Dealer's Manual

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

Crankset

DEORE XT
FC-T8000

DEORE
FC-T6010

Bottom bracket
BB-MT800
BB-MT800-PA

DEORE
SM-BB52
BB-MT501
BB-MT500-PA

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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.**
  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:

- ***Never use alkali- or acid-based solvents such as rust cleaners. If those solvents are used the chain might break and cause serious injury.***
- ***Clean the chain with an appropriate chain cleaner regularly. Intervals between maintenance depend on the use and riding circumstances.***
- Check that there are no cracks in the crank arms before riding the bicycle. If there are any cracks, the crank arm may break and you may fall off the bicycle.
- Be careful not to let the hemming of your clothes get caught in the chain while riding. Otherwise you may fall off the bicycle.
- Check the chain for any damage (deformation or crack), skipping, or other abnormalities such as unintended gear shifting. If any problems are found, consult a dealer or an agency. The chain may break, and you may fall.

For Installation to the Bicycle, and Maintenance:

- Install the inner cover correctly. If it is not installed correctly, the axle may rust and become damaged, and the bicycle may fall over and serious injury may occur as a result.
- The two left crank screws should be tightened alternately in stages rather than each fully tightened at once. Use a torque wrench to check that the tightening torques are within the range of 12 - 14 N·m. Also, after riding approximately 100 km (60 miles), use a torque wrench to re-check the tightening torques. Thereafter, continue to check the tightening torques periodically. If the tightening torques are too weak or if the mounting screws are not tightened alternately in stages, the left crank may come off and the bicycle may fall over, and serious injury may occur as a result.

⚠ CAUTION

Be sure to also inform users of the following:

- Be careful not to touch the teeth of chainrings. There is a danger of injury.

NOTICE

Be sure to also inform users of the following:

- Before riding the bicycle, check that there is no play or looseness between connecting parts. Also, be sure to retighten the crank and pedals at periodic intervals.
- Be sure to keep turning the crank during the shift lever operation.
- When the chain is in any of the positions shown in the figures, the chain may come into contact with the chainring or front derailleur and generate noise. If noise is a problem, shift the chain onto the next largest sprocket or the one after if it is in the position shown in Figure 1. Shift the chain onto the next smallest sprocket or the one after if it is in the position shown in Figure 2.

	Figure 1		Figure 2
	Triple		
Chainring			
Sprocket			

- Use a neutral detergent to clean the crank arm and the bottom bracket. Using alkaline or acidic detergents may cause discoloration.
- If pedaling performance does not feel normal, contact your place of purchase.
- Do not wash the bottom bracket with high-pressure jets of water. Water may enter the bearing section and cause noise or adhesion.
- The chainrings should be periodically washed with a neutral detergent. In addition, cleaning the chain with neutral detergent and lubricating it can be an effective way of extending the life of the chainrings and the chain.
- The cuffs of your clothing may get dirty from the chain while riding.
- This product is not warrantied against damage caused by improper use, abuse, or issues resulting from a crash, unless the circumstance was caused by a manufacturing defect.
- 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:

- When installing the pedals, apply a small amount of grease to the threads to prevent the pedals from sticking. Use a torque wrench to securely tighten the pedals. Tightening torque is 35 - 55 N·m. The right crank has a right-hand thread, and the left crank has a left-hand thread.
- If the bottom bracket shell is not parallel, gear shifting performance will drop.
- If the chain keeps coming off the gears during use, replace the chainrings and the chain.
- When installing the left- and right-hand cups, apply grease and be sure to install the inner cover. Otherwise, the waterproofing performance will worsen.
- To ensure the best performance, be sure to use only the specified type of chain.
- If a squeaking noise is heard coming from the bottom bracket axle and the left crank arm connector, apply grease to the connector and then tighten it to the specified torque.
- If you feel any looseness in the bearings, the bottom bracket should be replaced.
- Use the specified chainring combination. If other chainring combinations are used, it can create poor shifting and cause the chain to jam, resulting in damage to the bicycle.

