

# **MANUAL**



Compatibilities, Assembly & Maintenance

# **REGISTRATION & WARRANTY**

In order for us to help you efficiently in case of an accident (with a repair, a warranty case or a general service) you should register your bike. This way, you also automatically extend the warranty of your Liteville to 10 years.

The full warranty policy as well as information on how to register your bike can be found online at https://www.liteville.com/en/252/support/faq/

Further information on your Liteville can be found here: https://www.liteville.com/en/38/bikes/

Please find the latest updates of your 301 manual here: https://www.liteville.com/en/77/support/manuals/



L	

A.	Delivery contents	4
В.	Compatibilities	Ę
1.	Suspension Forks	5
2.	Damper	Ę
3.	Wheel size	6
4.	Tire width	6
5.	Hub installation measurements	6
6.	X-12 through axle	7
7.	Bottom bracket/crankset	7
8.	Drivetrain	8
9.	Rear derailleur hanger and rear derailleur	8
10.	Front derailleur	8
11.	Shift cable housing	3
12.	Brakes	3
13.	Seatpost	8
14.	Seatpost reduction shims	Ç
15.	Seat post clamp	9
16.	Headset	Ç
C.	Assembly	10
1.	Frame preparation	10
2.	Seatpost/seat	10
3.	Headset/fork	11
4.	Handlebar/stem	12
5.	Shift and brake levers	12
6.	Bottom bracket/crankset/front and rear derailleur	12
7.	ServicePort	13
8.	Cable routing	13
9.	Cable routing front derailleur	14
10.	Cable routing rear derailleur	14
11.	Exchanging the housing of the rear derailleur	14
12.	brake hose routing	16
13.	Variable seatpost	17
14.	SCS-III EV06 chain guide	18
15.	RockGuard SL	18
16.	Damper preload adjustment	18
17.	Damper rebound adjustment	19
18.	Adapting the DuoLink	19
D.	Maintenance and care	20
1.	Frame bearings and headset bearing	20
2.	Screws	20
3.	WorksFinish surface	21
4.	Linkage bar overview	21



## A. LIEFERUMFANG

1 1pcs. Liteville Bicycle user manual

2 1pcs. polish pad WorksFinish frames

3 1pcs. cable inlet closed #127494

4 1 pcs. Liteville 301 sticker WorksFinish frames #130050

5 1pcs. O-Ring #127203

6 1pcs. VarioSpin top cap #127173

7 1pcs. VarioSpin Top Seal #127210

8 1pcs. Topplate cone 1 1/8 #127166

9 1pcs. BB 30x41x6.5 2RS cone #103870

10 1pcs. BB 40x52x9 4RS cone #147843

**11** 1pcs. Baseplate cone 1.5, 39.8 #1127159

12 3 pcs. foam tube #141209

13 1pcs. cable tie 140x3,6 mm

14 2pcs. cable tie 92x2.4 mm

1 pcs. Micro Adjust cap kit #140912

**NOTE:** The Micro Adjust cap kit **1** is only included with 301 Mk15.3 PRO models.

#### Usage as intended

There is no restrictions for your Liteville 301 Mk15 frame as to the maximum rider weight or the range of usage of the bike, however you need to assure that all components are compatible with the frame and that they are mounted according to the manufacturers' manuals

Additional component extensions such as an engine retrofit are not allowed.

#### **B. COMPATIBILITIES**

#### 1. Suspension Forks

Suspension forks may be mounted with a maximum insert length of 572 mm. Double crown forks must not be mounted.

The same counts for Boost- and B+ forks with a maximum insert length of  $572\,\mathrm{mm}$ .

Make sure that the fork – when fully compressed – does neither interfere with the steering tube nor with the down tube.



Picture: Clearance down tube



Picture: Clearance steering tube

#### 2. Damper

The 301 Mk15 comes with the following dampers:

- RockShox Deluxe Select+ RT
- RockShox Super Deluxe Select+ RT

The front end of the damper is equipped with a needle bearing as standard. (Syntace Needle bearing shock kit 25 x 8 mm (Art.-Nr. 144491)

The installation dimension for the rear damper socket is 54 mm Trunnion

The installation dimension for the front damper socket is  $25 \times 8$  mm.

**ADVICE:** The 301 frame features special kinematics that do not harmonize ideally with all dampers available on the market. In order to achieve an ultimate damper setup, our dampers are adapted accordingly.

Professional and particularly competitive riders will be able to order an optional RockShox or Fox damper.

