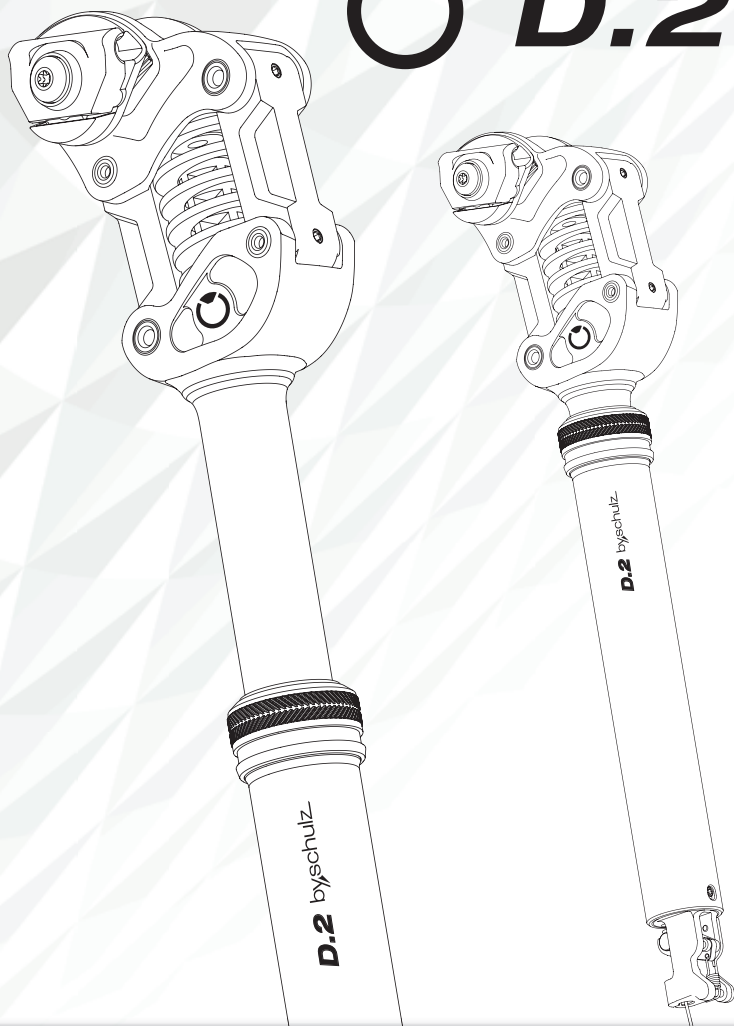


EN



INNOVATIVE BIKE COMPONENTS

INSTALLATION + OPERATING INSTRUCTIONS



[www.byschulz.com](http://www.byschulz.com)

## INTRODUCTION

Thank you for choosing a by,schulz product. Please read these instructions carefully before assembly and use, and keep them in a safe place. If you have any further questions about this product, please contact your dealer.

**We wish you a safe ride!**

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## 1. USAGE APPROVAL

The adjustable parallelogram suspension by,schulz D.2 ST-Ri seatpost is for use with bicycles, cargo bikes, pedelecs and e-bikes up to 45 km / h suitable. It is NOT designed for extreme loads that occur during downhill, dual slalom or freeriding, or for riding profiles with jumps. The D.2 ST-Ri seatpost is made of high-strength aluminium, and has been tested and approved according to the following DIN standards:

City Trekking	Ebike up to 25km/h Pedelec	Speed-Ebike up to 45km/h S-Pedelec	MTB Cross Country	Cargo Bikes
DIN EN ISO 4210	DIN EN ISO 15194	DIN EN ISO 15194	DIN EN ISO 4210	DIN 79010
✓	✓	✓	✓	✓

### Before the first ride:

We strongly recommend that you check the roadworthiness of the bicycle in general, and the operational safety of the seatpost in particular, before each ride.

First check that the saddle is firmly secured in the saddle clamp. Also make sure that the seatpost tube is free of play and firmly connected to the bicycle frame. It must be clamped in the desired position in such a way that it cannot be turned or moved in the seat tube. Please note the minimum insertion depth of the seatpost of 100mm.

## 2. SAFETY INSTRUCTIONS

1. These instructions contain important information on the proper assembly, use and maintenance of the by,schulz D.2 ST-Ri seatpost. Take the listed warning and safety instructions seriously. Failure to do so may result in property damage or personal injury, for which neither the seller nor the manufacturer is liable.
2. Check the installation requirements before assembly. If you do not have the necessary skills and / or tools, we strongly recommend having the installation carried out by a specialist dealer
3. Child seats, trailer couplings or luggage carriers must not be attached to a D.2 ST-Ri seatpost as this can lead to breakage or damage.
4. To avoid further risks of accidents after a fall with damage, the seatpost must be checked and replaced if necessary.
5. Always use the protective neoprene cover to cover the spring mechanism if a child seat is mounted behind the seatpost. Without the cover, there is a risk of injury to children's hands!
6. The D.2 ST-Ri seatpost is not to be used for transport with car bike racks where the bike is attached to the saddle. Fastening to the seatpost may only be done as shown in Fig. 2.1!
7. Clamping systems of mounting stands may only be attached to the outer seatpost tube below the screw ring, or to the frame of the bicycle. The inner seatpost tube and the area of the screw ring are not suitable for this purpose (Fig. 2.1).