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

LIST OF TOOLS TO BE USED

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

Tool		Tool		Tool	
	5 mm hexagon wrench		TL-FC16		TL-FC36
	8 mm hexagon wrench		TL-FC18		TL-FC37
	17 mm spanner		TL-FC25		TL-BB12
	Screwdriver [#2]		TL-FC32		TL-BB13
	Soft face mallet		TL-FC33		Hexalobular [#30]

INSTALLATION

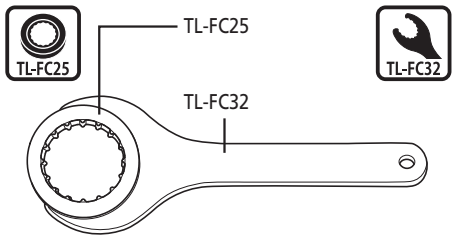
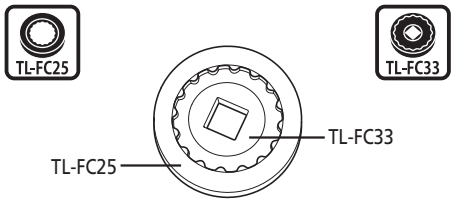
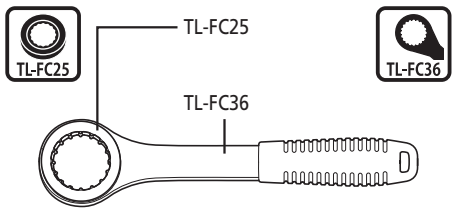
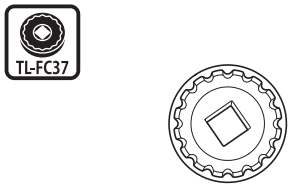
INSTALLATION

■ Threaded bottom bracket

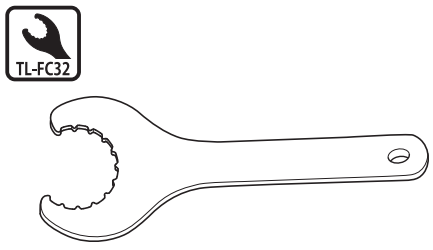
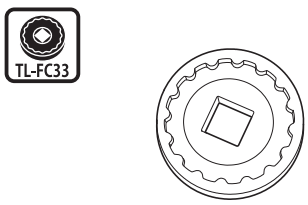
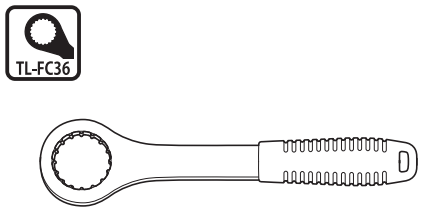
List of tool combinations

Use the tools in the correct combination.

BB-MT800

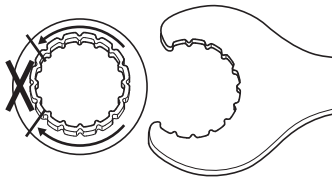
TL-FC25 & TL-FC32	TL-FC25 & TL-FC33
	
TL-FC25 & TL-FC36	**TL-FC37**
	

SM-BB52/BB-MT501

TL-FC32	TL-FC33
	
TL-FC36	
	

NOTICE

- For an impact wrench, use TL-FC37. Using other tools may damage the tool.
- When setting TL-FC25 in TL-FC32, check the possible setting position.

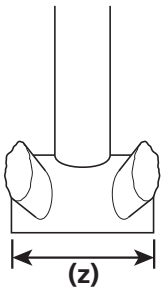


When setting in TL-FC32, check the possible setting position.

- Any position is possible when setting to TL-FC33/FC36.

Spacer installation method

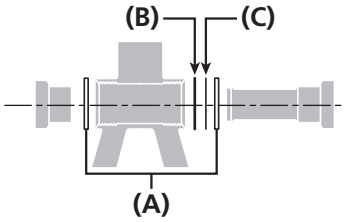
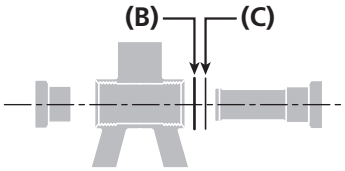
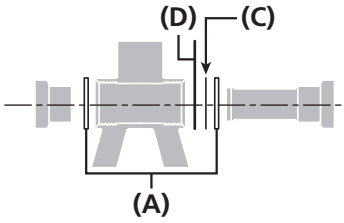
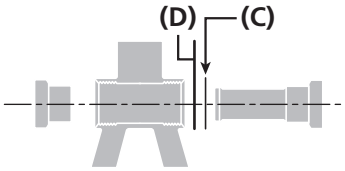
1



Check whether the width of the bottom bracket shell is 68 mm or 73 mm.

