

Syntace
Strong. Light. Smart.

**WHEELSETS
W-SERIES**

**HUBS
HiTORQUE**
with Syntace MicroAdjust Caps

SYNTACE WHEELS W-SERIES



Congratulations on your new Syntace wheelset. You have made a good choice.

Your wheelset has been manufactured to the highest standards and assembled with upmost care. However, in order to maintain the very highest performance and long lifespan it is important to take note of following and care for it accordingly.

Keep in mind that all parts relevant for the safety on your bike have an “elephantine” memory: any damage (through crashes or overload), even if long ago, will add up over the lifetime of the product.

Tip: take note of the Syntace crash replacement offer.

Intended use

Ensure that your selected model of Syntace wheels (dimensions of your frame and fork) and components (rim tape, tube, valve, tyre, brakes, cassette) used in combination with the wheels are compatible with your bike.

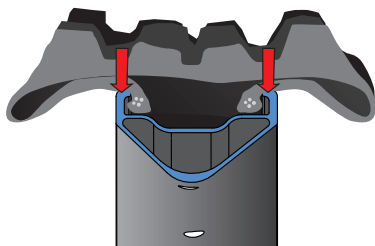
All Syntace MTB wheels are intended for use on bicycles.

The W25 and W30 rims are intended for use up to and including All-Mountain riding. The W35 and W40 rims are intended for use up to and including Enduro style riding.

The Syntace wheels are not intended for use in Freeride and Downhill applications. If you wish to use the Syntace wheels in such an application you will have to accept that they are less dent resistant than considerably heavier rims which are specifically intended for these applications.

For everything but Downhill

Through several years of experience we can say: Syntace W-Series wheels can do everything except from resisting deliberately caused pinch flats with a Maxxis Minion or Specialized Butcher tyres (or similar). What we mean, is causing harsh pinch flats using a tyre with a knob profile which is unfavourable towards wide rims. Doing this, will simply dang up the rim hook. And we will have to help out with a crash replacement.



Compatability:

- Please check your wheel's compatability as outlined in the attachment, page 12.
- Please use only rim tape, tubes and tyres that correspond to the wheel's ETRTO/ISO diemnsions.
- Only compatible with disc brakes with a 6 bolt pattern.
- The Syntace MTB wheelset is not for use with rim brakes.
- The rims will come with drilling for a Presta valve. Should you require a Schrader valve, rims can be drilled to a maximum of 8.5mm.

Assembly with tubes

- First apply the rim tape to the rim as outlined by the manufacturer.

Tip: we recommend an adhesive rim tape (such as Schwalbe 15mm).

- Now assemble tube and tyre as per manufacturer's instructions.

Tip: in order to not pinch the tube, we recommend avoiding the use of a tyre lever.

- First lift the first side of the tyre onto the rim.
- Then, put the slightly inflated tube between tyre and rim and work the second tyre side onto the rim starting from the opposite end of the valve. This will ensure the tyre can sit in the central rim well and can be mounted easily by hand. Now work the tyre around evenly on both sides towards the valve. For easiest assembly, ensure that the tyre really sits in the central rim well. Like this you will be able to assemble most tyres without needing tyre levers. If you still need tyre levers however, please ensure you use plastic ones.
- Take note of the recommended pressures of the tyre manufacturers.
- Assemble brake rotors and cassette (grease freewheel body!) according to manufacturer's instructions.
- Now you can put the wheels in your bike. Please take note of the Syntace Hi-Torque hub owner's manual as well as the manufacturer's instructions from your selected skewers or through axles.

Tubeless assembly

All Syntace MTB wheels can be used with „tubeless ready“ tyres without the use of a tube.



For the W25 and W30, use a valve with conical valve seat. You will need to drill out (only!) the inner rim hole to 7.5 - 8.0mm. When done, debur.

Conically sealing valve models are available from manufactureres such as NoTubes (see below).



Alternatively, if you do not wish to drill the inner rim hole, you can use tubeless valves with flat sealing rubber seal such as available from American Classic or Bontrager (see below).

Take note: This is only possible with W35 and W40.

Applying tubeless rim tape

Before applying the tubeless rim tape, clean and degrease the rim well thoroughly with with a cleaning alcohol.