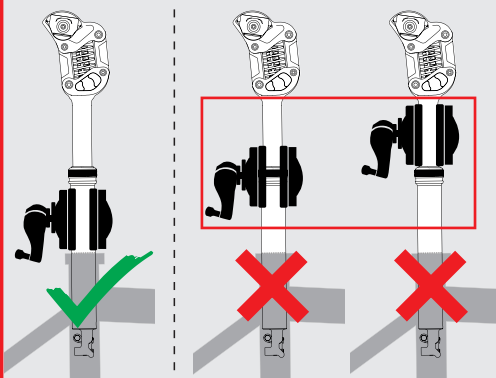


Fig. 2.1

Incorrect attachment can cause damage to the seatpost, and void the warranty!

### 3. SCOPE OF DELIVERY

- D.2 ST-Ri seatpost incl. neoprene protective cover
- D.2 ST-Ri remote lever
- Inner cable with cable housing, end caps, cable fittings and cable end sleeve
- Instruction manual
- Service card

### 4. FUNCTION

The D.2 ST-Ri combines the advantages of the by,schulz D.1 dropper seatpost, with the maximum ride comfort of the renowned G.2 parallelogram suspension seatpost with a suspension of about 30mm in the ST variant (short travel).

Inside the drop down D.2 seatpost, a high-quality gas pressure spring is installed. This allows to vary the saddle height via a remote lever mounted on the handlebar! When actuating the remote lever, the valve on the gas spring is opened via an internal cable. As a result, the saddle is lowered under load of the body weight, or raised when relieved. When the lever is released, the valve closes and the saddle remains at the current height.

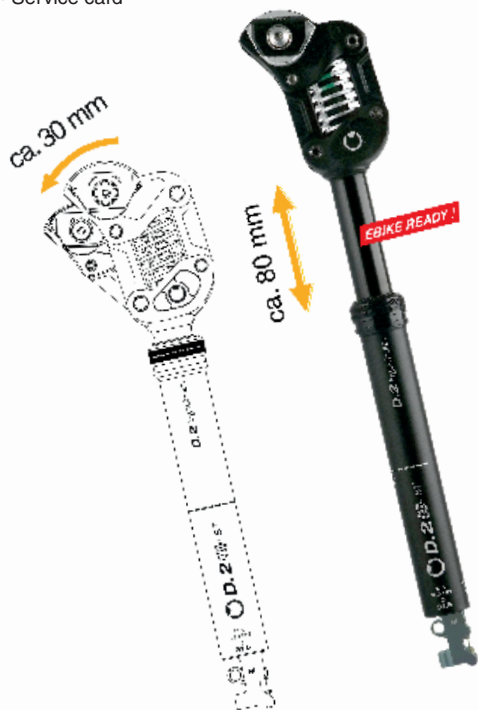
By means of a remote lever mounted on the handlebars the D.2 ST-Ri allows a comfortable lowering and raising of the saddle position while riding or standing. This allows you to individually adjust a perfect riding position. The lowering or raising of the saddle is triggered by operating the remote lever. The saddle lowers down.

To lower the saddle height while riding, or when stopping e.g. at a traffic light, keep your weight on the saddle and operate the remote lever mounted on the handlebar.

To activate the seatpost extension, unload the saddle by lifting your body and press the remote lever. The seatpost now extends to the maximum height or stops and remains in the current position when you release the lever.

The speed of this function can be controlled by the intensity of the pressure on the remote lever. Little pressure causes slow extension, strong pressure causes extension at maximum speed.

The progressively designed parallelogram suspension of the D.2 ST-Ri reacts sensitively to slight bumps, and with increasing spring resistance to hard impacts. It dives under load up to 18 mm to the rear, and about 22 mm downward. For optimal adaptation to the rider's weight and riding style, easily interchangeable spring elements with 4 different degrees of hardness and damping are available.



**TIGHTENING TORQUE:** This symbol refers to an important screw connection that must be tightened with an exact tightening torque. The correct tightening torque is either listed on the component itself or in these operating instructions. A torque wrench is required for execution! Screw connections that are not tightened correctly can loosen or break without warning. This can cause a fall or lead to property damage and personal injury!

