



INSTALLATION INSTRUCTIONS

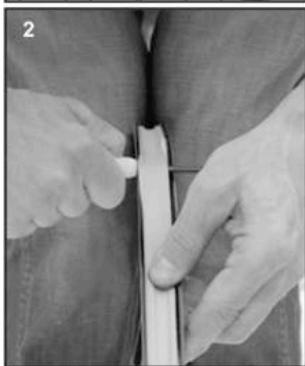
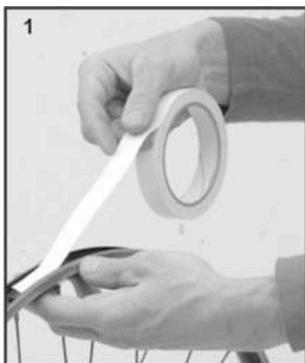


Important note:

We strongly recommend using Tubeless tires for this kit to ensure ease of installation. With Tubeless tires a hand pump may be used for the final inflation step.



Inner tube type tires on the other hand, although most can also be used, require use of an air compressor for inflation and generally more mechanical ability because repeated inflations may be necessary immediately after introduction of X-SAUCE sealant in the tire to achieve correct sealing.



1. Preparation of the rim:

Remove the rim strip or tape that might previously be on the rim and clean the rim thoroughly (**photo 1**). To do this you should use a rag with a household dissolvent (never alcohol, paint thinner, turpentine or other cleaners) and remove all traces of dirt left on the inside of the rim. Leaving any dirt on the rim will cause problems of tape adhesion. Also check the rim in search of cuts or sharp edges and use sand paper to file the rough edges over in order to avoid future cuts in the rim strip.

2. Sealing of the rim:

a) To cover the spoke's holes use first the *double-sided adhesive tape* (**photo 2**). Apply the tape, starting anywhere on the rim, slowly and carefully to avoid it being twisted and making sure it is well centered (**photo 3**). Tape over the entire length of the rim until it overlaps itself for **3-4 cms** (**photos 4 and 5**) previously lifting the protective cover of the tape that will be overlapped underneath. Before removing the top adhesive protector completely, press down firmly so it's perfectly stuck to the rim and no air bubbles are trapped underneath (**photo 6**). For the moment the tape will cover the valve whole in the rim. Now remove the protective adhesive cover of the double-sided tape.

b) Next take the *tire valve*, and push it through the rim hole piercing the double-sided tape (**photo 7**). Remove the valve. Now take the *nylon rim tape* provided in the kit. Please note that it has a rough side and a smooth side. Place the rough side down so this side is in contact with the double-sided tape. Align the valve hole in the rim tape with the hole in the rim. With the tape now placed in this position reinsert the valve (**photo 8**) with the correct rubber washer according to the hole size and valve used (*see supplemental information regarding which washer to use in step 3*).

IMPORTANT: The rim tape sits very tight on the rim and will need to be levered on like you would a tire but it is precisely this tension that makes it long lasting and protects the seal on the rim. It is ok to stretch it as you go to get it onto the rim. When about $\frac{1}{4}$ of the tape is left to place you can use tire levers or just stretch it on by pulling holding the rim on the ground with your feet and placing the tape with both hands. Be sure to place now a screwdriver or similar tool under the tape before it is stuck onto the rim. Now center the tape and make it completely flat if it got twisted levering it onto the rim by using the screwdriver sliding it back and forth all around the rim to obtain the position seen in (**photo 9**). Finally, with a rag take a moment to push the rim tape firmly onto the double-sided tape (**photo 10**).

Finally apply the nut to the valve and tighten **by hand** to hold it into place (**photo 11**).

3. Valve types and rims:

Presta valve:

For rims with Shraeder/moto sized valve hole use the cone shaped valve **C** provided in the kit.

For rims with the small Presta size valve hole. In this case do not use the cone washer and use the rubber washer **D** provided.

The kit comes with an adapter for inflating Presta valves with pumps with Shraeder pumphead and a key (**B**) for removing the valve core.