Find further information at www.liteville.de

The maximum air pressure for the main damper cartridge of the RockShox Deluxe RT3 damper is 325 PSI (approx. 22 bar). Please use suitable damper air pumps only.

**NOTE:** The RockShox Deluxe damper of a Liteville frame features a special adjustment lever. The original RockShox adjustment lever must not be used since it would interfere with the seat tube when in the position "lock". When different dampers are mounted, the clearance throughout the entire damper travel is to be rechecked in advance.

#### 3. Wheel size

Depending on the frame size, your Liteville 301 is compatible with different wheel sizes.

- frame length S: 27,5"
- frame length M, L, XL: 27,5" und 29"
- frame length XXL: 29"

#### 4. Tire width



At the chain stay, the 301 Mk15 leaves a clearance of about 77 mm, which results in the following tire width recommendations:

- frame length S: 27,5" up to 2,5" width
- frame length M, L, XL, XXL: 27,5" up to 2,5" width 29" up to 2,4" width

Using different tire widths, make sure that the tire may touch the seat tube only slightly when the damper is fully compressed. This also varies depending on the tire pressure. Also mind the restrictions as declared by the fork manufacturer.

**ADVICE:** In case the tire touches the seat tube slightly, this does not result in anything but minimal scratches on the frame and is nothing to be worried about. However, please also mind the restrictions as declared by the fork manufacturer.

#### 5. Hub installation measurements

The Liteville frame is compatible with all rear hubs with the  $148 \times 12 \, \text{mm}$  axle standard. We recommend not to use adapter solutions.

**ADVICE:** The Liteville 301 is designed with the EV06 rear frame standard. An EV06 rear wheel, in comparison to a Boost 148 mm rear wheel, features a different spoke pattern that allows for a fully symmetrical and thus more stable rear wheel thanks to identical spoke tensions on both sides.

#### 6. X-12 through axle

The Liteville 301 Mk15 is designed with the X-12 through axle design with a width of 148 mm. The thread pitch is M12 x 1 mm. The Syntace X-12 through axle design – as the only solution on the market – allows for the toe adjustment and thus for an even more precise production of the frame.

The clamp thread (Allen Key, 5 mm) in the righthand end of the construction is meant exclusively for the fixation of the rear derailleur hanger as well as for the axle insert. It does not have to be opened when the axle or the rear wheel is removed.

**ADVICE:** The axle insert is adapted individually to your frame and marked respectively. The 0.5 mm or 1.0 mm insert is aligned correctly if the notch of the clamping system and the one of the dropout is parallel.



The picture displays the insert and the clamping notch aligned correctly.

#### 7. Bottom bracket/crankset

The bottom bracket shell of the Liteville 301 Mk15 measures 73 mm and fits common BSA bottom brackets. ISCG adapter solutions can not be mounted. The 301 frame is designed for one-and two-speed Boost cranksets with a minimum Q-factor of 167 mm. 3-speed cranksets can not be mounted.

**NOTE:** Mounting a SRAM DUB bottom bracket, you will need the ParkTool BBT-79.

For other cranksets, please mind the clearance between the crankset and the frame. Find further information in the chapter "Bottom bracket/crankset/front and rear derailleur".



Picture shows Boost SRAM



Picture shows Boost Shimano

#### CHAIN LINE:

SRAM 1- and 2-speed: 52 mm Shimano 1-speed: 53,4 mm Shimano 2-speed: 51,8 mm

## **CHAIN RING SIZES:**

SRAM 1-speed: 26 to 40 teeth Shimano 1-speed: 30 to 34 teeth Shimano 2-speed: 24 to 38 teeth

#### 8. Drivetrain

The Liteville 301 Mk15 frame is designed for oneand two-speed drivetrains.

## 9. Rear derailleur hanger and rear derailleur

The 301 Mk15 is designed for the rear derailleur hanger "Typ3", which it comes with as standard.



Typ3 standard rear derailleur



Type 3 Shimano Direct Mount rear derailleur

Shimano rear derailleurs can be mounted with the Typ3 Direct Mount rear derailleur hanger.

#### 10. Front derailleur

The frame is built in a way that only low Direct Mount two-speed front derailleurs with "front pull" designs can be mounted.

