



Wheel Systems
2006 Owner's Manual



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Congratulations!

Congratulations and thank you for purchasing the worlds' finest high performance wheel system.

Because different Rolf Prima Wheel system models are available this manual may contain information which does not apply to your wheel set. Some illustrations may show details which vary from your wheel set. If you have any questions after reading this manual, please consult our web site or your Rolf Prima Wheel Systems dealer.

It is important that you read this manual thoroughly before riding to ensure that your wheel system functions properly and safely. This manual explains the recommended care, inspection, and maintenance of your Rolf Prima Wheel System model. With proper care and maintenance, your wheel system will provide the highest performance riding experience for years to come.

If you sell or loan your wheel system, please provide the new rider with this manual.

Installation and maintenance instructions are included in this manual. If your wheel set was installed by your dealer, you should still read this manual thoroughly.

Some maintenance and repair should only be performed by your Rolf Prima Wheel System dealer. Any such service will be indicated in this manual. If you have a question or issue which your Rolf Prima Wheel System dealer cannot address, please contact us:

Rolf Prima Incorporated
Attn: Customer Service
750 Commercial Street, Suite 1
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ROLF PRIMA WHEEL SERVICE

Rolf Prima wheels require special parts. Do not attempt substituting weaker conventional spokes, hubs, or rims for replacement. Rolf Prima wheels are serviceable by most professional bicycle shops. See you Rolf Prima dealer for authorized replacement parts and service. If necessary, your wheels can be serviced by Rolf Prima Incorporated directly. This service must be arranged through an authorized Rolf Prima dealer.

Notes:

ROLF PRIMA LIMITED WARRANTY

Rolf Prima Incorporated ("RPI") warrants, but only to an original purchaser who purchased the wheel from a licensed Rolf Prima dealer or distributor, that for a period of 12 months from original purchase the new Rolf Prima wheel (the "Product") shall be free from material defects in workmanship and material. If the purchaser discovers within this period a material defect in Product workmanship or materials, the purchaser must promptly so notify RPI in writing, through an authorized dealer or distributor, accompanied by proof of purchase of the Product. In no event shall such notification be received or effective later than 13 months after the original purchase. In the event that a Product does contain a material defect in workmanship or materials and proper notification is provided as required this limited warranty, then within a reasonable time after such notification, RPI will correct any material defect in workmanship or materials, or provide replacement parts or products. If RPI is unable to repair the Product to conform to this limited warranty, RPI, within its sole discretion, will provide a replacement product, or a full refund of the purchase price. Labor charges for parts changeovers are not covered by the warranty. RPI does not warrant (a) any product, components or parts not manufactured by RPI, (b) defects caused by failure to provide proper and suitable Product installation and maintenance, (c) damage caused by use of the Product for purposes other than those for which it was designed, including use on unsuitable surfaces or at unsafe speeds, and including use of the Product without a helmet and other appropriate protective clothing or gear, (d) damage caused by misuse, abuse, neglect or natural elements, or normal wear and tear, and (e) damage resulting from or relating to use with unauthorized components, modifications or attachments. No employee, distributor, dealer or agent of RPI is authorized to make any warranty in addition to or different from the foregoing limited warranty. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

LIMITATION OF LIABILITY

The sole remedy for breach of the limited warranty set forth herein is RPI's repair, replacement or refund, as described herein. In no event shall RPI be liable for any other damages or liability, including special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict tort, or any other legal theory, and including damages arising from or related to any physical injury to person or property. Some states do not allow the exclusion of incidental or consequential damages, so the above exception may not apply to you. This warranty, and statutory law, gives the consumer specific legal rights, and those rights may vary from place to place.

General Information

Wheels are the most important component on your bicycle. They have the greatest influence on the performance and ride quality of your bicycle. Your Rolf Prima Wheel System will deliver years of trouble free performance provided they are regularly inspected and properly maintained. The structural condition of your wheels and the performance of your brakes are crucial to your safety. Please be aware of things that can go wrong and inspect your wheels and brakes regularly to prevent accidents!

Inspection – Before Every Ride

Before each ride be sure to inspect each item on this list to ensure your Rolf Prima Wheel system is in top condition and is properly installed to your bicycle.

CHECK THAT THE WHEELS RUN TRUE

Spin each wheel and watch the rim where it passes the brake pads. If the rim moves up and down [radially] or side to side [laterally] excessively, or does not spin evenly, have the wheel inspected and trued by your Rolf Prima Wheel System dealer.

CHECK THAT THE RIMS ARE CLEAN

Dirty or greasy rims greatly reduce braking effectiveness. Particularly dirty rims can present a significant safety risk. Clean the rim braking surface with a clean shop rag or wash them with soap and water and let them air dry.

CHECK THAT THE TIRES ARE PROPERLY INFLATED

For Rolf Prima wheels with aluminum clincher rims, inflate tires with a bicycle pump equipped with a pressure gauge to the inflation pressure indicated on the tire sidewall or 120 psi [8.1 atm] whichever is lower. Inspect the tires for damage or excessive wear. If you have any questions about the condition of your tires, have them inspected by your Rolf Prima Wheel System dealer.

