

# ASTRAL

BY ROLF PRIMA

Thank you for buying our rims! We have been building wheels and making rims for over 15 years and we are glad to have made these for you.

Because there are a variety of Astral rims, this manual may contain information that does not apply to your rims. If you have any questions after reading this manual, please contact your Astral dealer or contact us at [info@astralcycling.com](mailto:info@astralcycling.com).

Please inspect and save all packaging materials that came with your rims. If there is any damage to the rims or the packaging, it is important to identify it immediately. The structural condition of your rims and correct build are crucial to your safety. It is important that you read this manual thoroughly to ensure that your rims function properly and safely. This manual explains the recommended care, inspection, and maintenance of your Astral rims.

These are rims and need to be built into wheels. Proper and safe building technique is required for your safety. If you do not know how to build wheels properly or have any question about the details of installation or maintenance, have a qualified bicycle dealer perform the build, installation and maintenance.

Even if your wheelset was built by a bike shop, you should read this manual thoroughly.

Astral Cycling  
[info@astralcycling.com](mailto:info@astralcycling.com)  
[www.astralcycling.com](http://www.astralcycling.com)  
 888.308.7700

### Inspection – Before Every Ride

Before every ride be sure to inspect every item on this list to ensure your Astral rims are in top condition and are properly installed on your bicycle. If you find that your wheels require service or further inspection contact your dealer.

- ▼ Check that the wheels run true
- ▼ Check that the rims are clean. Dirty or greasy rims greatly reduce braking effectiveness and can present a significant safety risk.
- ▼ Check that the brake pads are clean and properly adjusted
- ▼ Check that the tires are properly inflated

For aluminum clincher wheels, inflate tires to the inflation pressure indicated on the tire sidewall or as indicated in the Tire Pressure section. Your rims can be damaged by riding with insufficient tire pressure. Inspect the tires for damage or excessive wear. If you have any questions about the condition of your tires, have them inspected by your local bike shop. For carbon tubular road wheels, inflate tires to a minimum of 100 psi (7.6 bar). Do not exceed the maximum pressure indicated on the tire sidewall.

PLEASE NOTE: Rims can be damaged if ridden with insufficient tire pressure. Appropriate pressure may be dependent on road conditions, rider weight and tire size. Impact damage to rims is not covered under your Astral warranty.

### Inspection – Weekly

- ▼ Check that there are no loose, damaged, or broken spokes
- ▼ Check that there are no cracks in front or rear rim. If cracks are found, do not ride the wheel. Take the wheel to your Astral dealer or contact Astral for service.

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 the rims may appear outwardly 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, loose fibers and other surface flaws. If you suspect the rim has been damaged, take your wheel to your Astral dealer for further inspection.

### Inspection – Monthly

- Check rims for wear. Bicycle rims will wear from the friction of rim braking and may eventually require replacement. Inspect the rim sidewalls and braking surfaces for heavy grooving or cracks. Excessive wear from braking can result in an accident causing serious injury or death.

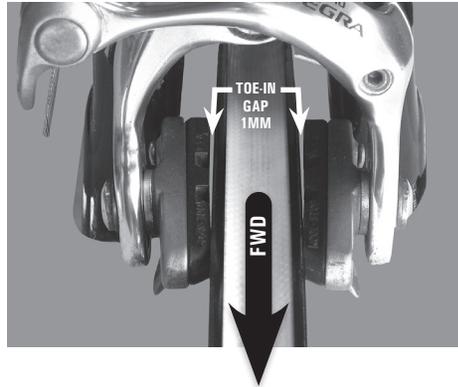
#### WARNING!

Inspect your wheels regularly. Worn or damaged components, or improperly closed Quick Release mechanisms can cause an accident which may result in serious injury or death.

## INSTALLATION AND RECOMMENDATIONS

### Brakes and Brake Pads

- PROPER BRAKE PAD ADJUSTMENT**  
Rim brake pads should be adjusted so that they sit 1mm to 2mm away from the rim when the brakes are released. Toe-in brake pads 1mm. When the forward most tip of the pad first contacts the rim, there should be 1mm space at the back of the pad. Brakes should be properly centered over the rim so that each pad is the same distance from the rim when the brakes are released.