## 5.1 TECHNICAL DATA

- **Materials** : Aluminium AL-6061, AL-6066, black anodized
- **Cable routing** : internal (Ri = remote inside)
- **Suspension element** : Length approx. 72mm
- **Suspension travel** : approx. 30mm
- **Installation height retracted (dim. C)** : approx. 135 mm
- **Installation height extended (dim. H)** : approx. 215 mm
- **Offset** : approx. 17 mm
- **Rider weight** : Ø 30,9 / Ø 31,6 : max. 115 kg  
Ø 33,9 / Ø 34,9 : max. 130 kg
- **Adjustment range / Travel (dim. G)** : T80 = approx. 80 mm
- **Bearing / linear guide** : IGUS polymer high performance plain bearing/ linear guide
- **Diameter** : Ø 30,9 | 31,6 | 33,9 | 34,9 mm
- **Weight** : approx. 965 g (Ø 30,9; T80 incl. medium spring)
- Suspension elements in 4 degrees of hardness for adaptation to the rider's weight, easily exchangeable
- Saddle clamp Ø 7 mm with fine adjustment and robust detent, optionally available for Ø 8 mm saddle rails

### Remote lever D.1/D.2 Ri:

- **Materials** : Aluminium AL-6061, black anodized; stainless steel, clamp band, black, screws; synthetic components
- **Clamping diameter** : approx. 22,2 mm
- **Lever radius** : approx. 11 mm (Fig. 5.1)
- **Weight** : approx. 55 g

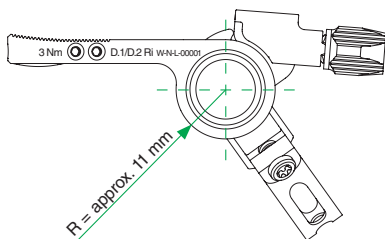


Fig. 5.1

The D.2 ST-Ri seatpost is shipped with a remote lever matching the seatpost model. You can recognize the correct version by the imprint on the underside or lever radius. (Fig. 5.1)

### Cable routing:

- **Cable housing**: Jagwire approx. Ø 4,2 mm outside, L = approx. 1700 mm
- **Shift cable / inner cable**: Jagwire approx. Ø 1,2 mm, L = approx. 1800 mm

### Gas pressure spring:

Maintenance-free by,schulz gas spring

- Ø 30,9 / Ø 31,6 | T80: Housing Ø16,5; piston rod Ø6; M6
- Ø 33,9 / Ø 34,9 | T80: Housing Ø18; piston rod Ø6; M6

## 5.2 TECHNICAL DIMENSIONS

- A** - Max. installation depth incl. cable guide
- B** - Min. installation depth incl. cable guide
- C** - Min. retracted body height
- D** - Max. retracted body height
- E** - Installation space for Ri cable routing

Travel [mm]	Ø D.2 ST-Ri			
	30.9	31.6	33.9	34.9
T80	X	X	X	X

Available dimensions, Feb. 2023  
Subject to change without notice.

X = rider weight up to **115kg**  
X = rider weight up to **130kg**

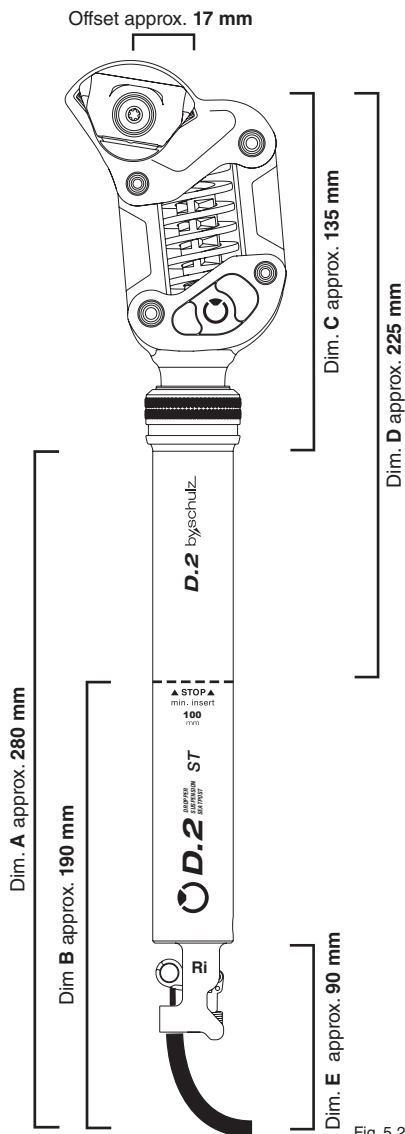
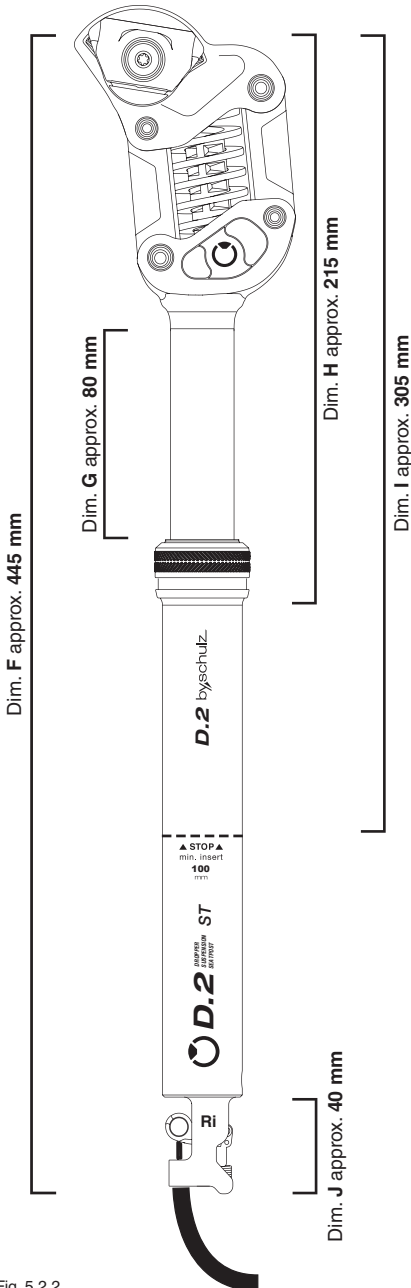


