vorsprung

Telum

CUSTOM TUNED COIL SHOCK

USER MANUAL

REVISION C
2025-12-01

WARRANTY

All Vorsprung products carry a **limited worldwide warranty against manufacturing defects** for the greater of one year from the date of purchase, or the legal minimum warranty period in the region in which it is sold.

Vorsprung's liability under warranty shall be strictly limited to the repair or replacement of Vorsprung's own products. Mountain biking (including motor-assisted e-mountain-biking, or e-MTB riding) is an inherently high-risk activity and all equipment used for this activity can be overwhelmed and brought to failure if subjected to hard enough use. Accordingly, the responsibility of due care lies with the rider, to inspect and maintain their own equipment, ride within their own limits and maintain adequate margins of error when riding that ensure the safety of themselves, their equipment, and the people and property in the vicinity. Equipment failures may cause injury, death, or damage to property or other persons, and can occur suddenly and with little or no warning. The behavior of a mountain bike can be unpredictable to those who are not exercising due care or adequate skill in controlling their bike at any given moment, and this unpredictability can be exacerbated due to sudden failure or slow deterioration of any equipment involved.

Therefore, Vorsprung accepts absolutely no responsibility or liability of any form for any consequential or subsequent damages or destruction to property or person, nor injury, death, inconvenience, emotional distress or other costs that may be incurred by a consumer, reseller, distributor or anybody else as a result of any kind of product failure, regardless of whether said failure is the fault of Vorsprung due to negligence, manufacturing defects, design flaws or any other reason.

This means that a rider may suffer a serious injury, death, inconvenience, property damage, emotional distress or expenses as a consequence of a failure of a Vorsprung product, and Vorsprung will accept no responsibility or liability beyond repair or replacement of the Vorsprung product.

The Telum must be sold by retailers who are trained in the tuning and proper registration of a shock as sold on the Vorsprung Tuning Hub.

All warranty claims must include original proof of purchase, showing purchase date and purchase price. **Warranty claims are not limited to the original owner**, provided that the product can be demonstrated to be within the warranty period.

Warranty shall be voided by any relevant or potentially relevant modification to the product that is not approved by the manufacturer. For example, if aftermarket seals that are not approved by the manufacturer are used during service and the seals fail prematurely, such a modification shall be regarded as relevant to the failure and the product failure shall not be covered under Vorsprung's warranty.

In order for a warranty claim made by a consumer to be granted, the product in question must be correctly installed according to the installation instructions provided by Vorsprung, which will only be provided by Vorsprung in the English language. Consumers must also adhere to the specified service intervals for any given product. Product failure on any product that has not been maintained according to its specified service interval shall be the sole responsibility of the owner and not the responsibility of the manufacturer or Distributor, or Retailer. Product failure due to neglect, improper installation, improper mechanical/service work, abuse, crash damage or use in any application which the product has not been specifically and explicitly approved by the manufacturer shall be the sole responsibility of the owner and not the responsibility of Vorsprung or its Distributors.

The applications for which the Telum is specifically and explicitly approved for are limited to use as a rear shock absorber for mountain bikes and e-MTBs for which fitment has been checked and confirmed, and which meet typical "metric" shock mount standards as are now near-universal within the mountain bike industry. Certain applications to which the Telum could hypothetically be fitted may be excluded on the basis of:

- Use of a shock-extension yoke/clevis/strut that is long enough to cause buckling damage to the shock absorber. Vorsprung shall maintain a list of acceptable yoke lengths & other fitment criteria on its website.
- Clearance – if any part of the shock physically fouls on the frame or other bike component, fitment shall be considered invalid.
- Excessive eccentric/side-loading, for example due to static or dynamic misalignment, or other causes. Vorsprung reserves the right to specify frames, either on a case-by-case basis or based on design criteria, that are not capable of utilizing the shock as designed due to conditions that create loads that the shock absorber was not built to withstand.
- Excessive vehicle weight
- Non-pedal-assist motorized vehicle applications, such as motorcycles, go-karts etc
- Non-bicycle applications in general, such as aircraft landing struts