## **EXAMPLES:**

Shimano XT: I-FDM8020-E

Shimano XTR: I-FDM9020-E (2x11) Shimano XTR: I-FDM9100-E (2x12) SRAM: FD GX LD 2X11 FRONT PULL

#### 11. Shift cable housing

Use nothing but shift cable housings with an outer diameter of 4 mm such as Shimano SIS-SP41

## 12. Brakes

Your Liteville 301 Mk15 is designed exclusively for disc brakes

The frame features a 7"-Postmount socket for the rear brake. For 180 mm discs, the brake can be mounted directly without an additional adapter. Disc diameters may vary between a minimum of 180 mm and a maximum of 203 mm.

## 13. Seatpost

The inner diameter for all Liteville seat tubes is 34.9 mm. The Mk15 is prepared for the usage of an Eightpins variable seatpost. Conventional seatposts with inner cable routings can be mounted, too.

**NOTE:** The geometry of the 301 Mk15 requires seatposts with a -26 mm seat offset. In case a seatpost without a setback, the seat angle and the top tube length are altered.

In order to avoid frame damages, the following minimum insert lengths need to be considered:

Up to 200 mm above seat clamp: minimum insert = 120 mm More than 200 mm above seat clamp: minimum insert = 140 mm

he length is measured from the seat clamp to the top end of the seat cover.

#### 14. Seatpost reduction shims

Using reduction shims, the minimum insert length is still to be minded.

**ADVICE:** In case of doubt, choose the longer reduction shim and mind both the compatibility and the quality of it (for example Art. #113299 Syntace Post Shim Light 31.6 Art. #114203 Syntace Post Shim 30.9).

**NOTE:** In case the minimum insert length of 120 mm or 140 mm can not be realized, the PostShim 30.9 (Art. #114203) is to be used. This is the only way the minimum insert length can be reduced to 90 mm.

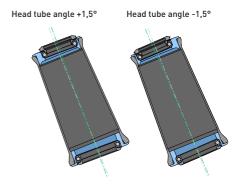
#### 15. Seat post clamp

If you mount a conventional seatpost or common variable seatpost other than Eightpins, we recommend you to use a Syntace SuperLock2 or MicroLock38 seat clamp. In case you want to use a different seat post clamp, it is to fit the outer seat tube diameter of 38 mm and must not interfere with the linkage bar of the damper system when it is fully compressed. In order to reaffirm this, deflate the damper entirely and move the rear frame triangle upwards.

#### 16. Headset

The Liteville 301 Mk15 features the Syntace VarioSpin headset.

As standard, the frame comes with 0° bearing shells. Mounting Syntace VarioSpin-Tuning headsets (in the picture blue), the steering angle can be altered by +/- 1.5° and thereby adapted to your individual preferences.



ı	S	M	L	XL	XXL
	cup set 2	cup set 3	cup set 3	cup set 3	cup set 6
	Art.No. 114944	Art.No. 114890	Art.No. 114890	Art.No. 114890	Art.No. 114920

Find an instruction video here: https://www.voutube.com/watch?v=NpAF1IG7fuw

**NOTE:** Note: frame sizes S and XXL are not compatible with the LevelTune converter. It is technically possible to mount a VarioSpin Tuning headset +/- 1,5° for frame sizes M, L and XL with 29" front wheel, however we do not recommend it.

#### Please also refer to:

https://www.liteville.com/en/288/tech/tech-301-mk15/linear-steering/

#### C ASSEMBLY

## 1. Frame preparation

The contact surfaces (bottom bracket, disc brake socket, seat tube) are fully prepared for the assembly. In case you face problems during the assembly, please directly contact Syntace.

**NOTE:** Please note that in case of a retrofit or for service work generally, the position of the adaption ring of the Eightpins dropper post should not be changed. The ring is located at the bottom right-hand end of the seat tube, close to the bottom bracket.

## 2. Seatpost/seat

The 301 Mk15 is designed for variable seatposts with internal cable routing. The assembly is simplified thanks to the ServicePort at the lower end of the down tube close to the bottom bracket.



Please refer to the extra manual of Eightpins that exemplifies the assembly process with a Liteville 301 Mk15.

http://www.eightpins.at/service-einbau/

**NOTE:** The standard Eightpins variable seatpost interface (Postpin) at the seat tube is adapted already and does not need to be changed.

Using a common seatpost, the frequent changing of the seat height leads to a certain wear of the seatpost and the seat tube. For carbon fiber seatposts, this wear is considerably higher than for Aluminum seatposts. In order to minimize the wear, please clean the seatpost and seat clamp after every ride in the rain. The diameter of the seatpost must never become less than 34.7 mm at any point. If this is the case, please exchange the seatpost as it might result in damages of the frame.