Rim brake pads should be aligned properly with the braking surface of the rim and should contact only the machined or designated brake surface of your rim. Ensure there is adequate clearance between the top of the brake pad and the tire. Improper or misaligned pads can cause premature rim wear or a sudden tire blowout.

- RIMS WITH ALUMINUM BRAKING SURFACE: BRAKE PAD SELECTION AND MAINTENANCE**  
While your Astral alloy rims do not require special brake pads, for best braking performance use the Astral GRAY brake pad. Brake pads from many manufacturers are available in different compounds. It is important that medium compound pads designed for aluminum rims are used with your Astral rims. Soft pads may cause brake stutter or be too “grabby”. Hard compound pads are abrasive and may decrease the life of your wheels.

Inspect and clean your brake pads frequently. Road grit, small rocks and other items can become embedded in brake pads and cause accelerated wear of the braking surface. If you hear scratching noises when you brake that is a hint. Check and clean your pads.

- RIMS WITH CARBON BRAKING SURFACE: BRAKE PAD SELECTION AND MAINTENANCE**  
Astral carbon rims for rim brakes with carbon brake walls feature a specially prepared braking surface, but can still be susceptible to heat build-up issues and abrasion. We strongly recommend the use of the Astral Gray pad, as the use of other pads will void the warranty and decrease the braking function.

Carbon fiber rims will exhibit different braking characteristics than aluminum rims. Please refer to our carbon rim braking manual insert for more information. Carbon rims generate heat in braking and do not dissipate it as quickly as aluminum rims. Managing rim temperatures through proper brake application is important. If rims are allowed to overheat, damage to the rim and/or tire can result. During long descents, it is very important that brakes are applied with greater force, more frequently, and for the shortest time period. Just like in a car, **DO NOT DRAG YOUR BRAKES**. The technique of frequent, hard braking and releasing, even if only releasing for brief periods, significantly reduces rim temperatures.

Carbon rims can have a higher rate of brake pad wear, especially in wet conditions. Check your brake pad thickness before each ride.

Carbon rims are different from aluminum rims in wet braking conditions. We recommend test riding your carbon wheels in wet conditions.

### Tires

- IMPORTANT INFORMATION ABOUT RIM STRIPS**  
It is important that you use a rim strip, rim tape (such as Velox) or tubeless rim tape with your wheels. Before installing tires, make sure this is in place and completely covers all spoke holes in the tire bed. If the spoke holes are not completely covered, a sudden loss of tire pressure or blowout could occur.

Tire selection, installation and tire pressure – clincher tires

- CLINCHER TIRES WITH INNER TUBES**  
This is the type of tire system most riders are familiar with. Follow normal clincher tire installation procedures. If you are not familiar with tire installation, see your dealer. Do not use metal or narrow plastic tire levers to install or remove tires. These levers can damage the rim. For best results use: Park Tool - TL-6, TL-1.1, TL-4, TL-4.2 or Lezyne Power XL levers.

### ROAD

Do not inflate tires above the pressure listed in the Recommended Tire Pressure table or the maximum pressure listed on the sidewall of the tire, whichever is lower. Overinflating can cause sudden blowout or damage to your wheels. For carbon clinchers in particular, under inflation of tires may allow rims to make contact with the road surface resulting in damage to the rim. Do not use Latex inner tubes with carbon clincher rims.

**TANDEM**

Due to the greater weight of two riders, we recommend inflating tires to maximum pressure recommendations on the Recommended Tire Pressure table or sidewall of tire, whichever is lower. Using a larger tire at a lower pressure provides more rim protection than a narrower tire at higher pressure.

▼ **TUBELESS CLINCHER TIRES (WITHOUT INNER TUBES)**

All Astral rims can be set up tubeless, but require tubeless rim tape and a valve. Follow your tire manufacturer's recommendation for installation. For tubeless kits, see [astralcycling.com](http://astralcycling.com). Our tubeless compatible rims can also be used with conventional clincher tires and inner tubes however some combinations will be tight and require a tire lever so we recommend you carry tire levers with you on your rides.