Shraeder valve:

Only compatible with rims with Shraeder sized valve holes. No extra washers are required than the one that comes mounted on the valve. The Shraeder valve kit also comes with a silver cap that is used for removing the valve core and a protective yellow cap.

4. Mounting the tire:

Spray or wet the tire inner sidewalls and the wheel rim with water (and only water, no soap). This is very important and will greatly facilitate the sealing process of the tire to the rim. Now mount the tire normally making sure both sides of the tire are within the rim (**photo 13**).



5. Introduction of X-SAUCE sealant liquid:

The liquid from the bottle is ready to be introduced inside the wheel. Shake the bottle well before using it. Cut the tip off of the spout and pour the sealant carefully into the tire directly through the valve *without the valve core* (**photo 14**). The recommended dose per wheel is **60ml (2oz)** however you can add a little more to extend the time until the next fill up (adds slight additional weight) or put in less and refresh with sealant more frequently.

6. Pumping up: For this step it is best you use a commercial air compressor or one such as available at your local gas station. *Note: with Tubeless tires and Tubeless rims there is a possibility that pumping up could be done with a foot pump. You can try it before using an air compressor.* Using some kind of protective goggles during pumping up is recommended as some sealant may escape out of the tire at high pressure.

After the sealant has been introduced turn the wheel a few times, this allows the sealant to begin to circulate around the inside and then stop it so the valve is situated at the top of the rim. Now pump

up the tire. For the moment **3bar (45 psi)** of pressure is enough to properly settle the tire (please see **GENERAL REQUIREMENTS AND RECOMMENDATIONS** below for more details on tire pressures). It is normal that the tire makes some loud 'popping' sounds. This is fine and proof the tire is correctly seated on the rim.

Immediately after inflation turn the wheel and shake it in all directions for a couple of minutes to allow the sealant to cover all parts on the inside like the rim and tire bead to improve sealing. This operation must be repeated, turning the wheel a little each time, so that the liquid reaches the perimeter of the sidewall completely. Once the wheel is inflated check again the valve nut and tighten it **by hand** a little more if necessary.

We do not recommend removing any air pressure in the tire at this time. It is advisable now to roll a bit with the bike, especially if the tire was the conventional inner tube type. This will help distribute and settle the sealant in the wheel sealing any holes it may have. When you mount the wheel for the first time refill sealant with a little more, for example after one month, especially if the tire is not Tubeless. Inflate the tire, take out the valve core and introduce and 20ml through the valve. Replace core and inflate normally (see step 7).

If your wheel loses some pressure during the first hours after assembly it is normal. Add more pressure and move the wheel again till remaining pores are closed. However, if the wheel is deflated in a few seconds mounting has not been correct and the steps must be repeated (see below), and as a last resort checking the fitting of tape and rim strip if the tire refuses to stay inflated (very rare).

IMPORTANT: If the tire will not inflate at first, especially with inner tube type tires, remove the valve core and pump it up *without* the core. Be careful when doing this as air will go into the tire with greater force and fill very quickly, inflating the wheel much more easily. As soon as the tire is pumped up, quickly remove the compressor and close the valve with your finger and then quickly reinsert the valve core and tighten it. This may require some practice until you get the valve in without too much air lost. Once the valve is screwed tight fill up again to the required pressure (max. **3bar/45psi** inner tube type tires, **3.5bar/50psi** Tubeless type tires). Repeat this operation as necessary until tire retains pressure.

7. Periodic refill of X-SAUCE sealant: How long the sealant lasts before drying out inside the tire depends on many factors (porosity of each tire, the weather or outside temperatures, the amount of sealing of the rim). We recommend checking the wheels every week or two. Remove them if necessary and shake them to hear how much liquid remains inside. If the liquid does not make any sound it has dried up and you need a refill. If the wheel loses pressure on a regular basis you must refill with sealant.

For refilling introduce **X-SAUCE** through the valve. Remove the valve core and put the new sealant through the valve as in **photo 14**. Remember the kit comes with a key to remove the valve core. Review and clean the core body before putting it back into the valve. **X-SAUCE** sells valve cores separately if yours becomes damaged.