#### 3. Headset/fork

**NOTE:** With Liteville preassembled bikes such as the Werksmaschine, the headset is already preassembled for 29" front wheels.

In the first step, (6, 5, 4), are assembled to be one single part (refer to picture)



## Headset assembly for 29" wheels:



- 1 Headset Cup 1 1/8 48.8x41
- 2 BB 30x41x6.5 2RS cone
- 3 Topplate cone 1 1/8"
- VarioSpin Top Seal
- VarioSpin Top Cap
- 6 0-Ring
- 7 Headset Cup 1.5 57x52 dsb
- BB 40x52x9 4RS cone
- 9 Baseplate cone 1.5, 39.8

Before putting the parts together, grease the headset parts and bearings slightly. Put the bigger 1.5" cone ring onto the fork shaft. The bottom cone ring should sit evenly on the suspension fork crown before you now insert the fork into the frame. Put the smaller 1 1/8" cone ring onto the fork shaft and complete the assembly with the end top cap 4, 5,

#### Headset assembly for 27.5" wheels:



- 1 Headset Cup 1 1/8 48.8x41
- 2 BB 30x41x6 5 2RS cone
- 3 Topplate cone 1 1/8"
- 4 VarioSpin Top Seal
- VarioSpin Top Cap
- 6 O-Rina
- 7 LevelTune Converter ( not included )
- BB 40x52x9 4RS cone
- 9 Baseplate cone 1.5, 39.8

Before putting the parts together, grease the headset parts and bearings slightly. Put the bigger 1.5" cone ring onto the fork shaft. The bottom cone ring should sit evenly on the suspension fork crown. The LevelTune converter (available in the Syntace Shop Art.Nr. #149755) is screwed into the frame only by hand and without particular torque. Tighten it with the LevelTune tool. You may now insert the fork into the frame. Put the smaller 1 1/8" cone ring onto the fork shaft and complete the assembly with the end top cap 4. 5.



LevelTune Tool Art.-No 151406

**ADVICE:** if a Syntace MegaSpacer is used, a silver, 0.6 mm washer is put between the SuperSpin top cap and the MegaSpacer. The washer comes as standard with the MegaSpacer, yet it can be ordered separately as a spare part, too.

**ADVICE:** Advice: Tighten the screw of the ahead claw properly. Open it again by about a ¾ revolution and only then adjust the headset bearing play. With this procedure, you make sure the bearings sit properly in the bearing shells.

You should be able to twist the headset easily now without the system having any play. It might be necessary to recheck the bearing play after the first ride.

## 4. Handlebar/stem

Mount and adjust the handlebar and stem according to the Syntace manual.

#### 5. Shift and brake levers

Mount and adjust the shift and brake levers according to the manufacturers' manuals.

**ADVICE:** Tighten the screws of the brake and shift levers only so much that they can still turn in case of a crash. This might avoid a lever to brake apart and additionally protects the thin walls of your handlebar.

# 6. Bottom bracket/crankset/front and rear derailleur

Mount the two bearing shells and the crankset according to the manufacturer's manual and do not forget to grease the system thoroughly.

**NOTE:** Mind the clearance between the crank arm and the chain stay as well as between the right-hand crank arm and the Syntace SCS chain guide.



Picture displays the clearance between the chain stay and the crank arm

- Mount the low Direct Mount front derailleur at the intended socket
- Mounting Shimano front derailleurs, use two raised countersunk head screws (M5x10mm/TX25/ISO 7380). The Shimano derailleur comes with the two screws as standard or can be ordered at Syntace (Art. #140882). For SRAM front derailleurs, only one of these screws is needed.
- Make sure that the guide plate of the front derailleur is parallel with the big chain ring.

**NOTE:** Please mind the different cable routing options of front derailleurs offered. The Liteville 301 Mk15 is compatible with front pull design solutions only.



Picture shows: Shimano side swing front derailleur



 Mount and adjust the rear derailleur according to the manufacturer's manual with a suitable rear derailleur hanger (Direct Mount/ Standard).

#### 7. ServicePort

At the lower end of the down tube, you will find the ServicePort with which the assembly of the bike including the internal cables is simplified.

## Opening the ServicePort:

- Fixate the frame and open the ServicePort screw with about 3.5 counterclockwise revolutions.
- Open the ServicePort towards the front making usage of an Allen key.
- You may now take the ServicePort out of the frame

#### Closing the ServicePort:

• Follow the procedure above in the opposite directions.