For Rolf Prima Carbon wheels, inflate tires with a bicycle pump equipped with a pressure gauge to the maximum inflation pressure indicated on the tire sidewall, or a minimum of 120 psi [8.1 atm]. Please note: Carbon fiber rims can be easily damaged if ridden with insufficient tire pressure. Impact damage to rims is not covered under your Rolf Prima wheel warranty. Since many tubular tires have latex tubes, which tend to lose significant amounts of pressure over a

short period of time, it is very important that tubular tires are checked and inflated before each ride.

CHECK THAT THE QUICK RELEASE MECHANISMS ARE PROPERLY CLOSED

Your wheels are equipped with quick release wheel retention mechanisms. The quick release allows the wheel to be removed and installed without tools. For proper and safe operation, read these instructions carefully.

! WARNING !

Failure to have wheel quick release retention mechanisms properly adjusted and closed may cause loss of control resulting in personal injury or death. If you have any questions about the operation of this system, consult your dealer.

OPERATION OF QUICK RELEASE MECHANISMS:

1. Check both wheels before every ride.
2. Move the quick release lever to the OPEN position and set the wheel so it seats firmly at the end of the frame or fork tips. [fig. 1].

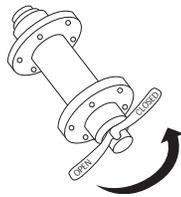


fig. 1

3. With the lever about halfway between the OPEN and CLOSED position [fig. 2], tighten the quick release adjusting nut on the opposite end of the quick release axle until finger tight.

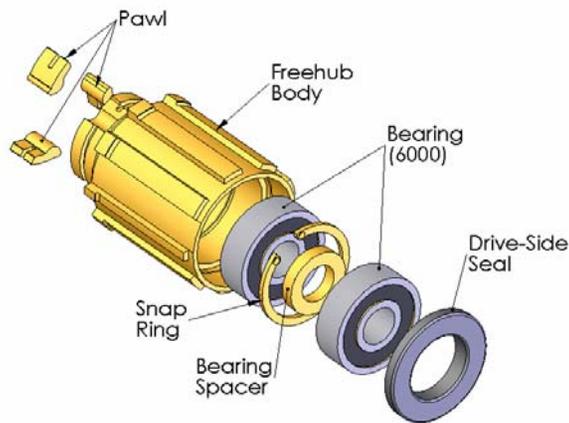


fig. 2

15. Inspect pawls for heavy wear or damage and replace as needed. Carefully remove pawl spring by prying upward with a small pick at the end of the spring with a 90 degree bend. Place new pawls in their pockets and install a new pawl spring.
16. Remove the drive side rubber freehub body seal by carefully prying outward with a pick.
17. Inspect freehub bearings before removal, as removal will likely damage bearings. Place the free hub body on a hard work surface with outboard side facing down. Locate the bearing spacer between freehub bearings and push it aside with a drift. Remove the outboard bearing by carefully striking the inner bearing race with a drift.
18. Locate the bearing spacer and set it aside for reassembly.
19. Remove the snap ring using snap ring pliers.
20. Remove the inboard freehub bearing by striking the inner bearing race with a drift.
21. Lightly coat the outer bearing race of two new freehub bearings. Carefully drive the inboard freehub bearing into its bore by selecting a drift or bearing installation tool which only contacts the bearing outer race. Seat the bearing firmly in its bore.
22. Install the snap ring, making certain that it is properly seated in its groove. Install the bearing spacer.
23. Install a new outboard freehub body bearing.
24. Install the outboard freehub body seal, with the sealing lip facing outward.
25. Oil freehub pawls with two to three drops per pawl.
26. Coat the exposed portion of the axle with a thin film of grease and install the bearing spacer on the axle.
27. Coat the outside diameter of the bearing spacer with a thin film of grease and install the freehub body, rotating it counter-clockwise to engage pawls with the hub shell drive ring.
28. Install the drive-side axle end lock nut and tighten firmly.

6. Remove the rubber non-drive seal by carefully prying with a small flat bladed screwdriver or pick.
7. Note the orientation of parts for reassembly. It is a good idea to lay the parts out in the order they were removed, resembling the exploded view, above.
8. Clean and inspect parts and replace as necessary. Reassembly of the hub is generally done in the reverse order of disassembly, with a few exceptions.
9. Special care must be taken when installing bearings, as they can be damaged easily. Select drifts or bearing installation tools which will drive bearings by contacting **only** the outer race. Bearings installed by the inner race – or by the bearing seals will not run smoothly. Incorrectly installed bearings are not covered by your Rolf Prima warranty.
10. If only one hub shell bearing is to be replaced, install the axle into the hub shell and existing bearing after first coating the bearing seat and shoulder portions of the axle lightly with grease.
11. If both hub shell bearings are being replaced, install the drive side hub shell bearing first. Insert the axle into the hub shell and then install the non-drive side hub shell bearing.
12. Install the non-drive side rubber seal with the sealing lip facing outward and install the left side axle-end lock nut. Tighten the lock nut firmly while holding the axle stationary with a 5mm Allen wrench inserted in the hex broach.
13. Install the rubber freehub seal in the hub shell, with the sealing lip facing outward.
14. To replace freehub body bearings, refer to the exploded assembly diagram and instructions below:

Freehub body exploded assembly view:



4. Place the quick release lever in the palm of your hand and move the lever fully into the CLOSED position. [figure 3 for front wheels, figure 4 for rear wheels]. At the half way closed position you should feel resistance to this motion.

