

E-THRU Axle (12 mm)



User's manuals in other languages are available at : <http://si.shimano.com>

IMPORTANT NOTICE

- Contact the place of purchase or a bicycle dealer for information on installation and adjustment of the products which are not found in the user's manual. A dealer's manual for professional and experienced bicycle mechanics is available on our website (<http://si.shimano.com>).
- Do not disassemble or alter this product.

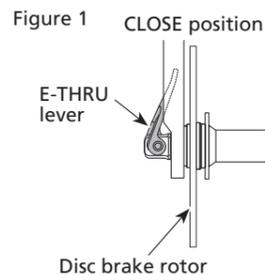
For safety, be sure to read this user's manual thoroughly before use, and follow it for correct use.

Important Safety Information

For replacement information, contact the place of purchase or a bicycle dealer.

WARNING

- BEFORE USE, CAREFULLY READ AND FOLLOW THE INSTRUCTIONS ON THE E-THRU AXLE (12MM) SYSTEM IN THIS USER'S MANUAL. IF YOU HAVE ANY QUESTIONS, ASK YOUR DEALER.
- The E-THRU axle (12mm) may be used in combination with the special frame and special hub/wheel only. If it is used in combination with any other frame or hub/wheel, it may cause the wheel to become detached from the bicycle while you are riding and result in serious bodily injury.
- If the E-THRU axle (12mm) is not correctly installed on the bicycle, the wheel may detach from the bicycle while riding, resulting in serious injury.
- If the E-THRU lever is on the left side (rotor side) of the frame, make sure that the E-THRU lever does not interfere with the rotor (Figure 1). In addition, make sure that the E-THRU lever does not interfere with the frame, other parts, accessories, etc., or come into contact with obstructions (such as shrubs and rocks) while riding. If the E-THRU lever loosens owing to interference or contact with foreign objects, the wheel will loosen and begin to rattle. If this occurs, contact the place of purchase or a bicycle dealer. Riding the bicycle while the wheel remains loose may lead to the bicycle collapsing and result in serious injury.

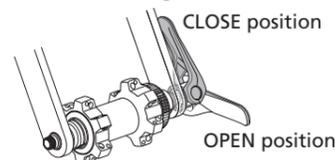


- Do not touch the disc brake rotor while handling the E-THRU system. In addition, do not operate the E-THRU lever while the wheel is turning. The disc brake rotor is very sharp and serious injury may occur as a result of touching it.
- The brake calipers and disc brake rotor become very hot when the brakes are being used. To avoid the danger of burns, be sure to check that they have cooled down sufficiently after riding the bicycle before handling the E-THRU system.
- Before installing the wheel, remove any foreign particles and dust from the fork end hole, the frame-side thread, and the axle openings. Foreign particles or dust may interfere with the correct installation of the E-THRU system, and if the hub and axle are not installed correctly, the wheel may come off and serious injury may occur as a result.
- The adjuster cannot rotate more than 3 turns. Do not turn the adjuster forcibly in either the tightening or loosening direction when the rotation of the adjuster feels heavy. Forcibly turning the adjuster may damage it.

- If the bicycle is ridden without an adjuster, there are cases where subsequently adjustment becomes impossible; therefore, be sure to replace the E-THRU axle with a new one.
- After reading the user's manual carefully, keep it in a safe place for later reference.

Note

- Always check the E-THRU hubs before riding to make sure the wheels are correctly installed on the frame. This is especially important after you park your bicycle in a public place.
- Make sure that the E-THRU levers are pushed fully to the CLOSE position (the side of the lever with the inscription "CLOSE" must be facing away from the bicycle). As show in the figure, tilt the levers. Do not rotate them.



- In the case of replacing the E-THRU lever axle with another one, make sure that the one replacing the existing E-THRU lever axle is the same in model name as the E-THRU model provided on the frame. If the model name is different, the replacing E-THRU lever axle may not be mounted correctly onto the frame due to differences in axial length, thread size, housing diameter, etc.
- 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.

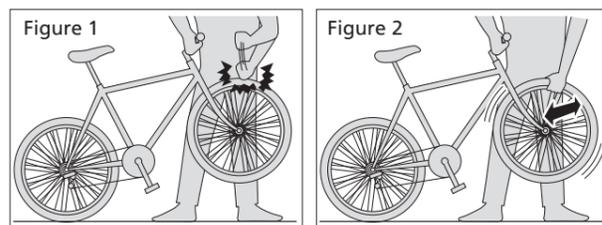
Regular inspections before riding the bicycle

Before riding the bicycle, check the following items. If any problems are found with the following items, contact the place of purchase or a bicycle dealer.

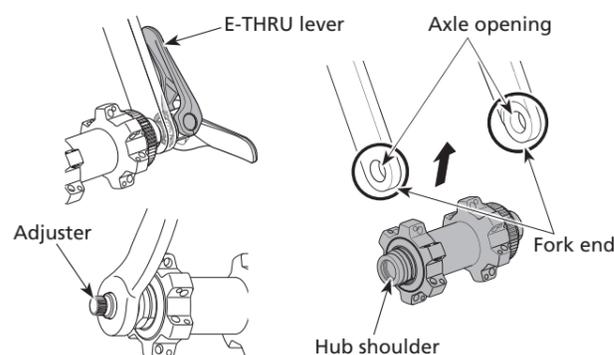
- Are the wheels correctly installed to the frame?
- Are the E-THRU levers fully pushed to the CLOSE position?

QUICK CHECK

Lift up the bicycle so that the wheel is off the ground, and give the top of the tire a few sharp downward blows as shown in Figure 1. Also shake the wheel from side to side as shown in Figure 2 to make sure that there is absolutely no looseness in the wheel. This check does not guarantee that the E-THRU lever has received adequate tightening torque. If you are uncertain as to whether the E-THRU lever is tightened correctly, repeat the installation procedure as explained in "Installing the wheel" in these Service Instructions before riding the bicycle.