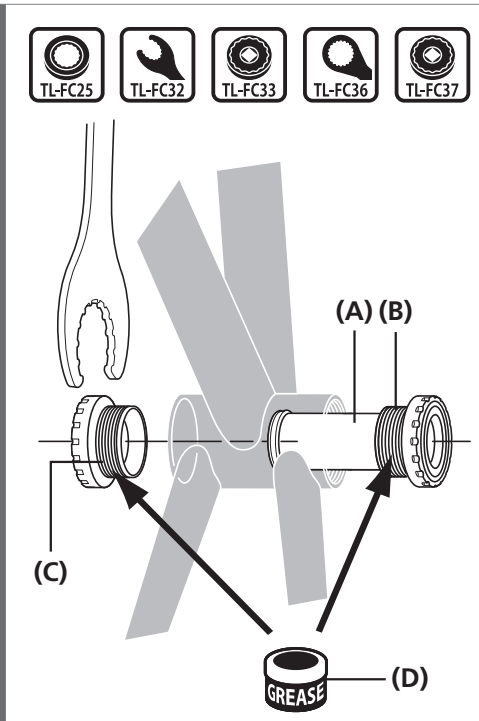
(z) Bottom bracket shell width

2 Install the cups.

	68 mm	73 mm
Band type		
Chain case stay type		

(A) 2.5 mm spacer
(B) 1.8 mm spacer
(C) 0.7 mm spacer
(D) Chain case stay

Installation to the bottom bracket shell



Grease the left- and right-hand cups and use the SHIMANO original tool to install the right-hand cup of the bottom bracket, the inner cover and the left-hand cup of the bottom bracket.

(A) Inner cover
(B) Right-hand cup (left-hand thread)
(C) Left-hand cup (right-hand thread)
(D) Apply grease: Premium Grease (Y04110000)

Tightening torque	
TL-FC25 TL-FC32 TL-FC33 TL-FC36 TL-FC37	35 - 50 N·m

NOTICE

TL-FC25 are tightened by combining with TL-FC32/FC36.

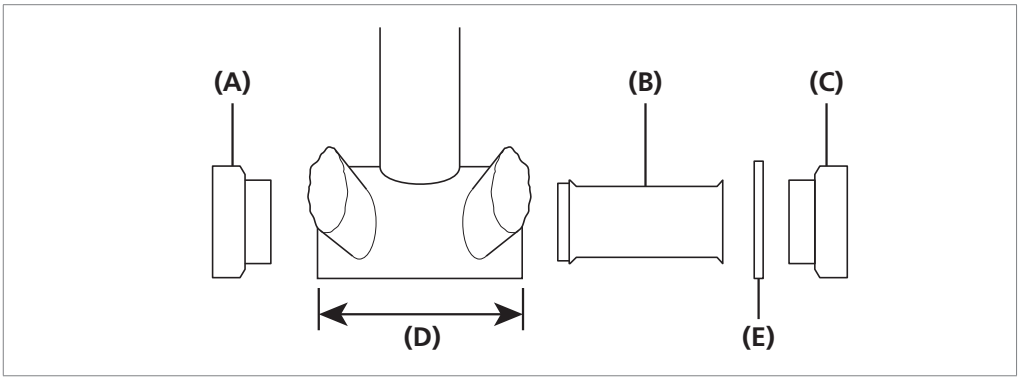
TECH TIPS

For tool combinations used when installing/uninstalling the bottom bracket, refer to "List of tool combinations".

■ PRESS-FIT BB

BB-MT800-PA/BB-MT500-PA

Bottom bracket cups

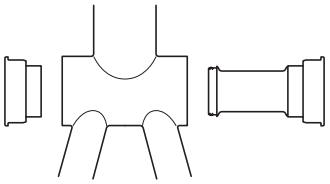
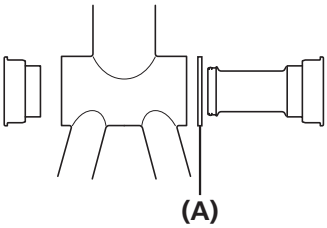


(A) Left-hand cup
(B) Inner cover
(C) Right-hand cup
(D) Bottom bracket shell width
(E) 2.5 mm spacer

NOTICE

Some models do not need spacers.

Assembly example

Bottom bracket shell with 92 mm width	Bottom bracket shell with 89.5 mm width
	
• The 2.5 mm spacer is not needed for a bottom bracket shell width of 92 mm. • Use the inner cover.	• For a bottom bracket shell width of 89.5 mm, insert the 2.5 mm spacer into the right hand side (between the frame and the right-hand cup). • Use the inner cover.

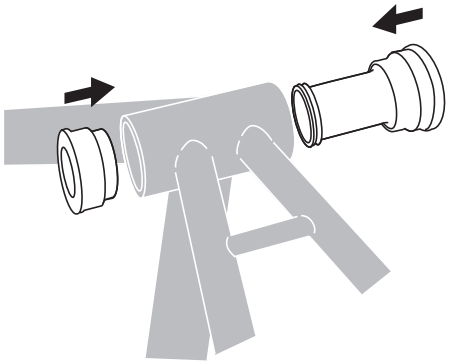
(A) 2.5 mm spacer

NOTICE

- If the frame has openings for the bottom bracket shell, attach an inner cover sleeve to prevent foreign objects from getting inside.
- If the frame has no openings inside the bottom bracket shell, it can be installed without the inner cover sleeve.