It shall be noted in particular that suspension components comprise many wearing parts, such as sliding seals, bushings, bearings, glide rings, internal floating pistons, damper shafts, air shafts, damper bodies/tubes, stanchions, and so forth. Wear will inevitably occur on these elements over time, and may be unduly accelerated by conditions where dirt, water (including hosing the suspension seals while washing, and pressure washing in particular), dust, mud, sand or trapped particles are not frequently cleared by wiping down of sliding surfaces and seals. Furthermore, no sliding seal is a "perfect" seal, and any particulate ingress can cause extremely rapid abrasion and failure of the seal and the surfaces it seals against.

Whilst Vorsprung products are designed to be market leading in durability and reliability, and are tested in harsh environments that are representative of their intended use, the owner's failure to adequately maintain the suspension's cleanliness by routinely wiping contaminants away from any externally accessible sliding surfaces and seals may cause damage or failure to any such surfaces or

seals in a shorter time than the service interval, **however, such failures are not manufacturing defects**.

Vorsprung products are designed with seals and excluder/wiper/scraper seals that are fit for purpose, intending to strike a balance of very low friction as well as excellent dirt/dust/mud/water scraping capability. However, the performance requirement for low friction means that seal/wiper squeeze (and therefore contaminant exclusion/wiping capability and sealing capability) are much lower than ultra-heavy-duty industrial seals with much much higher friction, such as those found on the hydraulic rams of an excavator. This necessary compromise is carefully struck by Vorsprung during product development in order to meet customer expectations for maximum performance (minimum friction) and maximum durability.

Therefore, if the owner chooses to pressure-wash their bicycle, they can expect rapid suspension failure due to dirt, grit and water being forced through the seals. Failure to service the suspension at specified service intervals may also lead to further wear or failure of seals or other wearing parts due to the ingress of contaminants through the sliding seals over time, as well as the buildup of contaminants from wearing parts inside the suspension.

Distributors shall process warranty claims made within their Region of distribution, regardless of whether the product was originally sold within their Region, provided that the product was purchased at retail price if it was purchased outside their Region. Products sold at discounted/below-retail rates for any reason may have warranty claims redirected to the region of purchase.

Customers shall be given the reasonable benefit of the doubt in warranty claims, except when it comes to warranty claims for parts broken due to exceeding torque specifications whereupon the customer must demonstrate that they were torquing the components correctly. All Vorsprung products are tested to failure through torque and have suitable safety margins therein; the onus is therefore on the customer to demonstrate that they were using a calibrated torque wrench **with proper technique**, and with the torque wrench set to the correct torque specification, in the correct torque units.

Warranty claims made outside the warranty period may be considered by Vorsprung and granted if the defect or failure being considered can be unambiguously demonstrated to be solely the fault of the manufacturer, at Vorsprung's sole discretion. For example, a critical machined dimension being outside of the manufacturer's permitted tolerance is clearly a manufacturing defect regardless of when it is discovered. Conversely, a damper that leaks oil from the shaft seal one month outside the warranty period shall not be considered for warranty regardless of whether "it's barely been ridden" as it may be due to any number of causes that are outside the reasonable control of the manufacturer.

Vorsprung reserves the right to amend warranty specifications at any time.

SERVICE INTERVALS/REQUIREMENTS

Vorsprung does not make "hourly" service interval recommendations. This is because what constitutes an "hour" of riding varies enormously. Let's look at a typical day in the Whistler Bike Park:

If you ride in a bike park from 10am to 6pm, is that 8hrs of riding?
Or, if you've done 12 laps during that time, at 5 minutes (and 330m vertical) of hard charging per lap, then does that count as only 1hr of riding? Consider that you've already done 4000m of descending in this time.

Contrast this to an all-day pedal-access ride, where you're actually on the bike and riding for 8hrs, and cover 2000m of vertical: this all-day sufferfest is, on paper, 8 times as much riding (by time) as your bike park day, but in practice, it's half as much vertical.