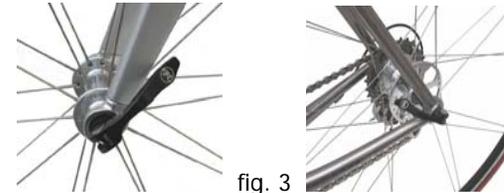


fig. 3 fig. 4

5. If the quick release lever is able to be moved to the CLOSED position with little or no resistance, clamping strength is insufficient. Return the lever to the OPEN position and tighten the nut further. Close the lever, testing again for resistance. When the quick release mechanism is properly tightened and clamped in the closed position, the clamping force is adequate to cause metal into metal engagement [embossing] of the fork or frame tips.

DO NOT TIGHTEN THE QUICK RELEASE MECHANISM BY USING THE QUICK RELEASE LEVER LIKE A WING NUT [fig 5]. DO NOT OVERTIGHTEN THE QUICK RELEASE MECHANISM. OVERTIGHTENING THE QUICK RELEASE MECHANISM MAY DAMAGE THE QUICK RELEASE ASSEMBLY. FOR FURTHER INFORMATION ON CORRECT ADJUSTMENT OF THE QUICK RELEASE TENSION, SEE ADDITIONAL INFORMATION BELOW:

ADDITIONAL INFORMATION: To properly close the quick release mechanism requires between 15 and 45 pounds of force. [55 to 200 Newton]. If the required closing force is greater than 45 pounds, open the lever and loosen the quick release mechanism adjusting nut. Close the lever again. If it requires less than 15 pounds of force to close the quick release lever, open the lever and tighten the adjusting nut. Repeat adjustment as needed.

6. Orient the quick release levers so they do not interfere with any other part or accessory, such as rack or fenders. Be sure to orient the quick release levers in such a way that they will not become accidentally snagged by obstacles in the path of the bicycle. [fig 3, 4].

7. Perform these two tests to ensure that the quick release mechanisms are properly closed:
 - a. Lift the front of the bicycle and give the top of the tire a sharp downward blow with a closed fist. The wheel should not come out of the fork, be loose, or move from side to side. If uncertain, repeat the tightening process, as shown in steps 2-6, above.
 - b. With the quick release lever properly adjusted and closed, it will not be possible to rotate the quick release lever in a circular motion parallel to the wheel as pictured in figure 5 [as opposed to the motion used to open or close the quick release lever].

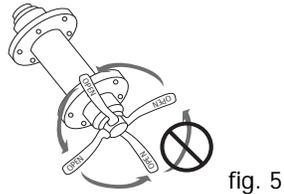


fig. 5

Inspection - Weekly

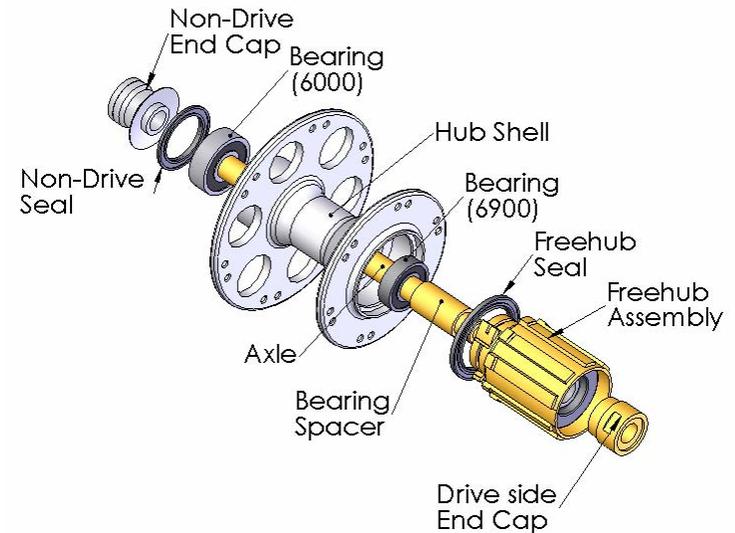
Check to be sure there are no loose, damaged, or broken spokes. If a wheel is not in good condition, the strength of the wheel and the effectiveness of the brakes will be greatly diminished. If you suspect spokes are loose or damaged the wheel must be removed from service immediately and NOT RIDDEN. Take the wheel to your Rolf Prima Wheel Systems dealer for tensioning and truing.

