

Dealer's Manual

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

Wheel Set (Disc Brake)

Non-Series

WH-MT601

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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 distributor for assistance.
- Make sure to read all 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

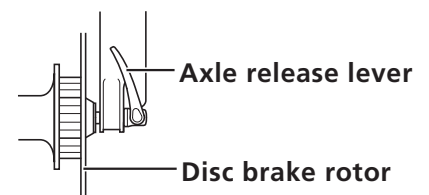
- **Be sure to follow the instructions provided in the manuals when installing the product.** Only use SHIMANO genuine parts. If a component or replacement part is incorrectly assembled or adjusted, it can lead to component failure and cause the rider to lose control and crash.
-  Wear approved eye protection while performing maintenance tasks such as replacing components.

Be sure to also inform users of the following:

- **Check that the wheels are fastened securely before riding the bicycle.** Using the axle release lever incorrectly may cause the wheel to fall off, etc. and lead to serious injury due to a fall.
- Check the wheel axle for cracks before riding the bicycle and do not use the bicycle if a problem is found. This wheel is not designed for downhill bicycle riding or freeriding. Cracks may form in the wheel axle, depending on the riding conditions. This can cause the axle to break and result in an accident that can lead to a serious injury or even death.
- Be sure to read the manual for the product thoroughly, before using the product. If the axle release lever is not used correctly, the wheel may come off the bicycle and serious injury could result.
- Before riding the bicycle, check the wheels to make sure that there are no bent or loose spokes, dents, scratches or cracks on the rim surface; stop using the wheel if any of these problems are found. The wheel may break, and you may fall.

F15 (Front 15 mm Axle), R12 (Rear 12 mm Axle) Wheel (Thru Axle)

- This wheel can only be used in combination with the special front fork/frame and the through axle. If it is used in combination with any other front fork/frame or through axle, it may cause the wheel to become detached from the bicycle during riding and result in serious bodily injury.
- Make sure that, even if the axle release lever is tightened as much as possible by hand, the axle release lever does not interfere with the disc brake rotor. The axle release lever may interfere with the disc brake rotor if it is on the disc brake rotor side, which is dangerous. If the axle release lever interferes with the disc brake rotor, immediately stop use and contact the place of purchase or a distributor.



TL: Tubeless wheel

- The tires should be installed and removed by hand. If this is difficult, a plastic tire lever for tubeless wheels may be used. In such cases, be sure to check that the rim surface has not been dented, scratched, or cracked as there is a risk of causing damage to the air seal between the tire and the rim, which would result in air leakage. For carbon fiber rims, check that there is no carbon peeling or cracking, etc. Finally, make sure that there is no air leakage.

F15 Wheel (Thru Axle)

- When installing the front wheel to the front fork, always be sure to follow the directions given in the manual for the front fork. The securing method and tightening torque for the front wheel both vary depending on the type of front fork being used. If the instructions are not followed, the front wheel may fall out and possibly result in serious injury.
- The tires should be inflated to the appropriate pressure indicated on the tires or rims before use. If the maximum pressures indicated on the tires and rims differ, be sure not to exceed the maximum pressure with the lower value. A higher pressure than indicated can cause a sudden puncture and/or sudden release of the tire, which can result in serious injury.

WH-MT601-TL: Maximum pressure = 3 bar / 44 psi / 300 kPa

For installation to the bicycle, and maintenance:

- Use a disc brake. These wheels are designed exclusively for use with disc brakes. They are not compatible with rim brakes.

CAUTION

Be sure to also inform users of the following:

- The tires should be inflated to the appropriate pressure indicated on the tires before use.
- If you will be using a puncture repair agent or sealant, consult the place of purchase or a distributor.
- Use SHIMANO genuine parts for tubeless tape. It is recommended to use SHIMANO genuine parts to prevent punctures and other possible damage.
- When using an inner tube, do not add additional rim tape on top of the tubeless tape. Doing so may make it difficult to install or remove the tire, and it may cause damage to the inner tube resulting in a sudden puncture, which can cause the bicycle to fall over.