## 8. Cable routing

NOTE: For the cable routing, we recommend to use the Park Tool "Internal Cable routing kit" IR-1.2 or the RockShox Barb Connector SRAM article # 00 6815 066 030



The picture displays the ■ Park Tool ...,the ■ cable pulley assembly tool and the ■ RockShox Barb Connector

The frame comes with a cable deflection pulley in each chain stay that allows for a cable routing free of friction resistance between the chain stay and the rear dropout.



Picture displays exemplified 2x11 drivetrain, brake and variable seatpost housing.

- 1 Front derailleur (side swing)
- 2 Rear derailleur
- 3 Rear brake
- 4 Front brake
- 5 Variable seatpost

#### 9. Cable routing front derailleur

- Guide the cable housing from the top righthand opening into the down tube and all the way down to the ServicePort.
- Starting at the ServicePort, push a foam tube over the cable housing and have the housing exit the frame at the opening for the front derailleur.



 Attach the bottom end of the housing to the front derailleur.

## 10. Cable routing rear derailleur

The housing of the rear derailleur has been inserted into the frame already.

 Guide the rear end of the housing to the rear derailleur and attach it to the intended socket at the Horstlink using a cable tie (Pos. 14).



## 11. Exchanging the housing of the rear derailleur

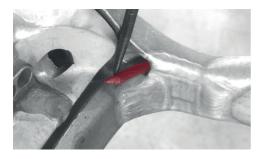
 Remove the old housing, the PE tube between the chain stay and the main frame and the foam tube.



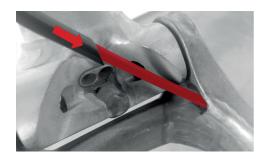
Make sure the housing is underneath the cable pulley.



 Cut the new cable housing at a 45° angle and slightly fold it. Thereafter, insert the new cable housing above the Horstlink at the rear end of the chain stay.



 Pull the new cable housing out of the front end of the chain stay until the rest at the end of the frame leading to the rear derailleur has the right length. Turning it simplifies the process.



 Entirely slip the PE tube over the cable housing until it reaches into the chain stay for about 2 cm.



- Remove both swing arm screws and separate the chain stays from the main frame. Push the cable housing into the right-hand opening of the frame and have it exit again at the ServicePort.
- Mount the chain stay again and push the housing further into it making sure it does not bend.



- Starting at the front, slip the foam tube over the cable housing until it reaches the inner main frame.
- With the help of the Park Tool IR-1.2 or the RockShox Barb Connector, the cable housing including the foam tube can be guided through the down tube and into the left-hand cable hole at the top of the tube.
   (-> brake hose routing)

## 12. brake hose routing

Guiding the brake hose through the frame, it is advisable to use a RockShox Barb Connector (see picture)



or the Park Tool IR-1 2 kit

 Mounting the rear brake, the brake hose is first separated from the brake lever; the clamping sleeve and the fitting are to be removed.



 Now insert the brake hose from the rear end into the chain stay to the exit at the bottom bracket. Make sure the brake hose lays underneath the Cable Pulley. In order to get it out of the chain stay, use a small screwdriver.



 Now insert the brake hose into the left-hand hole of the main frame and have it exit at the ServicePort.



 Using the Park Tool IR-1.2 Kit: push a foam tube over the brake hose.

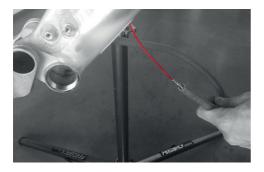
## Using the Park Tool IR-1.2 Kit:



• Push a foam tube over the brake hose.



 Insert the guiding tool into the top left-hand opening of the frame – close to the headset – and have it exit at the ServicePort.

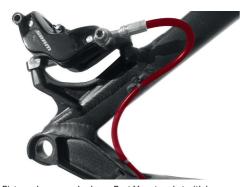


• Connect the guiding tool with the brake hose of the rear brake before pulling and pushing the brake hose completely through the down tube.

The assembly of the brake depends on different brake modals and should be realized as displayed below



Picture shows rear brake on a Post Mount socket with hose routing for Shimano.



Picture shows rear brake on Post Mount socket with hose routing for SRAM.

## 13. Variable seatpost

The 301 Mk15 is designed for a fully integrated Eightpins variable seatpost. Refer to the separate Eightpins manual that can also be downloaded at <a href="https://www.eightpins.at">www.eightpins.at</a>

**NOTE:** The routing for all internal cable routing variable seatposts is done via the ServicePort in the down tube.



- Insert the cable housing or the hydraulic tube into the middle opening of the frame and have it exit at the ServicePort. Alternatively, this can be done with the lower frame opening, however the cable curve is to be wider then.
- Push a foam tube onto the cable housing and all the way up towards the headset.