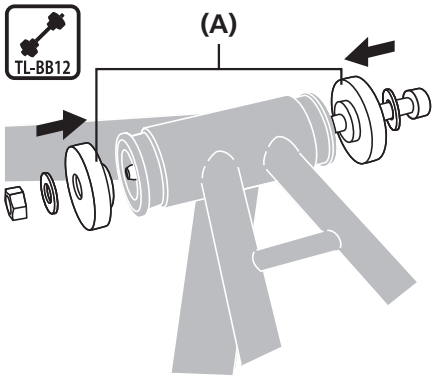
Installation to the bottom bracket shell

1



Insert the bottom bracket into the bottom bracket shell.

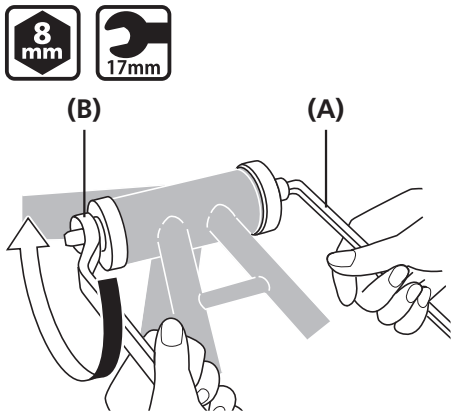
2



Insert the SHIMANO original tool into the bottom bracket.

(A) TL-BB12

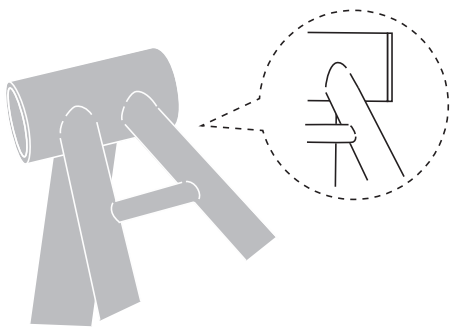
3



Press fit the bottom bracket by tightening with a spanner while making sure that the contact surface of the bottom bracket stays parallel to the contact surface of the bottom bracket shell.

(A) 8 mm hexagon wrench
(B) 17 mm spanner

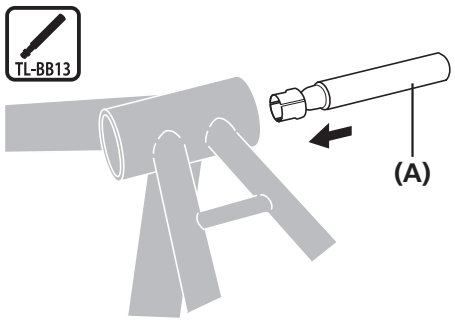
4



Check to confirm that there is no gap between the bottom bracket and the bottom bracket shell.

Removal from the bottom bracket shell

1



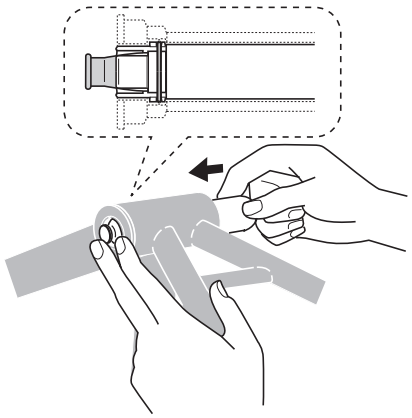
Insert the SHIMANO original tool into the bottom bracket.

(A) TL-BB13

NOTICE

Do not reuse the cups as they can be damaged during removal.

2

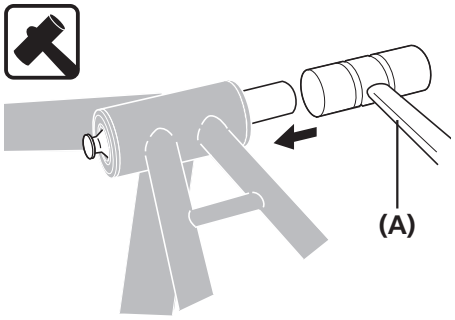


As shown in the illustration, hold down the flap with your fingers and push it in from the opposite side.
(When pushed in, the flap opens.)

TECH TIPS

While holding down the end of the removal tool, push the tool in from the other side until it locks in place.