Check to be sure there are no cracks in both rims. Rims are considered a 'consumable' component, just like tires. Aluminum rims in particular are highly stressed components and as a result have a finite fatigue life. As a rim nears the end of its fatigue life, cracks will develop. It is very important that if cracks are found the wheels are removed from service immediately and NOT RIDDEN. The wheels should be inspected by your Rolf Prima Wheel Systems dealer and rebuilt with new rims and spokes.

Carbon fiber rims may become damaged as a result of an accident, impact, or improper handling. Damage to carbon fiber components may be contained internally and appear normal and undamaged at a glance. It is very important to thoroughly inspect all the parts on your bicycle after an accident – but it is especially important that you thoroughly inspect your carbon fiber rims for signs of damage. Look closely for cracks, deep scratches or gouges, delamination, loose fibers and other surface flaws. If you suspect the part has been

OVERHAUL INSTRUCTIONS FOR 2006 ROLF PRIMA REAR HUBS: Tempo and Apex models.

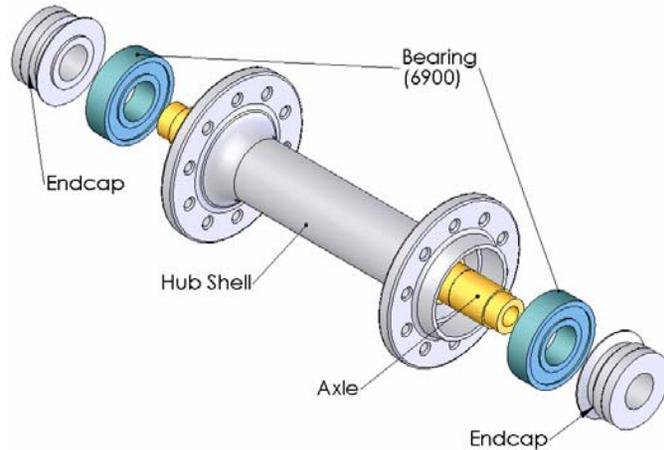
[Refer to exploded assembly view below]



1. Insert a 5mm Allen wrench into the hex broach in the non-drive side axle end and loosen the drive side axle lock nut using a 17mm cone wrench. NOTE: this lock nut has left-hand threads – turn clock-wise to loosen. Remove the axle lock nut.
2. Remove the free hub body by sliding it off the axle. Set the freehub body aside. For service instructions, refer to the freehub body exploded assembly view below.
3. Before proceeding, inspect bearings for smooth running. Determine which bearings need replacement, if any, and remove only these bearings, as removal will damage bearings. Once removed, bearings should not be reinstalled.
4. If only one hub shell bearing is to be replaced, remove the axle in the direction of the bearing slated for replacement. Remove the axle by striking the axle end with a soft faced hammer. Do not use a metal faced hammer – damage to axle threads may result. Removal of the axle will drive one hub shell bearing from its bore. If both bearings are to be replaced, remove the remaining hub shell bearing with a suitable drift. The axle can be used, but be sure to only strike the axle end with a soft faced hammer.
5. Remove the rubber freehub body seal from the hub shell by carefully prying with a small flat bladed screwdriver or pick.

OVERHAUL INSTRUCTIONS FOR 2006 ROLF PRIMA FRONT HUBS: Tempo and Apex models.

[Refer to exploded assembly view below]



1. Using two 17mm cone wrenches, loosen the threaded axle end caps. Remove the end cap which breaks loose first.
2. Using a soft faced hammer, gently strike the axle end and drive the axle assembly out of the hub shell toward the side with the end cap still on the axle.
3. Locate the wrench flats on the axle. Remove the remaining axle end cap by holding the axle with a 10mm wrench.
4. Using a suitable drift, drive the remaining bearing from the hub shell. The axle works well for this, but remember to strike it gently – only with a soft faced hammer.
5. Inspect bearings and replace as needed. Coat the outer races of the bearings and bearing surfaces and shoulders on the axle with a thin film of grease to prevent corrosion.
6. To reassemble, install one bearing on the axle end with the wrench flat and tighten the lock nut firmly.
7. Insert the axle into the hub shell and carefully drive the bearing into its bore by striking the axle gently with a soft faced hammer.
8. Place the remaining bearing on the empty axle end. Thread the remaining axle end cap on the axle end. Using two 17mm cone wrenches, drive the bearing into its bore by tightening the axle end cap. With the bearing fully seated in the hub shell, tighten the axle end cap firmly.

damaged, take your bicycle to your dealer for replacement or further inspection.

! WARNING !

Damage to carbon fiber components may be contained internally and appear normal and undamaged at a glance. A damaged carbon fiber part can fail suddenly and possibly cause serious injury or death. Inspect your carbon rims frequently. If you suspect your carbon fiber rims have been damaged, replace them before riding, or take your bicycle to your dealer for inspection and service.