Fig. 5.2.1

- F** - Overall length
- G** - Adjustment range / travel
- H** - Min. extended body height
- I** - Max. extended body height
- J** - Ri Trigger unit



## 6. SPRING ELEMENTS

For the adjustable parallelogram suspension D.2 ST-Ri seatpost, several spring elements with different characteristics are offered, which can easily and quickly be changed. Based on the following table, you can orient yourself in the choice of the right suspension element, whereby the criteria rider weight, riding position and riding profile should be included in the decision.

For the D.2 ST-Ri, several suspension elements with different spring settings are available: Soft, Medium, Standard, and Hard for riders with a body weight from 45 to 130 kg (see Table 5.2 Technical dimensions). The silver-colored flat wire steel springs with internal elastomer are marked with a color code that shows their characteristics.



Basic color silver with color code for hardness profile / driver weight

	COLORCODE	HARDNESS GRADE	
	<b>RED</b>	<b>Soft</b>	45-65 Kg
	<b>YELLOW</b>	<b>Medium</b>	60-85 Kg
	<b>GREEN</b>	<b>Standard</b>	80-105 Kg
	<b>BLUE</b>	<b>Hard</b>	100-130 Kg

### Maximum rider weight =

Weight of the rider + additional weight (e.g. backpack).

Only use the original by,schulz suspension elements for the D.2 seatpost. The use of third-party parts can compromise the function of the seatpost and lead to accidents with material damage or personal injury. In addition, this will void the claims from liability for material defects and warranty!

Fig. 5.2.2

## 7. SEATPOST COMPONENTS

### SEAT CLAMP / forged Aluminium :

1. Seat clamp - assembled
- 1.1 O-Ring (2x)
- 1.2 Seat clamp base for Ø7 saddle rails (2x)
- 1.3 Seat clamp pressure spring (2x)
- 1.4 Seat clamp upper part for Ø7 saddle rails (2x)
- 1.5 Seat clamp screw Torx T25 with washer (2x)  
(optional: Allen key 5 mm)

### HEAD / forged Aluminium :

- 2.1 Head base part with fine toothing
- 2.2 Elastomer recoil damper (2x)

### SPRING ELEMENT :

3. Spring element consisting of:
  - Flat wire steel spring
  - Central elastomer damper
  - Spring end-cap with centering pin (2x)

### SPRING ARM / forged Aluminium :

4. Spring arm - assembled
- 4.1 Elastomer - stop damper (2x)
- 4.2 Spring arm with spring plate (2x)
- 4.3 Grub screw M5 (4x) - Allen key 2.5 mm (4x)
- 4.4 Small Igus plain bearing, inner Ø 6.5 mm, (4x)
- 4.5 Small stainless steel pin, outer Ø 6.5 mm, (2x)
- 4.6 Large stainless steel pin, outer Ø 8 mm, (2x)
- 4.7 Large Igus plain bearing, inner Ø 8 mm, (4x)

### INNER TUBE / 3D forged Aluminium :

- 5.1 Gas spring screw M6x24; hexagon socket 3mm
- 5.2 Threaded sleeve; hexagon socket 7mm
- 5.3 Inner seatpost tube D.2 ST-Ri
- 5.4 by,schulz linear guide rails / IGUS (4x)
- 5.5 by,schulz slotted lower plain bearing / IGUS