For installation to the bicycle, and maintenance:

- When installing or removing the rotor lock ring, be careful not to touch the outer edges of the disc brake rotor with your hands. Wear gloves to protect your hands from getting cut.

NOTICE

Be sure to also inform users of the following:

- Special nipple wrenches are available as optional accessories.
- Use only the lubricants specified by SHIMANO.
- It is recommended that you ask a place of purchase to adjust the spoke tensions if there is any deviation in the spokes and after the first 1,000 km of riding.
- Do not use detergent or other chemicals when wiping the wheel, otherwise, the sticker on the rim may come off.
- 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:

- Use only genuine SHIMANO spokes and nipples. Otherwise, the area where the spokes fit into the hub body may become damaged.
- If the wheel becomes stiff and difficult to turn, perform an inspection.
- Check the specifications table (<https://si.shimano.com>) for compatible reflectors and spoke protectors.
- For information on how to install and remove the tires, refer to the manual accompanying the tire.

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

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

Tool	
 TL-HB16	TL-HB16
 TL-FH12	TL-FH12
 TL-FC36	TL-FC36

INSTALLATION/REMOVAL

Tire size

The recommended tire sizes for installation to each wheel are as follows.

Series	Wheel size	Model No.	Tire size
Non-Series	622 x 25C (29")	WH-MT601-TL-F15-29	29 x 2.00 - 2.40
		WH-MT601-TL-F15-B-29	
		WH-MT601-TL-R12-29	
		WH-MT601-TL-R12-B-29	
	584 x 25C (27.5")	WH-MT601-TL-F15-275	27.5 x 2.00 - 2.40
		WH-MT601-TL-F15-B-275	
		WH-MT601-TL-R12-275	
		WH-MT601-TL-R12-B-275	

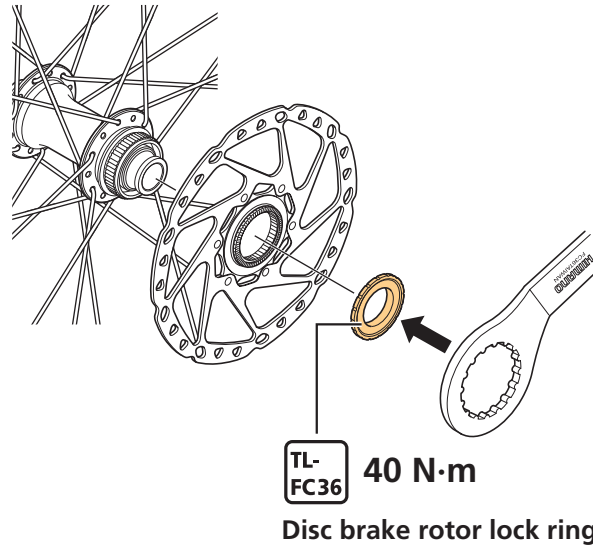
Installing/removing the cassette sprocket


Refer to the dealer's manual for the cassette sprocket to install/remove the cassette sprocket.

Installing the disc brake rotor

1. Set the disc brake rotor on the hub, and then secure it with the disc brake rotor lock ring.

Use TL-FC36 to secure it.



	External spline type
Disc brake rotor lock ring	
Lock ring tightening tool	TL-FC36

MAINTENANCE

Spoke tension value

NOTICE

- Use SHIMANO original tools (for the front: TL-HB16, for the rear: TL-FH12) when assembling the wheel.

* Refer to the table for spoke tension value.

Number of spokes: 24

Radial lacing is not supported.