Recommended rim tapes:

- Syntace W25: Yellowtape 21mm
- Syntace W30: Yellowtape 30mm
- Syntace W35: Tesa strapping tape 4289 30mm width, or Yellowtape 25mm overlapping*
- Syntace W40: Tesa strapping tape 4289 30mm width overlapping, or Yellowtape 25mm overlapping*

*For W35 and W40 the 25mm Yellowtape can be used. However, it is to be applied in two overlapping layers so that the entire rim bed is covered, one layer to the right rim wall and the other to the left rim wall.

Apply the tape tightly and free of air bubbles.

Overlap the tape approx. 10 – 15mm at the ends.



Poke hole for valve, push the valve through and tighten nut.

Mount tyre as per usual and fill the tyre with sealant through the valve by unscrewing the valve core. Alternatively you can put only one side of the tyre on the rim, pour the sealant into the tyre directly and then mount the remaining tyre on the rim and pump up to 2.5 bar with a compressor to seat the tyre. Hold the wheel with both hands and both shake and rotate to distribute the sealant on the entire inner surface of the tyre.

Further tips to tubeless setups can be found on:

<http://www.youtube.com/watch?v=-kYzIWln99E> (German)

<http://www.youtube.com/watch?v=T-OVi2ssvms> (English)

Search for: Schwalbe, Tubeless ready, assembly instructions.

Tyre pressure

As our recommendation of tyre width results in a tyre carcass which sits on the rim in a much more upright fashion, you can run thinner/lighter sidewalls and use a lower tyre pressure.

So if you have a W30, W35 or W40 wheelset and use the tyre pressures we recommend, then proceed as follows:

Reduce the tyre pressure from the minimum tyre pressure as recommended by the tyre manufacturer by in steps of 0.1 bar (or approx 1 psi) and test on a regular trail as to how it behaves and feels until your personal favourite min. Tyre pressure is found.

Tip: On the front we have found tyre pressures of 1.0 – 1.5 bar (approx. 14.5 – 21.8) to give best results and on the rear we have found tyre pressures of 1.2 – 1.8 bar (17.4 – 26.1psi) to give best results.

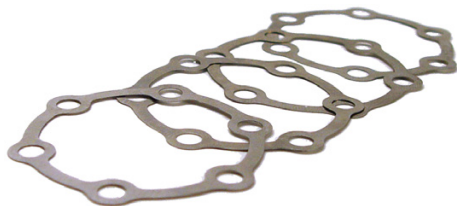
Maintenance, care and safety

Correct fitting, maintenance and care guarantees a long lifespan, durability and dependable function of your Syntace components.

Follow these simple steps:

- All information regarding Syntace hubs can be found in the owners manual accompanying the hubs.
- Check your spoke tension regularly. Too low spoke tension will cause individual spokes to be over stressed which will result in a higher risk of spoke failure, and your wheels becoming out of true.
- Do not clean the hubs with a high pressure water stream such as achieved with a high pressure cleaner! When cleaning the hubs with a high pressure water stream, water and dirt can enter the bearings. This will quickly result in damaged bearings and will require replacing them.
- Check tyre pressure regularly.
- If truing is required, please take your wheels to an experienced wheel builder.
- If truing is required, apply a thin thread locker such as Loxeal 70-14 or DT Swiss Spoke Freeze, as the initial bond between nipple and spoke is broken when turning the nipple.

Syntace Disc Shims are recommended for aligning the brake rotor. They will allow perfect alignment of your rotor within the brake caliper. They are also useful for aligning the brake rotor in the same position on multiple wheelsets so no more brake drag is experienced or re-positioning of caliper is necessary. Item no. 102675 | Set of 8, 0.2mm thickness / each. Intl. Standard 6 hole pattern.



HITORQUE HUBS



Keep in mind that all parts relevant for the safety on your bike have an “elephantine” memory. They will remember any damage (crashes, overloading, etc.), regardless of how long ago they occurred and will add up over the lifespan of the component. We at Syntace, have built in a proper amount of “Overload Safety” into all our components. Damaged components should under no circumstance be straightened or repaired, but immediately replaced. Otherwise the component may fail and a crash with serious injury could result.

