



OWNER'S MANUAL: ROAD WHEELS



TOPOLINO TECHNOLOGY

GO ALL THE WAY™

OWNER'S MANUAL
700C CLINCHERS (C71F, C71RS, C71RC)
700C CARBON TUBULARS (CT71F, CT71RS, CT71RC)

SERIAL NUMBER, FRONT: _ _ _ _ _

SERIAL NUMBER, REAR: _ _ _ _ _

(PLEASE RECORD THE SERIAL NUMBER FOR EACH OF YOUR WHEELS - LOCATED ON A U.P.C. LABEL UNDER THE RIM STRIP)

Thank you for purchasing Topolino wheels. You now own the most advanced pair of bicycle wheels on Earth (no kidding!). For reasons too complex to discuss here, owner's manuals have become rife with icy-cold WARNING sections. Please don't let that dissuade you from reading each one carefully (your life may literally depend on it). You will also find that we have gone to great lengths to provide many bits of information that you will find useful and interesting, and that can help improve your cycling experience.

Our company is made up of individuals who have worked at several bicycle companies throughout the industry over the past 20 years. Now it's our turn, and we aim to do things right. You can be sure that we take pride in what we do, and that we care dearly about our customers.

We invite you to subscribe to our *Friends of Topolino* newsletter, which includes company news and product updates, by contacting us on our website: www.topolinotech.com.

If our products improve your riding experience, we've achieved our goal.

Good health, and good riding!

Raphael Schlanger
President, Topolino Technology



WARNING: This document contains information important to your safety. Read, understand and follow the warnings and instructions in this owner's manual and keep this manual for future reference. If you have any questions call or email us any time.



WARNING: If you do not follow these instructions and warnings, there is a risk of an accident, resulting in the possibility of injury or death.



WARNING: Read, understand and follow the warnings and instructions the owner's manual that came with your bike



WARNING: Most serious injuries or deaths in cycling could be minimized or prevented with the use of a helmet. Always wear a helmet when riding



WARNING: Riding with an improperly adjusted quick-release can permit the wheel to loosen or become disengaged from the bicycle frame. For this reason, you must:

1. Read, understand and follow the instructions that came with your bicycle and/or quick-release.
2. Insist that your bicycle retailer show you the how to properly install and adjust your quick-release.
3. Always use a quick-release that embosses your frame.
4. Before each ride check that your wheel quick releases are securely clamped.



WARNING: Every few rides, check that your brake pads are aligned properly with the braking surface on the rim, and are not overly worn.



WARNING: Before each ride check that the braking surface on the rim is free from grease and oil, and is not cracked or overly worn (see RIMS AND BRAKING PERFORMANCE).



WARNING: Use the right tool for the job: These wheels were designed, intended and tested for use on a single bike on pavement only. Do not use them for offroad, jumping, cyclocross, on tandems, etc. These uses are not covered by our warranty, and more importantly, could lead to wheel failure, which could result in serious injury or death.

REFLECTORS

Our Carbon Core spokes have a unique, aerodynamic shape, and an unusual spoke count per wheel. This is part of what makes our wheels lighter and faster. However, you may find that some standard reflector mounts will not fit.

We have found the following reflectors do fit our wheels:

- Cateye Model RR-550-WUW SW white #504-3420 (for CPSC - U.S.A)
- Cateye Model RR-550-WUA SW amber #508-6770 (AS)
- Cateye Model RR-317-WUA SW amber (2 pcs.) #528-7620 (DIN)

Consult a bicycle retailer, or check your local regulations to determine the required reflector model and color for your wheels.

If you ever plan to ride at dawn, nighttime or dusk, we urge you add reflectors to your spokes. If you have trouble locating reflectors to fit Topolino wheels, please contact us, or have your bicycle retailer contact us. If you ride at dawn, dusk or at night, reflectors are a must, but reflectors alone are not adequate! You must use front and rear lights, wear light and reflective clothing and use a flashing strobe light.