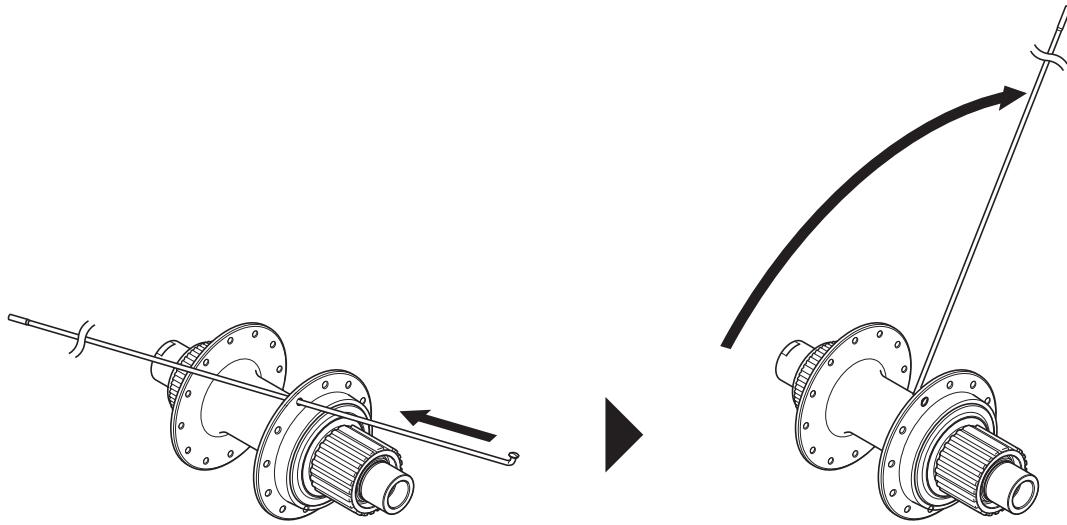
Spoke tension value			
		For front	For rear
Left side (disc brake rotor side)	Standard value	800 - 1,200 N	> 850 N
	Difference	-	MAX - MIN ≤ 400 N
Right side	Standard value	29": < 1,050 N 27.5": < 1,400 N	< 1,400 N
	Difference	MAX - MIN ≤ 400 N	MAX - MIN ≤ 400 N

Replacing the spokes

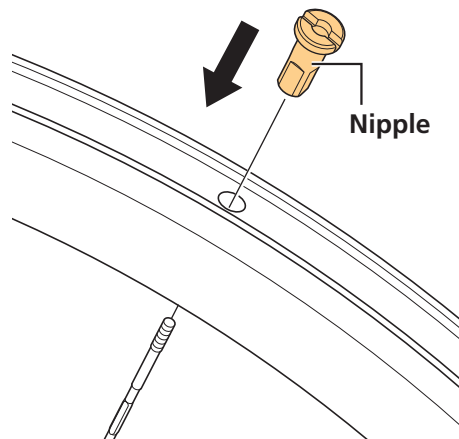
Remove the tubeless tape before replacing the spokes.

(For instructions on attaching/removing tubeless tape, refer to "Replacing tubeless tape".)

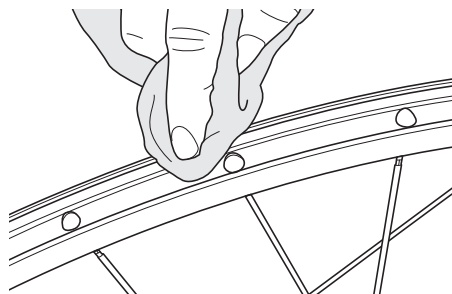
1. Insert the spoke through the hole in the hub flange.



2. Attach the nipple and tighten the spoke to the specified tension.

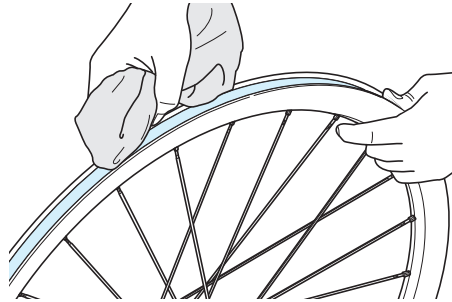


3. Use a clean rag to wipe off any residue or dirt from around the rim hole and from the surface where the tubeless tape will be affixed.

