

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 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.**
It is recommended that you use SHIMANO genuine parts. Loose nuts or bolts and product damage may cause a sudden accident such as a fall and lead to serious injury.
-  Wear approved eye protection while performing maintenance tasks such as replacing components.

Be sure to also inform users of the following:

- If you have adjusted the pin length in order to increase the gripping force between the shoes and the pedal bodies (the force which stops shoes from slipping sideways), 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.
- Be sure to wear clothing and protective gear which is suitable for the way in which the bicycle is to be used. Because the pins are long, they may cause injury if they come into direct contact with your skin.
- 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		TL-PD33
	8 mm hexagon wrench		15 mm spanner		TL-PD40
	7 mm spanner		20 mm spanner		TL-PD63
	8 mm spanner		Hexalobular[#15]		

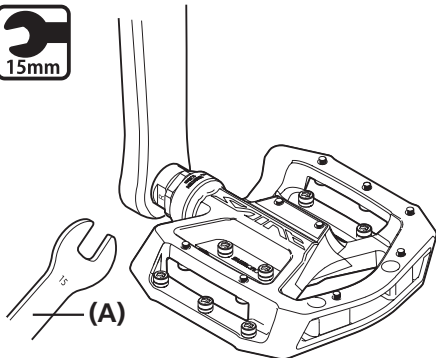
INSTALLATION

INSTALLATION

■ Mounting the pedals on the crank arms

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

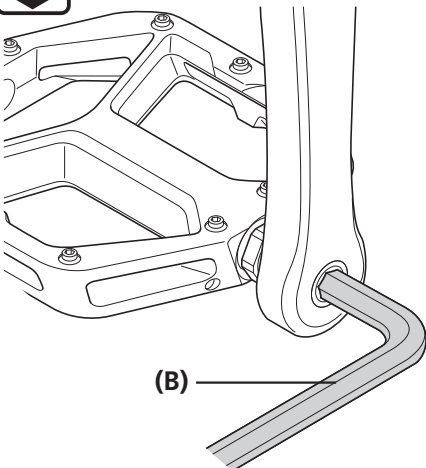
PD-MX80/PD-GR500



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



(A) 15 mm spanner

(B) 8 mm hexagon wrench

Tightening torque



35 - 55 N·m

NOTICE

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

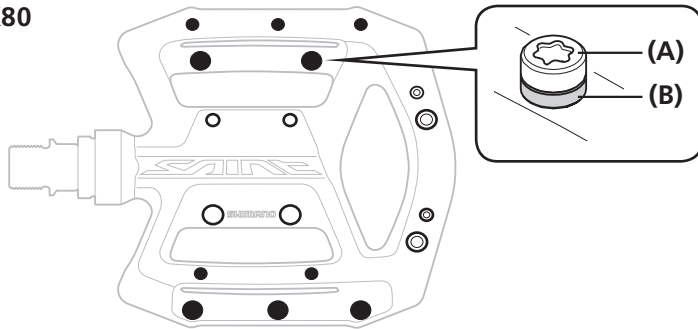
■ Adjusting the gripping force

PD-MX80/PD-GR500

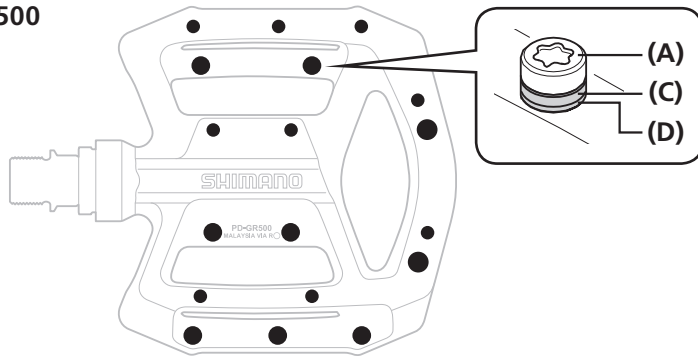
Remove spacers or add pins to adjust the gripping force between the shoes and the pedals.

- On this pedal, there are 18 pin mounting locations on top and bottom in total.
- The protrusion of the pins can be reduced by inserting spacers.

PD-MX80



PD-GR500



● : Pin installation positions

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

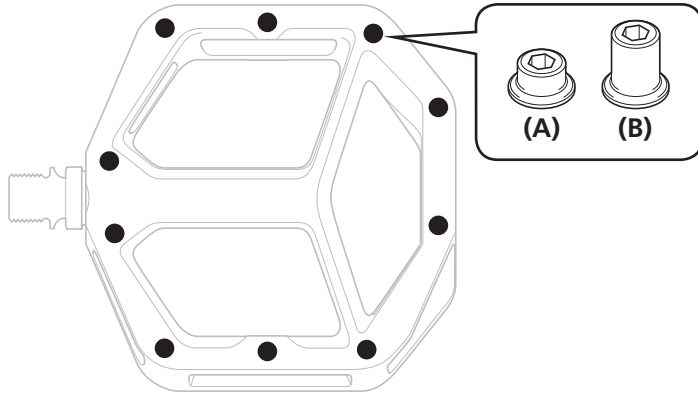
ADJUSTMENT

▶▶ 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.