WARNING: Night riding is much more dangerous than riding in the daytime. Check your state laws. Lights are required for riding at dusk, night or dawn. Failure to follow precautions outlined above increases the risk of accident, which could result in risk of possible injury or death.

SPOKE DISCS

Chains can sometimes jump inboard of the sprockets and damage the hub flange and spokes. A spoke disc is light, inexpensive, and protects your wheel if this should occur. We strongly advise the use of a spoke disc (see FIG. 1). Your rear hub has small pockets in the drive-side flange to accept a Shimano (or equivalent) snap-on spoke protector, the type with 3 lugs for 36 spokes. Be sure to use the correct spoke disc model that corresponds with the size of your largest rear sprocket. Damage that could be prevented though the use of a spoke disc is not covered by the warranty.

COMPUTER SENSOR MAGNETS

The spokes on your wheels have a unique aerodynamic shape. Although they allow you to go faster, it may be difficult to fit your sensor magnet to them. We can help. Contact us, or your bicycle retailer, for details.

COGSETS (SPROCKET CASSETTES)

Topolino produces a rear wheel that is set up for Shimano and Shimano-compatible 8/9/10-speed cogsets and a rear wheel for Campagnolo 9/10-speed cogsets. A Campagnolo cogset will not fit on a Topolino wheel that has been made for Shimano, and vice versa.

Your wheels were designed to conform to conventional Shimano/Campagnolo freehub spacing to allow for easy interchange between wheelsets with little or no readjustment required for your rear derailleur. Always double-check your derailleur and limit screw adjustment settings and adjust, if necessary, to insure that shifting is smooth.

We offer conversion kits required to change a rear wheel from one to the other. Topolino uses a unique spacing and dish, designed to optimize the performance by specifically tuning the wheel for each system. This conversion requires not only changing the freehub body, but also re-spacing the axle and re-dishing the wheel. For this reason, we recommend you have any conversion performed by a professional bicycle retailer. Coat the freehub body with a thin layer of grease before sliding the cogset on. Be sure the cassette's lock ring is tightened to 40 Nm (30 ft.-lb.) of torque, using a torque wrench (See FIG. 1).

We use extremely durable cold-forged and hard-anodized 7075-T6 aluminum alloy freehub bodies. The use of cogsets without aluminum carriers for the larger cogs may create indentations on the splines of even the most durable freehub bodies. Cog indentations in the freehub body will not affect the performance of the wheel, but may make cog removal and installation more difficult. To avoid such indentations, it is best to use only rear cogs with an alloy carrier for the largest cogs, such as Shimano Dura-ace and Ultegra or Campagnolo Record and Chorus.