Inspection – Monthly

Check to ensure there is not excessive looseness in hub bearings in both wheels. Lift the bicycle and attempt to move the rim laterally, left to right. Look, feel, and listen for looseness in the hub bearings. Spin the wheel and listen for any grinding or other unusual noises. If the hub runs noisy or is loose, take the wheel to your Rolf Prima Wheel Systems dealer for adjustment or service.

! CAUTION !

If there is movement between the axle and the hub, or you suspect the hub may need adjustment, do not ride your bicycle. Take the bicycle to your dealer for service.

Check both rims for wear. Bicycle rims will wear from the friction of braking and will eventually require replacement. Inspect the rim sidewalls and braking surface for heavy grooving or cracks. If you see or suspect excessive wear on the rims, take the wheels to your Rolf Prima Wheel Systems dealer for inspection.

Installation

Before attempting any installation of components onto this wheel set, make sure the parts are compatible. Tires, tire valves, gear cluster, brakes and the frame and fork spacing must be correct. If you are unsure of the compatibility of any part, consult your dealer.

PROPER BRAKE ADJUSTMENT

Proper brake pad selection and adjustment is very important to your safety and the performance and longevity of your wheels.

Pads should be adjusted so that they sit 1mm to 2mm away from the rim when the brakes are released. Brakes should be properly centered over the rim. When brakes are properly centered, each pad will be the same distance from the rim when the brakes are released.

Brake pads should be aligned properly with the braking surface of the rim. Some brake pads may be too tall to fit your wheels properly. Improper or misaligned pads can cause premature rim wear or a sudden tire blowout.

Check to be sure the brake pads are adjusted so that when the brakes are applied there is adequate clearance between the top of the brake pad and the tire. Check to be sure also that the bottom of the brake pad contacts the braking surface of the rim when the brake is applied.

! WARNING !

Proper brake pad selection and brake adjustment is crucial to your safety. If you suspect your brakes are not working properly or your brake pads do not properly fit your wheels DO NOT RIDE YOUR BICYCLE. Take your bicycle to a qualified technician at a professional bicycle shop for inspection and service. Riding your bicycle with improperly functioning brakes could result in a loss of control and personal injury or death.

BRAKE PAD SELECTION

Brake pads from many manufacturers are available in different compounds. It is very important that only soft compound pads designed for aluminum rims with machined sidewalls are used with your Rolf Prima wheels.

Pads with hard compounds are commonly used as original equipment on some new bicycles and brake sets. These pads are designed for use in specific weather conditions or with specific rim types. Hard compound pads are generally much more abrasive and will substantially decrease the life of your wheels. Use of hard compound pads will void your Rolf Prima warranty.

Brake pads are not generally marked to identify the compound. If you have any question about the compound of your brake pads – replace them with new pads. It is cheap insurance!

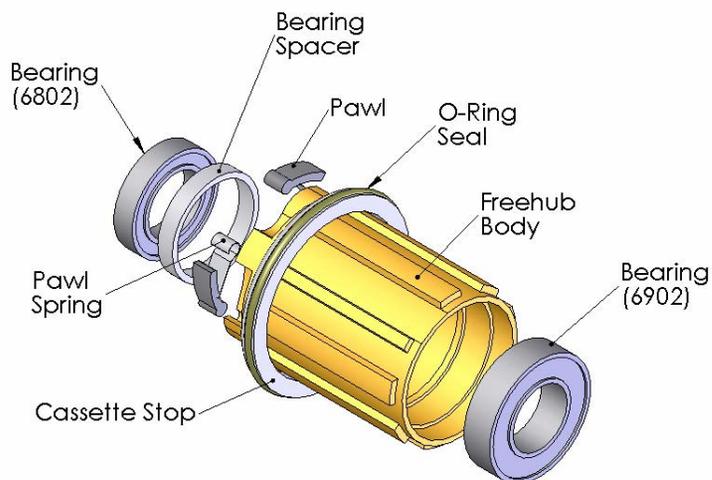
are installed in their bores 'backward', pawl springs will have no tension.

10. Clean the freehub body and reinstall the o-ring seal, pawls and pawl springs. Lubricate pawls with one drop of oil on each pivot. DO NOT USE GREASE. Check to be sure each pawl and spring functions properly.
11. To reassemble, be sure the drive side axle end cap is securely installed in the axle. This part is bonded in place and should not be loose. It may be removed for replacement if damaged. The drive side axle end cap must be bonded with Loctite™ RC-680 retaining compound.
12. Apply a thin film of grease on the axle and install the freehub body on the axle, with the outboard freehub body bearing contacting the axle end cap.
13. Place the thrust washer on the axle, against the inboard freehub bearing.
14. Insert the axle and freehub body assembly into the hub shell from the drive side. Rotate the free hub body counterclockwise to engage the pawls and ratchet ring.
15. Place the adjusting collar on the non-drive side of the axle and insert the non-drive side axle end cap into the axle end.
16. Before setting the bearing adjustment it is important to ensure the adjustment collar is fully seated against the hub bearing, thus removing any play.
17. Tighten the set screws firmly with a 2mm Allen wrench to set the bearing adjustment. Properly tightened, the set screws will securely retain the axle end cap.

and it should be possible to remove the axle and freehub body by hand, as outlined above.

