

## Dealer's Manual

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

# Flat Pedal

### DEORE XT

PD-M8040

### SAINT

PD-MX80

PD-M828

### Non-Series

PD-GR500

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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 local bicycle dealer for their assistance.

- Make sure to read all instruction 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 dealer's manuals and instruction manuals can be viewed on-line on our website (<http://si.shimano.com>).
- 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.



Failure to follow the instructions will result in death or serious injury.



Failure to follow the instructions could result in death or serious injury.



Failure to follow the instructions could cause personal injury or physical damage to equipment and surroundings.


## TO ENSURE SAFETY

### WARNING

- **When installing components, be sure to follow the instructions that are given in the instruction manuals.**

It is recommended that you use only genuine Shimano parts. If parts such as bolts and nuts become loose or damaged, the bicycle may suddenly fall over, which may cause serious injury.

In addition, if adjustments are not carried out correctly, problems may occur, and the bicycle may suddenly fall over, which may cause serious injury.

-  Be sure to wear safety glasses or goggles to protect your eyes while performing maintenance tasks such as replacing parts.
- After reading the dealer's manual thoroughly, keep it in a safe place for later reference.

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

- If the gripping force between the shoes and the pedals (the force which stops shoes from slipping sideways) is insufficient, remove spacers to increase the force. In that case, first raise your feet from the pedals and then slide them sideways to disengage your feet from the pedals. Otherwise, you may fall and be seriously injured.
- With one foot firmly on the ground, practice engaging and disengaging the other foot from the pedal repeatedly until you become used to the operation. If you cannot get used to this operation, use the product with spacers installed.
- Because the pins are long, they may cause injury if they come into direct contact with your skin. Be sure to wear clothing and protective gear which is suitable for the way in which the bicycle is to be used.
- 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 public roads.

### NOTE

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

- Check that there is no looseness in any joints or connections before riding the bicycle.
- If pedaling performance does not feel normal, check this once more.
- Be sure to retighten the crank arms and pedals at periodic intervals at the place of purchase or a bicycle dealer.
- 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 crank arms and pedals at periodic intervals.

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

# **LIST OF TOOLS TO BE USED**

## LIST OF TOOLS TO BE USED

The following tools are needed to assemble this product.

Tool		Tool		Tool	
	2 mm hexagon wrench		10 mm spanner		Hexalobular[#15]
	8 mm hexagon wrench		15 mm spanner		TL-PD33
	7 mm spanner		17 mm spanner		TL-PD40
	8 mm spanner		20 mm spanner		TL-PD63

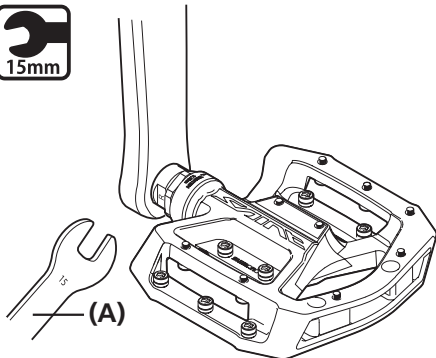
# INSTALLATION

# INSTALLATION

## ■ Mounting the pedals on the crank arms

**1** Apply a small amount of grease to the thread to prevent sticking.

### PD-MX80/PD-GR500



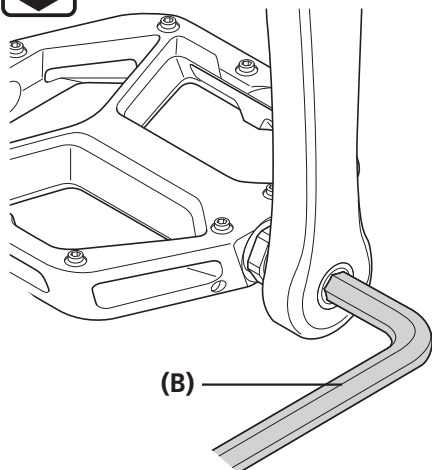
Use a 15 mm spanner or 8 mm hexagon wrench to mount the pedals on the crank arms.

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

### PD-M8040/PD-M828



**2**



- (A) 15 mm spanner
- (B) 8 mm hexagon wrench

#### Tightening torque



35 - 55 N·m

#### NOTE

##### PD-MX80/PD-GR500

Pay attention to the R/L mark.