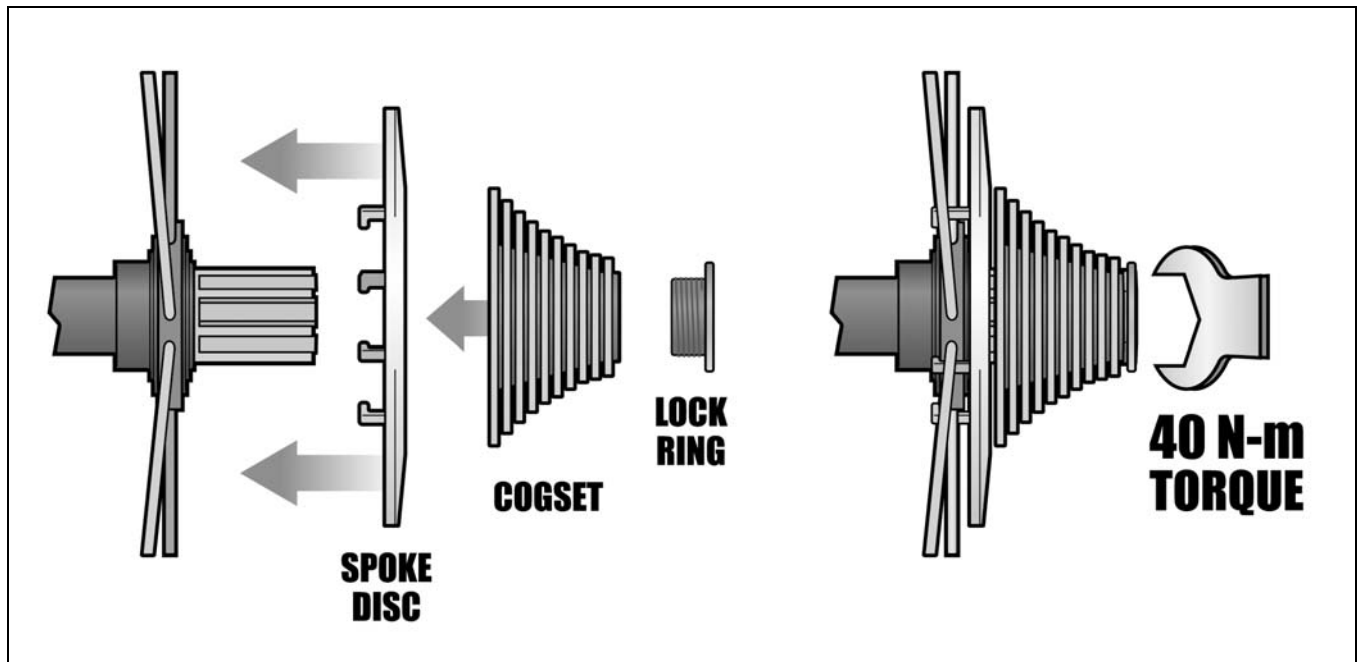


FIG. 1

CLINCHER RIM STRIP

This applies to clincher rims. If all spoke holes on your rim are not fully covered with a good quality bicycle rim strip or tape made specifically for this purpose (see FIG. 2), you will be walking home. Never use the inexpensive rubber rim bands. We highly recommend Velox fabric rim tape. Recommended rim tape width is **16mm to 17mm**. Narrower tape can migrate, exposing inner tubes to the rim openings.

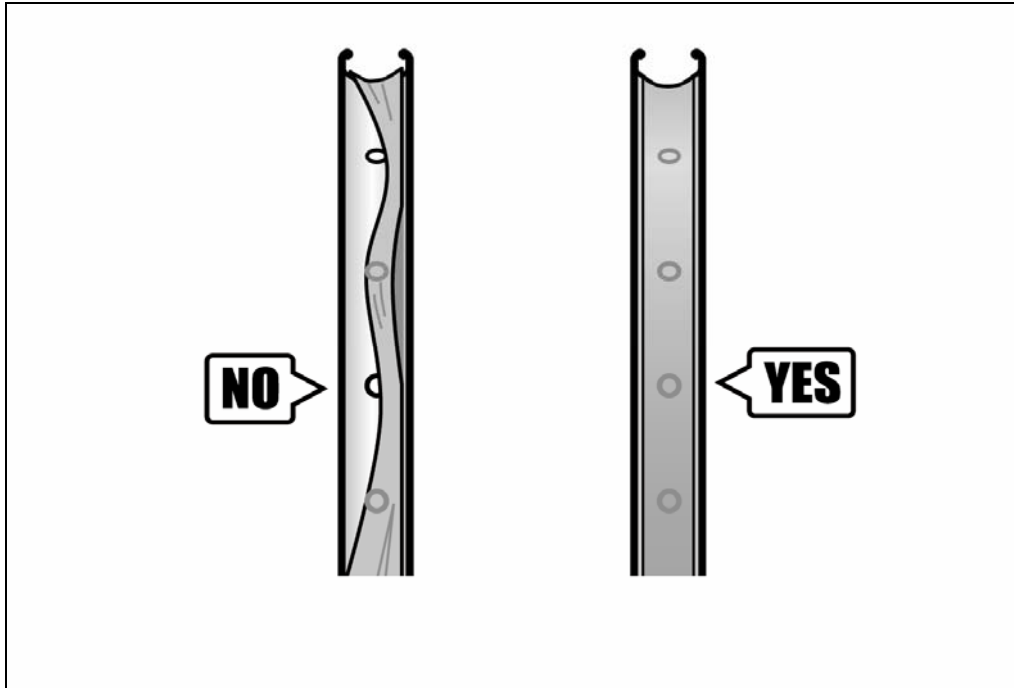


FIG. 2



WARNING: Failure to use a properly installed, good quality rim strip of proper width could result in puncture of the inner tube and loss of control of the bicycle, resulting in possible injury or death.