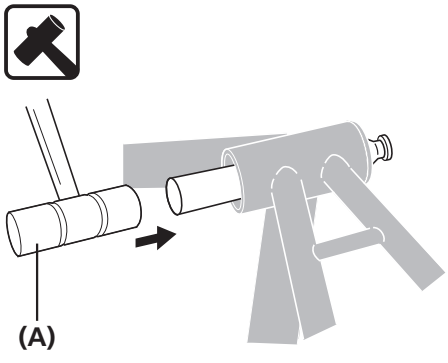
3



Tap the SHIMANO original tool with a soft face mallet until the end of the bottom bracket is ejected.

(A) Soft face mallet

4

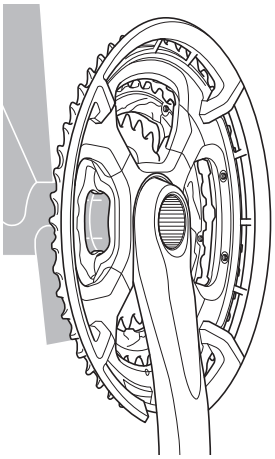


Tap the opposite end of the bottom bracket in the same way and remove it.

(A) Soft face mallet

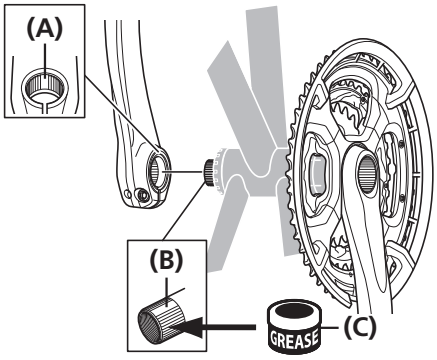
■ Installation of the crank

1



Fully insert the right crank arm unit until it touches the bottom bracket.

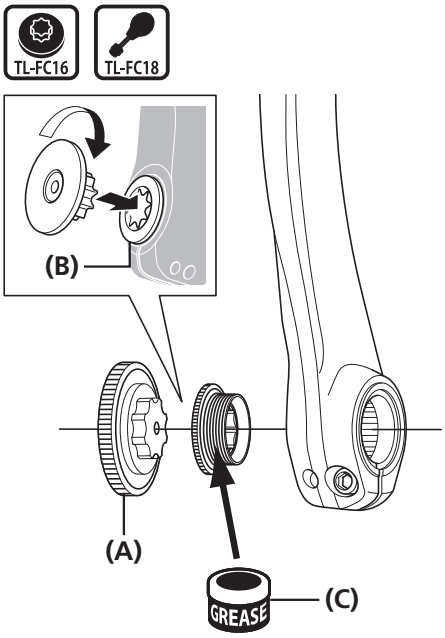
2



Set the wide groove area of the left crank arm into the axle of the right crank arm unit where the groove is wide.

(A) Wide groove area (left crank arm)
(B) Wide groove area (axle)
(C) Apply grease:
Premium Grease
(Y04110000)

3



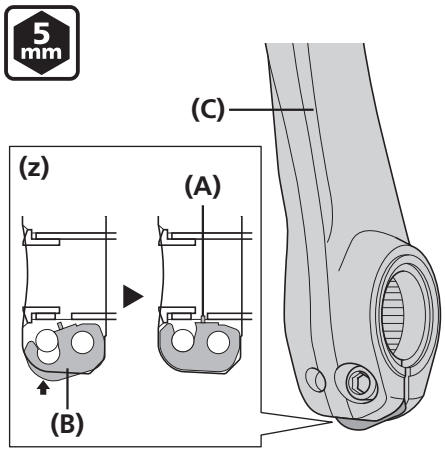
Use the SHIMANO original tool to tighten the cap.

(A) TL-FC16
(B) Cap
(C) Apply grease:
Premium Grease
(Y04110000)

Tightening torque	
TL-FC16 TL-FC18	0.7 - 1.5 N·m

To be continued on next page

4



Push in the stopper plate and check that the plate pin is securely in place, and then tighten the screws of the left crank arm.

Tighten both screws equally to the specified tightening torque (12 - 14 N·m).

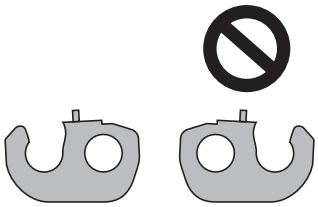
(z) The illustration is of the left crank arm (cross-section)

(A) Plate pin
(B) Stopper plate
(C) Left crank arm

Tightening torque	
5 mm	12 - 14 N·m

NOTICE

- The two screws should be tightened alternately in stages rather than each screw being fully tightened at once.
- Spacers used vary according to the width of the bottom bracket shell. For details, refer to "Spacer installation method".
- Set the stopper plate in the correct direction as shown in illustration.