Tip: take note of the Syntace crash replacement offer.

Intended use

Ensure that your Syntace hubs are compatible with your bike (dimensions of your frame and fork, brakes, cassette, rims).

All Syntace MTB hubs are intended for use on bicycles.

The Syntace hubs have no restrictions when used on a bicycle and can be used for Downhill use.

Compatibility

- The compatibility of the hubs concerning hub/axle standard can be found in the hub compatibility section at the end of the owner’s manual.
- Only compatible with disc brake rotors with a 6 bolt pattern.

Assembly

- All Syntace hubs are supplied ready for assembly. The axial play may need to be adjusted when first assembling in your bike. Exact procedure for this can be found in section „Adjust axial play“.
- In case you require other end caps for your Syntace hubs, please take note of following sections in this manual: „Hub configuration“ and „Changing end caps“.

Hub configuration

For a long lifetime of bearings, it is important that no axial forces are applied to the bearings. A slight axial play of up to 0.1mm is always better than too much axial pressure on the bearings!

All Syntace hubs use non stepped axles without spacer tubes between the bearings. This allows the correction of the tolerances that add up when many components are assembled together which otherwise would not be possible.

What does this mean? The Syntace hub components are all stuck onto one shoulderless axle (smooth, continuous outer diameter). This assures that all components can be assembled on the axle without any play, and no axial pressure is applied to the bearings due to the unavoidable tolerances of all the individual components.

Both end caps are pressed onto the axle.

The adjustable end cap consists of three components: a bronze coloured outer adjustment ring, a black coloured inner part and a M3 stainless steel bolt. Before the adjustable end cap assembly is pressed onto the axle, the two adjustable black and bronze coloured end cap parts must be assembled flush (anti-clockwise) so that the end cap width is at its minimum.

TIP: When servicing the hubs, take special care to take note of the how the individual components are assembled. In case you are not familiar with servicing hubs, please take the wheels to an experienced wheel-builder or a Syntace service centre.

Adjusting axial play

The axial play is adjusted with the end cap.

Note: never adjust the axial play of the hubs when out of the bike, or else the bearings could be damaged when first mounting the wheels in the bike!

Only proceed with adjusting the bearing play once the hub/wheel is in the bike and skewer or through axle is tightened to manufacturer's specifications. Proceed as follows:



- loosen the clamping bolt of the end cap with a 2.5mm Allen key
- turn the black adjustment ring of the end cap anti-clockwise, until it stops
- the axle can now be moved from side to side in the hub body by a couple of millimetres
- before you put the hub into frame or fork, hold the hub body and press the opposing end cap firmly towards the hub body so that the small amount of freeplay can be felt the end of the adjustable end cap
- now place wheel in frame or fork and tighten skewer or through axle to manufacturer's specifications
- now turn the adjustment end cap clockwise until you can feel a slight resistance.

TIP: Now wind the adjustment end cap back by a small amount. Now tighten the clamping bolt to 0.5Nm. If you don't have a torque tool at hand, you can also use the short end of your Allen key with two finger tips, and it will be very close to the recommended torque.

Changing the end caps

If you need to change the end caps for another axle standard, proceed as follows:

- Use a long piece of wood or plastic rod (as can be purchased at any hardware store), pass it through the inside of the axle and knock off the end cap on the other side. Now enter the axle from the other side to knock off the second end cap.

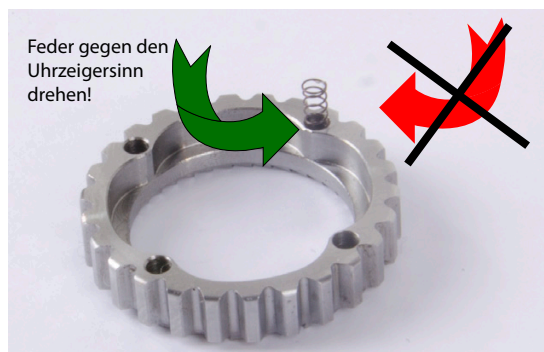
TIP: As the axle is free to slide through the hub, it is possible that this happens instead of the first end cap coming off. If this happens, you will need to knock the end cap off the axle after removing it from the hub. Then insert the axle back through the hub.