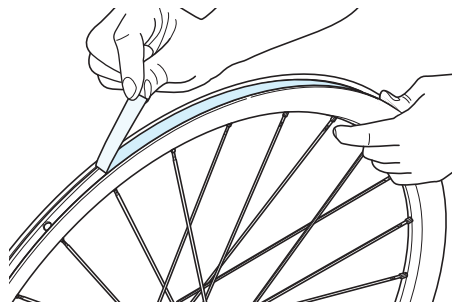


Replacing tubeless tape

1. Use a clean rag to wipe away any residual sealant if it was used.

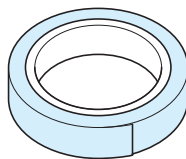


2. Remove the tubeless tape.



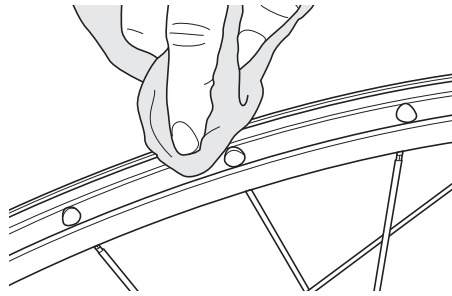
NOTICE

- The tubeless tape cannot be reused, so use a new one after replacing it.
- Use a tubeless tape matching the rim width.
- It is recommended to use genuine SHIMANO tubeless tape to prevent punctures and other possible damage.



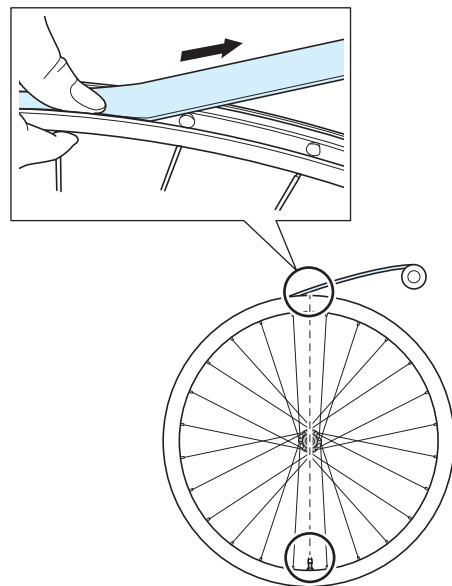
Tubeless tape

3. Use a clean rag to wipe off any residue, sealant or dirt from the surface where the tubeless tape will be affixed.



4. Affix new tubeless tape.

Start affixing the tubeless tape from the opposite side of the valve.



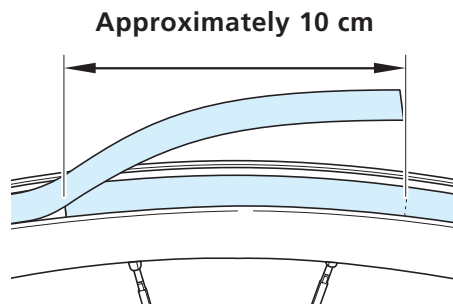
TECH TIPS

- Do not use a tool to affix the tape, as it may cause the tape to tear.
- Pull on the tape to give it some tension when affixing it in order to ensure it sits cleanly in the rim.
- Ensure the tape is centered in the rim, not off to one side, as is illustrated in the figure.