Names of parts



Operation

NOTICE

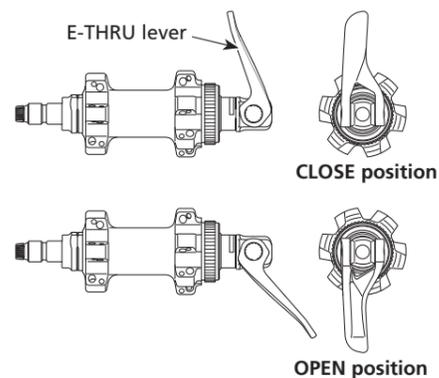
- Always be sure to operate the E-THRU lever with your hand. Never use a hammer or other object to close the lever. If this is not observed, the E-THRU system or the frame may be damaged.

What is the E-THRU hub?

It is a mechanism that uses the E-THRU lever on the hub to easily install and remove the wheel.

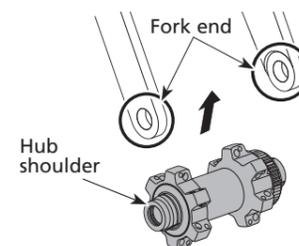
E-THRU hub function

Tilt the E-THRU lever toward the CLOSE position and clamp the frame to secure the wheel in the correct position.

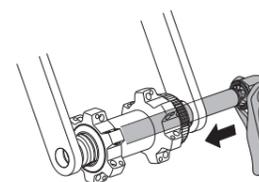


Installing the wheel

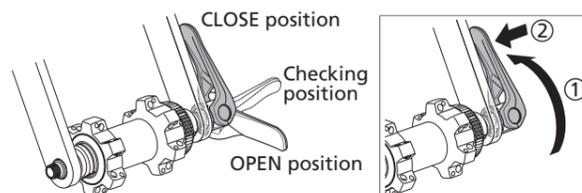
- Align the hub shoulder correctly with the fork end.



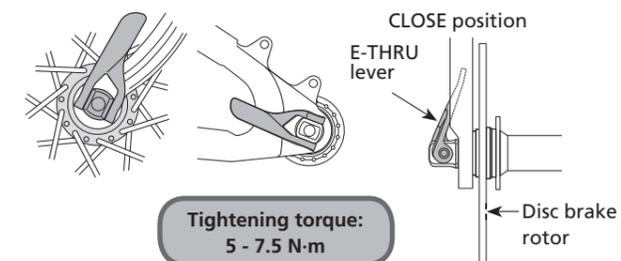
- Move the E-THRU lever to the OPEN position, and insert it into the hole in the fork end on the side opposite to where the thread is. Pass the lever axle all the way through until it reaches the thread part on the other side.



- Turn the E-THRU lever to screw the E-THRU lever axle into the frame-side thread. Open and close the E-THRU lever; tighten the E-THRU lever axle into the frame-side thread until some resistance is felt when the E-THRU lever is parallel to the hub axle while being moved toward the CLOSE position.



- For safety, make sure that the E-THRU lever runs along the frame when it is in the CLOSE position. Using just the force of your hand, push the E-THRU lever with the palm of your hand until it moves all the way to the CLOSE position. Check that the side of the E-THRU lever with the inscription 'CLOSE' is facing away from the bicycle. Make sure that the E-THRU lever is not interfering with the frame, other parts, accessories, etc. In addition, be careful that it does not come into contact with obstructions (such as shrubs and rocks) while riding. If the E-THRU lever is not positioned correctly, the adjuster needs to be adjusted. For adjustment procedures, refer to "Adjusting the adjuster".

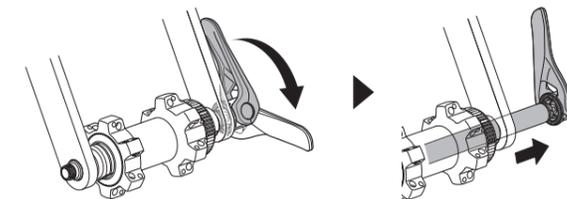


Tightening torque:
5 - 7.5 N·m

If there are any instructions on the tightening position for the E-THRU lever in the Service Instructions, follow them when tightening.

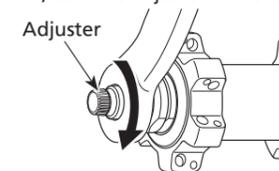
Removing the wheel

Move the E-THRU lever from the CLOSE position to the OPEN position, and then turn the E-THRU lever counterclockwise to remove the E-THRU axle from the frame-side thread. Once the E-THRU axle has been removed from the frame-side thread, remove the E-THRU axle from the wheel.



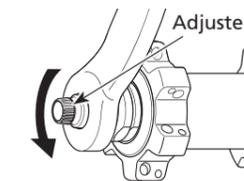
Adjusting the adjuster

- Screw the E-THRU lever axle into the frame-side thread in step 3 of Installing the Wheel, then turn the E-THRU lever to adjust it so that it moves to the correct CLOSE position, and check the torque.
- If the tightening torque is weak when moving the E-THRU lever to the CLOSE position, turn the adjuster in the direction of the arrow.



Fixing torque: Stronger

- If the tightening torque checked in step 1 is so strong that the E-THRU lever cannot be easily moved to the CLOSE position, turn the adjuster in the direction of the arrow to make it weaker. Loosen the adjuster gradually in stages up to the point where it would require the full exertion of your strength to close the E-THRU lever.



Fixing torque: Weaker

- Repeat this adjustment until the correct installation force is obtained at the correct lever position.

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