R: right pedal

L: left pedal

##### PD-M8040/PD-M828

Pay attention to the difference between the left and right pedals.

Right pedal	Left pedal
No notch in end of screw stem	Notch in end of screw stem

**3** Remove any roughness or burrs on the joint, if detected.



# ADJUSTMENT

# ADJUSTMENT

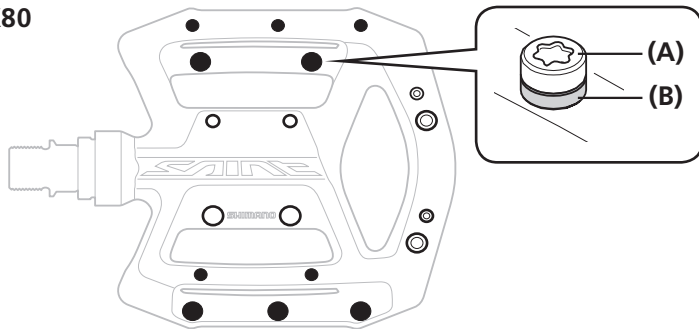
## ■ Adjusting the gripping force

### PD-MX80/PD-GR500

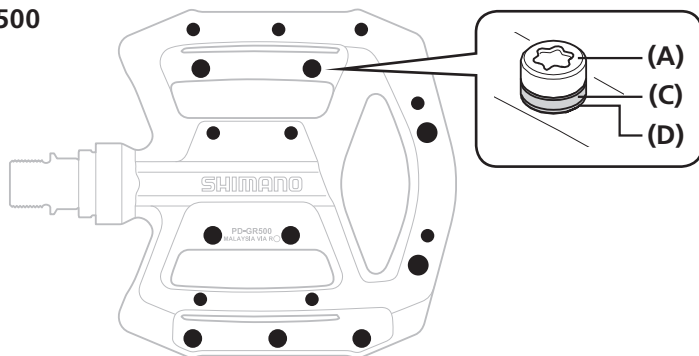
- Remove spacers or add pins to adjust the gripping force between the shoes and the pedals.
- On this pedal, there are 18 pin mounting locations on top and bottom in total. The pedal is shipped with the setup as shown below.
  - Install spacers to reduce the protrusion of pins.

- (A) Pin
- (B) Spacer
- (C) Spacer (1.75 mm)
- (D) Spacer (0.65 mm)

#### PD-MX80



#### PD-GR500



- : Spacers installed (short pins, low gripping forces)
- : Spacers not installed (long pins, high gripping forces)
- ◎ : No pins

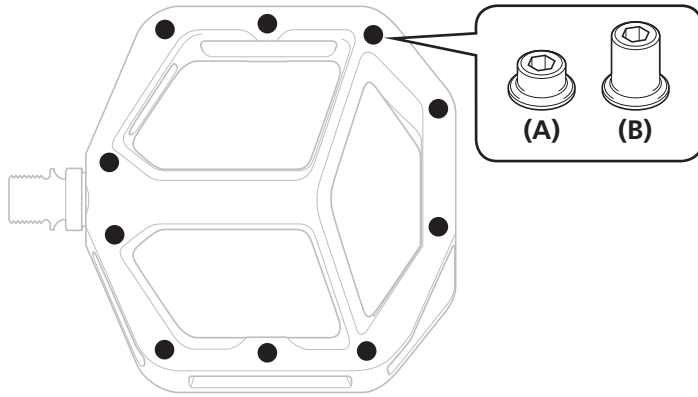
## ADJUSTMENT

### ▶▶ Adjusting the gripping force

## PD-M8040/PD-M828

Replace the long pins or short pins to adjust the gripping force between the shoes and the pedals.

- The number of pins differs depending on the model.
- Short pins are mounted in all installation positions by default.