- Now push the cable housing or hydraulic hose upwards – through the snorkel (see arrow) – into the seat tube.
- Mounting a variable seat post, stick to the recommendations of the individual manufacturers' manuals.

**NOTE:** the seat tube is manufactured very precisely in order to fit the Eightpins dropper post exactly. It must therefore not be worked on or changed in any way.

**NOTE:** Note: If the frame is colored or anodized, the inner diameter at the insert at approximately 140 mm must not be changed.

#### 15. RockGuard SL

The Liteville 301 Mk15 features an interface for the Syntace RockGuard

Art.: 116757, black Art.: 117013, WorksFinish



Picture displays RockGuard SL in black

## 14.SCS-III EV06 chain guide

The SCS-III EV06 chain guide (Art. #131040) is attached to the right-hand chain stay yoke with a single screw.



Picture shows Syntace SCSIII EV06 chain quide

**NOTE:** The SCS-III EV06 chain guide is compatible only with one- and two-speed Boost cranksets.

## 16. Damper preload adjustment

In order to guarantee for a perfect setup of the RockShox Deluxe RT3, the damper is to be adjusted with a 30 % negative travel/ Sag of the entire damper travel of 55 to 65 mm.

For the perfect function of the damping system of the rear frame, follow precisely the steps below

- Find an even road
- Sit on your bike fully equipped, including backpack, bottle, helmet, etc. and start riding.
- Make sure the compression stage of the damper is open (the black lever is to point towards the right).
- Look downwards on the "Sag-Indicator (dynamic level) and check the two indicator sticks.



Picture displays dynamic level adjustment

**RECOMMENDATION:** the sticks should be on the same height equaling a 30% Sag setting.

**NOTE:** Even a bigger backpack noticeably increases the load on the rear wheel. Adjust the air pressure in the damper respectively.

#### 17. Damper rebound adjustment

Sitting on your bike, ride down a sidewalk. The rear frame should "bounce" only once. In case it does so more often, close the rebound of your damper further. In case the rear frame works too fast, open the rebound. The rear frame should not go back into its original position too fast. This is because it should be "prepared" for further obstacles to come as soon as possible.

With most dampers, the direction of the adjustment is indicated with a "+" or symbolized with a "turtle". The adjustment wheel in the middle, with most modals, is painted red. Please additionally refer to the manufacturers' manuals for further adjustment advices.

ADVICE for your damper system setup:

if you want your 140 mm All Mountain 301 to become even more downhill oriented, we have some advice for you.

For a more stable and smooth performance riding downhill, we recommend to mount the VarioSpin. With this option, the steering angle becomes less steep (by 1.5°) which leads to more stability. On top of this, the damper can be equipped with one or even more volume spacers. The overall air volume of the damper is reduced thereby which alters the characteristic curve. At the same time, the final progression of the damper is increased. Please find further information at the website of the individual damper manufacturer.

**NOTE:** for Enduro riding (160 mm travel), we recommend the upgrade with the RockShox Super Deluxe damper.

#### 18. Adapting the DuoLink

The front position of the DuoLink is always meant to be used for smaller wheels while the rear position is for the bigger one.

Adapting the DuoLink, loosen and remove the screws. In case they do not move, heat them with a fan to a maximum of 180° Celsius. If the inner axle keeps moving with the screw, it can be held in place with a long 5 mm Allen key.



#### D. MAINTENANCE AND CARE

#### 1. Frame bearings and headset bearing

With conventional usage, the bearings do not have to be dismounted, greased or cleaned. In case a bearing gets damaged anyways, you may order the respective bearing type at your Liteville Worksstation and have it exchanged there or order it at Syntace directly.



Picture shows bearings that can be greased in the top tube.



Picture shows bearings that can be greased at the HorstLink.

**ADVICE:** We recommend the Syntace GreaseGun (Art. #116931) for most effective results.

Never point at your bearings with a high-pressure water jet, as this can easily damage them. After all, too much "maintenance" may even harm your bearings.

#### 2. Screws

The screws in your frame are all made from Titanium or Aluminum and are produced specifically for Liteville frames. They are all mounted with screwlock. Nonetheless, you are to check the correct tightening torque frequently.

**ADVICE:** in case a screw can actually be twisted as the tightening torque is checked, the screwlock is broken and as a consequence needs to be exchanged. The screw needs to be secured again. Unscrew it, clean it and reassemble everything with screwlock.