CLINCHER TIRE MOUNTING

Use only presta (also known as “French”) valve inner tubes. Do not drill your rim for a schrader (car type) valve, as the rim is optimized for light weight, and was not designed for a larger valve hole. The ETRTO size of your Topolino rim is 622 x 14 (700c). Use only ETRTO 622 tires in a maximum width of 700 X 28C. Follow the recommended tire pressure guidelines labeled on the sidewall of your tire, but do not exceed the maximum tire pressure listed below on Topolino 700c clincher wheels. Also, be sure to heed the warning below regarding elevated temperatures.

Tire width	Maximum tire pressure
20mm	140 psi (9.6 bar)
23mm	136 psi (9.3 bar)
25mm	130 psi (9.0 bar)
28mm	115 psi (7.9 bar)

It is always better if you can pull the last bit of tire onto the rim with your bare hands. It may seem tough at first, but it is usually possible with a bit of practice. To insure that you do not mar the rim, we recommend using only a high quality plastic tire lever, if needed, when installing and removing your tire.



WARNING: Improper tire mounting or air pressure could result in tire failure, resulting in loss of control of the bicycle, with risk of possible injury or death. If you are unsure how to properly mount a tire, consult a professional bicycle retailer.



CAUTION: Increased temperatures will cause the air in your tires to dramatically expand, in some cases causing damage to the tire, tube and rim. When storing any wheel in excessive heat (such as a car trunk, which can exceed 200°F (95°C) on a hot day), reduce the air pressure in the tire to less than 75 p.s.i. (5.0 bar).

TUBULAR TIRE MOUNTING

The mounting of tubular tires is not for the novice and is best left to your bicycle dealer or a professional that is intimately familiar with the process. If the tubular tire is not mounted and glued-on properly, it may roll off of the rim and may result in loss of control of the bicycle. Be sure to use a tire with a valve extender or with a minimum valve stem length of 60mm.

The procedure for mounting a tubular tire is as follows:

1. Remove any old tire cement from the rim. This may be achieved by wiping with an acetone-soaked rag. Be sure to follow proper precautions when working with this highly flammable solvent and use with adequate ventilation. Do not use abrasives on the carbon rim surface as this may damage the rim. The prepared rim surface should be clean and free of any oils or contaminants.
2. Using a high-quality tubular tire cement, thoroughly coat the tire-mounting surface of the rim. Allow the tire cement to dry and repeat the coating process two more times, allowing the coating to dry between applications.
3. Inflate the tire (off of the rim) and coat the tire base tape with the tubular tire cement.
4. Deflate the tire while the cement is still wet and insert the valve stem through the valve hole of the rim. The carefully stretch the tire onto the rim, progressing evenly on either side of the valve so that the base tape of the tire is evenly aligned and centered with the rim.
5. Inflate the tire to 40 – 60 psi (3-4 bars). Allow the cement to dry for at least 12 hours before inflating to full pressure and riding on the wheel.
6. Remove with solvent any excess cement that may have inadvertently gotten on the rim braking surface.



WARNING: Improper tubular tire mounting or air pressure could result in tire failure or in the demounting of the tire from the rim, resulting in loss of control of the bicycle, with risk of possible injury or death. If you are at all unsure how to properly mount a tubular tire, consult a professional bicycle retailer.

CHOOSING A QUICK-RELEASE

Your Topolino wheels are not supplied with quick-releases (also called “skewers”). Refer to the O.L.D. in the specification chart below when selecting your quick-releases.