5. Locate the thrust washer, which sits between the freehub body inboard bearing and the freehub-side bearing in the hub shell. This washer will often adhere to one of the bearings, held in place by a film of grease. Clean the washer and set it aside for reassembly.
6. Check the bearings for smooth running. Rough running bearings should be replaced. Remove bearings from the hub with a suitable bearing removal tool or by driving them out with a small diameter drift. Once removed, bearings should not be reused, as removal will damage the bearing.
7. Apply a thin film of grease to the bearing bores in the hub shell and press the bearings into their bores using a suitable bearing press or drift which contacts **only** the outer race of the bearing and not the seal. Press or drive the bearing in its bore slowly and carefully. For more information on bearing installation, see page 14, section 5.

Free hub body exploded assembly view:



8. Remove the freehub body o-ring seal by lifting it from its groove with a pin or knife blade. Clean the seal and seal groove.
9. Remove the pawls and pawl springs by first lifting pawls from their bores, then removing springs. Note the specific location of the pawls and springs in the freehub body. Also note the orientation of the pawl springs in their bores – the open portion of the spring faces outward, away from the axle. If pawl springs are installed in pawl bores or if springs

! CAUTION !

Use only soft compound brake pads designed for use with aluminum rims with machined sidewalls. Use of hard compound pads will significantly shorten the life of your wheels. Use of hard compound pads will void your Rolf Prima warranty.

BRAKE PAD SELECTION FOR USE WITH CARBON WHEELS

Rolf Prima Carbon wheels feature rims with a specially prepared braking surface. Unlike many carbon wheels available today, Rolf Prima carbon wheels may be used with conventional brake pads. We recommend the use of Zipp, Corima, and Kool Stop® "Black" pads with Rolf Prima Carbon wheels.

There is a wide range of brake pads available, and others may work well with your wheels – but it is very important that you test the suitability of any pad other than the recommended pads before braking hard.

FURTHER NOTES ON BRAKING PERFORMANCE OF CARBON WHEELS

Wheels with carbon fiber rims will exhibit different braking characteristics as compared to wheels with aluminum rims:

- Increased pad consumption. Carbon rims do have a higher rate of brake pad wear, especially in wet conditions. Check your brake pad thickness before each ride.
- Different wet braking performance. Carbon rims are fundamentally different from aluminum rims in wet braking performance. Use caution when braking in wet conditions.
- Heat build up from prolonged braking. Carbon rims do not dissipate heat generated by braking at the same rate that aluminum rims dissipate heat. Managing rim temperatures through braking application can be vitally important: if rims are allowed to overheat, rim damage and/ or tire damage can result. During long descents, it is very important that brakes are applied with greater force, more frequently, for the shortest possible time period. This technique of frequent, hard braking significantly reduces rim temperatures.

! WARNING !

Carbon fiber rims have different braking characteristics and performance as compared to aluminum rims. Brake pad thickness must be checked frequently. Use caution when braking in wet weather. Control your speed on long descents with frequent, hard braking applications. It is VERY IMPORTANT that rims are not allowed to overheat. Overheating rims may cause rim and tire damage which can result in loss of control and personal injury or death.

NOTES ON USE OF DRAG BRAKES WITH TANDEM WHEELS

Rolf Prima tandem rear wheels are compatible with industry standard tandem drum brakes. Adaptors are available which allow the use of disc brakes on tandem wheels configured for drum brakes. Your tandem bicycle dealer can supply this adaptor.

Follow the brake manufacturer's instructions for installation and adjustment carefully. Consult your tandem bicycle owner's manual or your tandem bicycle dealer for assistance.

Hub brakes [drum or disc] for tandem rear wheels are designed to be used only as a "drag brake", supplementary to the primary braking system on your tandem. Follow the tandem bicycle maker's instructions on the proper use of drag brakes.

IMPORTANT INFORMATION ABOUT RIM TAPE

Before installing tires, make sure an appropriate rim tape is in place which completely covers the rim tire well so that all spoke holes are completely covered. The tire well is the inner wall of the rim, visible when the tire, tube, and rim tape are removed. If the spoke holes in the tire well wall are not completely covered with a high strength rim tape, a sudden blowout could occur.

! WARNING !

Failure to use rim tape designed specifically for high pressure tires, properly installed, and covering all spoke holes in the rim tire well can cause a sudden blowout which could lead to loss of control and result in personal injury or death.