Likewise, let's imagine you're riding at a more relaxed pace with your kids, and you still do 12 laps in the bike park, but each lap takes 10 minutes instead of 5.

Does that mean you've actually put twice as much wear and tear on your shock compared to the day when you covered the same vertical at twice the speed? Probably not.

Does pedaling up a paved road for an hour put as much wear on your suspension as smashing through braking bumps at race pace for twelve 5-minute laps? Probably not.

Given that the vertical drop of any day or any ride is relatively easy to record or estimate, and is ultimately the biggest determining factor in how much work your suspension needs to do (and how far it will travel in total), this is Vorsprung's recommended way to estimate appropriate service intervals if you are riding with any frequency.

Therefore, Vorsprung specifies that the **Telum should be serviced at least once every 100,000m of vertical descent**. This is equivalent to:

- 2 rides per week at 1000m of descending per ride, every week for a year
- 20 massive bike park days at 5,000m per day (that's 3 Whistler Peak to Creek laps a day, every day, for about 3 weeks).

For some riders, this will mean servicing more frequently than annually – annual service is the minimum requirement to maintain performance (and warranty), not the maximum.

However, even relying solely on vertical drop has issues:

- Not everyone wants to record stats for every ride they do
- Not all riders/terrain are equally hard on the suspension
- If suspension is left sitting for long periods of time or in intense cold, seals can eventually dry out, become hardened/embrittled or begin to adhere to their sealing surfaces. In some cases,

particularly with fork wiper seals, this can lead to seal failures during the first ride after the bike has sitting for a long time.

- Riding in intense cold can cause premature failure of sliding seals as the seal compounds harden and are no longer maintaining their compressive force against the sealing surfaces.
- Gas molecules slowly diffuse through rubber seals (this is why car tires slowly lose pressure over time), and given enough time (typically many months or even years), this can cause loss of gas charge pressure or aeration of damping fluid.
- For these reasons, servicing still needs to be kept up with a certain chronological frequency.

The Telum must be serviced by a competent, trained & authorized suspension service centre at least once per 12 month period, with no longer than 14 months between services. In regions with legal minimum warranty periods exceeding 12 months, the shock must meet these service criteria to maintain its warranty status – in other words, if you purchase the shock in a country with a 24 month legal minimum warranty period and the damper shaft seal wears and begins to leak after 18 months, the shock's warranty shall not be considered valid if the shock has not been serviced in the first 14 months since purchase.

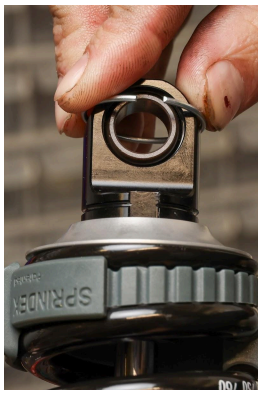
The Telum is not typically suited to home servicing. However, if you wish to service the Telum yourself, please contact support@vorsprungsuspension.com for assistance with service documentation, tooling and information.

SPRING INSTALLATION/SETTING PRELOAD

1. Ensure the Sprindex spring adaptor “for coil sizes like DVO, Cane Creek…” is installed on the PRELOAD COLLAR, then slide spring over the damper body.
   Determine which direction the Sprindex coil should be installed on your shock body that will provide you the best access within your frame to adjust spring rate.


2. Ensure the matching sprindex spring adapter is installed on the RETAINING COLLAR and slide over the eyelet.


3. Install EYELET CIRCLIP into the groove on the eyelet making sure it is fully seated the whole way around.




4. Hold shock in upright orientation and spin the PRELOAD COLLAR clockwise until it touches the spring and there is no play. Rotate the preload collar another **two** full turns. Insufficient preload will allow the spring to separate from the spring collars during topout events that compress the topout bumper further than the spring preload does, causing knocking.

5. Tighten the plastic set screw in the collar GENTLY against the closest of the 6 reliefs in the outer tube. This prevents the collar from loosening while riding.