Maintenance, care and safety

Correct fitting, maintenance and care guarantees a long lifespan, durability and dependable function of your Syntace components.

Follow these simple steps to service your wheels:

- Do not clean the hubs with a high pressure water stream such as with a high pressure cleaner! When cleaning the hubs with a high pressure water stream, water and dirt can enter the bearings. This will quickly result in damaged bearings and will require replacing them.
- A video of how to service the hubs can be found on the Syntace website: Syntace.com > support
- Under normal conditions, remove the freewheel body twice yearly, clean and lubricate. Under frequent use this may be necessary at shorter intervals.
- When taking the hub apart, clean thoroughly and check all components for wear.
- The springs are housed inside conical holes in the outer spur gear. To remove the springs, gently turn them in a anti-clockwise direction.



When assembling the hub, carefully press the springs into the hub while turning them in an anti clockwise direction. Only like this, the springs will be safely secured in the spur gear.

When lubricating the spur gears, do not use thick greases or copper paste! Lubricate the spur gears only lightly with a motor oil (approx. 5 drops) or dip into an oil bath. Also lubricate the freewheelbody seal with motor oil.



Before re-assembling the hub, check the bearings feel smooth. In case any bearing require replacing, following bearing kits are available:

Item No: 115385 Bearing Kit Front 15 28 hole

Item No: 115392 Bearing Kit Front 20 32 hole

Item No: 115378 Bearing Kit Rear

In order to have the bearings replaced, please see your wheel builder or Liteville Werksstation. Werksstations have special tooling for changing the bearings.

Warranty



Instead of the legally required 2 year warranty, Syntace gives 10 years warranty from date of purchase on all material and manufacturing defects.

Only condition: All components are to be installed and used as outlined in the owner's manual.

Syntace 3+7 wheels warranty:

Repair or replacement of the wheel or wheel part is free of charge in the first 3 years, after that and up until the 10th year, a 50% usage fee will be charged relative to the current respective RRP.

The warranty does not apply to wearing parts or impacts to the rim etc. Further information to the process can be found on: www.syntace.com/warranty_handling

Please take note: binding is always the most current owner's manual as can be found on Syntace.de/support

