

MY23 GIANT STL 34 SUSPENSION FORK

USER MANUAL



INTRODUCTION

Congratulations on purchasing the new Giant STL 34 suspension fork. The all-new STL 34 brings state-of-the-art features and premium performance to a broader range of off-road riders. Featuring a Thixomolded lower leg, 34mm stanchion, and introducing an all-new refined air spring system, the STL 34 is engineered to balance stiffness and durability. The dedicated tuned damper comes with low speed compression adjustment and an ample rebound circuit to help every rider find their best setting.

IMPORTANT: PLEASE READ BEFORE RIDING

This user manual contains important safety, performance and service information. Please keep it for future reference. We strongly urge you to read this manual before your first ride. If you have any questions about this manual or your STL fork, please contact your local Giant authorized retailer.

WARNING

- Do NOT use the suspension fork for the following types of riding: freeride, downhill or other types of extreme riding
- Do NOT use this suspension fork on E-bikes. E-bikes require e-specific parts.
- Ignoring safety instructions can cause serious injury or death.
- Do NOT use a high pressure washer to clean the suspension fork. Failure to comply will damage the product and void its warranty.

CAUTION

- Please ensure the suspension fork matches your bicycle's specification.
- Maximum riding weight is 136kg (299lbs). This includes rider + accessories. For safety, please do not exceed the specified weight limit.
- Modification of the product from its original condition is not covered by Giant limited warranty. Disassembly or modification of any type to the STL 34 fork WILL VOID the warranty.
- Regularly maintain your STL 34 fork through a Giant authorized retailer. Maintenance and replacement of components by a non-authorized retailer WILL VOID the warranty. All service and replacement parts must be genuine Giant components only.
- Make sure to comply with the setting, riding style, maintenance and service instructions to ensure your safety. Ignoring safety instructions can cause serious injury or death.

SERVICE AND TECHNICAL SUPPORT

If you encounter difficulties, or are uncertain about anything mentioned in this user manual, please contact a Giant authorized retailer.

For more information, please visit:

<https://www.giant-bicycles.com/global/manuals>



To find a Giant authorized retailer or to learn more about Giant Bicycles, please visit: www.giant-bicycles.com

CHECK YOUR BIKE BEFORE RIDING

Check the correct functioning of the braking system. For more information on various common brake brands please visit:

- Shimano: <https://si.shimano.com/>
- SRAM: <https://www.servicearchive.sram.com/service>
- TRP: <https://trpcycling.com/downloads/>
- Tektro: <https://www.tekro.com/download.php?t=7>

Check the correct tire pressure for your tire type and riding style.

Check the correct tightness of the thru axle and all fasteners. For more information, please visit:

- Giant: <https://www.giant-bicycles.com/global/manuals>

Check the surface of the suspension fork for leaks, bending, deformation, cracks, etc.

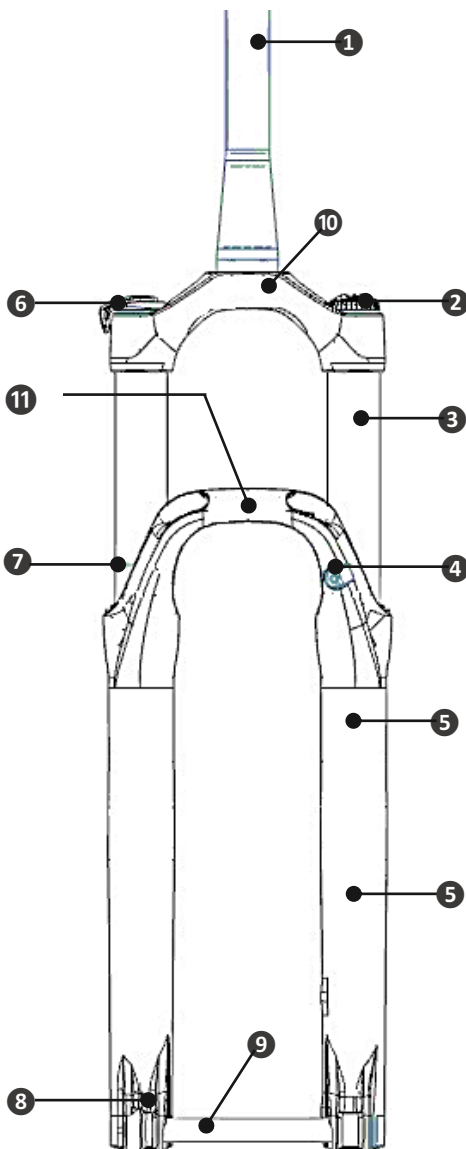
- STOP riding your bike immediately if any is found.

