

## Dealer's Manual

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

# Flat Pedals

### Non-Series

PD-EF102

PD-EF202

PD-EF205

PD-GR400

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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.

 <b>DANGER</b>	Failure to follow the instructions will result in death or serious injury.
 <b>WARNING</b>	Failure to follow the instructions could result in death or serious injury.
 <b>CAUTION</b>	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:**

- Do not continue riding the bicycle if the reflectors are dirty or damaged. Otherwise, it becomes more difficult for oncoming vehicles to see you.
- Be sure to attach reflectors to the bicycle when traveling on roads.

## **NOTICE**

### **Be sure to also inform users of the following:**

- Check that there is no excess play or looseness in any fastening sections before riding the bicycle.
- If pedaling performance does not feel normal, contact your place of purchase.
- If you experience any trouble with the rotating parts of the pedal, the pedal may require adjustment. Consult your place of purchase or a distributor.
- Be sure to retighten the cranks and pedals at periodic intervals at your place of purchase or a distributor.
- 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.









### **For installation to the bicycle and maintenance**

- Be sure to retighten the cranks and pedals at periodic intervals.

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/removal, adjustment, and maintenance purposes.

Tool	
	2.5 mm hexagon wrench
	5.5 mm spanner
	15 mm spanner
	Slotted screwdriver
	TL-PD400
	Pin or similar tool [#8]
	Cross head screwdriver [#2]
	Bearing puller

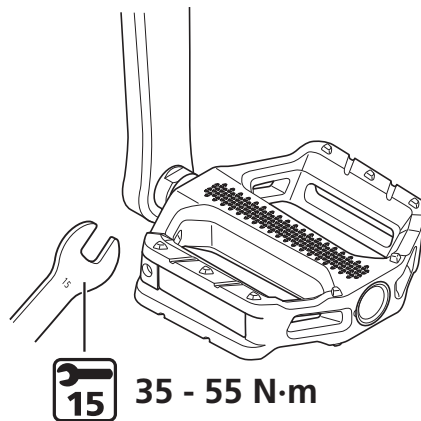
# Installation/removal

## Installing to the crank

1. Apply a small amount of grease to the threads.
2. Use a 15 mm spanner to install the pedals.

The right pedal has a right-hand thread; the left pedal has a left-hand thread.

\* The shape differs depending on the model.



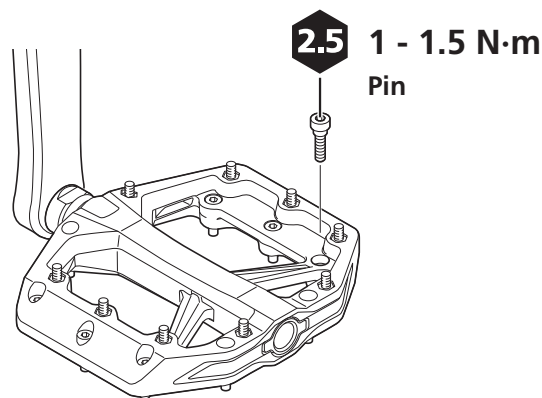
# Maintenance

## Replacing the pins

### PD-GR400

If the pins become worn or damaged, replace them with new pins.

1. Replace pins as shown in the figure.

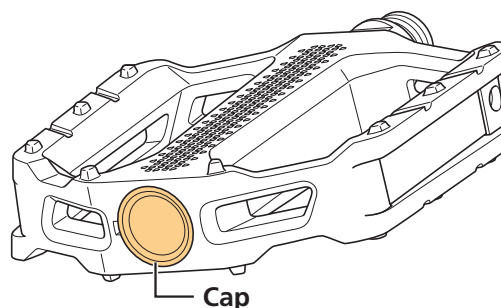


## Adjusting axle bearings

Adjustment is required if the rotating parts are not functioning properly. Follow the procedures shown below.