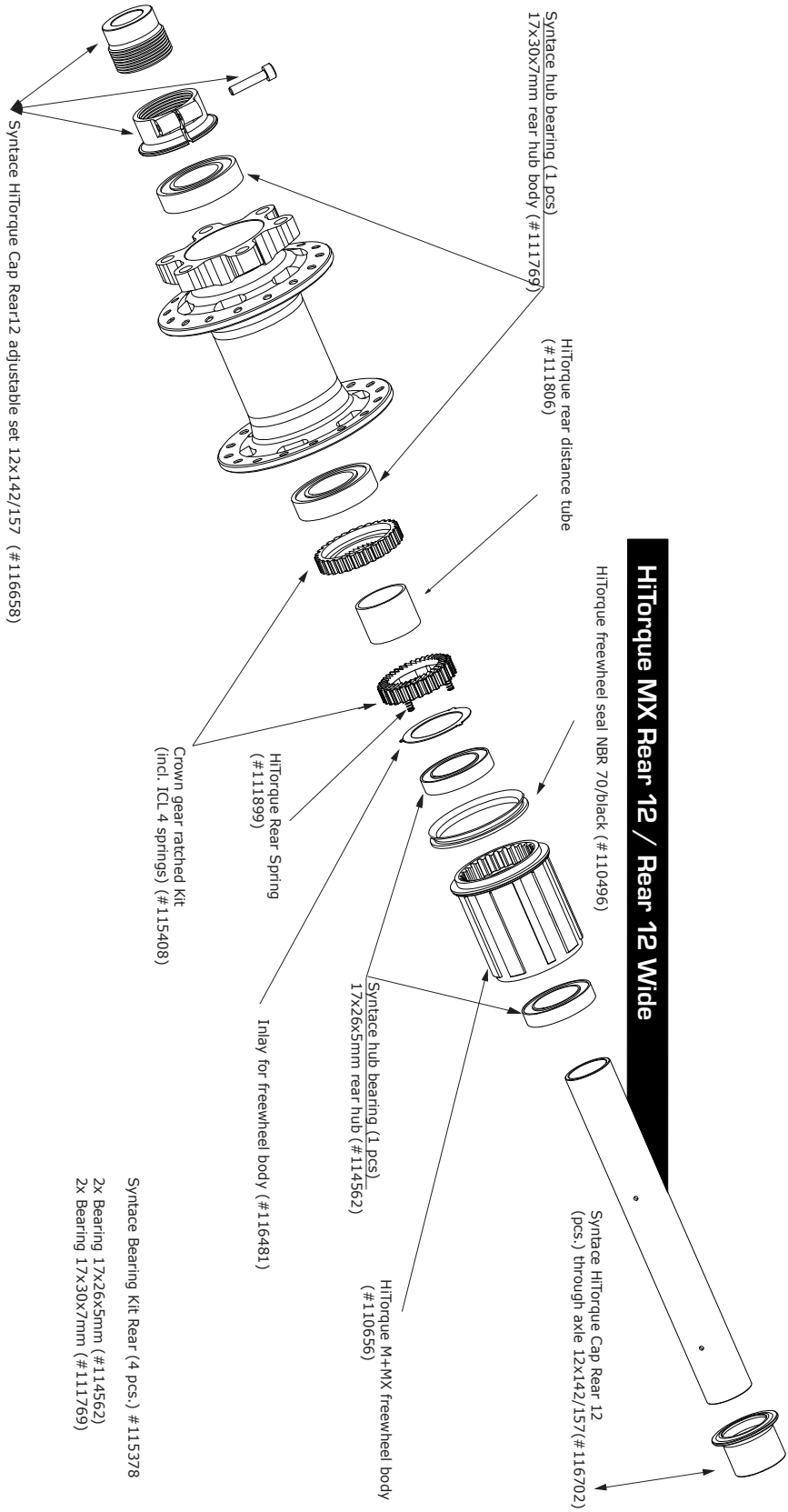
Your Syntace Team

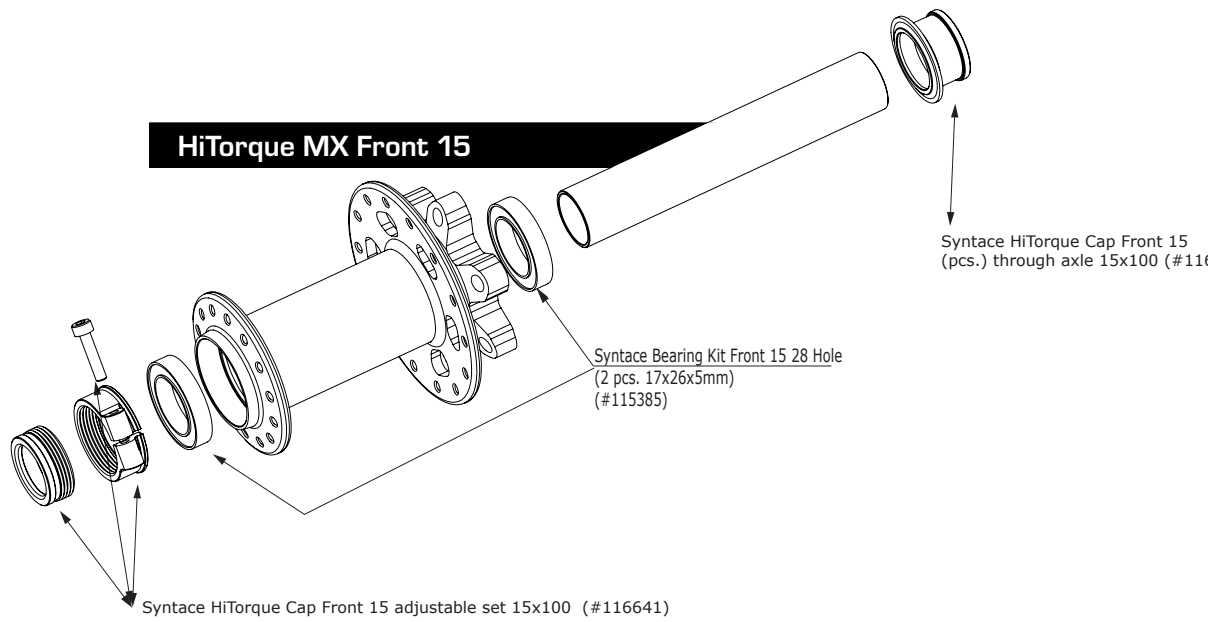
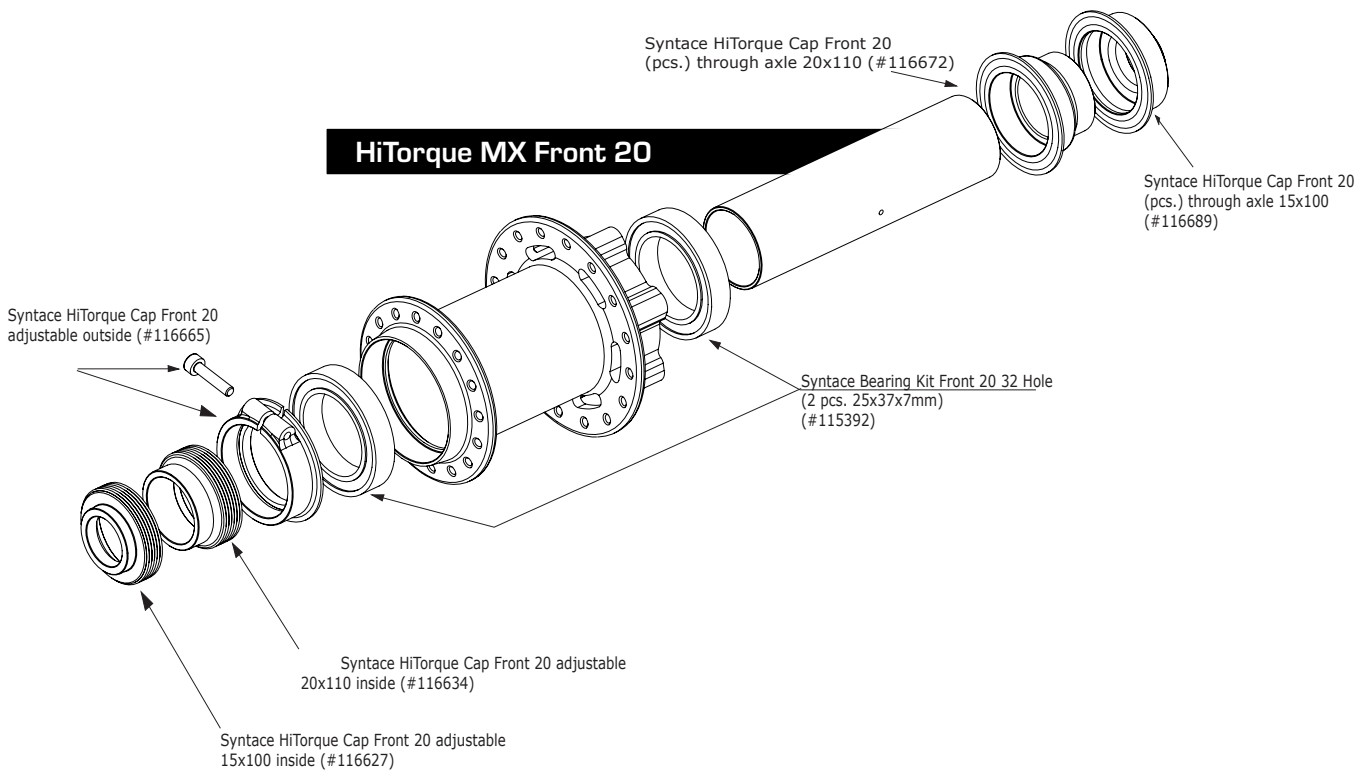
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Jo Klieber

Register your product online: www.syntace.com/warranty

HITorque MX Rear 12 / Rear 12 Wide





Please look for the newest updates of this manual at:
Syntace.com > Support

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