



XCR-29 Rim Instruction Sheet

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Thank you for purchasing our XCR-29 rims. We hope you'll enjoy riding them as much as we do. We're passionate about what we do and want to make sure that you have the best experience possible with our products, so feel free to contact us at any time if you have questions or problems. We've included some instructions below on special things you or your wheel builder needs to know, and also some instructions on how to have the best success running them tubeless.

WHEEL BUILDING TIPS

Wheel building with carbon wheels is somewhat easier because the wheels are very true from the factory and the natural stiffness helps maintain roundness. As long as you keep the spoke tension even and follow our basic tips below your build will go smoothly.

Orientation: The rims are asymmetrical, so you must make sure you have the hub and rim oriented correctly before you begin lacing the wheel! There is a sticker on each rim to help you with orientation. The drive side of the front hub should be on the 'short' side of the rim and the drive side of the rear hub should be on the 'long' side of the rim.

Lacing: We recommend 2X in order to maximize lateral stiffness. There is much more information related to spokes, tension, orientation, etc. on our website at http://www.noxcomposites.com/wheel_building

Nipple Washer/Lubrication: Lubricate the interface between the nipple shoulder and the rim using your favorite thin lubricant. You may find that nipples are a bit harder to turn than with an aluminum rim due to the added friction of the carbon nipple seat.

Spoke Lengths: Remember that our rims are asymmetrical, meaning there is a 2.5mm offset between the center of the rim and the spoke holes. You need to compensate for this when calculating spoke lengths. We have a spoke length calculator on our website which will do this for you, http://www.noxcomposites.com/spoke_calc

Spoke Tension: Our rims can take some seriously high tension, but that does NOT mean you should build them with high tension. Anything over 120 kgf is overkill and does not make the wheel stiffer. It's just extra stress on the spokes/nipples, rim and hubs.

Truing: If you maintain even tension during the build, very little truing will be necessary. Lateral truing is done just like you would on an aluminum rim. Radial truing can be more challenging due to the stiffness of the rims. The best method is to avoid out of round problems by maintaining very even spoke tension as you build up the wheel. Focus on correcting radial trueness early in the build when the wheel is at low tension (< 40 kgf). If you have a large hop or a serious out-of-round problem, sometimes it's best to de-tension and start over.

MOUNTING TIRES

Tires should fit tightly and snap securely into the bead when inflated. Because of tire manufacturing variations, some tires will be tighter than others. If you are using a tire that is particularly hard to mount by hand, you can use plastic tire levers. **Never use metal tire levers, screwdrivers, etc. to mount a tire on a carbon rim.** Using metal tire levers or a screwdriver can cause stress fractures in the carbon! Don't do it! If a tire is particularly tight, try these tips:

- Ensure the tire bead is in the middle of the drop channel
- Use soap and water to help the bead slid over the rim
- Use good plastic tire levers to add leverage (no not use metal!)
- Use a Kool-Stop™ Tire Bead Jack

If the above fails (which should be very rare) then you may have a tire that is simply incompatible with our rims. In this case, the only solution is to use a different tire.

CONSIDER PHYSICS DEFIED

TUBELESS SETUP

Taping: Using the right tape is critical! Use only Nox heavy-duty tensilized polypropylene (TPP) tape. **Do NOT use thicker rim tape, duct tape, gorilla tape, packing tape or electrical tape as you will have a difficult time getting the bead to seat or you will have reliability issues.** Apply the tape to a CLEAN and OIL FREE surface. Use denatured alcohol to clean the rim bed if it has residue, oil or old sealant fluid on it. Apply the tape with some tension and ensure that it is centered in the rim. You may find you have to use more pressure to get the tape to stick since tape does not adhere to carbon quite as strong as a smooth aluminum surface. Overlap the tape by a few inches.

Valve Stem: Use an awl or other sharp cylindrical instrument to poke a hole for the valve stem. Use a 44mm (or greater) “road” tubeless valve stem available from Nox (these are provided with pre-built wheels) or other suppliers. You can use the standard 35mm length, but the 44mm “road” version makes using a pump head easier.

Using Tubes: Our rims are deeper than most mountain bike rims, so *you may find it difficult or impossible to use tubes with short (~32mm) valve stems.* There are mountain tubes available with 44mm valve stems or you can carry a presta valve extender. Just don’t let yourself get caught in the woods before you find out you can’t inflate your backup tube!

Sealant: Any of the major sealants available on the market are compatible with our wheels.

Helpful Tips: If you have a tire that is being stubborn to inflate tubeless, try putting a tube in, mounting the tire, airing it up to about 30 psi and letting it sit overnight. This will help smooth out the folds in the tire, which should help with initial sealing. Also try using some soap and water (this can also help with tires that are difficult to mount). If all else fails, an air compressor is invaluable for getting tubeless tires to seal. Air compressors work best when you first remove the presta valve core so you can get maximum air flow.

WARRANTY

Nox Composites guarantees its wheels and rims to be free from defects in materials or workmanship for a period of two (2) years from the date of purchase. If Nox Composites determines the product to be defective during this period, we will either repair or replace the product at Nox Composite’s discretion. This warranty does not apply to defects caused by negligence, accidents, misuse, incorrect installation, modifications, or normal wear and tear. Cosmetic issues such as decals are excluded from this warranty. This warranty does not apply to parts not manufactured by Nox Composites (ex. hubs, spokes, nipples). For an issue related to these parts, the manufacturer of those parts must be consulted. This warranty is non-transferrable and is only valid for the original owner. Valid proof of purchase is required for a warranty claim.

CRASH REPLACEMENT PROGRAM

Nox Composites understands that mountain biking is an extreme sport, and from time to time crashes happen that destroy any rim, no matter how strong it is. We don’t want to leave you high and dry if this happens to you, so we offer a crash replacement program for as long as you own the rims. Just contact us and let us know what happened and we’ll work with you to get you back up and running with as little out of pocket expense as possible.

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XCR-29 Rim Specs

Weight Rim	385g
Rim Specs	ERD: 595, ISO: 622 x 23, 29er x 31mm
Max Tension	180 kgf (120 kgf recommended build tension)
Depth	25mm
Asymmetric Offset	2.4mm
Width	31mm External, 23mm Internal
Hole Count	32 or 28
Tubeless Ready	Yes
Finish	Satin Unidirectional Carbon
Decals	Removable/Replaceable Stickers
Warranty	2 years

Finally, thanks for buying from a small business owned and operated by cyclists! We are passionate about our products and want to ensure that we are always designing and manufacturing things the best way we can. We love to get feedback from customers on what you like and also what you don't like. Please let us know what you think! We depend on our customers to keep us in business, so if you like our products, tell your friends. If you don't, contact us so we can make it right!



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