### PD-EF202/PD-EF205

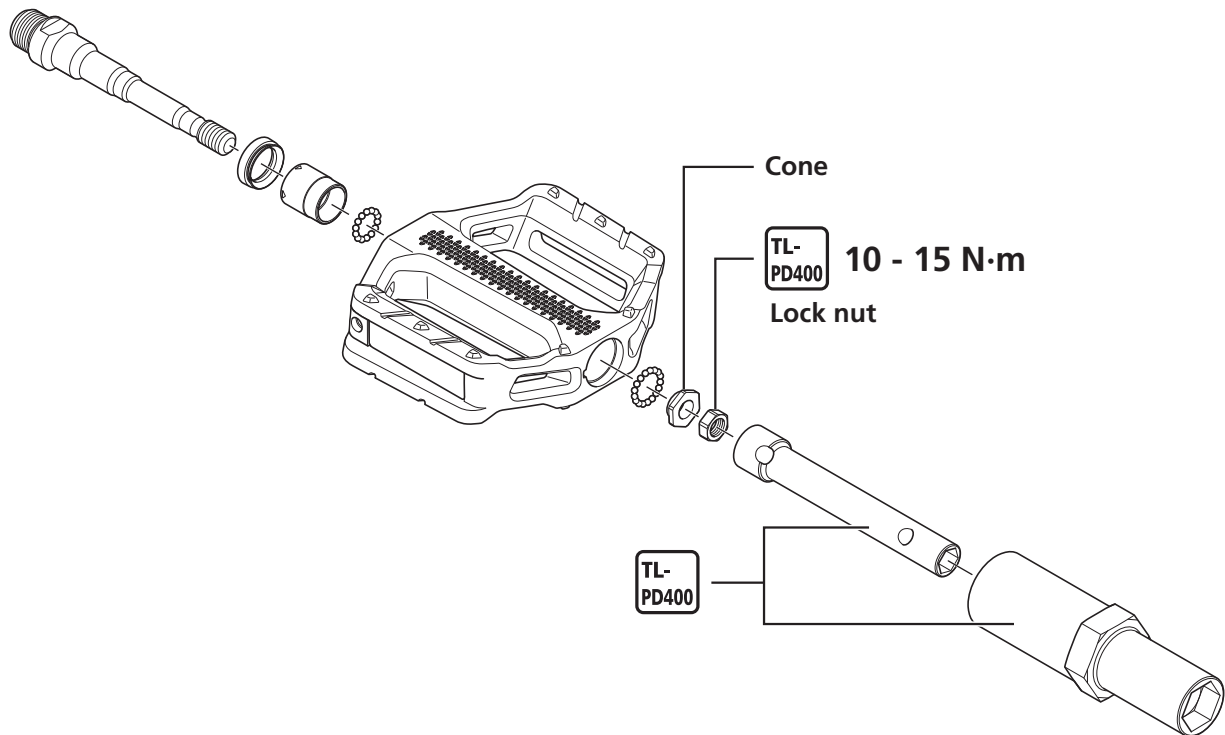
1. Remove the cap using a tool such as a slotted screwdriver.