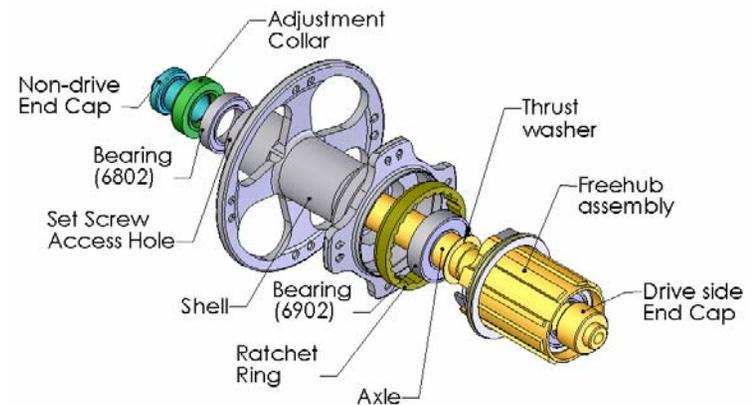
TIRE SELECTION AND INSTALLATION – CLINCHER TIRES

Follow normal clincher tire installation procedures. If you are not familiar with tire installation, consult your bicycle owner's manual or see your dealer. Do not use metal tire levers to install or remove tires. Metal tire levers can damage the rim.

10. Before setting the bearing adjustment it is important to ensure the adjustment collar is fully seated against the hub bearing, thus removing any play.
11. Tighten the set screws to set the bearing adjustment.

OVERHAUL INSTRUCTIONS FOR 2006 ROLF PRIMA REAR HUBS: Tandem, Carbon, Vigor series, and Élan Aero, Echelon, and Aspin models.

[Refer to exploded assembly view below]



1. Loosen the three set screws on the adjustable side of the hub by inserting a 2mm Allen wrench in the access hole in the hub shell.
2. Remove the axle end cap from the adjustable side of the hub. A small amount of corrosion is not unusual and may make it difficult to remove axle end caps by hand. If needed, thread a M6 bolt into the axle end and pull on the bolt for a better grip. The end cap may need to be driven out with a drift. Insert a drift into the axle from the non-adjustable side [old QR skewers work well] and tap on the end of the bolt to remove the axle end cap.
3. Working over a workbench or table, remove the axle and freehub body by pulling the freehub body away from the hub. Orient the wheel freehub side up and watch carefully for pawls and pawl springs, which may fall out.
4. A small amount of corrosion is not unusual, which may require the axle to be driven out. With the wheel oriented freehub side down, use a suitable drift or socket with outside diameter close to the outside diameter of the axle and gently drive the axle a short distance. By moving the axle only a short distance, the corrosion bond will be broken

2. Remove the axle end cap from the adjustable side of the hub. A small amount of corrosion is not unusual which make it difficult to remove axle end caps by hand. If needed, thread a M6 bolt into the axle end and pull on the bolt for a better grip. The end cap may need to be driven out with a drift. Insert a drift into the axle from the non-adjustable side [old QR skewers work well] and tap on the end of the bolt to remove the axle end cap.
3. Remove the axle by pushing it through the non-adjustable side of the hub. A small amount of corrosion between the bearings and axle is not unusual, which may require the axle to be driven out. Use a suitable drift or socket with outside diameter close to the outside diameter of the axle.
4. Check the bearings for smooth running. Rough running bearings should be replaced. Remove bearings from the hub with a suitable bearing removal tool or by driving them out with a small diameter drift. Once removed, bearings should not be reused, as removal will damage the bearing.
5. Apply a thin film of grease to the bearing bores in the hub shell and press the bearings into their bores using a suitable bearing press or drift [an appropriately sized socket works well]. Be sure the press or drift contacts **only** the outer race of the bearing and not the seal or the inner race. Press or drive the bearing in its bore slowly and carefully. It is very important that the bearing is driven into its bore evenly. **CAUTION:** Forcing a misaligned bearing into the bearing bore can result in damage to the hub shell, bearing, or both. **Hint:** To prevent hub damage from misaligned bearings, replace only one bearing at a time. Use the bearing remaining in the hub shell and the axle as a guide. Place one new bearing on the axle and carefully drive the bearing into the hub shell using a drift or socket on the end of the non-adjustable axle end cap. The axle will interface with the existing bearing to ensure the new bearing is kept in perfect alignment as it is installed.
6. To reassemble, be sure the non-adjustable axle end cap is securely installed in the axle. This part is bonded in place and should not be loose. It may be removed for replacement if damaged. The non-adjustable axle end cap must be bonded with Loctite™ RC-680 retaining compound.
7. Insert the axle into the hub shell from the non-adjustable side. Place the hub in an axle vise with the non-adjustable side down.
8. Replace the adjustment collar on the axle, ensuring it is oriented correctly and fits into the hub shell against the bearing.
9. Install the adjustable side axle end cap onto the axle.

It is very important that only tires with section width of 28mm or less are used. Tires wider than 28mm place greater stress on rims and will shorten the life of your wheels.

Do not over inflate your tires. Tires should never be inflated to pressure greater than 120 psi [8.1 atm] or the maximum pressure marked on the tire, whichever is lower. Over inflated tires place greater stress on the rim and will shorten the life of your wheels. Over inflated tires could also cause a sudden blowout, or cause damage to your wheels if a sudden blowout should occur.