Check the correct air pressure setting of the suspension fork.

If you are unsure of above check points, or you encounter difficulties, please contact a Giant authorized retailer.

PRODUCT INTRODUCTION

- ❶ Tapered steerer tube
- ❷ Air spring cap
- ❸ 34mm stanchion
- ❹ Brake cable guide
- ❺ Lower leg
- ❻ Low speed compression cap
- ❼ Travel indicator o-ring
- ❽ Rebound adjustment knob
- ❾ 15mm Thru axle
- ❿ Crown
- ⓫ Lower leg arch



INSTALLATION INSTRUCTION

WARNING

- The suspension fork should be installed by a Giant authorized retailer in accordance with stated installation instructions. Improper installation will cause malfunction of your suspension fork and could lead to serious injury or death.
- Bending, deforming and cracks on the surface of steerer tube can cause a break or malfunction which can lead to serious injury or death.
- Modification of any type to the fork **WILL VOID** the warranty. Any modifications of steerer tube other than cutting to the appropriate length to fit your bicycle can cause a break or malfunction which can lead to serious injury or death.
- The spacers of the steerer tube should be less than 30mm from bottom of stem to top of the head tube. More than 30mm of spacers can cause a break or malfunction which can lead to serious injury or death.
- Never use a fork with a too short steerer tube! The gap between the top of the steerer tube and the top of the stem should be greater than 2mm but less than 5mm. And the top of the steerer tube should be higher than the upper clamp bolt of the stem. An insufficient length of steerer tube can cause a break or malfunction leading to serious injury or death.
- Refer to the user manual of the handlebar stem manufacturer for correct installation. Improper installation can cause a break or malfunction which can lead to serious injury or death.

FORK INSTALLATION

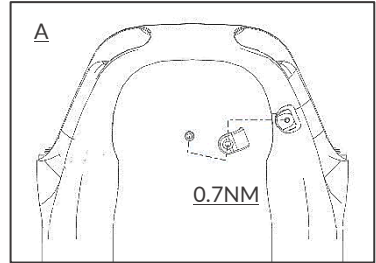
1. Ensure that the suspension fork fits every specification of your frame, e.g., travel, headtube size.
2. Remove the original fork from the bike.
3. Remove the headset crown race from the original suspension fork.
4. Refer to the user manuals of the headset manufacturer. Install headset crown race onto the new suspension fork.
5. Measure the length of steerer tube of the original suspension fork and replicate the measurement on the steerer tube of the new suspension fork.
6. Cut the steerer tube to length (Always double check the measurement! Measure twice, cut once).
7. Use a star nut setting tool to insert the star nut at a depth 12~16mm below the top of the steerer tube.
8. Check if the headset is installed correctly.
9. Fit the suspension fork into the frame.
10. If required, install spacers. Please note that the total stack height under the stem should be less than 30mm.
11. Install the stem on the steerer tube. Please refer to the user manual of the stem manufacturer to install the stem properly.

12. Tighten the top cap to the torque value recommended in the user manual of the headset manufacturer.
13. Tighten stem clamp bolts to the torque value recommended in the user manual of the stem manufacturer.

If you have difficulties or are uncertain about this procedure, contact a Giant authorized retailer.