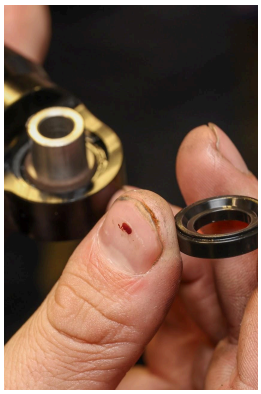
HARDWARE INSTALLATION (SPHERICAL & STANDARD)

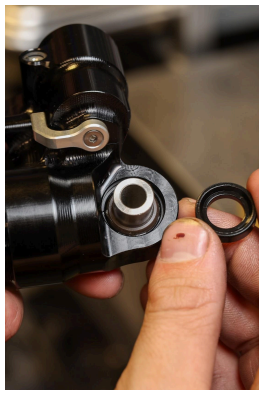
1. **SPHERICAL EYELETS ONLY:**
   Install spherical movement restrictors (VS06) into both sides of the spherical eyelet. These will clip into place and hold themselves.

2. **STANDARD/CYLINDRICAL EYELETS ONLY:**
   Locate eyelet bushing by hand on both sides of the eyelet and then gently press into place using vice/arbor press.

3. Press the hardware pin through bushing (standard or spherical) until it is centered across the eyelet.

4. **SPHERICAL EYELETS AT RESERVOIR BRIDGE ONLY:**
   Slide spherical movement restrictor (bearing) (VS04) over the pin and into place on the circlip side of the spherical bearing. Install spherical movement restrictor (standard) (VS05) onto the other side





5. **STANDARD EYELETS ONLY:**
   Slide o-ring (12.0x1.0) over pin on both sides and into location in the reliefs of the eyelet bushings.

6. Press the hardware spacers supplied for your pin onto both sides of the assembly as required.

SHOCK FITMENT CHECKING PROCESS

1. WITHOUT THE SPRING INSTALLED, install the hardware pins (only) as per the relevant instructions above (HARDWARE INSTALLATION (SPHERICAL & STANDARD)) but do not install the outer hardware spacers.
   Install the shock in your frame carefully.
2. Ensure, at full extension, that there is no contact between shock and your frame. Move the LOCKOUT LEVER through its travel and ensure this also does not contact the frame.
3. Slowly, and with due care, compress the shock through its full stroke. This will require extra force for the last portion of the travel to compress the bottom-out bumper.
4. Check for a minimum of 2mm clearance between all parts of the shock (lockout lever in open and closed position) and the frame.
   Provided this is true the frame is likely safe to use. One final fitment check with the spring installed will be necessary to confirm this.

SHOCK INSTALLATION

Refer to your frame manufacturer's documentation regarding shock mounting & installation.

1. **TRUNNION MOUNT ONLY:**
   Ensure the hardware at the shaft end eyelet does have plastic spacers on the reducer pin, however unless combined with a yoke, it should be using a spherical bearing with the rubber rotation limiters installed (as pictured). This allows the eyelet to float laterally on the pin to prevent side loading of the shock.

2. When using spherical eyelet bushings, check that the side-to-side rotation of the shock is sufficiently limited by the rubber bumpers in place in each eyelet and does not allow the shock body to foul on the frame.

MEASURING SAG

1. **Generally, measuring sag should not be required with the Telum** – we aim to provide you with the most appropriate spring rate off the bat, however, should you want to, this is how to do it.

   Before starting, ensure that the shock is installed correctly and the spring is preloaded 2 full turns. Checking sag should be performed in full riding gear e.g helmet, shoes, pads, etc. so get ready like you are going for a ride. It will also be very helpful to have someone to assist you for this process.

2. First determine the eye-to-eye and **Total Stroke** of your shock.

   You can check this by entering the Serial number of your shock in the Vorsprung Tuning Hub, or by consulting the website of your frame manufacturer.