We have summed up a "Screwlock Basics" at www liteville de > FAQ

#### 3. WorksFinish surface

The Liteville WorksFinish is a genuine raw Aluminum surface, free of any kind of protection paint, meaning it is no Aluminum simulation. The frame actually shows the signs of the original manufacturing process. Stains are thus common, the frame may even change its color slightly which leads to the natural charm of a grown patina.

The surface can be reprocessed at all times either chemically or mechanically with a Scotch-Brite-Finish or by being polished manually. The frame comes standard with two Scotch-Brite grinding fleeces. Try applying it on a spot that is not seen directly.

**NOTE:** The WorksFinish frame comes with 3M stickers. It is your choice if you put them on your frame or if you do not.



Picture shows Liteville stickers.

## 4. Linkage bar overview

Frame size: S Only AIR Shock ( not for Fox X2 )	147751_Rocker_LV-301_120-59	Rocker_LV-301_120-49.5_T02 120 120 100 100 100 100 100 100 100 1
Frame size: M,L,XL,XXL Only AIR shock ( not for Fox X2 )	147775_Rocker_LV-301_132-74 132 132 1400	147782_Rocker_LV-301_132-63 132 135 150-
Frame size: M,L,XL,XXL Only AIR Shock + Fox X2	no trail version available	Rocker_LV-301_137-69-AIR
Frame size: M,L,XL,XXL COIL and AIR Shock ( Fox, Fox X2, EXT, RockShox )	no trail version available	Rocker_LV-301_137-69-COIL+AIR

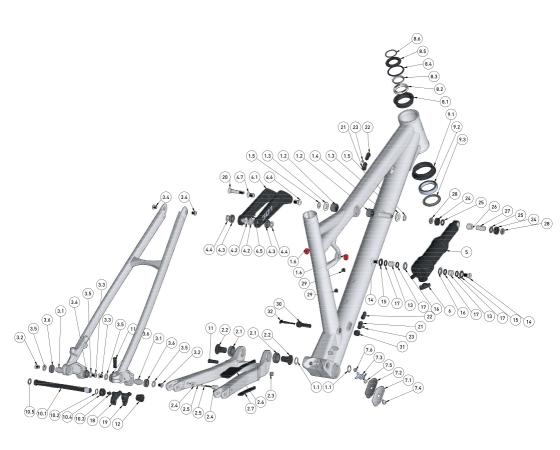
## SCREWS: MAXIMUM TIGHTENING TORQUE AND SECURING SCREWS

When tightening screws, always use a torque wrench such as the Syntace Torque Tool.

Caution: in case a screw can actually be twisted as the tightening torque is checked, the screwlock is broken and as a consequence needs to be exchanged. The screw needs to be secured again. Unscrew it, clean it and reassemble everything with screwlock. We have summed up a "Screwlock Basics" at www.liteville.de - FAQ.



x Nm schwarz = ohne Schraubensicherungx Nm blau = mittelfeste Schraubensicherungx Nm grün = hochfeste Schraubensicherung



ITEM NO.	Description	Article No.	QTY.
1	MF_LV-301_MK14_L		1
1.1	washer_BB_19x15.2x1	148277	2
1.2	NB_14x22x13_4900-2rs	114500	2
1.3	axial_washerbushing_for_NB	111691	2
1.4	TT-pivot-steel-axle for_needle_bearing_42.0mm	115149	1
1.5	washer_16x10.3x1	120013	2
1.6	NORGLIDE-bearing_13x15x6	140646	2
2	CS_LV-301_MK14_L		1
2.1	BB_15x28x7_61902-2rs_EXI	110526	2
2.2	screw_Al_M14x1x24.5_11.5t_HEX8_GP	147805	2
2.3	screw_POM_M10x1x8_HEX5_plug	127043	1
2.4	CS-cable-pulley	130395	2
2.5	screw_M3x30	130401	2
2.6	CS-protector_top_size-3	140660	1
2.7	CS-protector_bottom	140677	1
3	SS_LV-301_MK14_L		1
3.1	Horstlink-axle_T-01	127050	2
3.2	screw_Ti_M8x0.75x11.0_HEX5_GP	120396	2
3.3	screw_Ti_M8x0.75x11.0_HEX5_plug	120389	2
3.4	screw_Ti_M8x0.75x8.5_ HEX5	103733	2
3.5	washer_Al_16x12x2	140684	4
3.6	BB_12x21x5_61801-rs	141766	4
4	Rocker_LV-301_MK14_L		1
4.1	Rocker_LV-301_132-63	147782	1
4.2	bolt_12x20x8.5_M8x0.75_HEX5	120020	2
4.3	BB_12x21x5_61801-2rs	114449	2
4.4	washer_Al_16x12x2.5	120037	2
4.5	sag-indicator_M5_T-01	127197	1
4.6	screw_Ti_ M10x1x16.3_ 10.5t_HEX5_plug	128842	1
4.7	screw_Ti_ M10x1x16.3_ 10.5t_HEX5_GP	128835	1
5	Deluxe Sel+ 205x65	152076	1
6	Lever_RS-Select_short	153073	1
7	closing-cap_assembly_T02		1
7.1	closing-cap_T02	147812	1
7.2	closing-cap_3M-sticker_T02	147829	1
7.3	closing-cap_snap-plate	145337	1
7.4	screw_VA_M5x12.5_HEX5	127937	1
7.5	washer_SS_10x5.5x1	145344	1
7.6	stop-nut_M5	145351	1