● : Pin installation positions (all short pins by default)

**(A)** Short pin

**(B)** Long pin

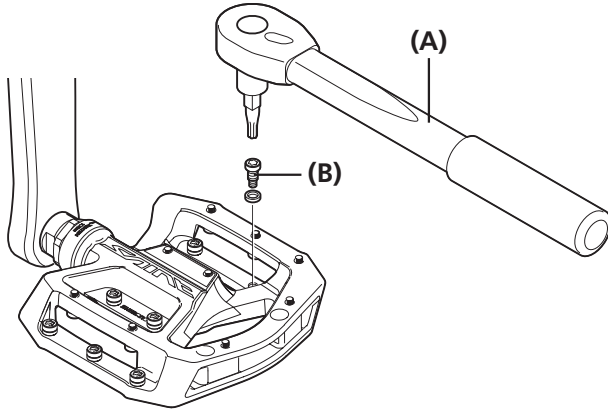
# MAINTENANCE

# MAINTENANCE

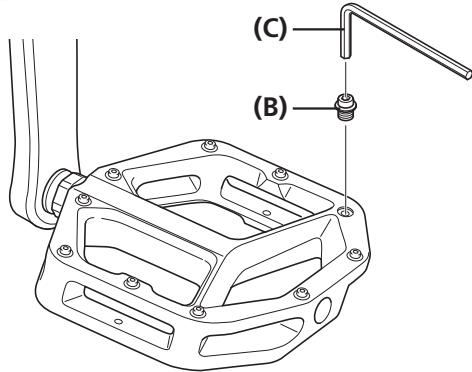
## ■ Pin

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

### PD-MX80/PD-GR500



### PD-M8040/PD-M828



- (A) Hexalobular[#15]
- (B) Pin
- (C) 2 mm hexagon wrench

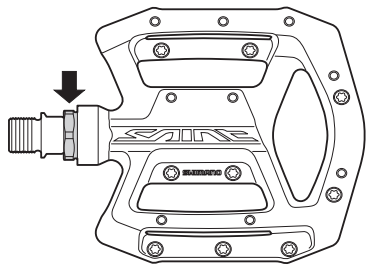
Tightening torque	
	2 - 2.5 N·m
	1 - 1.5 N·m

## ■ Axle unit

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

### PD-MX80/PD-GR500

**1**



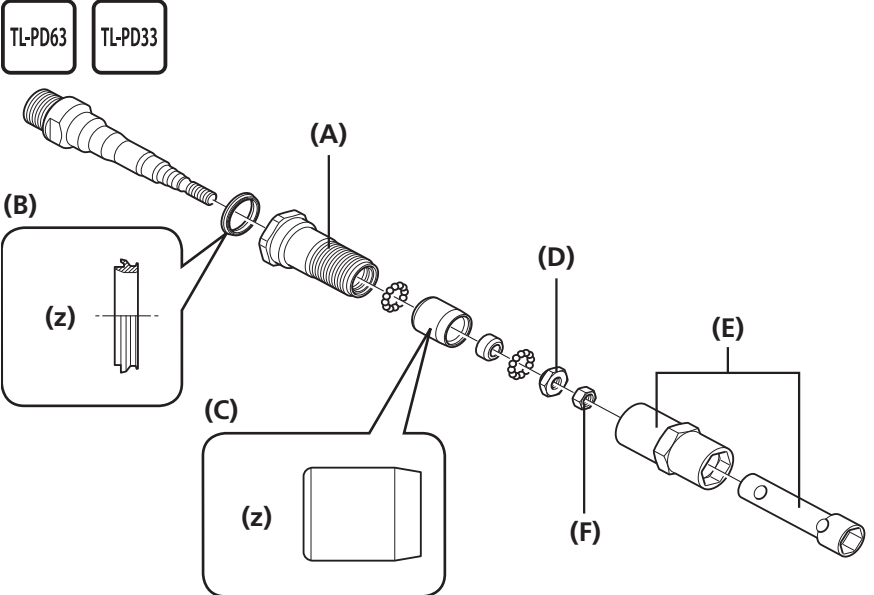
Using a 20 mm spanner, loosen the lock bush to pull out the axle unit.

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

**2**

Use the Shimano original tool TL-PD63 or TL-PD33, or 7 mm and 10 mm spanners to turn the cone (10 mm) to adjust the rotation.

With the cone locked, tighten the lock nut (7 mm).