3. On level ground, with something to lean on/help you balance, mount your bike and cycle the suspension a few times. Settle into your normal, standing up, riding position, with minimal weight on your hands. **Avoid touching your brakes** or putting vertical load on anything you are balancing on (ie only push sideways against a wall).

4. Have your assistant measure the new eye to eye distance of your shock (From the center of eyelet to eyelet).
   Subtract this measurement from the original eye-to-eye to determine the **Stroke Used**.
   Eg 205mm (original eye-to-eye) minus 189mm (sagged eye-to-eye) gives 16mm of **Stroke Used**

5. To determine the sag you are running as a percentage we can use the following formula:
   % Sag = (Stroke Used) / (Total Stroke) * (100 %)
   Typical sag values are anywhere between 25% and 35%, most commonly around 30%. Your frame manufacturer may have a starting recommendation, and in some cases these recommendations may be outside that 25–35% range. Vorsprung spring and sag recommendations are made separately from the frame manufacturer.

6. If you are measuring sag outside your desired range then you can adjust this by changing the physical spring or if you are using a Sprindex spring by twisting the rate dial .

   Do not try to compensate for having too much sag by increasing the preload on the spring. This can cause topout noise, spring binding problems and still does not actually stiffen your spring rate.

SPRINDEX ADJUSTMENTS

1. To adjust the spring rate, unweight the spring, hold the coil with one hand and twist the Dial with your other hand. The spring rate value is identified by the printed number on the coil displayed through the dial opening.

HOW TO COUNT CLICKS FROM FULLY CLOSED

1. All settings given by Vorsprung are measured from the fully closed position.

2. Using your tool, turn the adjuster clockwise until it stops. This is the fully closed position. **Be gentle as you reach the stop to avoid over tightening and damaging the adjuster.**

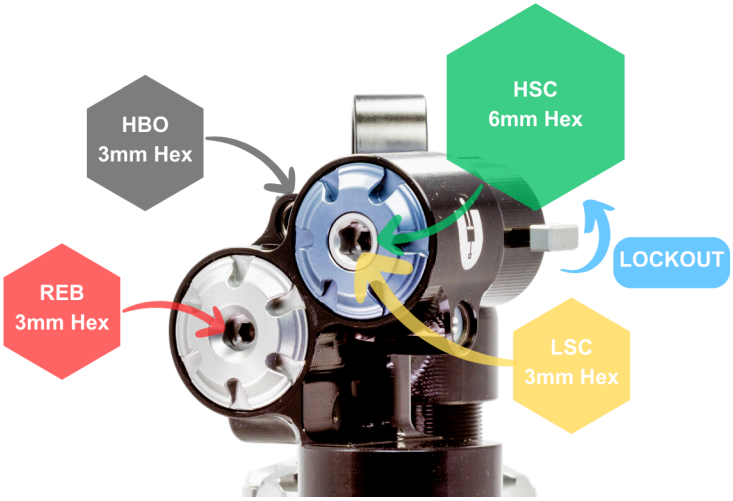
3. Now, turn the knob counterclockwise (left) and count each click as you do so. The first click you feel is −1 e.g minus 1, or 1 click from fully closed. Count the number of clicks as you turn to reach the desired setting.

   Note: recommended settings are included in your custom tuning report.

4. Clicks are counted from fully closed because at the fully closed position, the bleed adjusters (rebound and low speed compression) are fully bottomed out (closed), which is a consistent position, meaning that for example 4 clicks out from fully closed will always be consistent. However, due to assembly stack tolerances, the exact number of clicks may vary, so 4 clicks in from fully open (counterclockwise) may not be a consistent position between shocks.

   High speed compression settings are measured the same way for consistency.

USING THE TELUM'S ADJUSTERS



Lockout (Lever – 2 positions)

How It Works: The lockout lever can be rotated "upwards" by hand towards the eyelet (upwards as pictured above) for a firm pedal platform, or downwards for the open mode. It has a hydraulic blow-off to prevent damage in the event that you descend in the locked out mode. There are only two positions – there is no "in-between" mode, nor is there any adjustment of the platform threshold. It is designed for smoother climbs such as fireroads or paved roads. On technical climbs, the open mode may be preferable for traction.