We urge the use of a high-quality cam-type quick-release with:

- conventional full-length levers
- knurled steel contact surfaces that are capable of embossing the surface of your dropout (ask your bicycle retailer to demonstrate how your quick-release you are buying emboss your frame).
- We do not recommend the use of screw-type quick-release skewers, which do not have a camming lever, but instead utilize screw threads to provide the clamping action. This type of quick-release has far less clamping power than cam-type quick-releases.
- Apply a light coating of grease to your quick-release shaft before inserting it through the axle. This will help to minimize the possibility of corrosion of the quick-release shaft and/or the axle.

FITTING THE WHEEL TO THE BIKE

Follow all warning and instructions for your quick releases. If you are at all unsure about how to use the quick release, insist that your bicycle retailer show you the proper method.

Be sure the wheel axle is fully seated all the way into the dropout slots (see FIG. 3), and that the wheel is centered in the frame and fork. Adjust and close the quick release per the instructions in your bicycle’s owner’s manual. For your safety, take the time to be sure the quick releases are secure. The quick release should emboss the frame or fork when tightened, and the lever should be very snugly closed.

Basic but critical procedure whenever installing a wheel: Pick up the bike and hit the top of the wheel from above with a sharp downward blow of your hand. The wheel should not move, shift or fall out of the dropouts. If it fails this test, readjust your quick-release.

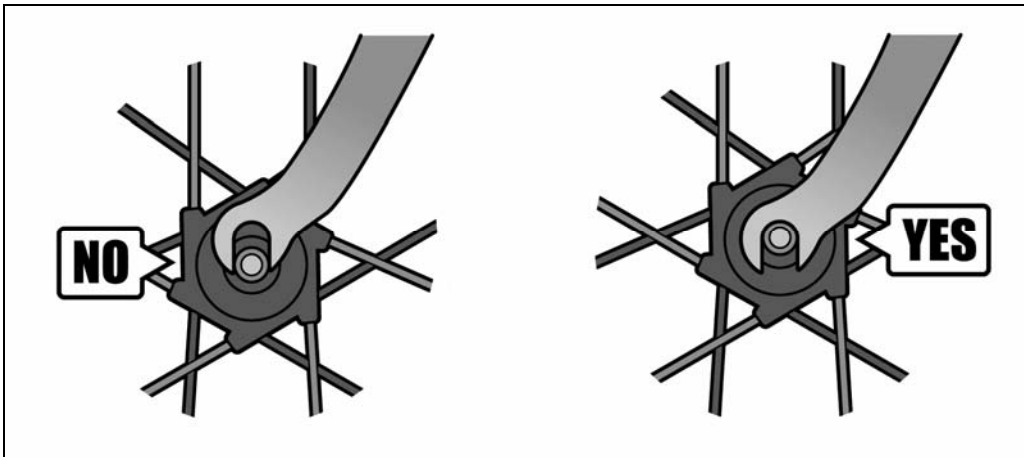


FIG. 3



WARNING: Failure to properly install and secure your bicycle’s wheels could result in loss of control of the bicycle with risk of possible injury or death.

BRAKE ADJUSTMENT

Your Topolino rims have a machined braking surface to provide an even surface of bare aluminum for optimum braking performance. Be sure your brake pads are square, aligned (and properly toed-in) with the braking surface on the rim (see FIG. 4). When the brake lever is squeezed, the brake pads should be square and aligned to fit within the braking surface of the rim. With the brake lever released, there should be an equal gap between the rim and each of the two brake pads.