2. Use the TL-PD400 SHIMANO original tool to turn the cone to adjust the bearing preload.



### 3. With the cone locked, tighten the lock nut.



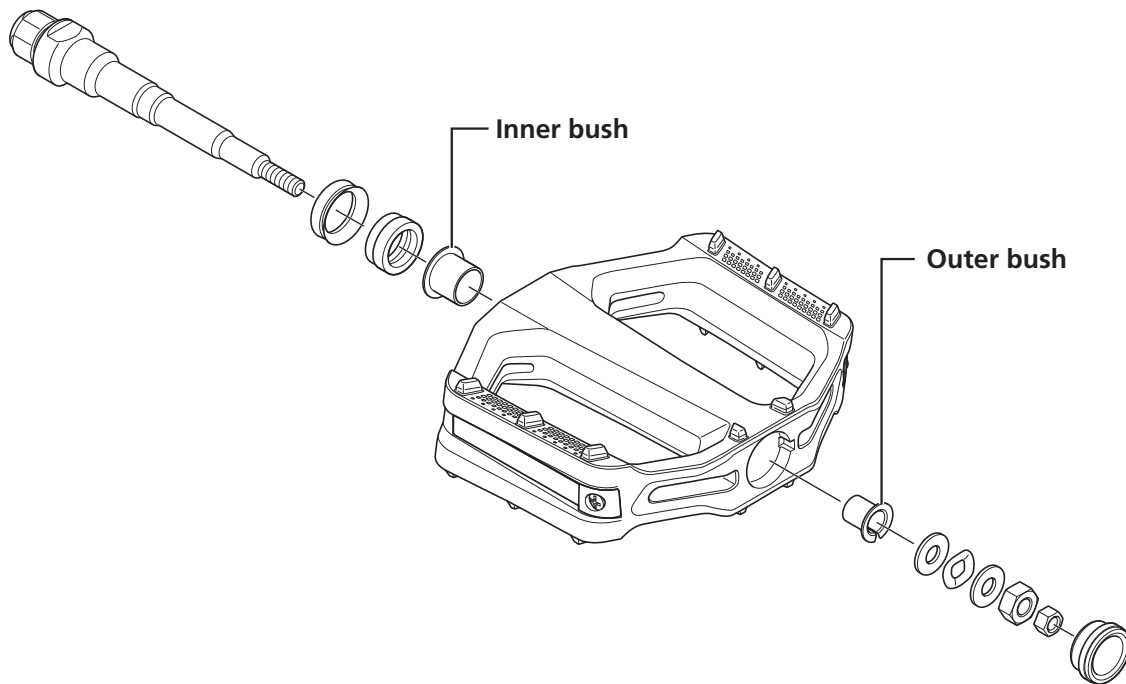
#### **NOTICE**

- The cones and lock nuts on both pedals have right-hand threads.
- Adjust the cone so as to achieve a smooth rotation without excess play when the axle unit is set into the pedal.

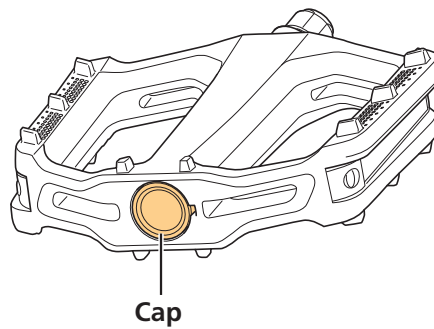
## PD-EF102/PD-GR400

\* The shape differs depending on the model.