! WARNING ! Tires must be installed properly and inflated to the tire manufacturer's recommendation – or 120 psi [8.1 atm] – whichever is lower. Tires must never be over inflated. Tires which are improperly installed or incorrectly inflated could blow off or cause wheel damage which can lead to loss of control and result in personal injury or death.

TIRE INSTALLATION – TUBULAR TIRES

Tubular tire installation requires specific experience or training. Follow normal tubular tire installation procedures. If you are not familiar with tubular tire installation, see your dealer. Only use tire cement designed specifically for tubular tires. Follow the tire cement maker's instructions carefully. Be absolutely certain that the tire mounting surface of the rim is clean and free of oil or grease before adding any cement. After curing, inflate tires and test the bond by attempting to pull the tire off the rim.

! WARNING ! Tubular tire installation requires specific experience or training. Improperly installed tires can separate from the rim which can lead to loss of control and result in personal injury or death.

CASSETTE COG INSTALLATION

Follow normal tire and gear cluster installation procedures using only the appropriate tools. If you are not familiar with those procedures or tools, read your bicycle owner's manual or consult your dealer.

Maintenance

! WARNING !

Repair and service of Rolf Prima wheels requires special tools and knowledge, and should only be undertaken by a qualified service technician at a professional bicycle shop. Repairs, service, or adjustments performed by an inexperienced person could lead to wheel failure which could cause a crash and resulting in injury or death.

WHEEL TRUING

Design technology and the proprietary assembly process found only in Rolf Prima wheels produces wheels which are among the worlds lightest and which are very stable. Rolf Prima wheels will likely only need truing if the rim should be bent in an accident.

Should you suspect your wheels need truing, take them to your Rolf Prima dealer for evaluation. Wheel truing involves special tools and knowledge and should only be undertaken by a qualified professional wheel builder.

Attempts at wheel truing by inexperienced people is one of the most common causes of wheel damage.

NOTES ON WHEEL TRUING FOR THE TECHNICIAN:

Before making truing adjustments to any Rolf Prima wheel, first lubricate the spoke and spoke nipple threads with light penetrating oil. Place a few drops of oil on the spoke where it enters the rim. Spin the wheel in a truing fixture to force the oil into the rim and inside the spoke nipple. Let the wheel sit for a few minutes to allow the oil to penetrate.

Care is taken during assembly of Rolf Prima wheels to ensure the spokes do not twist, or 'wind up' during tensioning and truing. It is very important that this care is exercised every time the wheel is trued. The spokes must be held with a special tool or small adjustable wrench closed over the bladed section of the spoke. Hold the spoke while turning the spoke nipple to prevent wind up. Note that the Élan wheel utilizes a special patent pending spoke design which incorporates a forged 'wrench flat' section near the rim. When truing Élan wheels, hold the spoke at the wrench flat.

Lubrication & Overhaul Instructions

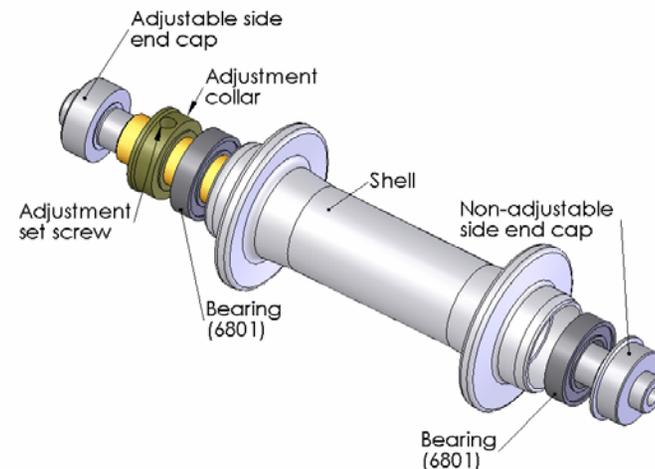
Hub bearings may require lubrication or replacement once a year or more often if the bike is ridden more than average, in inclement weather, or off road. This requires special tools and knowledge and should only be performed by a qualified technician at your Rolf Prima dealer. Quick release mechanisms should be lubricated once a year. Apply a few drops of oil where the quick release lever slides on the washer and where it rotates on the quick release axle.

! CAUTION !

The following hub overhaul information is provided as a guide for the professional mechanic. These instructions are written with the assumption that the mechanic is familiar with bicycle repair principles and has suitable and appropriate tools. Be certain that this manual pertains to the specific model and model year of Rolf Prima hub in question.

OVERHAUL INSTRUCTIONS FOR 2006 ROLF PRIMA FRONT HUBS: Tandem, Carbon, Vigor series, Élan Aero, Echelon, and Aspin models.

[Refer to exploded assembly view below]



1. Loosen the set screw on the adjustable side of the hub by inserting a 2mm Allen wrench in the access hole in the hub shell.