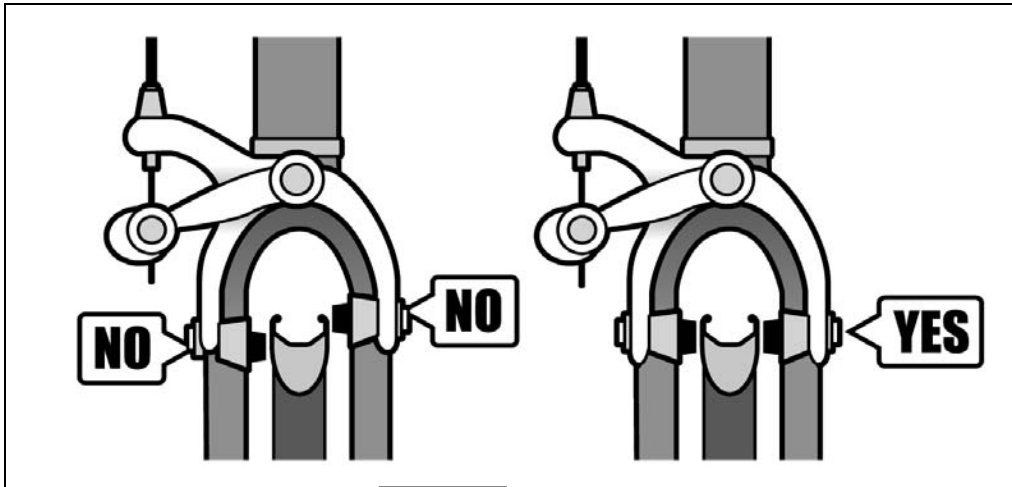


FIG. 4

RIMS AND BRAKING PERFORMANCE

Your Topolino clincher rims have been precision machined to optimize braking performance from most conventional brake pads. For the carbon/ceramic braking surface of the Carbon Tubular rims, you must use brake pads with a compound designed specifically for rims with a carbon braking surface. Some brake pads that have been used with good results are Kool-Stop #KS-DURACF, #KS-C89CF, and #KS-C2CF.

Always keep in mind that braking performance is affected by weather and road conditions. A wet rim will require greater stopping distance. Contaminants like grit can become embedded in brake pads, causing poor braking and premature wear of the rim. Clean the braking surface of the rim and the contact surface of the brake pads with a cloth dampened with isopropyl "rubbing" alcohol.

Never ride a rim that shows signs of damage or excessive wear (see below).



WARNING: Rims are subject to wear due to the braking process. Excessive grooving or a concave braking surface indicates the rim is overly worn needs to be replaced. Rims need to be replaced when they are worn. An excessively worn rim could fail without notice, leading to an accident with the risk of possible injury or death.



WARNING (carbon tubular rims only): You must use brake pads with a compound specifically formulated for your carbon composite braking surface. Failure to do so may result poorer braking performance, which can lead to an accident with the risk of possible injury or death.

TRUING WHEELS

Customers who are confident and experienced at truing wheels may be able to perform touch-up or minor truing of these wheels (<1.0mm side-to-side runout). Truing of wheels is a highly specialized skill. If you do not have the utmost confidence in your ability there is the possibility that you can do more harm than good. Your bicycle dealer has the skills and tools to true your Topolino wheels. Your professional bicycle retailer, with technical information provided by Topolino, must perform any truing that is beyond a minor touch-up (>1.0mm).

Your wheels can be trued in a similar fashion to standard wheels. Using a Park Tool spoke wrench (use only the "black" handle - Park model #SW-OC) will provide better clearance around the spoke terminations (see FIG. 5). If the spoke twists with the nipple, simply rotate the black termination back into place by hand, or use a small wrench on the flats of the spoke terminations (see FIG. 6).



CAUTION: Never let a spoke twist more than 90 degrees (1/4 turn) before repositioning the termination. The spoke can become damaged due to excessive twist.



WARNING: If you are at all unsure how to true a wheel, bring it to a professional bicycle retailer who has the special tools, knowledge and experience to do the job correctly. An improperly adjusted or trued wheel could be unsafe, with the risk of serious injury or death.