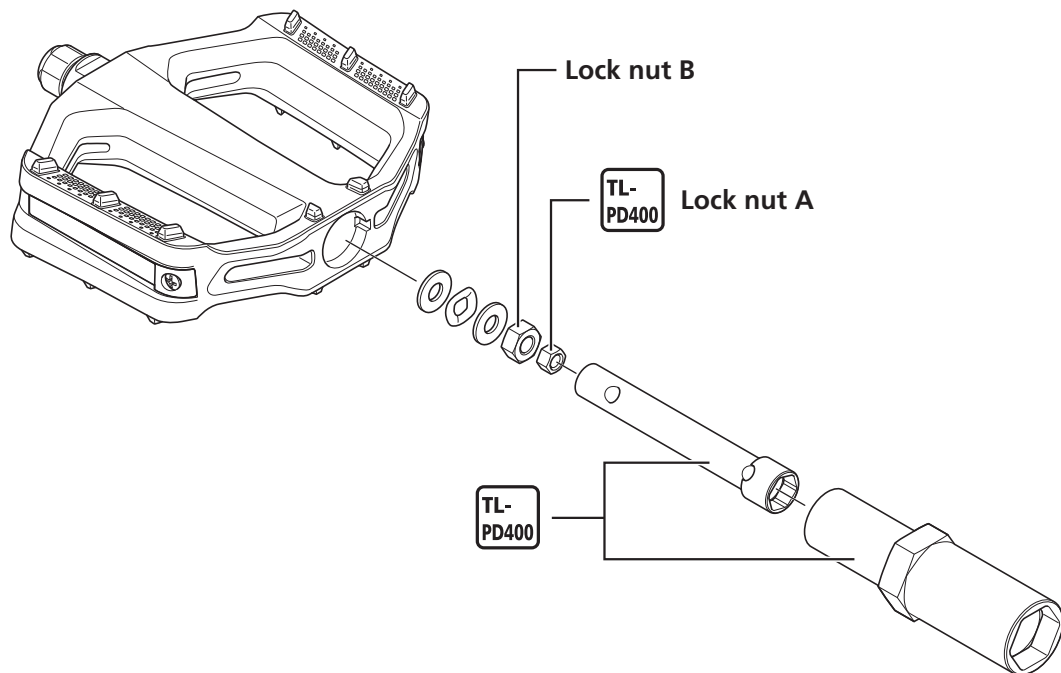
### Reference: Parts breakdown



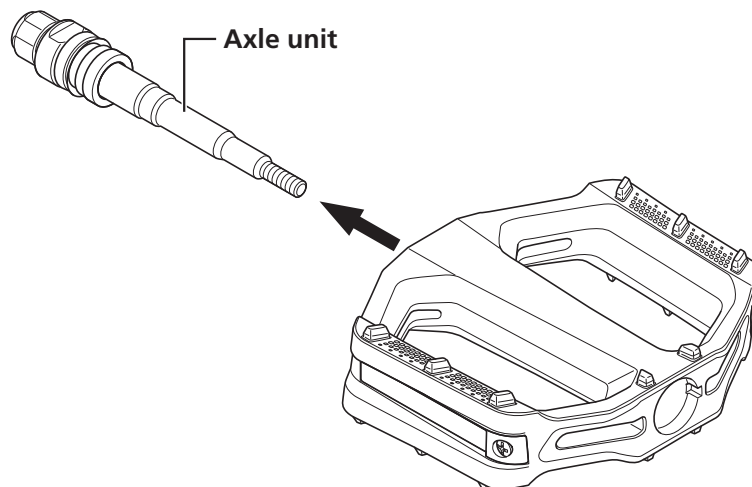
1. Remove the cap using a tool such as a slotted screwdriver.



## 2. Remove lock nut A and lock nut B, etc.



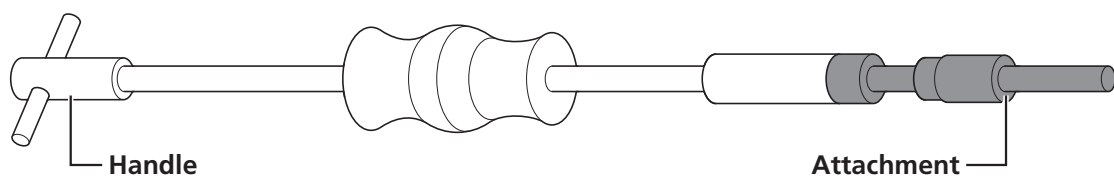
## 3. Pull out the axle unit.



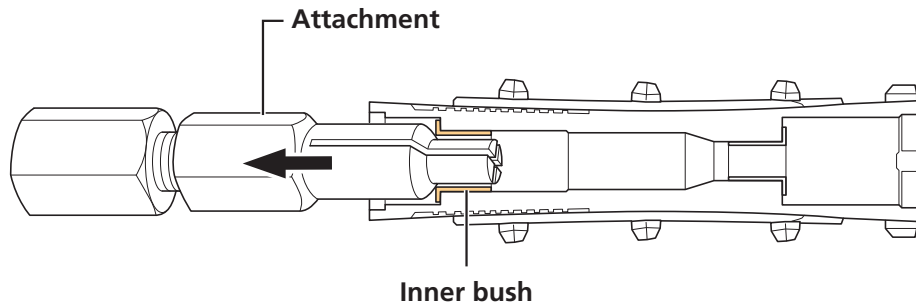
## 4. Use a bearing puller to pull out the inner bush.

(1) Insert the bearing puller into the pedal body.

Install an attachment that matches the inner bush to the bearing puller.

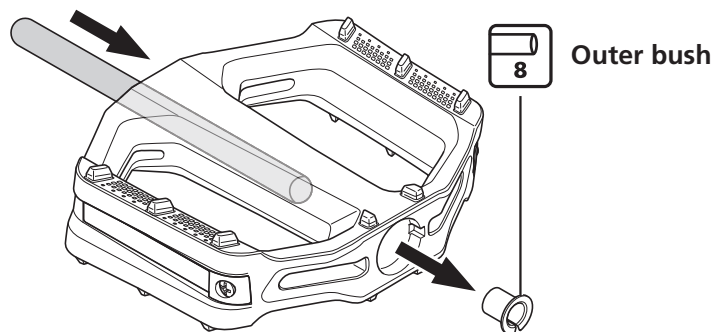


- (2) Set the end of the attachment so that it engages the far end of the interior of the inner bush.
- (3) Turn the handle to expand the end of the bearing puller.
- (4) Pull out the bearing puller and inner bush.



