UM-28J0A-002-00 User's manual

Rear E-Thru 12mm



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.

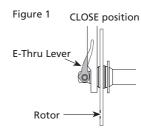
For safety, be sure to read this user's manual thoroughly before use, and follow them for correct use.

Important Safety Information

Guidelines that require replacement, contact the place of purchase or a bicycle dealer.



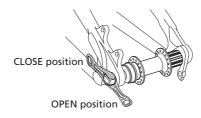
- BEFORE USE, CAREFULLY READ THE REAR E-THRU 12MM SYSTEM USER'S MANUAL. IF YOU HAVE ANY QUESTIONS, ASK YOUR DEALER.
- The Rear E-Thru 12 mm can be used in combination with a special frame and a special hub/wheel. If it is used in combination with any other frame or hub/wheel, it may cause the wheel to become detached from the bicycle while you are riding and result in serious bodily injury.
- If the Rear E-Thru 12 mm is not correctly installed to the bicycle, the wheel may fall off the bicycle during riding, and serious injury may occur as a result.
- 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 front fork, frame, 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 rotor while handling the E-Thru system. In addition, do not operate the E-Thru lever while the wheel is turning. The rotor is very sharp and serious injury may occur as a result of touching it.
- The brake calipers and 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 dropout hole, the axle nuts 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.
- 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 bicycle 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 shown in the illustration, the levers must be tilted, not rotated.



- 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.

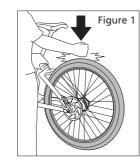
Regular inspections before riding the bicycle

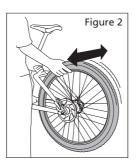
Before riding the bicycle, check the following items. If any problems are found with the following items, contact the place of purchase or a bicycle dealer.

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

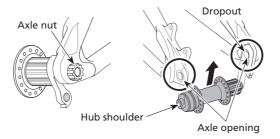
QUICK CHECK

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

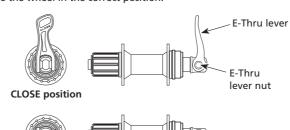
 Always be sure to operate the E-Thru lever with your hand. Never use a hammer or other object to close the lever. If this is not observed, the E-Thru system or the frame may be damaged.

What is the E-Thru hub?

It is a mechanism that uses a single E-Thru lever operation on the hub to enable the wheel to be easily installed and removed.

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.





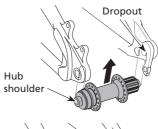
Installing the axle nut



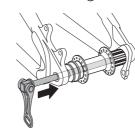
Refer to the Service Instructions for the frame for details on how to secure the axle nut.

Installing the wheel

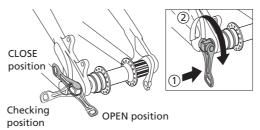
1. Align the hub shoulder correctly with the dropout.



Move the E-Thru lever to the OPEN position, and insert it into the hole in the dropout on the side opposite to where the axle nut is. Pass the lever axle all the way through until it reaches the axle nut on the other side.

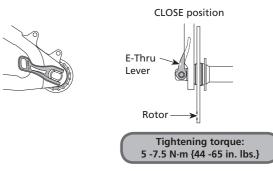


3. Turn the E-Thru lever to screw the E-Thru lever axle into the axle nut. Open and close the E-Thru lever, and tighten the E-Thru lever axle into the axle nut until the point where some resistance is felt when the E-Thru lever is at the position parallel to the hub axle while it is being moved toward the CLOSE position.



4. 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.

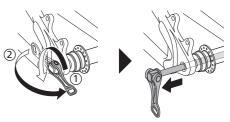
Make sure that the E-Thru lever does not interfere with the front fork, frame, parts, accessories, etc. In addition, be careful that it does not come into contact with obstructions (such as shrubs and rocks) while riding. If the E-Thru lever is not in the correct position, the axle nut needs to be adjusted. Refer to 'Adjusting the axle nut' for details on how to do this.



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

Removing the wheel

Move the E-Thru lever from the CLOSE position to the OPEN position, and then turn the E-Thru lever to remove the E-Thru lever axle from the axle nut. Once the E-Thru lever axle has been removed from the axle nut, remove the E-Thru lever axle from the wheel.



Adjusting the axle nut

- If instructions on adjusting the axle nut are provided in the Service Instructions for the frame, observe those instructions.
- 1. Screw the E-Thru lever axle into the axle nut in step 3 of 'Installing the wheel', and then turn the axle nut to adjust so that the E-Thru lever moves to the correct CLOSE position, and then check the torque when the lever is at the CLOSE position.
- 2. If the tightening torque is weak when moving the E-Thru lever to the CLOSE position, turn the axle nut clockwise. The axle nut can be adjusted in steps of 1/9th of a turn.
 - If the E-Thru lever tightening torque which was checked in step 1 is too strong and the E-Thru lever cannot be easily moved to the CLOSE position, turn the axle nut counterclockwise to reduce the tightening torque. Turn the axle nut gradually in steps of 1/9th of a turn without turning it all at once, to set the tightening torque to the maximum value which allows the E-Thru lever to be moved.



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

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