MAINTENANCE

MAINTENANCE

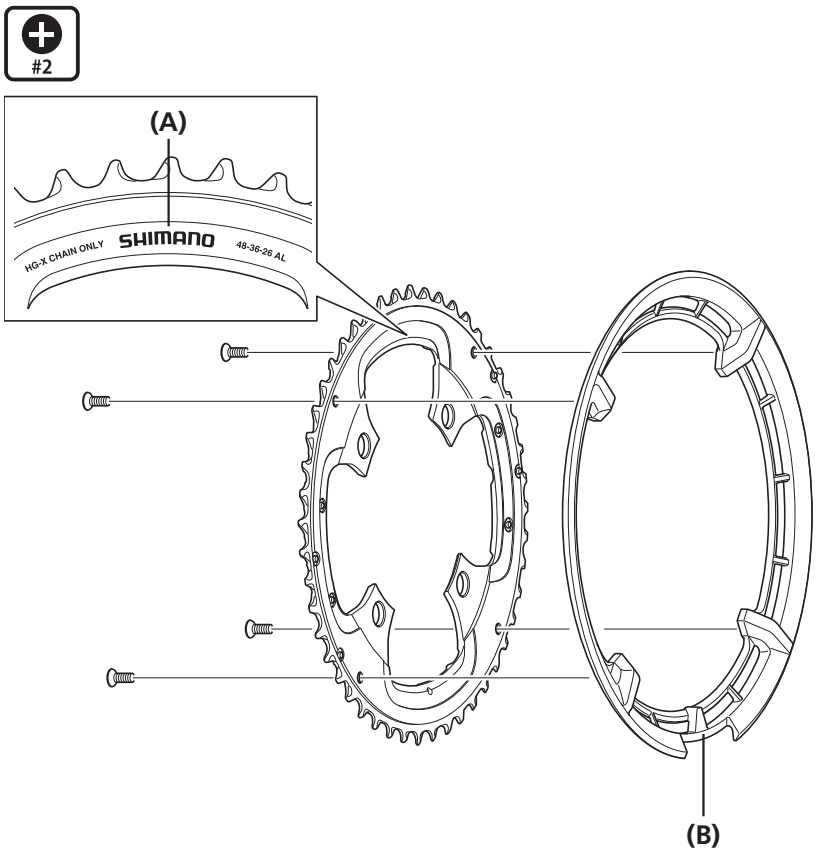
■ Replacing chainrings

Installation of the chain guard

Attach the chain guard to the largest chainring as shown in the illustration.

The marked side of the largest chainring should face outward.

Position the chain guard so that the flat areas align with the holes in the largest chainring.



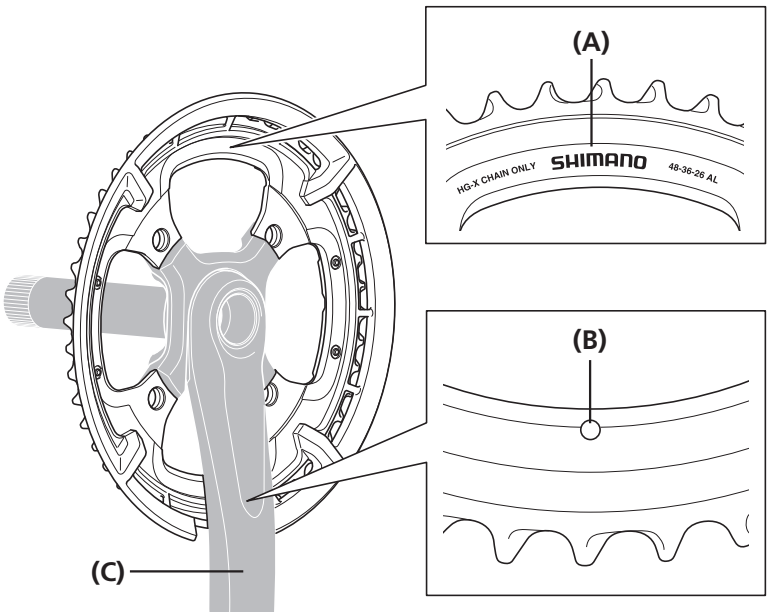
(A) Marking
(B) Flat areas

Tightening torque	
#2	1.5 - 2 N·m

Installing the chainrings (FC-T8000)

1

With the marked side of the largest chainring facing outward, set the chainring so that the hole is positioned under the crank arm.