DISC BRAKE INSTALLATION

1. Refer to the user manual of the disc brake manufacturer to install the brake caliper on the fork leg.
2. Fix the disc brake hose onto the fork arch using the supplied bracket and tighten the bolt to the recommended torque value, as shown in fig. A.



WARNING

- It is strongly recommended that you have the disc brake system installed and/or checked by a Giant authorized retailer in accordance with the manufacturer's user manual.
- Before riding, check disc brake system installation again. Improper installation can cause malfunction of the system and lead to serious injury or death.

CAUTION

- The minimum brake rotor size is: 180mm. Refer to the user manual of the disc brake manufacturer for the installation procedure, install the correct adapter and tighten the bolts to the recommended torque value. Use of a brake rotor bigger than the original specification will void the warranty.
- The caliper mounting bolts must have 9mm to 14mm thread engagement to ensure proper mounting.
- Follow all directions described in the user manual of the disc brake manufacturer for correct installation of the disc brake system.

FRONT WHEEL INSTALLATION

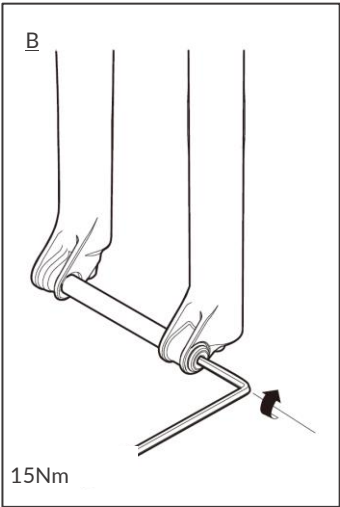
⚠WARNING

Giant STL 34 models are designed to work with 15mm thru-axle system. Please consult a Giant authorized retailer to make sure you have a complete understanding of how to correctly install the thru-axle before riding. Improper installation can cause malfunction of the wheel and lead to serious injury or death.

THRU AXLE SYSTEM

- 1. Install the front wheel into the Giant STL 34 suspension fork. Align the hub of the front wheel with dropouts of the fork, making sure the rotor of the disc brake system is correctly aligned between the brake pads of the brake caliper. If the hub and/or rotor do not align, do not force the wheel, remove it and repeat the process. Refer to the user manual of the disc brake manufacturer for proper setup and alignment of the disc brake.
- 2. Insert the thru-axle from the disc side of the fork.
- 3. Tighten the thru-axle by using a 6mm Allen key to the recommended torque value of 15Nm (Fig B)

If you are unsure about the tightness or the position of the thru-axle after installation, please consult a Giant authorized retailer.



TIRE & WHEEL SIZE COMPATIBILITY

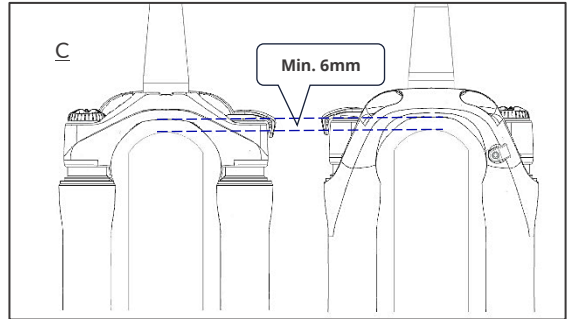
The Giant STL 34 suspension fork is available for 27.5 inch and 29 inch wheel dimensions.

	Minimum Tire Clearance	Maximum Tire Size
STL 34 27.5	6mm	27.5 x 2.6
STL 34 29	6mm	29 x 2.4

Each combination of tire and rim must be checked with the fork fully compressed, a minimum of 6.0 mm clearance from tire to crown and tire to lower leg arch is required, as shown Figure C. Please check the original specification of your bike and refer the manufacturer's user manuals for tire installation recommendations and instructions.

⚠ WARNING

Insufficient tire clearance can cause malfunction of your wheel and can result in serious injury or death.



