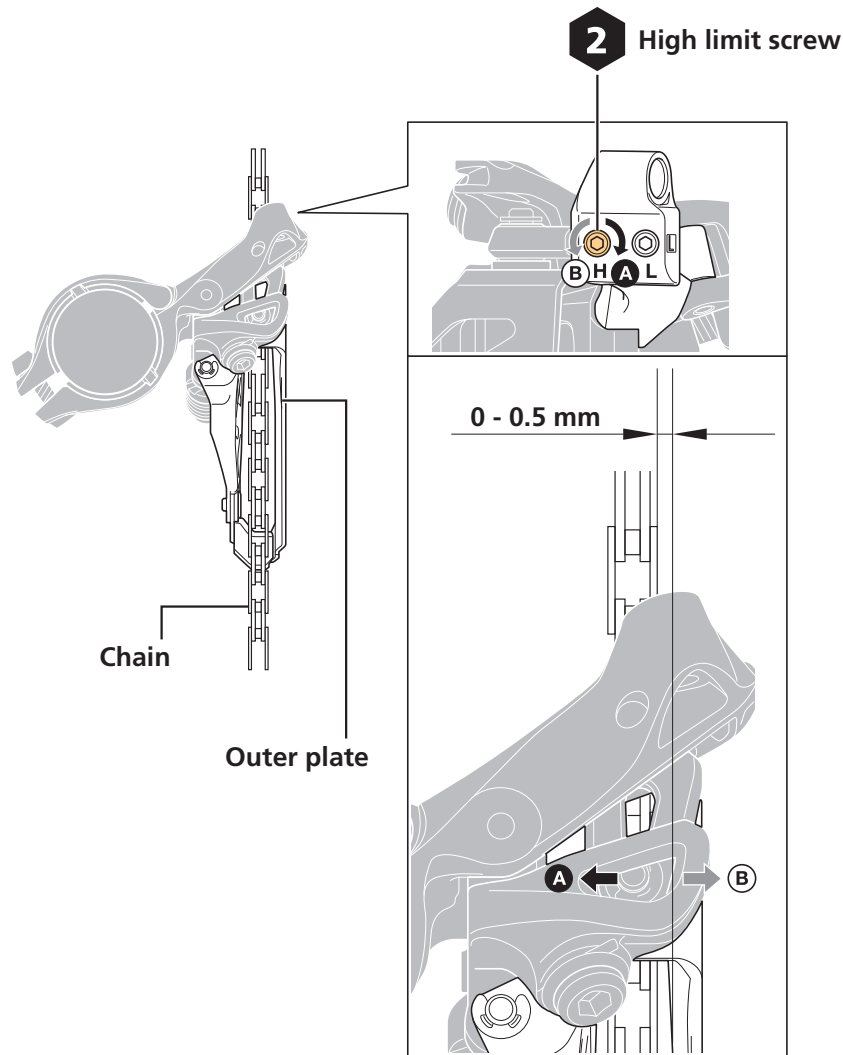
Adjusting the stroke on the high limit

1. Shift the chain to the largest chainring and the smallest sprocket.



2. Adjust the position of the outer plate.

Adjust the gap between the outer plate and chain to 0 - 0.5 mm.



Checking gear shifting and fine tuning

After the cable is installed and adjusted, operate the shifting lever to check the gear shifting performance. (This also applies if gear shifting becomes difficult during use.)

Refer to the table when fine tuning. Turn 1/8 of a turn for each adjustment.

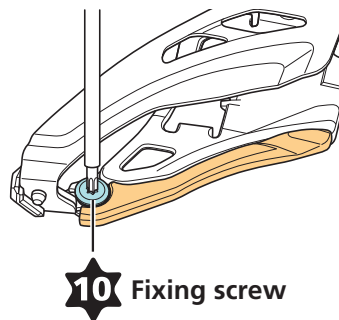
If the chain falls to the crank side	Turn the high limit screw clockwise.
If gear shifting is difficult from the smallest chainring to the largest chainring	Tighten the cable. If this does not improve the situation, turn the high limit screw counterclockwise.
If gear shifting is difficult from the largest chainring to the smallest chainring	Turn the low limit screw counterclockwise. If this does not improve the situation, loosen the cable.
If the chain falls to the bottom bracket side	Turn the low limit screw clockwise.