● : Pin installation positions

(A) Short pin

(B) Long pin

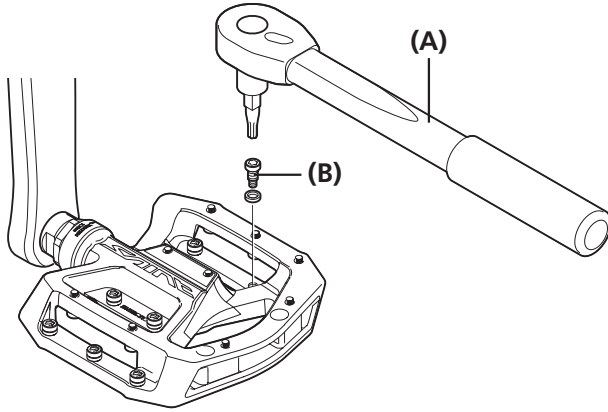
MAINTENANCE

MAINTENANCE

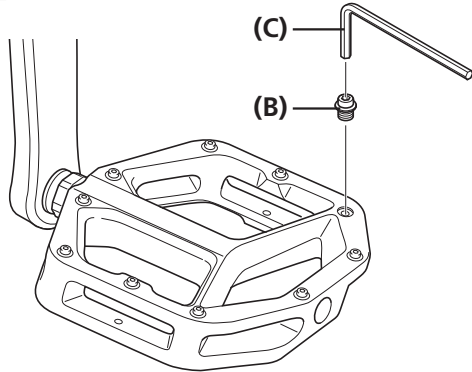
Pin

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

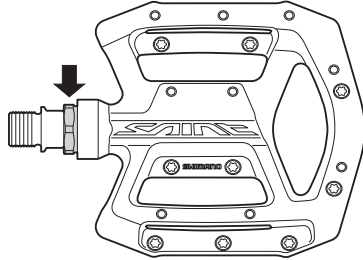
Tightening torque	
	2 - 2.5 N·m
	1 - 1.5 N·m

■ 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.

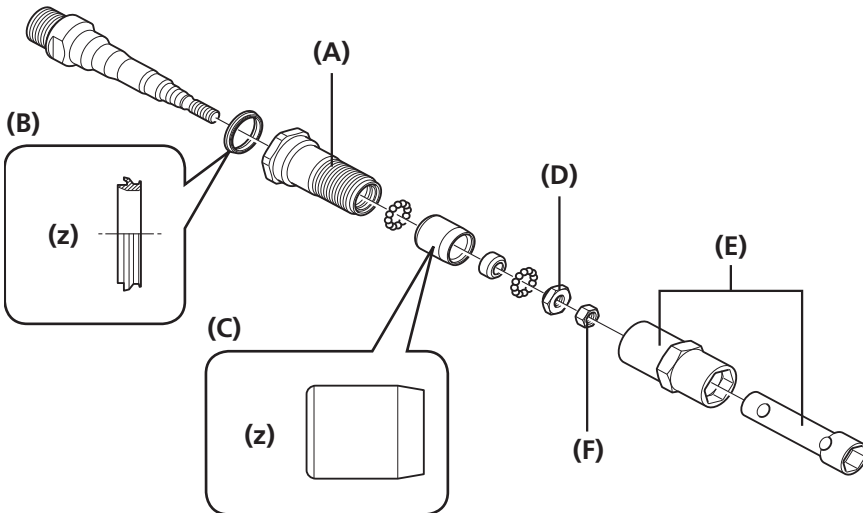
- The right pedal has a left-hand thread; the left pedal has a right-hand thread.

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	

NOTICE

- 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

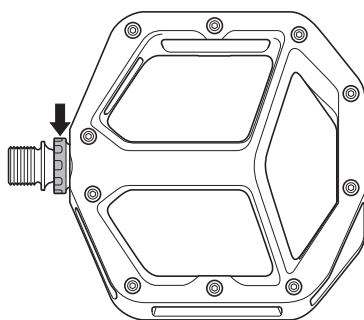


10 - 12 N·m

PD-M8040/PD-M828

1

TL-PD40



Use Shimano original tool TL-PD40 to loosen the lock bush and pull out the axle unit.