SUSPENSION FORK SETTING

ADJUSTABLE AIR SPRING

The STL 34 fork features a positive air spring in tandem of a coil negative spring. Riders can also fine-tune the positive spring using volume spacers to adapt to their riding style and rider weight.

SAG SETTING

Setting appropriate the sag value of your Giant STL 34 suspension fork to achieve optimal suspension performance:

1. Before setting the sag value, turn the rebound damper knob all the way counter-clockwise (to the fastest setting), and turn the low speed compression knob counter-clockwise to open position.
2. Check your weight with the suggested air spring pressure value and use a shock pump to add air until you reach the correct suggested pressure. Once the target pressure is reached, remove the shock pump, Compress and then release the fork a few times.
3. Using a wall, fence, tree or an assistant for support, get on your bike wearing full riding kit. Compress the fork a few times and pose a natural riding position with both feet on the pedals and hands on the handlebar.
4. Without changing the position too much or with an assistant to help, slide the travel indicator o-ring down the stanchion to the wiper seal of the fork lower.
5. Gently get off your bike and measure the distance from the seal of the fork lower to the travel indicator o-ring to attain the sag value.
6. Adjust air pressure and repeat steps 1-5 above until you reach recommended sag.

SUGGESTED SAG VALUE			
Fork Travel (mm)	SAG (%)	SAG(mm)	
100mm	20%	20mm	
130mm	20%	26mm	
140mm	20%	28mm	
AIR SPRING PRESSURE SETTING	100mm Travel	130mm Travel	140mm Travel
RIDING WEIGHT kg (lbs)	Pressure (psi)	Pressure (psi)	Pressure (psi)
<60 (<132)	60-65	60-65	60
60~70 (132~154)	65-71	65-72	60-68
70~80 (154~176)	71-78	72-80	68-76
80~90 (176~198)	78-86	80-88	76-84
90~100 (198~220)	86-94	88-96	84-92
100~110 (220~243)	94-102	96-104	92-100
110~120 (243~265)	102-110	104-112	100-108
>120 (>265)	>110	112	>108
MAX RIDING WEIGHT LIMIT		136 kg (299lbs)	
MAX. AIR PRESSURE		140 psi	
AIR TOKEN	100mm Travel	130mm Travel	140mm Travel
FACTORY INSTALLED TOKENS	2	1	1
MAX. NUMBER OF TOKENS	2	2	2

If the fork has been in storage for a period of time, be it a couple weeks up to a full winter season, it is recommended to check the air pressure again.

⚠ WARNING

Do NOT exceed the maximum number of air tokens and/or maximum air pressure for the fork.

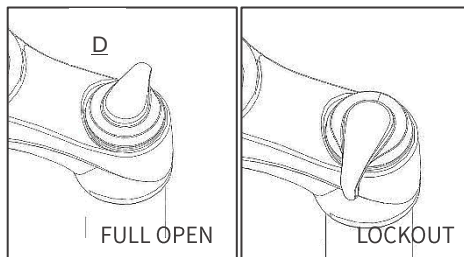
GIANT TUNING DAMPER

Tuned with input from our experienced suspension developers, the fully adjustable damper can be continuously refined for increased control and to allow a wide range of riders to easily match their suspension with the terrain and their riding style.

LOW SPEED COMPRESSION ADJUSTMENT

The multi-function adjustable compression circuit has following modes: open mode, and lockout.

Open mode allows full compression for descending on more technical terrain while lockout modes give progressively firmer damping for riding rolling terrain or for climbing, as shown in figure D.



LOCKOUT AND BLOW-OFF

A slight amount of travel movement may be noticeable while the lockout is activated, this is perfectly normal.

If the fork encounters a sudden drop or impact while the lockout is activated, the fork will compress thanks to the blow-off mechanism. The fork will remain locked-out afterwards.