(A) Marking
(B) Hole
(C) Crank arm

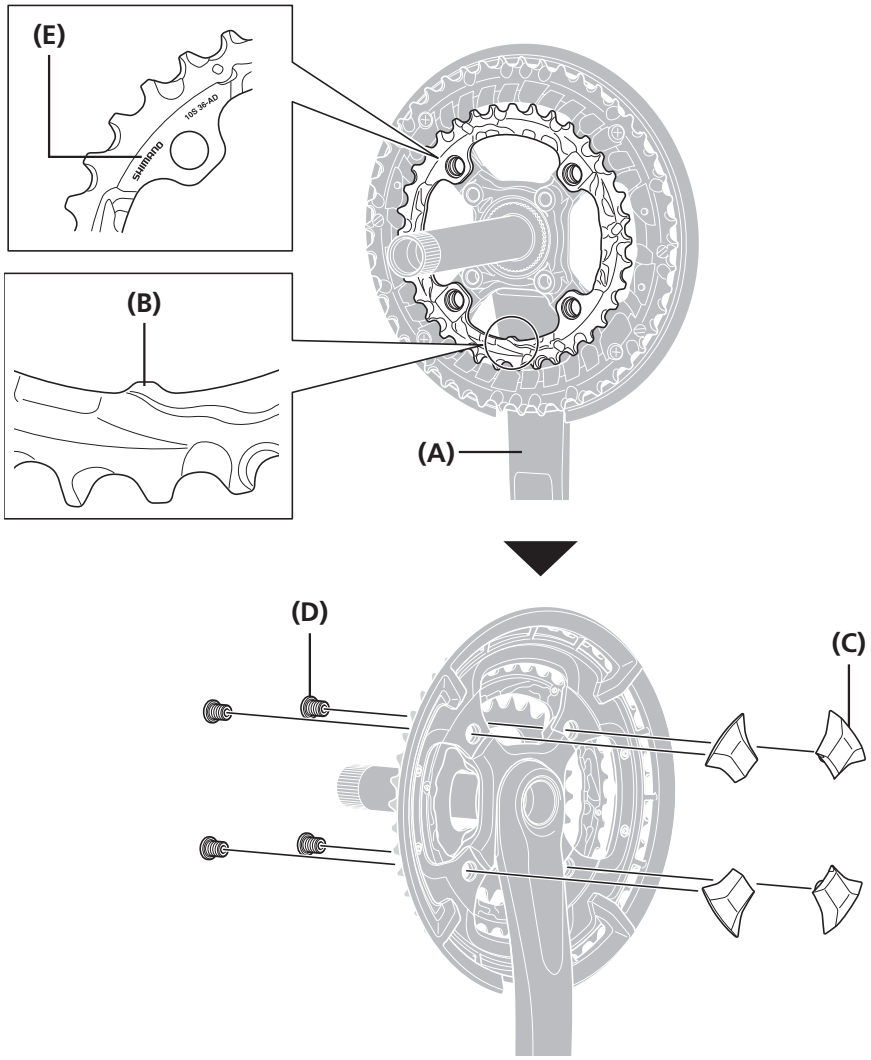
To be continued on next page

2

Set the middle chainring so that the marked side faces inward and the alignment tab is positioned under the crank arm.

Install the largest chainring and middle chainring using decorative nuts as shown in the illustration.

#30



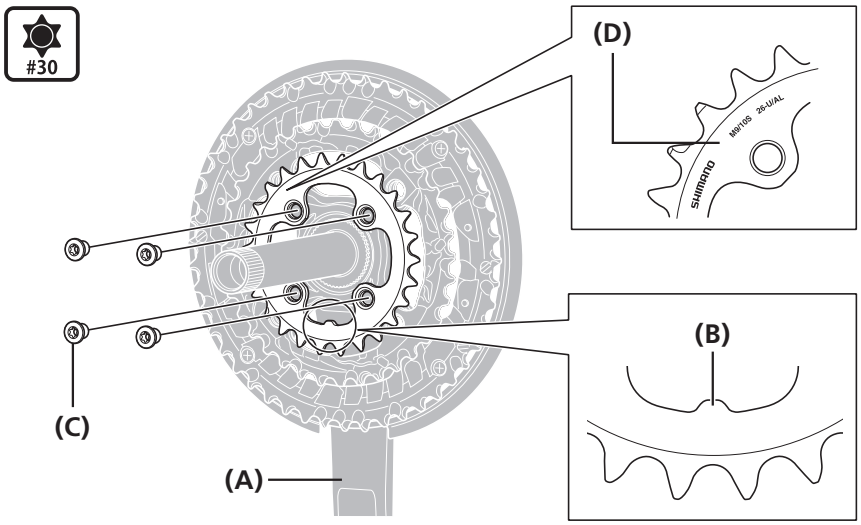
(A) Crank arm
(B) Alignment tab
(C) Decorative nuts
(D) Mounting bolts
(E) Marking

Largest chainring / Middle chainring Tightening torque	
#30	10 - 12 N·m

To be continued on next page

3

With the marked side of the smallest chainring facing inward, set the smallest chainring so that the alignment tab is positioned under the crank arm.