MAINTENANCE

Replacing the chain catcher

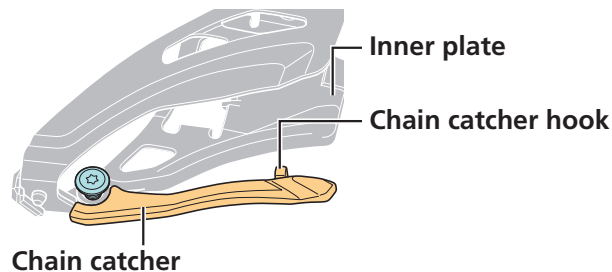
Removal

1. Remove the fixing screw.



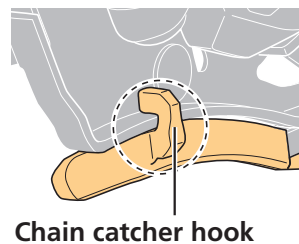
Installation

1. Temporarily install the chain catcher to the inner plate.



2. Install the hook of the chain catcher.

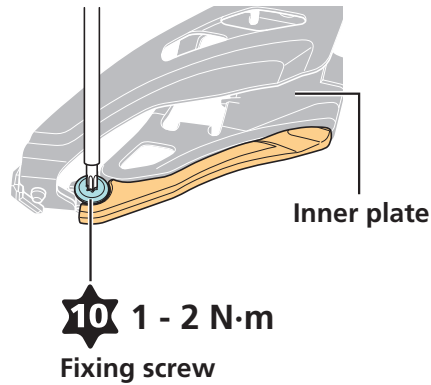
Install the hook securely as shown in the figure.



NOTICE

- The shape of the chain catcher may differ depending on the model. Be sure to use a compatible chain catcher.

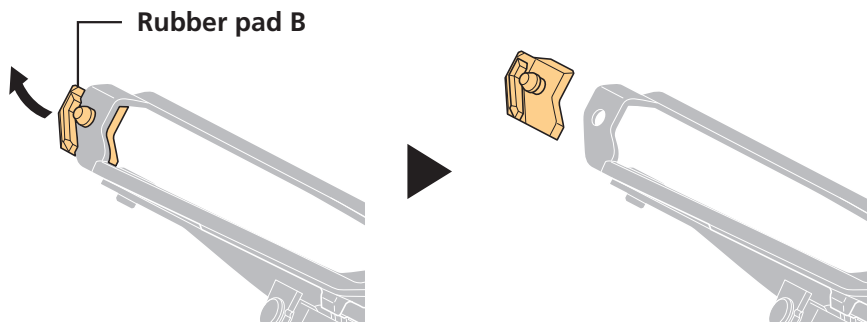
3. Secure the chain catcher along the inner plate.



Replacing rubber pad B

Removal

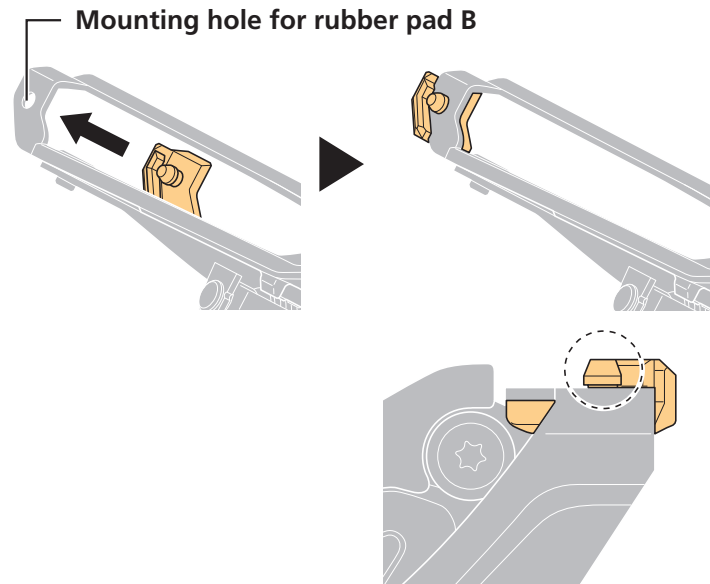
1. Peel back and remove rubber pad B from the inner side of the outer plate.



Installation

1. Align in the installation position as shown in the figure, then push in rubber pad B to install it.

Make sure that the protrusion of rubber pad B fits securely into the outer plate.



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Please note: specifications are subject to change for improvement without notice. (English)

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