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

2

PD-M8040

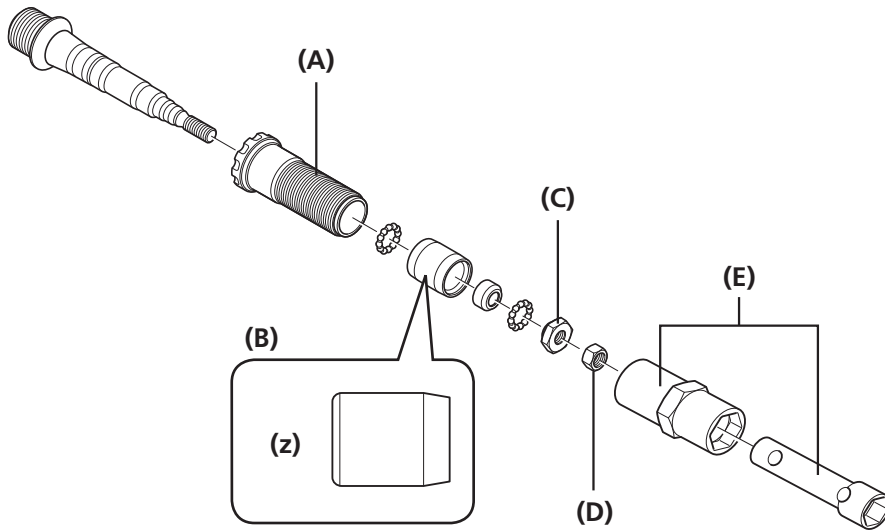
Use the Shimano original tool TL-PD63 or TL-PD33, or 7 mm and 10 mm spanners to turn the cone (10 mm) to adjust the rotation.

PD-M828

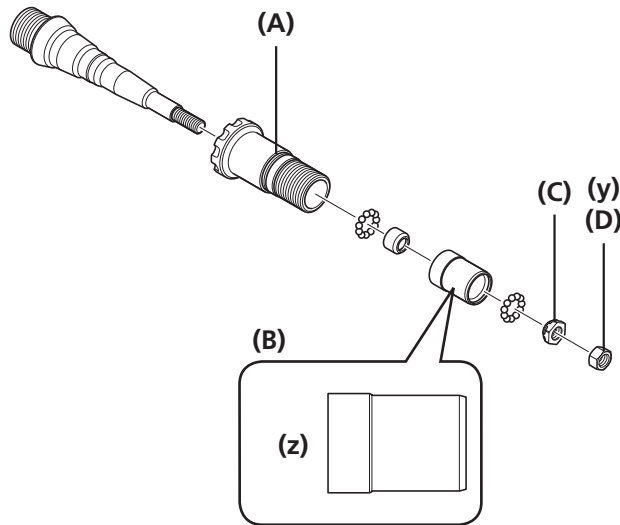
Use 7 mm and 8 mm spanners to turn the cone (8 mm) to adjust the rotation.

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

PD-M8040



PD-M828



3

- (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)

	5 - 7 N·m

NOTICE

- 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).

5

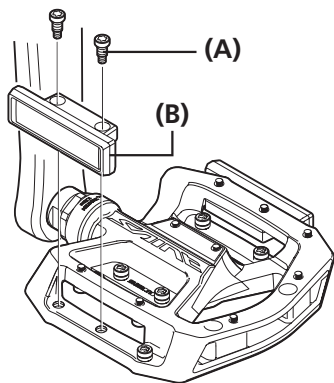
Insert the axle unit into the pedal, then tighten the lock bush.

Tightening torque

TL-PD40	10 - 12 N·m
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■ 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

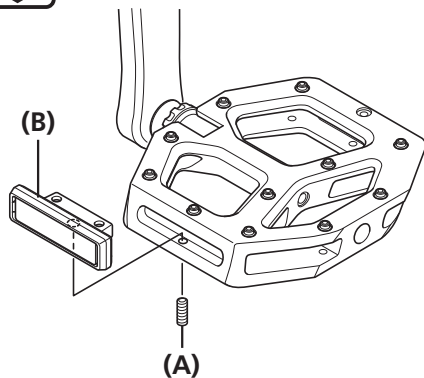


2 - 2.5 N·m

NOTICE

- 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.

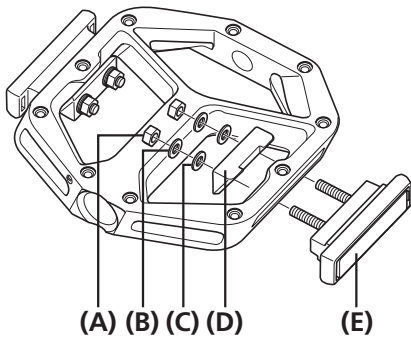
- (A) Reflector fixing bolt
- (B) Reflector

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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