Rebound (REB – 3mm hex – 18 clicks)

How It Works: The rebound adjuster controls the rate at which the shock extends after being compressed by regulating oil flow through the shock's internal circuits. This is crucial for ensuring that the suspension returns to its full travel in a controlled manner.

What It Affects: Rebound damping affects the bike's ability to maintain contact with the ground and handle successive impacts. During jumping, it has a small influence on how the bike pops off the takeoff and how it recovers after landing, particularly when the landing is rough. A well-balanced rebound setting helps ensure the bike remains stable and composed, allowing the wheel to track the ground well, without bouncing you around unpredictably.

Compromises: Too fast a rebound setting allows the shock to extend too quickly, leading to the bike

bouncing unpredictably through big terrain features, topout noise on occasion, and can also lead to the wheel not tracking the ground well. It can also cause the bike to feel unpredictable when jumping, or when on very steep sections of trail. Conversely, too slow a rebound results in the suspension not recovering fully between impacts, causing the bike to pack down. This can cause harshness over fast bumps such as braking bumps.

Symptoms of Incorrect Settings:

- **Too Fast**: On takeoff, the bike may feel like it kicks up excessively, reducing predictability. Traction and control can be compromised by the bike's excessive up and down motion, especially in successive hits and particularly rough or steep sections of trail.
- **Too Slow**: The bike may feel harsh on repeated bumps, as well as sluggish, lacking pop or responsiveness. Over rough ground, the suspension may feel unresponsive, failing to recover adequately before successive impacts, leading to a harsh, uncontrolled ride.

Low Speed Compression (LSC – 3mm hex– 18 clicks)

How It Works: Low-speed compression adjusters control the resistance of the shock to slower compression movements, such as those experienced during pedaling, cornering, or gradual load shifts. This adjuster fine-tunes how the shock absorbs energy at low shaft speeds.

What It Affects: LSC adjustment directly impacts stability during slow-speed maneuvers and helps manage the bike's attitude during cornering, as well as having some minor influence on jump takeoffs. Proper LSC settings prevent excessive squat or dive when loading the bike for a jump, contributing to a more predictable and stable trajectory. It also has a significant effect on small to medium bump absorption, where even "high shaft velocity" impact events must first accelerate the shock through the low speed region of the Force vs Velocity curve.

Compromises: A firmer LSC setting improves stability and reduces unwanted movement during pedaling and slow-speed maneuvers but can reduce comfort and traction in rougher terrain. A softer setting enhances comfort and traction, but taken too far, can lead to excessive movement, making the bike feel like you're trying to run across a trampoline.

Symptoms of Incorrect Settings:

- **Too Firm**: The wheel will not track well over small to medium bumps, causing harshness and excessive feedback. The bike might feel too firm and dead when setting up for jumps, particularly if paired with an especially firm HSC setting, making it difficult to load and pop the

suspension effectively.

- **Too Soft**: Allowing the suspension to compress too far during takeoff can store too much energy in the spring and cause the bike to jump unpredictably. When pedaling or cornering, too soft a LSC setting can lead to excessive compression, compromising stability and control as the shock pushes through travel more easily.

High Speed Compression (HSC – 6mm hex – 12 clicks)

How It Works: High-speed compression adjusters manage the shock's resistance to high velocity impacts, such as landing from a jump or hitting large bumps/steps/holes at speed. It controls how much force is needed to compress the shock quickly.

What It Affects: HSC is critical for controlling how the suspension handles the forces generated during jump landings and rough, high-speed terrain. Properly set, it prevents the shock from blowing through its travel too quickly on hard landings, maintaining stability and control. It also has a significant effect on the way the bike behaves on the takeoff of jumps as it influences the velocity range over which the LSC adjuster is effective. It can have similar effects as the LSC adjuster for medium size bumps, and it has relatively little effect on very small, high-frequency bumps.