### OUTER TUBE / Aluminium :

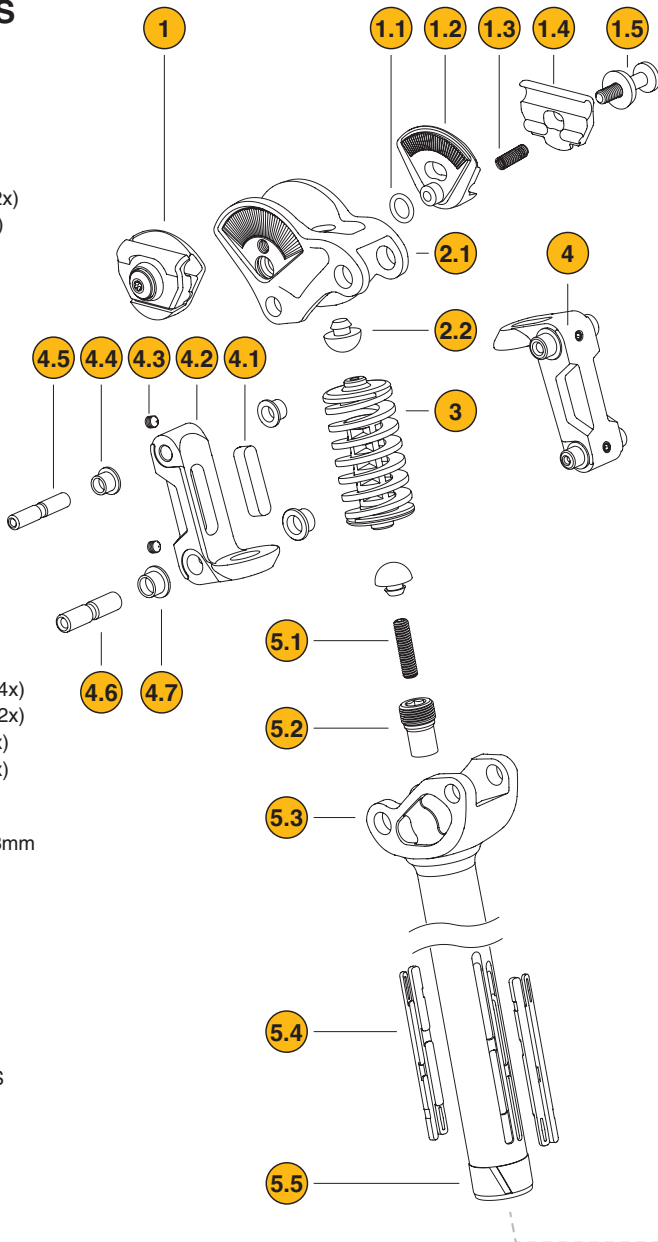
- 6.1 Axial sealing ring
- 6.2 Ring nut with axial seal ring mount
- 6.3 by,schulz upper slotted plain bearing / IGUS
- 6.4 Stop ring / plastics
- 6.5 Outer seatpost tube with thread and internal guide grooves
- 6.6 Slotted hole for fixing screw

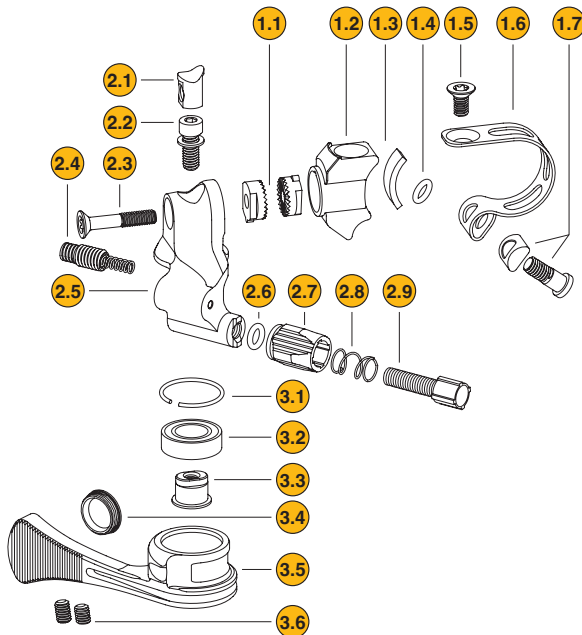
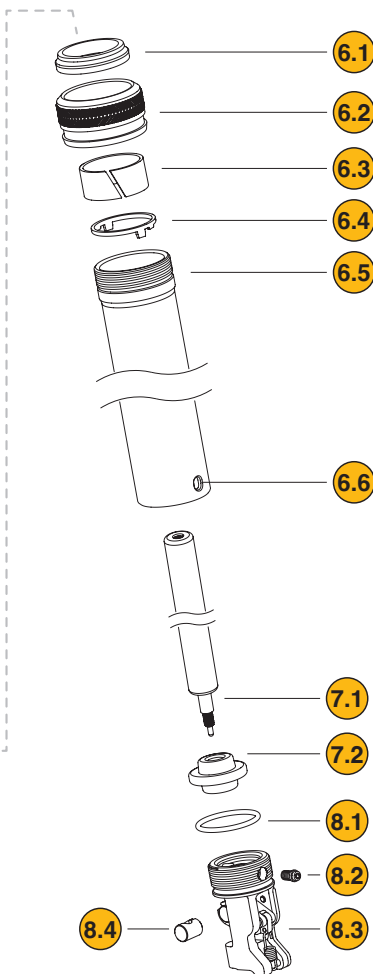
### GAS PRESSURE SPRING :

- 7.1 by,schulz gas pressure spring
- 7.2 by,schulz elastomer stop damper D.2 ST-Ri

### TRIGGERING MECHANICS Ri / Aluminium :

- 8.1 O-ring
- 8.2 Fixing screw M4x5,8; hexagon socket 2 mm
- 8.3 Release unit Ri
- 8.4 Cable retaining bolt