## 5. Take out the outer bush.

Push it out from the crank axle side with a pin or similar tool [#8].

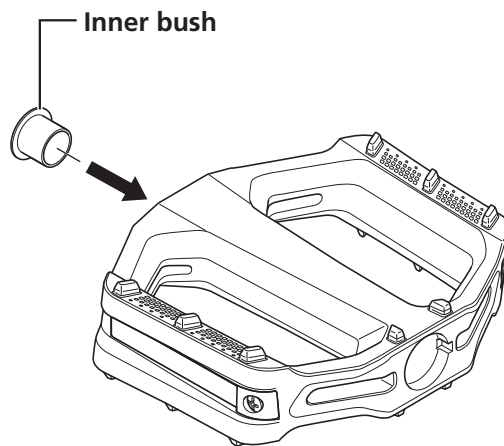


## 6. Remove old grease and apply an appropriate amount of new grease to the inner bush and outer bush.

### TECH TIPS

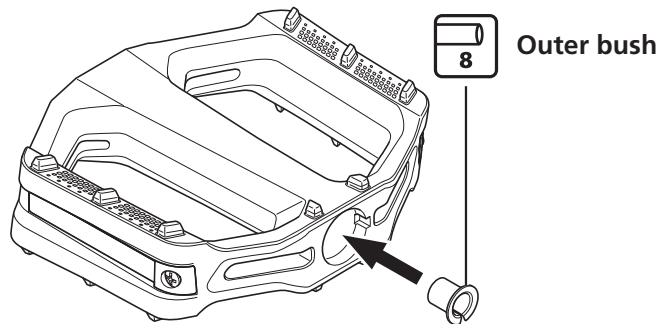
- Apply grease to the extent that it does not flow out when the axle is set into the pedal (approximately 0.6 g for the inner bush and 0.4 g for the outer bush).