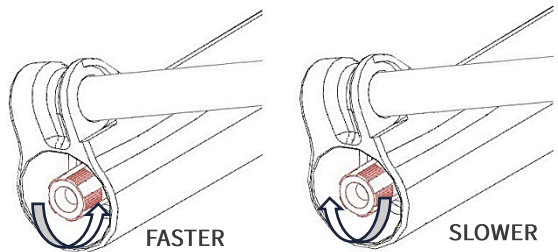
Suspension forks require adequate movement between stanchions and lower legs to stay lubricated internally. Please deactivate the lockout while descending, this helps prolong lifespan as well.

If the bike has been hung up in storage or laid on the side for a while, chances are the lockout may not function fully due to the nature of damper circuit design. All you need to do is to deactivate the lockout and keep riding for a couple minutes. The damper will automatically reset itself and the lockout is fully functional again.

REBOUND ADJUSTMENT

Rebound controls the extension speed after the fork absorbs the shock. The rebound speed can be adjusted to your preferred riding style.

The indexed points are from slowest “0 clicks” position (turn rebound damper knob completely clockwise) to fastest “24 clicks” position (turn rebound damper knob completely counter-clockwise).



STL FORK SERVICE & MAINTENANCE

Service interval	Action
Before riding	Check your fork, bike and all components for wear and damage.
After each ride	Clean fork stanchions and wiper seals.
After 50 hours of riding	Fork lower leg service.
After 200 hours of riding or 1 year	Air spring and damper service.

WARNING

- Do NOT use a high pressure washer to clean the suspension fork as this may cause damage to the wiper seals.
- Do not disassemble or modify the suspension fork. This WILL VOID your warranty.
- All fork service must be performed by a Giant authorized retailer or service center.
- The fork must be stored and operated at a temperature between -30°C ~ 80°C.
- If you encounter any issues with your STL 34 fork at any time, please contact a Giant authorized retailer right away.

GIANT LIMITED WARRANTY

Giant STL 34 suspension fork comes with two (2) years warranty from the date of purchase. This warranty applies only to the original owner, and the fork was purchased from a Giant authorized retailer and assembled by that dealer at the time of purchase.

LIMITED REMEDY

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 Giant. This warranty extends from the date of purchase, applies only to the original owner, and is not transferable. In no event shall Giant be responsible for any direct, incidental or consequential damages, including, without limitation, damages for personal injury, property damage, or economic losses, whether based on contract, warranty, negligence, product liability, or any other theory.

EXCLUSIONS

The above warranty, or any implied warranty, does not cover:

- Normal wear and tear on parts in situations where there are no assembly or material defects.
- Consumable components including bolts, nuts, caps, cartridge, rebound knob, O/X-ring, thru axle, quick release, and piston set.
- Products serviced by anyone other than a Giant authorized retailer.
- Modifications of the product from its original condition.
- Use of this product in abnormal or extreme riding conditions, competition, commercial activities and / or for purposes other than those for which this product was designed.
- Damage caused by failing to follow the User's Manual.
- Paint, finish and decal damage resulting from normal wear and tear or from taking part in competitions, jumping, downhill and/or training for such activities or events or as a result of exposing the product to, or operating the product in, severe conditions or climates.
- Labor charges for part replacement or changeover.

Except as is provided by this warranty and subject to all additional warranties, Giant and its employees and agents shall not be liable for any loss or damage whatsoever (including incidental and consequential loss or damage caused by negligence or default) arising from or concerning any Giant product.

Giant makes no other warranties, express or implied. All implied warranties, including the warranties of merchantability and fitness for a particular purpose are limited in duration to that of the express warranties stated above.

Any claim against this warranty must be made through a Giant authorized retailer or distributor. The purchase receipt or other proof of the date of purchase is required before a warranty claim may be processed.

Claims made outside the country of purchase may be subject to fees and additional restrictions. Warranty duration and details may differ by country. This warranty gives you specific legal rights, and you may also have other rights which may vary from place to place. **THIS WARRANTY DOES NOT AFFECT YOUR STATUTORY RIGHTS.**