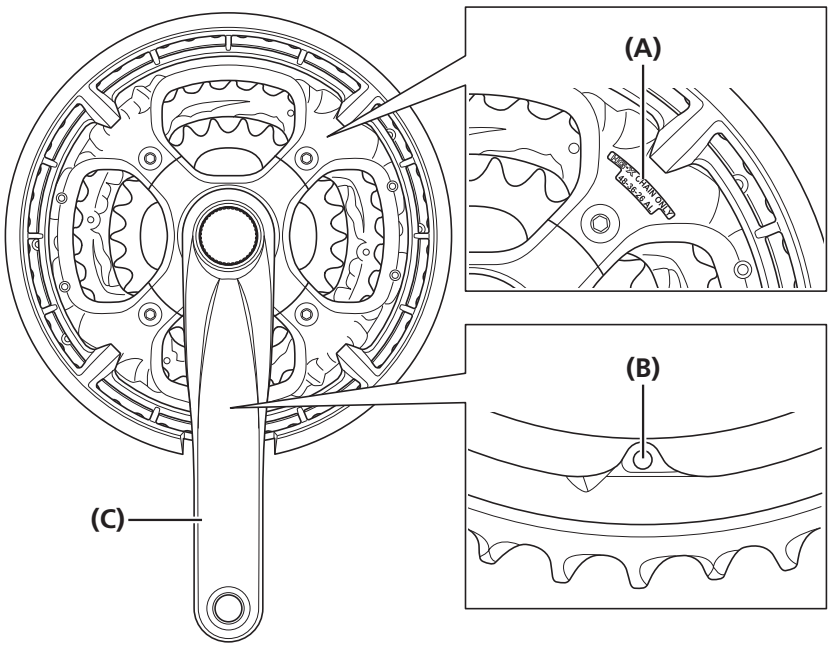
(A) Crank arm
(B) Alignment tab
(C) Mounting bolts
(D) Marking

Smallest chainring Tightening torque	
#30	16 - 17 N·m

Installing the chainrings (FC-T6010)

1

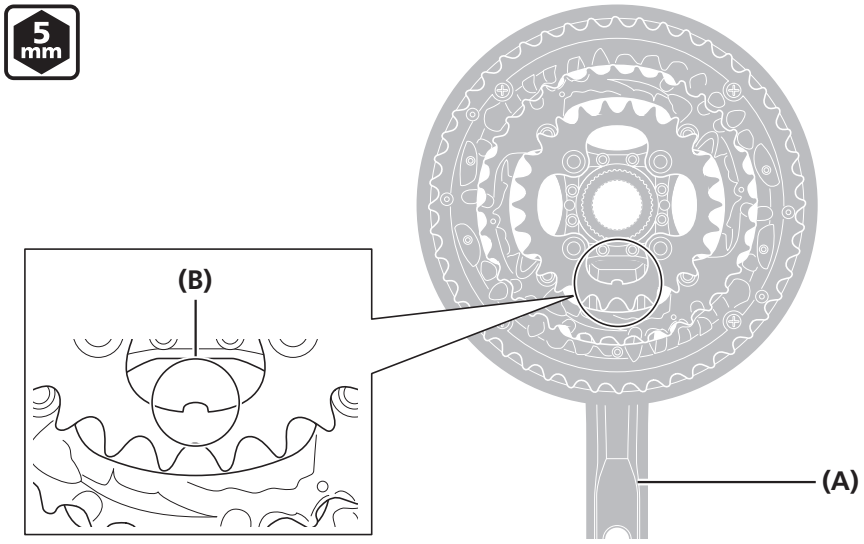
With the marked side of the largest chainring facing outward, set the chainring so that the hole is positioned under the crank arm.



(A) Marking
(B) Hole
(C) Crank arm

2

Set the middle chainring and the smallest chainring so that the marked sides face inward and the alignment tab on each chainring is positioned under the crank arm.



(A) Crank arm
(B) Alignment tab

Smallest chainring Tightening torque	
5 mm	16 - 17 N·m

Largest chainring / Middle chainring Tightening torque	
5 mm	12 - 14 N·m

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