**3**

(z) Crank side

- (A) Lock bush
- (B) Rubber seal
- (C) Body cup
- (D) Cone
- (E) TL-PD63/33
- (F) Lock nut

Tightening torque (F)	
TL-PD63	5 - 7 N·m
TL-PD33	

- NOTE**
- Both the cone and lock nut are threaded left-hand for the right pedal and right-hand for the left pedal.
  - Adjust the cone so as to achieve a smooth rotation without looseness when the axle unit is set into the pedal.
  - The rotating parts are fastened when the axle unit is set into the pedal. Adjust them slightly loose before setup.
  - When assembling the rubber seal and body cup, please note the direction of the parts.

▶▶ Axle unit

4

Remove old grease and apply an appropriate amount of new grease to the bottom of the pedal body.

- Apply grease to the extent that it does not flow out when the axle is set into the pedal (about 1.5 g).

5

Insert the axle unit into the pedal, then tighten the lock bush.

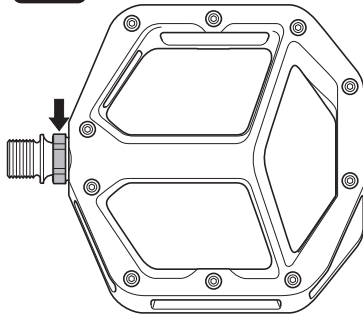
Tightening torque



10 - 12 N·m

PD-M8040/PD-M828

1



Using a 17 mm spanner or the Shimano original tool TL-PD40, loosen the lock bush to pull out the axle unit.

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

**NOTE**

Use a 17 mm spanner for PD-M8040 and TL-PD40 for PD-M828.

2

**PD-M8040**

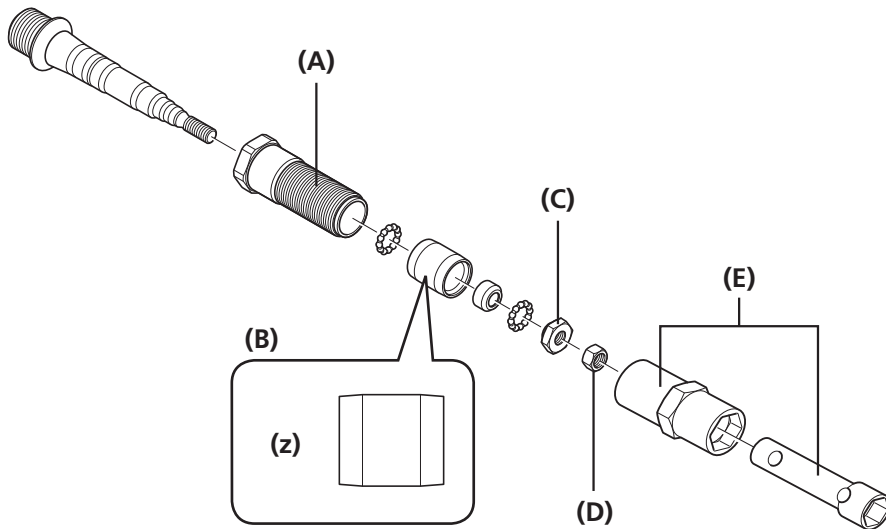
Use the Shimano original tool TL-PD63 or TL-PD33, or 7 mm and 10 mm spanners to turn the cone (10 mm) to adjust the rotation.

**PD-M828**

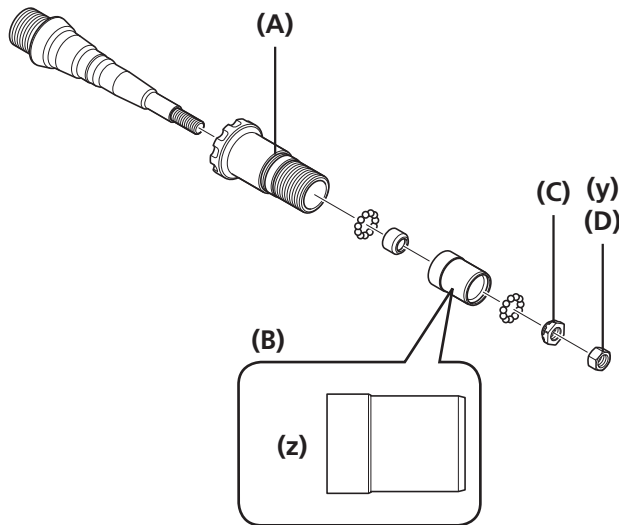
Use 7 mm and 8 mm spanners to turn the cone (8 mm) to adjust the rotation.