## 7. Insert the new inner bush.

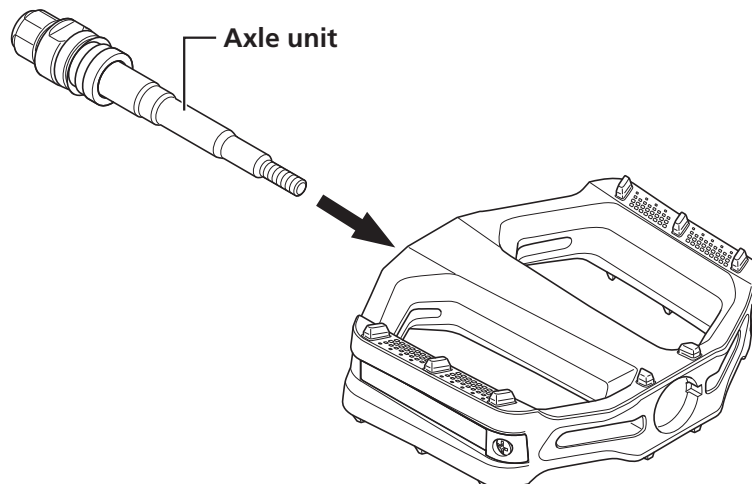


## 8. Insert the new outer bush.

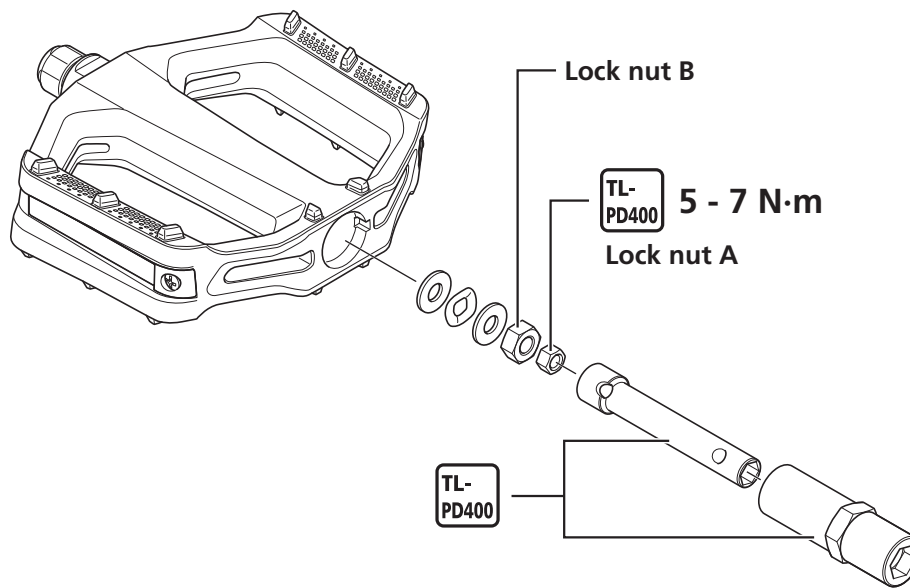
Insert it with a pin or similar tool [#8].



## 9. Install the axle unit.



## 10. With lock nut B locked, tighten the lock nut A.



### NOTICE

- Both lock nut A and lock nut B are threaded right-hand for the left pedal and threaded left-hand for the right pedal.
- Adjust lock nut B so as to achieve a smooth rotation without excess play when the axle unit is set into the pedal.

## Installing/removing the reflectors

### PD-EF102/PD-EF202/PD-EF205

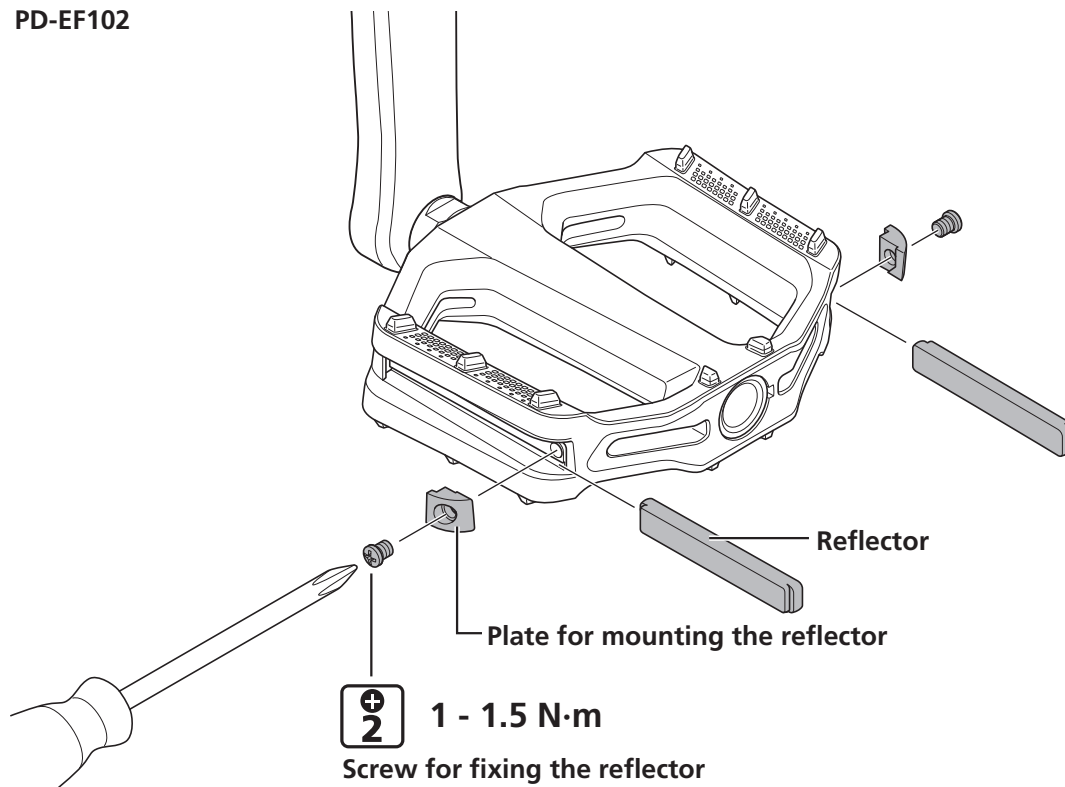
#### 1. Install the reflector as shown in the figure.