The amount used in the refill can vary as we have mentioned, smaller quantities require more frequent refills, which is what we recommend. The average refill dosage should be around **60ml (2oz)** and at least every two months as the liquid with the passing of time losses it's sealing ability.

GENERAL REQUIREMENTS AND RECOMMENDATIONS:

X-SAUCE recommends using Tubeless tires, because the bead is guaranteed to sit tightly on the rim, but you may combine: Tubeless tires with Tubeless rims; Tubeless tires with standard rims; standard tires with standard rims and standard tires (the inner tube type) with Tubeless rims (this is the least favorable option). One thing is very important, **never use standard tires that don't set tight on the rim.**

Here is a list of the combination of tires and rims by order of ease of inflation for the **X-SAUCE** tubeless system:

1. Tubeless tires on tubeless rims.
2. Tubeless tire on standard rim.
3. Inner tube tire (wire bead, non-folding) on standard rim.
4. Inner tube tire (Kevlar bead folding type) on standard rim (we recommend here the use of Kenda and Specialized tires because its beads are stronger).
5. Inner tube tire on tubeless rim.

Rims: These should be double walled (as most are these days). These rims don't have the heads of the spokes protruding above the inside of the rim and don't make contact with the double-sided tape.

Pressure: PLEASE NOTE: Pressures of standard tires with inner tubes installed cannot be compared to pressures of tire + tube with the X-SAUCE Tubeless System. A wheel with an inner tube can take **3.5bar** or **4bar (50 or 60psi)** of pressure and in fact it is necessary if we do not want flat tires, but wheels converted to a Tubeless system take between **2** and **3bar/30-45psi** (up to **3,5bar/50psi** for Tubeless tires which have a stronger bead), **obtaining the same hardness of the wheel with pressures of 4bar with inner tubes.** *It is a very common mistake* thinking that if standard tires installed with inner tubes need **4bar/60psi** of pressure, according to the manufacturer, tubeless system wheels should have the same pressure. If you have any doubts feel free to contact us.

Never use Tubeless tires under **2bar/30psi** of pressure. With this low pressure a hard hit on the tire and rim will not cause a pinch flat but may damage the rim itself. You may also risk pressure loss during braking and irregular terrain with this low amount of pressure.

If you find that the sealant has dried add a refill as soon as possible. In case of doubt of how much sealant is left inside the tire add a new refill (add half the **60 ml/2oz** dose), the excess will only add a few grams of weight but its absence may result in loss of pressure.

Please note that this kit is designed to convert rims and many types of tires, so in each case each combination will vary in ease of inflating the wheel with the sealant. As we have said we recommend using Tubeless tires, at least the first time applying **X-SAUCE**. They offer a greater guarantee of overall use. Since they are already intended to work without inner tubes their greatest advantage being the ease of which they can be inflated thanks to their tight fit to the rim and resistance to cuts. The only drawback is their weight which is slightly higher than standard inner tube tires.

Standard tires can be used as long as they can be inflated without an inner tube (and the **X-SAUCE** sealant installed) and go on the rim with a minimum tightness. Just remember if the tire comes on and off the rim without effort do not use it with a tubeless conversion system, there is a danger the tire could be popped off the rim when inflating.

Always use tires in good conditions. Do not apply **X-SAUCE** sealant to very worn tires, cracked or defective tires.

Clean the inside of the core valve with care when removed during refills. A tip for keeping the valves clean is to leave the bike from day to day with the valves at the bottom of the wheel, or as close as possible to the ground. This way the remains of the sealant do not stay within the valve but instead drip back into the tire.

FINAL NOTE: Check the sealant regularly. Do not let it dry out or it will suffer loss of pressure and punctures will not be self repaired. Again, add a refill every two-three months to recharge, maybe the wheel has had no air leaks, but the liquid will lose its properties over time.

Visit our website for more information and see the table of tested tires.

See the demonstration video at x-sauce.com