Compromises: A firmer HSC setting can prevent blowing through travel on big hits and compressions, and increase the predictability of the bike when jumping by helping reduce its tendency to kick the rider forwards, but taking it too far can lead to a more jarring ride over rough terrain or an overly dead-feeling ride. A softer setting enhances comfort and responsiveness over mid-to-large impacts and square edged hits, as well as increasing "pop" but may allow the bike to blow through travel during big repeated compressions at high forward speed, reducing control and composure of the bike.

Symptoms of Incorrect Settings:

- **Too Firm**: The bike may feel harsh and unforgiving on rough terrain, leading to a jarring ride that can also compromise grip. It can also feel "dead" and more difficult to get the desired pop off jumps.
- **Too Soft**: The suspension may compress too easily during big hits and compressions, causing the bike to take longer than necessary to stabilize itself. This can result in a less stable/predictable ride, particularly in multiple-impact scenarios over large undulations where the bike's geometry can be compromised by excessive compression.

Hydraulic Bottom-Out (HBO – 3mm hex – 18 clicks)

How It Works: The hydraulic bottom-out adjuster increases resistance near the end of the shock's travel to prevent harsh bottom-outs. It engages during the final portion of the compression stroke, providing additional damping force.

What It Affects: This adjuster is essential for managing the bike's behavior during hard landings, where the suspension might otherwise bottom out harshly. It helps maintain stability and control by adding resistance as the shock nears full compression, ensuring that the bike doesn't hit its mechanical limit abruptly. It does not affect anything prior to the last 15mm of the stroke.

Compromises: The goal is to prevent harsh bottom-outs without generating any more force than necessary. There are relatively few compromises or competing priorities as it does not affect anything else in the stroke.

Symptoms of Incorrect Settings:

- **Too Firm**: Too firm is rarely a problem – the last part of the travel may feel slightly too firm when the HBO engages, reducing comfort. This can also restrict travel use slightly, however this is usually not a big deal.
- **Too Soft**: The shock may bottom out harder than necessary on the biggest impacts, leading to a harsh clunk through your feet.

General notes on setup

"Correct" setup: There is no such thing as a "correct" setup. Generally, there is what you want/like, and what you don't (unless we go to extremes – if you're actually running 50% sag on your suspension, yes, it is actually just wrong). Vorsprung provides the Telum in a tuned and set-up state based on our recommendations, which in turn are based on a combination of objective factors (rider weight, leverage rate curve etc) as well as our interpretation of the information you've given us, which in turn is based on your interpretation of the subjective things that we've asked you about in the Tuning Form. As you can see, subjective interpretation happens more than once. While there is a very high probability that you'll be very happy with the recommended settings we give you, there's a possibility that you want something different. That's no problem – the Telum is built to be revalved very rapidly by Vorsprung or authorized dealers, using our patent-pending Rapid Revalve system, and you may turn out to want substantially different adjustment settings to our recommendations too.

If you do find yourself wanting something significantly different from our recommended settings, please

email us at support@vorsprungsuspension.com to let us know – rider feedback helps our products improve.

Some more notes about our tuning ethos, and dispelling some myths:

1. The Rapid Revalve system & external adjusters exist to help deliver the best possible damping curve for your requirements. This does not mean that every possible damping curve option is magically "ideal". One or several will work very well for you, the remainder are irrelevant – they're options that are built to work for other people on other bikes.

2. You aren't necessarily meant to "*end up in the middle of the adjuster range*". Right at the limit of adjustment means you've got nowhere to move in one direction, but if you're even one or two clicks away from one end of the range and the shock is working how you want it, that's absolutely fine. The range exists for a reason, and is limited in specific ways for a reason. You'll likely notice that your LSC recommendation in your personal Tuning Report is closer to fully open than fully closed. Why is that? Why didn't we just design it with a bigger bleed so you could be "in the middle of the range"? Because the range is always fully limited at the closed end (by being closed), so that limit is the same regardless of orifice size, but we could have made the bleed bigger (effectively making "fully open" even more open) if we chose: why would we not do that? Because we've found that allowing the LSC bleed to open too far causes other knock-on problems with the HSC and valving; they need to become too firm in order to ever offer any support. While opening the LSC increases the perceived sensitivity when bouncing around in the parking lot, taken too far, it causes more problems with harshness than it solves. Because the Rapid Revalve system automatically reduces the LSC for lighter riders when valved more softly for their weight (and vice versa), we don't need to worry about those riders being overdamped or unable to reduce the LSC far enough – the adjuster's range is effectively automatically calibrated according to the rider's needs.