**Tire size selection**

WHEEL SIZE	RIM WIDTH (INTERNAL)	MINIMUM TIRE SIZE	MAXIMUM TIRE SIZE
622 x 19TC	19MM	25MM	62MM / 2.4"
622 x 22TC, 584 x 22TC	21MM	28MM	64MM / 2.5"
622 x 25TSS	25MM	30MM / 1.5"	67MM / 2.65"
584 x 28TSS	28MM	50MM / 2.0"	70MM / 2.8"

**Recommended Tire Pressure**

TIRE SIZE (MM)	TIRE SIZE (INCH)	TUBELESS		TUBE TYPE	
		LOW	HIGH	LOW	HIGH
23MM - 25MM		80	100	85	110
26MM - 30MM		60	90	70	100
31MM - 35MM		50	80	65	90
36MM - 42MM	1.40" - 1.65"	35	60	50	85
43MM - 50MM	1.66" - 1.99"	35	50	40	65
51MM - 57MM	2.0" - 2.24"	30	45	35	55
58MM - 62MM	2.25" - 2.44"	25	35	30	50
63MM - 76MM	2.45" - 3.0"	20	35	25	40

**MAINTENANCE**

▼ **WARNING!**

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

▼ **WARNING!**

Incompatible or improperly installed components can damage your rims and wheelset and/or cause an accident which may result in injury or death. Make sure your brakes are adjusted and functioning properly. Make sure your tires are installed and inflated properly. Test the braking performance of your new wheels in a safe manner.

▼ **WARNING!**

Carbon rim wheels can be damaged from excessive heat. Examples can include wheels left in a parked vehicle on a very hot day or placed next to a heat source such as car exhaust on a rear mount bicycle rack. Take care to avoid these situations with carbon wheels.

**CARE AND CLEANING**

For general cleaning use soap and water.

**WHEEL TRUING**

Wheel truing involves special tools and knowledge and should be performed by a qualified professional wheel builder.

**ASTRAL LIMITED WARRANTY**

Astral warrants each Astral alloy rim to be free from defects in material and workmanship for a period of two years from the date of original retail purchase. Astral warrants each Astral carbon rim to be free from defects in material and workmanship for a period of five years from the date of original retail purchase. Decals are warranted for a period of two years from the original date of retail purchase. The warranty is extended only to the original owner and is not transferable. Proof of purchase and rim serial number(s) are required for any warranty claim so be sure to keep your receipt.

Astral will, at its sole discretion, repair or replace any rim that it determines to be defective with an equivalent part. There is no other remedy, expressed or implied, under this warranty. Astral cannot guarantee that all custom colors or decals will be available for replacement, but we will do our best provide a comparable option.

This warranty does not cover normal wear and tear, nor does it apply to damage that is the result of abuse, neglect, improper assembly, improper maintenance, alteration, damage resulting from or relating to use with unauthorized components, modifications or attachments, damage caused by use of the rims for purposes other than those for which it was designed, including use on unsuitable surfaces or at unsafe speeds, misuse or riding like a complete and utter knucklehead. The costs of disassembly, reassembly or repair of the rims and any attached components are not covered by this warranty and are the responsibility of the original owner. Under no circumstance are the costs of shipping to or from Astral covered by this limited warranty. No employee, distributor, dealer or agent of Astral is authorized to make any warranty in addition to or different from the foregoing limited warranty.

Unless otherwise provided, the sole remedy under the above warranty, or any implied warranty, is limited to the replacement of defective parts with those of equal or greater value at the sole discretion of Astral. In no event shall Astral be liable for any other damages or liability including for direct, incidental, consequential damages, including, without limitation, damages for personal injury, property damage, or economic losses, whether based on contract, warranty, negligence, strict tort, product liability, or any other theory.

**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 Astral's repair or replacement, as described herein. In no event shall Astral 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.