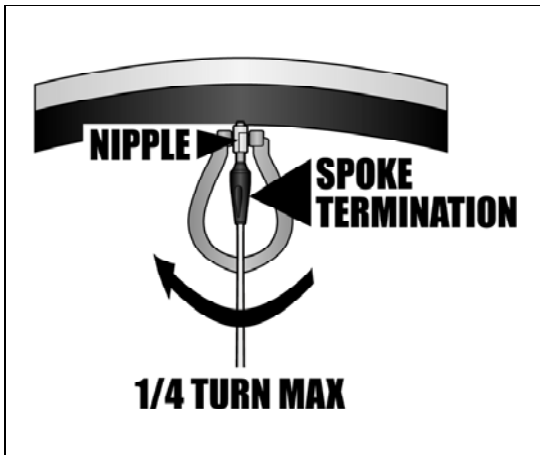


FIG. 5

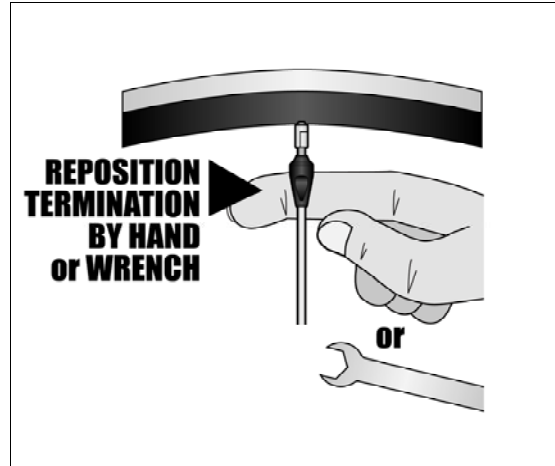


FIG. 6

INSPECTIONS

Make it a habit to look carefully for the following before each ride:

- Cracks in any part of the wheel
- Abrasion or kinks in the spokes
- Excessive brake track wear (see RIMS AND BRAKING PERFORMANCE above)
- Threaded connections that have become loose.
- Bent or deformed parts, including the rim.
- Lift the bicycle and spin the wheels. They should run straight and true between the brake pads.

Have a professional bicycle retailer inspect your wheels regularly. If you are involved in a crash or if you run over an object or obstruction, or if you have any reason to suspect you may have damaged the wheel, be sure to inspect your wheel immediately.



WARNING: If you find or suspect the existence of cracks or damage, do not ride the wheel and have the wheel inspected by your professional bicycle retailer. A damaged wheel could fail without notice, leading to an accident with the risk of possible injury or death.

MAINTAINING AND SERVICING BEARINGS/AXLES/FREEHUBS

Your wheel uses sealed cartridge type bearings (see specifications on page 11). These bearings are maintenance and adjustment free. Keeping the hubs clean will prolong the life of the bearing. Submerging in water, or spraying water directly at the wheels will shorten the life of the bearings (this includes transporting you bike on top of your car in a rain storm). If there is ever a problem with a bearing, it can be removed and replaced by your professional bicycle retailer.

Freehub bodies may be changed, for replacement, or for change-over between Shimano and Campagnolo cogsets (see COGSETS section above).

NOTE: *If hub disassembly is ever required, have your professional bicycle retailer contact Topolino Technology for specific instructions.*

BROKEN/DAMAGED SPOKES AND HUBS

Our Carbon Core spokes are made from carbon fiber for stiffness and Kevlar for toughness. (Kevlar provides the protection used in bulletproof vests). In addition, our spokes cannot squirm at the hub, so they will not fail there the way conventional spokes do. These amazing spokes start at the rim, pass THROUGH the hub, and go all the way to the other side of the wheel (Go all the way!). Due to this radical construction a spoke failure is highly unlikely. However, thanks to the modular nature of the Topolino design, a broken or damaged hub/spoke assembly can be replaced at relatively low cost by a qualified bicycle mechanic. Have your bicycle retailer contact us to find out which hub/spoke assembly you need.

SPOKE APPEARANCE

Topolino Carbon Core spokes are made from carbon fiber for stiffness and Kevlar for toughness. If your wheel has yellow in the spokes, it is normal for the color to become somewhat amber over time, with no affect on performance. It is also normal for the appearance of the black carbon "stripes" to vary from spoke to spoke.