3. "*The whole adjustment range is rideable and there are no bad settings*" is, generally speaking, marketing bullshit to try to present a very limited and ineffective damping adjustment range, often meaning very soft compression damping, as a benefit rather than simply a very small adjustment range. (Note that a small damping range is NOT the same thing as a small number of adjustment positions or clicks – it means a small or negligible difference between "maximum" and "minimum" settings.)

   This "every setting is rideable" approach is based on two implicit premises: first, that the rider

is incapable of properly using or understanding the adjusters, and second, that you are for some reason obliged to ride in every possible setting instead of just using only the ones you actually like. *(While we'd love to be able to afford to hire private investigators to chase each and every one of our customers down the trail to ensure that, in the interests of equality, all settings get ridden an equal amount regardless of how much you love/hate them, that is currently outside Vorsprung's meagre private investigator budget.)*

However, if the adjusters don't allow you to go further than you want in any direction, then the only thing you can be certain of is that the adjusters ran out of range before you ran out of reasons to turn the knob.

What's the relevance? With the Telum, you'll find a broad swathe of settings that work well for you and give you the necessary room to adjust for different feel, different terrain and so forth, but you will also be able to find setups you don't like if you go looking for them. You can reasonably expect about 50–75% of the adjustment range of any given adjuster to provide settings that you like, and the other 25–50% or so to give you a ride you don't particularly like. That doesn't mean that those "bad" settings will necessarily be unrideable or especially dangerous, but they likely won't deliver a ride quality that you enjoy.

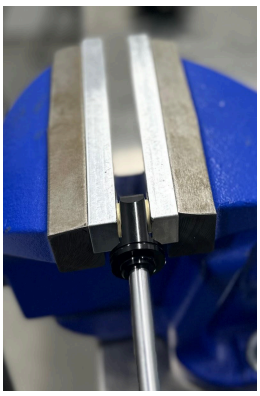
While the idea that "every setting is rideable" sounds great at first glance, in practice, limiting the adjustment range in that way causes actual performance deficiencies for at least some riders.

EYELET SERVICE (STANDARD EYELET)

1. Use a suitable tool to drive out the flanged bushings from the center. Take care not to scratch/damage the eyelet.

   Discard the worn bushings.

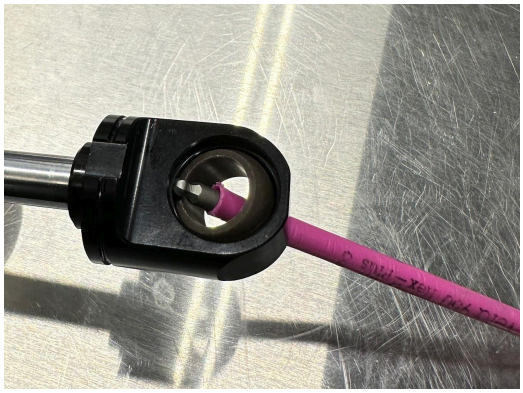
2. Press the new bushing in at first by hand and then using the soft jaws of a vice.



EYELET SERVICE (SPHERICAL EYELET)

1. Using a small pin of hex key spin the SPHERICAL BALL into the opposite orientation.
   Using the same tool lever against the ball to pop it free of its housing. Discard the worn ball.

   Inspect the sliding surface of the housing and replace if necessary.



2. In the same orientation as the old ball was removed, press the new one in by hand.

   Spin the ball final orientation either by hand or using the same tool.

Questions?

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