## DROPPER LEVER Ri / Aluminium

### CLAMP BASE :

- 1.1 Clamp with fine toothing (2x)
- 1.2 Clamp base / Aluminium
- 1.3 Adhesive elastomer pad
- 1.4 O-ring
- 1.5 Countersunk screw M4x8, Torx T20
- 1.6 Clamp band / Stainless steel, black anodized
- 1.7 Clamp screw with flat head M5x14, Torx T20 with screw guide

### LEVER BASE :

- 2.1 Cover
- 2.2 Cylinder head screw with washer
- 2.3 Countersunk screw M4x24, Torx T20
- 2.4 Stop adjustment screw M6 with compression spring, hexagon socket 2.5 mm
- 2.5 Lever base Ri
- 2.6 O-ring
- 2.7 Adjusting sleeve
- 2.8 Compression spring for adjusting screw
- 2.9 Adjustment screw M5 for cable guide

### REMOTE LEVER :

- 3.1 Snap ring
- 3.2 Industrial ball bearing
- 3.3 Counterholder ball bearing
- 3.4 Screw cap
- 3.5 Remote lever Ri / Aluminium
- 3.6 Grub screw M4x5 + M4x6, hexagon socket 2 mm

## 8. INSTALLATION REQUIREMENTS



**NOTE:** Plan the assembly as well as the cable routing carefully. Make sure that the inner cable and the housing are long enough for the planned installation route through the frame! Remove any burrs on the seat tube of the bike. All parts must be clean for installation! Check before installation that the diameter of the dropper post fits the diameter of the seat tube!

1. The by,schulz D.2 ST-Ri seatpost is designed for routing the cable housing inside of the frame. Not all bicycle frames / e-bike frames are suitable for routing internal cable housing. An existing opening for the cable routing on the frame is necessary. The cable routing must not be bent or squeezed along its entire length! For e-bikes, it must also be possible to route the cable along the battery and the motor.

2. Before mounting, make sure that there is sufficient space in the bicycle frame for the installation of the D.2 ST-Ri seatpost and that the seatpost does not collide with other parts of the bicycle or bends in the frame geometry, the battery or the motor!

3. Check that the width of the saddle rail is compatible with the head of the seatpost. It must not be less than 35 mm on the inside (Fig. 8.3.1). There are some saddles (e.g. core leather saddles) that are too narrow in the front part of the frame and therefore cannot be combined with this seatpost. The use of the D.2 is not recommended as it can permanently damage the saddle and the support.



Fig. 8.3.1

4. The D.2 ST-Ri has a saddle clamp for round saddle rails with a diameter of 7 mm as standard. If required, saddle clamps for 8 mm diameter are available. Never combine 7 mm clamps with an 8 mm diameter saddle rail, or vice versa. Saddles with oval saddle rails must not be used in combination with the D.2!

5. Check if the minimum insertion depth of the seatpost of 100 mm can be maintained!

This is marked on the back of the seatpost tube (STOP min. insert) below the extension scale. Above the scale you will find the production serial number (Fig. 8.5.1).



Fig. 8.5.1

6. If the minimum insertion depth specified by the frame manufacturer differs, this must also be taken into account. The higher value is crucial. Failure to observe the minimum insertion depth can lead to falls or damage to the seatpost and/or the frame.

7. The clamping force of the seatpost clamp with bolts should not exceed 5 - 6 Nm when fixing the seatpost in the frame. Use a torque wrench for this. (Fig. 8.7.1) With a quick-release lever, the correct clamping force must be determined by trial and error. It must not be possible to push the D.2 into the frame or twist it. (Fig. 8.7.2)



Fig. 8.7.1



Fig. 8.7.2

Exceeding the clamping force can lead to malfunctions such as reduced extending or retracting speed and to damage to components of the D.2 ST-Ri and must be avoided.



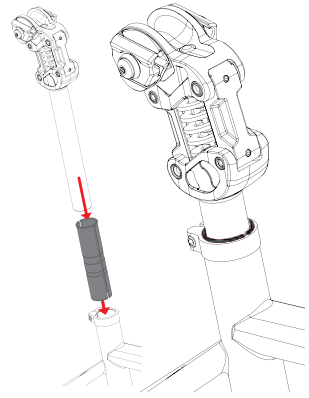
8. The diameter of the seat tube of your bicycle / e-bike should match that of the seatpost. Any reduction sleeves required must have a minimum length of 100 mm and must always be fully inserted into the frame.

If the frame manufacturer's specifications differ with regard to the sleeve length, these must also be taken into account. The higher value is then crucial!

You can find the by,schulz G.Shim reducing bushes at: <https://byschulz.com/product/g-shim-reducing-sleeve/?lang=en>

**Double slotted sleeve**

- Ø 34,9 > 31,6
- Ø 34,9 > 30,9
- Ø 33,9 > 31,6
- Ø 33,9 > 30,9



**9. Dimensions of the retracted and extended seatpost**



**NOTE:** As a result of the parallelogram suspension, the D.2 ST-Ri has a greater installation height than conventional dropper posts. Check these requirements as accurately as possible in advance by measuring on your bike. Also note that the individual height of your saddle must be added for the correct seating position.