You may notice tiny Kevlar fibers sticking out from the spoke. Don't panic; this is totally normal, and has no ill effects on the function of your wheel. If it really bothers you, they can be smoothed down with some sparingly applied clear nail polish.

CLEANING, SOLVENTS ETC.

You should clean your Topolino wheels the way the pros do: Soapy water and a sponge. Never spray high-pressure water at the wheels (or any other bearings on your bike!), nor use solvents of any kind, either of which can penetrate the seals and ruin the bearings.

COMPONENT SUBSTITUTIONS

Never substitute, or let anyone else substitute, any different components on your wheels. Any change or modification to the system will void the warranty and may be potentially dangerous. Use only Topolino original equipment rims, hubs, spokes, nipples, etc. Your Topolino wheels are designed to work as a complete system, and any alteration to the system will void your warranty, and is potentially dangerous!



WARNING: The use of anything but original equipment on Topolino wheel systems can result in a catastrophic product failure, with risk of serious injury or death.

“CRASH REPLACEMENT”

If you are unlucky or do something dumb, don't expect someone else to pay for it. If you tell us the truth as to how your wheel became damaged, we will work with you to get you back on a set of wheels as inexpensively as possible. Contact your Topolino retailer for details.

RETURNING WHEELS

If you must send us a wheel, please contact your bicycle retailer. They can contact us for a return authorization number (RA#) and must mark it clearly on the outside of the package. If there is no RA# on the outside of the package, we will have no reference identification and the wheel will be automatically returned.

LIMITED WARRANTY

Topolino Technology warrants that a new wheel will be free from manufacturing defects in materials and workmanship for a period of one year from the date of consumer purchase (proof of purchase is required), provided the wheel is used within the guidelines set forth in this owner's manual, and under normal conditions. This warranty is expressly limited to the repair or replacement of a defective wheel and is the sole remedy of the warranty. Topolino Technology shall repair or replace (at its sole option) any parts found by Topolino Technology to be defective and subject to this Limited Warranty. The original owner shall pay all labor charges related to the repair or replacement of the wheel. This warranty covers only the original purchaser of this wheel, and is not transferable. This warranty does not apply to normal wear and tear (scratches, etc.) nor to failures that arise from neglect, abuse, improper maintenance, alterations, modifications, accidents, crashes, misuse (including without limitation tandem usage, stunt riding, offroad riding, etc.), or neglect. This warranty does not cover damage due to shipment, improper assembly or assembly with non-compatible components. This warrantee does not cover any product whose serial number has been damaged, modified, or erased. Any implied warranties, including warrants of merchantability and fitness for a particular purpose shall be limited in scope and duration in accordance with this Limited Warranty. Topolino Technology shall not be responsible for any direct, incidental, consequential, or exemplary damages suffered by any party. The foregoing statements of warranty are exclusive and in lieu of all other remedies. This Limited Warranty gives you specific legal rights; you may also have other legal rights, which vary from state to state. Some states do not allow limitations on the duration of implied warranties, or the limitations or exclusion of incidental or consequential damages; therefore, the some of the limitations and exclusions set forth in this Limited Warranty may not apply to you. The Limited Warranty set forth herein may not be extended, enlarged or otherwise modified by any Topolino Technology retailer, agent or employee, and Topolino Technology does not assume any liability or make any warranty except as stated in this Limited Warranty.

SPECIFICATIONS

Nipples: 14 ga. (2.0mm), 7075-T6 aluminum

Rims: ETRTO 622 x 14 (700c clincher)

Over locknut dimension (O.L.D.) – front: 100mm \pm 1.0mm, rear: 130mm +2.0mm –0.00mm

Bearing specification: front hub: #6901-2RS; rear hub (drive side): #6001-2RS; rear hub (non-drive side): #6901-2RS; freehub body: #6901-2RS

If you have any questions about any of the information in this owner's manual, please contact us any time.

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