- (1) Remove using a cross head screwdriver.

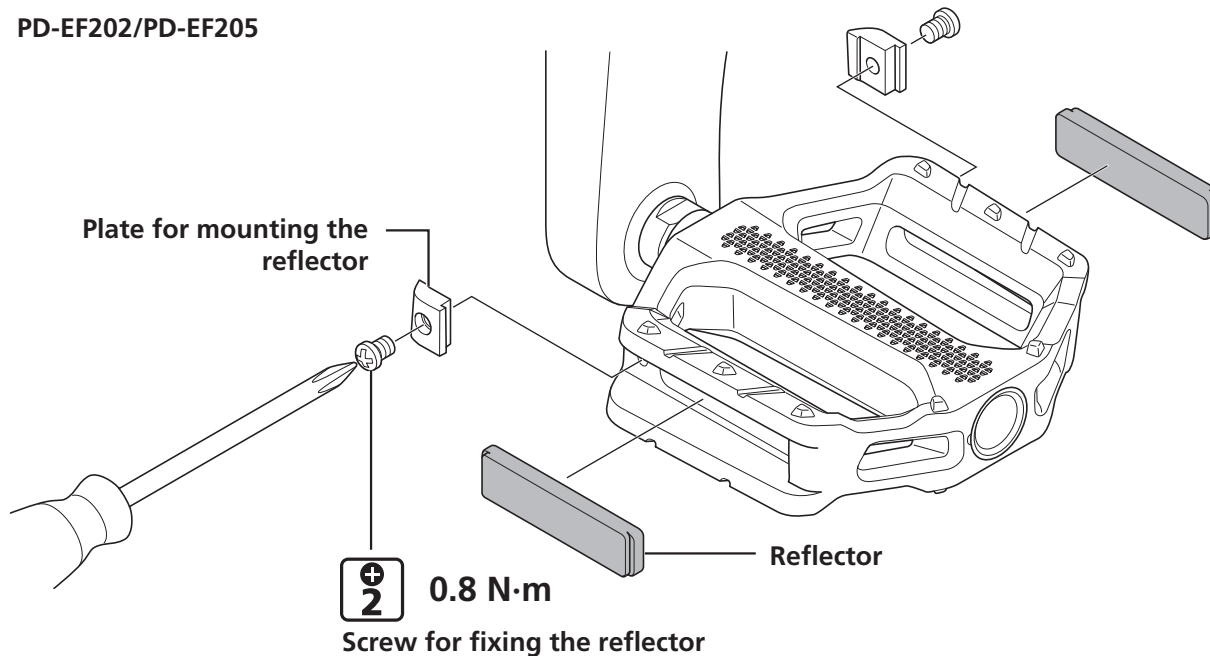
(2) Position the reflector on the pedal and secure it with the screw.

\* The shape differs depending on the model.

PD-EF102

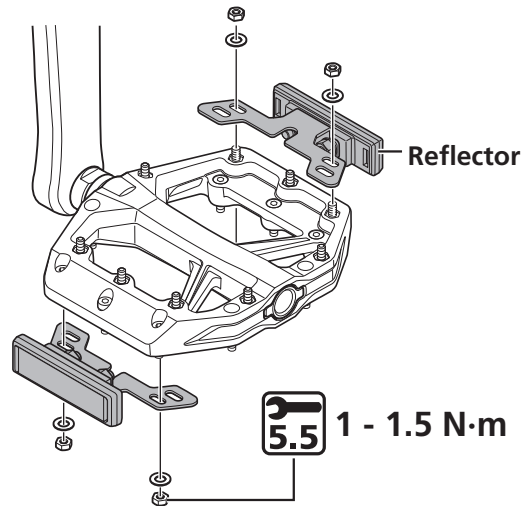


PD-EF202/PD-EF205



## PD-GR400

**1.** Install the reflector as shown in the figure.





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

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