Regardless of the installation depth of the post, you should still have a secure footing with your front foot on the ground when the seatpost is fully lowered (Fig. 8.9.1)! If this is not the case, we advise against using the support in combination with this bike.

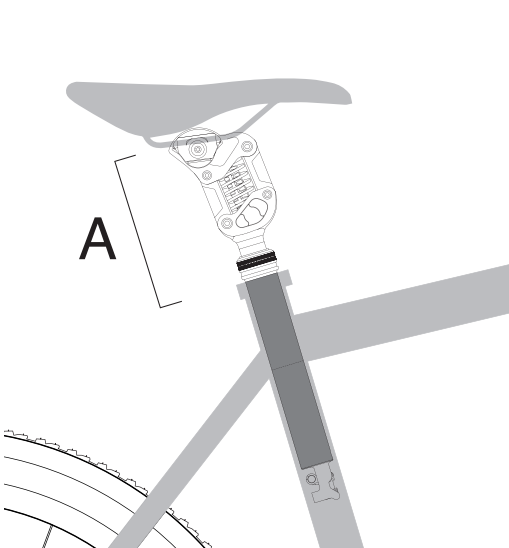


Fig. 8.9.1

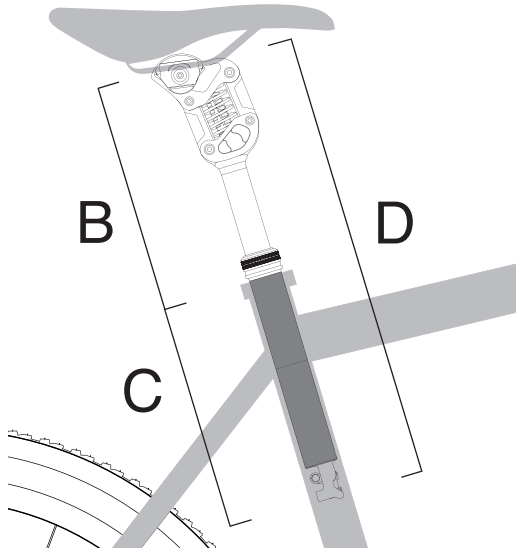


Fig. 8.9.2

**Dimensions:**

- Dim. **A** - Min. installation retracted: ca. 135 mm
- Dim. **B** - Min. installation height extended: ca. 215 mm
- Dim. **C** - Max. required installation depth: ca. 230 mm (plus cable)
- Dim. **D** - Total length extended: ca. 445 mm

c

## 9. INSTALLATION



**NOTE:** All parts of the D.2 ST-Ri are technically matched to each other. Only use an original by,schulz remote lever. If products from other manufacturers are used, the proper function of the D.2 ST-Ri dropper post cannot be guaranteed!

### 9.1 Tools

You will need the following tools and aids to install the seatpost:



1. Torque wrench (2 - 20 Nm) with interchangeable bits: Torx T20 / T25, hexagon socket 2 / 2.5 mm.
2. Bowden cable cutter, side cutter (optional)
3. Assembly grease (metal frame), or assembly paste (carbon frame) and cleaning agent

Optionally, a round file for removing sharp edges in the seat tube of the frame, as well as pliers for tensioning the inner cable, can be helpful.

### 9.2 Preparation

#### To be noted before assembly:

Measure and note the previously set saddle height. This will make it easier for you to adjust the mounted D.2 ST-Ri seatpost later. Remove the existing seatpost and saddle. Clean the seat tube of the frame and check it for burrs. If necessary, deburr the seat tube with e.g. a round file. Only shorten the cable housing and the inner cable after you have installed the parts for testing and checked the cable length.

For frames made of metal, we strongly recommend that you grease the inside of the upper part of the seat tube. Any reduction sleeve used should also be greased. This ensures smooth height adjustment of the seatpost later on. Do NOT use grease on frames made of carbon fibre reinforced plastic (carbon). Use an assembly paste for components and frames made of carbon instead.

With small bicycle frames or frames with bottle cage eyelets in particular, it is possible that the seatpost cannot be inserted far enough into the seat tube of the bike. In this case, the D.2 cannot be installed!

The remote lever of the by,schulz D.2 ST-Ri seatpost is preferably designed for mounting on the left side of the handlebar, but can be mounted on both sides. Locate a good position on your handlebars. It may be necessary to slightly move existing controls such as brake levers and other attachments. The clamp usually fits under gearshift indicators or controls. Afterwards, make sure that all controls still work and are in a position that is easy for you to reach.

### 9.3 Mounting the remote lever:

1. Slide the open clamp band onto the handlebar tube at a good position. The handle does not have to be removed for this. The O-ring on the open screw serves as an anti-loss protection. Bend the clamp band by hand and screw the M5 clamp screw lightly into the clamp base with a Torx T20 tool so that the remote lever can still be positioned later.



Fig. 9.3.1

The position and alignment of the clamp base, the lever base and the remote lever can be adjusted in many ways to suit your wishes and needs.