With the cone locked, tighten the lock nut (7 mm).

**PD-M8040**



**PD-M828**



- (y) 7 mm spanner
- (z) Crank side

- (A) Lock bush
- (B) Body cup
- (C) Cone
- (D) Lock nut
- (E) TL-PD63/33

Lock nut tightening torque (PD-M8040)	
TL-PD63	5 - 7 N·m
TL-PD33	

Lock nut tightening torque (PD-M828)	
7mm	5 - 7 N·m
8mm	

**NOTE**

- Use a TL-PD63 or TL-PD33 for PD-M8040 and use 7 mm and 8 mm spanners for PD-M828.
- Both the cone and lock nut are threaded left-hand for the right pedal and right-hand for the left pedal.
- Adjust the cone so as to achieve a smooth rotation without looseness when the axle unit is set into the pedal.
- The rotating parts are fastened when the axle unit is set into the pedal. Adjust them slightly loose before setup.
- When assembling the body cup, please note the direction of the parts.

**4**

Remove old grease and apply an appropriate amount of new grease to the bottom of the pedal body.

- Apply grease to the extent that it does not flow out when the axle is set into the pedal (about 1.5 g).



▶▶ Axle unit

5

Insert the axle unit into the pedal, then tighten the lock bush.

Tightening torque (PD-M8040)



10 - 12 N·m

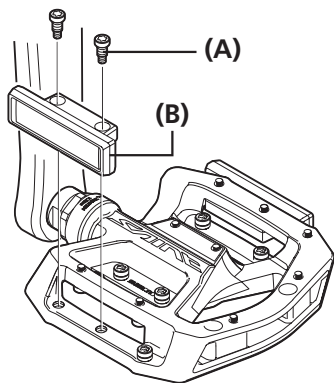
Tightening torque (PD-M828)



9.3 - 11 N·m

## ■ Replacing and mounting the reflectors

### PD-MX80/PD-GR500



A special reflector set SM-PD64 is available. Mount reflectors with pins.

- (A) Pin
- (B) Reflector

#### Tightening torque

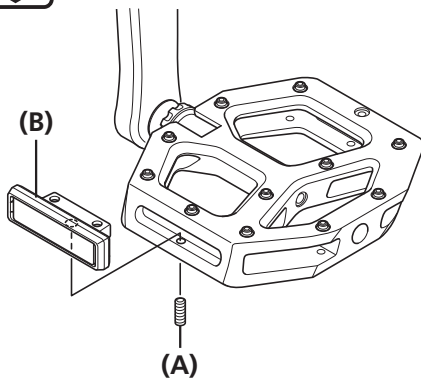


2 - 2.5 N·m

#### NOTE

- When using the product without a reflector, adjust the protrusion of pins using attached spacers. For details, refer to "Adjusting the gripping force".
- When installing the reflectors to PD-GR500, use the spacer (0.65 mm). When installing the reflectors to PD-MX80, the spacer is unnecessary.

### PD-M828



A special reflector set SM-PD64A is available. Mount reflectors with reflector fixing bolts.

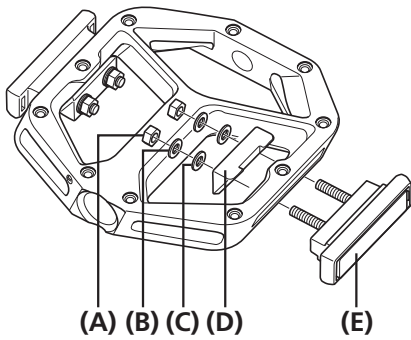
- (A) Reflector fixing bolt
- (B) Reflector

#### Tightening torque



1 - 1.5 N·m

PD-M8040



A special reflector set SM-PD67 is available. Mount reflectors with reflector fixing nuts and reflector fixing plate.

- (A)** Reflector fixing nut
- (B)** Spring washer
- (C)** Washer
- (D)** Reflector fixing plate
- (E)** Reflector

Tightening torque



1 - 1.5 N·m

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

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