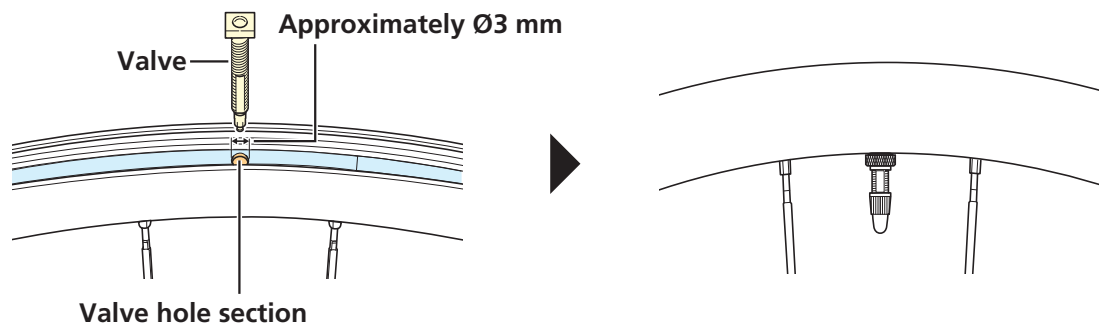


5. Securely attach both ends of the tape to the rim.

* Overlap the ends of the tape by approximately 10 cm.



6. Punch a pilot hole in the valve hole section and then attach the valve.



Front hub disassembly/assembly

For information on how to disassemble/assemble the front hub, refer to the dealer's manual for HB-MT410.

Freehub disassembly/assembly

For information on how to disassemble/assemble the freehub, refer to the dealer's manual for FH-MT410.

Replacing the freewheel body

For information on how to replace the freewheel body, refer to the dealer's manual for FH-MT410.

Installing and removing the tubeless tires

Important Safety Information

⚠ WARNING

- The tires should be installed and removed by hand. If this is difficult, a plastic tire lever for tubeless wheels may be used. In such cases, be sure to check that the rim surface has not been dented, scratched, or cracked as there is a risk of causing damage to the air seal between the tire and the rim, which would result in air leakage. Finally, make sure that there is no air leakage.

⚠ CAUTION

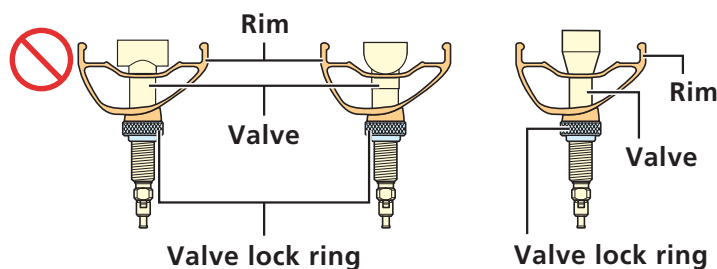
- When using an inner tube, do not add additional rim tape on top of the tubeless tape. Doing so may make it difficult to install or remove the tire, and it may cause damage to the inner tube resulting in a sudden puncture, which can cause the bicycle to fall over.
- Do not overtighten the valve lock ring. If you tighten the valve lock too much, the valve seal may become deformed, and air leaks may occur.

NOTICE

- If the tires are difficult to fit, use tap water or soapy water to help them slide more easily.

Installation

1. Install the valve on the rim.

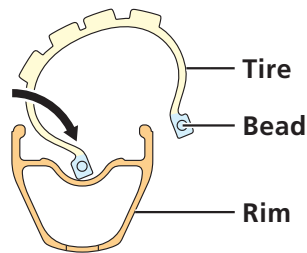


NOTICE

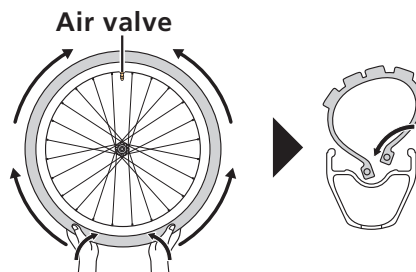
- Note the direction of the valve.
- When tightening the valve lock ring, check that the valve does not turn together with the valve lock ring.

2. Insert the bead on one side of the tire into the rim.

* Check that there are no foreign particles or damage in the tire bead, rim, and valve.