ITEM NO.	Description	Article No.	QTY.
8	Headset_upper_1-1-8_48.8x41		1
8.1	Headset-cup_1-1-8_48.8x41	127135	1
8.2	BB_30x41x6.5_2RS_cone	103870	1
8.3	Topplate-cone_1-1-8	127166	1
8.4	VarioSpin-Top-seal_1-1-8	127210	1
8.5	VarioSpin-Top-Cap_1-1-8	127173	1
8.6	0-Ring_28.6x2.0	127203	1
9	Headset_lower_1.5_57x52_dsb_12deg		1
9.1	Headset-cup_1.5_57x52_dsb	147836	1
9.2	BB 40x52x9 45x45 4RS cone	147843	1
9.3	Baseplate-cone_1.5_39.8	127159	1
10	X-12_axle_assembly_148mm_allen-key	119017	1
10.1	X-12_axle_148mm_EV06	127081	1
10.2	X-12 stainless-steel washer 12mm	127098	1
10.3	X-12_axle_end-plug	127104	1
10.4	X-12_axle_cone	127111	1
10.5	X-12_axle_0-ring_small	127128	1
11	X-12_hanger_screw_Typ2_26mm	116849	2
12	X-12_thread-insert_0mm	105683	1
13	axle_SS_10x13x11	128781	2
14	screw_Ti_ M10x1x16.3_ 10.5t_HEX5	103764	2
15	o-ring-cover_ID-13	128798	2
16	o-ring-cover_ID-13_pf	141759	2
17	X-Ring_12.42x1.78	140691	4
18	X-12_hanger_Typ3_D-Mount	128101	1
19	X-12_hanger_Typ3_Std	128118	1
20	screw Ti M8x1x44.5 HEX5	112339	1
21	cable-inlet_single_Typ2	148253	2
22	cable-inlet_closed_Typ2	148246	2
23	screw-sc M3x6 HEX2	148260	2
24	washer_P0M_20x11.1x5.925	128187	2
25	0-Ring_11x3.0	110281	2
26	NB_11x15x12.7	110571	1
27	axle_SS_8x11x24.9	128217	1
28	washer_Al_16x8x2.5_EXI	140714	2
29	rubber plug cable spot DT	120006	2
30	Mounting_Pin_Assembly	153103	1
31	Adjusting_Ring_V2		1
32	Cylinder-Tool		1

# SPARE PARTS





LevelTune Tool Artikel-Nr.: 151406

ITEM NO.	Description	Article No.	QTY.
1	Headset-cup_1-1-8_48.8x41	127135	1
2	BB_30x41x6.5_2RS_cone	103870	1
3	Topplate-cone_1-1-8	127166	1
4	VarioSpin-Top-seal_1-1-8	127210	1
5	VarioSpin-Top-Cap_1-1-8	127173	1
6	O-Ring_28.6x2.0	127203	1
7	LevelTune Converter 23mm M56x1.5	149755	1
8	BB_40x52x9_45x45_4RS_cone	147843	1
9	Baseplate-cone_1.5_39.8	127159	1

# NOTES



## **Syntace** GmbH

Dammweg 1 · D - 83342 Tacherting · Germany Tel. +49 (0)8634 66666 · Fax +49 (0)8634 6365 syntace@syntace.de www.syntace.de

Am Mühlbach 12b · 87487 Wiggensbach · Germany Tel. +49 (0)8370 929988 · Fax +49 (0)8370 929888 office@liteville.de