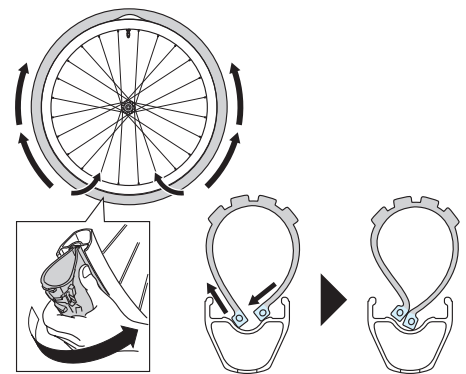


3. Insert the bead on the other side of the tire starting from the point opposite the air valve.

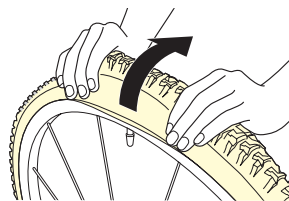


TECH TIPS

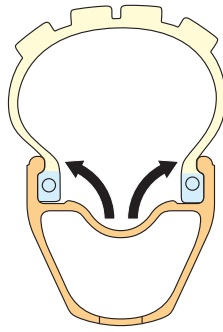
- If the final section of the bead at the air valve is difficult to mount, make sure the whole bead is pushed into the center groove of the rim. Start from the opposite side of the air valve and work your way around each side to the location of the air valve.



4. Grip the tire with both hands and insert the tire into the rim.



5. Inflate with air to lock the beads of the tires into the rim.



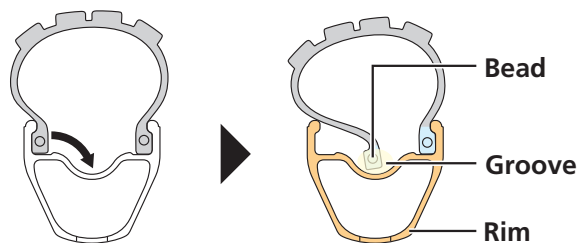
6. Deflate the tire and check that the beads are locked into the rim.

If the beads are not locked into the rim, they may separate from the rim when the tire is deflated.

7. Inflate the tire until it is at an appropriate pressure.

Removal

1. To remove the tire, deflate it and push one side of the bead into the center groove of the rim.

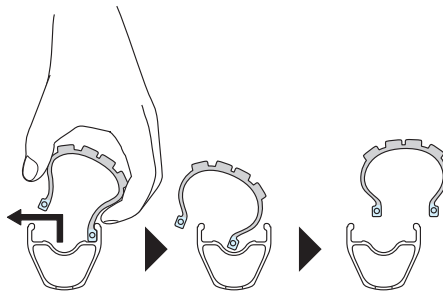


TECH TIPS

- Be sure to only push in the bead on one side of the tire. If you push the beads in on both sides, the tires will be difficult to remove. If you accidentally unseat both beads, inflate the tire once more to lock the beads; to remove the tire, restart the procedure from the beginning.

2. Remove the beads.

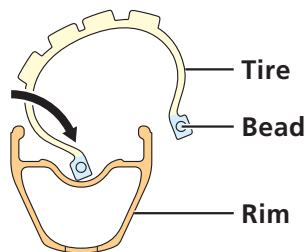
* Remove the bead on one side of the tire starting from the point closest to the air valve, and then remove the bead on the other side of the tire.



Installing when using an inner tube

1. Loosen the valve lock ring and remove the air valve.

2. Insert the bead on one side of the tire into the rim.



3. Insert the inner tube into the tire.

Inflate the inner tube slightly to give it a firm shape, then insert it into the tire.

NOTICE

- Check that the air valve and size of the inner tube are appropriate for the rim and tire being used.

4. Insert the bead from the opposite side of the air valve.

Be careful not to pinch the tube at this time.

If necessary, use soapy water.

5. Inflate the inner tube until the tire locks into place.

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

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