2. The clamp base can be positioned by moving it along the handlebar or by rotating it around the handlebar tube. (Fig. 9.3.2)



Fig. 9.3.2

3. After you have finally chosen the position and alignment of the clamp base, tighten the clamp screw firmly with the Torx T20 tool and a **torque of approx. 4 Nm.** (Fig. 9.3.3)



Fig. 9.3.3

6. The remote lever can be positioned closer or further away from the handlebar. If necessary, adjust the stop adjustment screw with a 2.5 mm hexagon socket by max. 6 turns counterclockwise. (Fig. 9.3.6)



Fig. 9.3.6

4. The position of the remote lever in relation to the handlebar can be adjusted individually. To do this, loosen the screw at the pivot point with a Torx T20 approx. 3 turns and rotate the lever base to the desired position.

The fine toothing of the clamping pieces inside prevents unintentional adjustment after tightening. After alignment, tighten the screw firmly with a torque of approx. 3 Nm. (Fig. 9.3.4)



Fig. 9.3.4

5. Screw the adjustment sleeve completely into the lever base and then unscrew it by approx. 3 - 4 turns to allow sufficient play for fine adjustment of the lever position later.

Unscrewing the adjustment sleeve tensions the inner cable, screwing it in relaxes the inner cable. (Fig. 9.3.5)



Fig. 9.3.5

**NOTE:** The adjustment of the adjusting screw affects the pretension of the inner cable. You should carry out this fine adjustment at the end of the assembly. Finally, check the pretension and, if necessary, adjust it by hand using the adjusting sleeve.

7. In order to be able to push the inner cable through, loosen the two clamping screws on the underside of the remote lever by approx. 3 turns using a 2 mm hexagon socket. (Fig. 9.3.7)



Fig. 9.3.7

8. Remove the screw cap from the lever using a very wide screwdriver or other suitable tool. (Fig. 9.3.8)



Fig. 9.3.8

### 9.4 Routing the cable

1. Starting at the handlebar, route the uncut cable housing along the previously planned route through the frame towards the seat tube.

When installing in an e-bike, make sure that the battery can still be installed and removed and that the cable housing can be routed past the motor. Make sure that the housing protrudes approx. 30 mm from the seat tube of the bicycle, that it can be moved freely by sliding, and that there are no bends or squeezes. (Fig. 9.4.1)



Fig. 9.4.1

2. Now place the standard end cap on the cable housing on the side of the seat tube. The housing should always be inserted into the end cap as far as it will go. (Fig. 9.4.2)

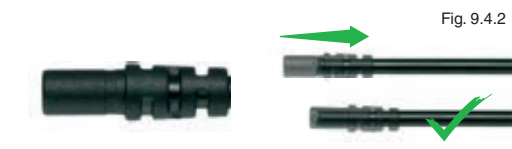


Fig. 9.4.2

3. Feed the inner cable through the end cap into the cable housing (Fig. 9.4.3) until it exits the housing on the handlebar side and the nipple of the cable end on the saddle side still protrudes approx. 30 mm.

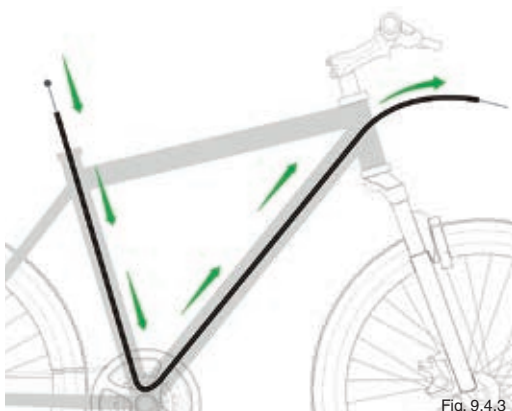


Fig. 9.4.3

### 9.5 Connecting seatpost and remote lever

1. Hang the tip of the cable into the red, slotted cable retaining bolt (Fig. 9.5.1).

Pay attention to the bolt, as it is only loosely attached to the inner cable and can easily fall off.

2. Insert the red cable retaining bolt with the mounted cable into the actuator lever of the release mechanism. Then insert the cable housing with the end cap into the cylindrical, slotted socket provided for this purpose on the release unit. (Fig. 9.5.2)

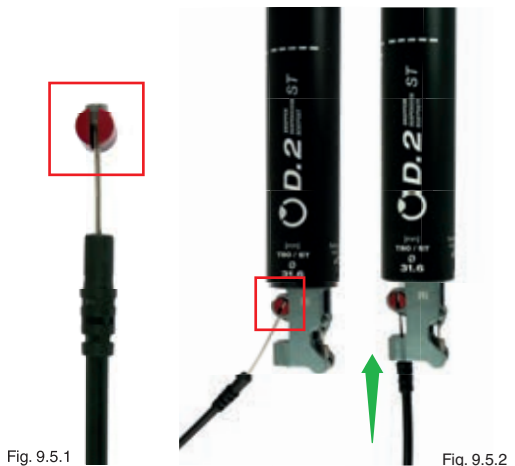


Fig. 9.5.1

Fig. 9.5.2

3. Hold the cable slightly under tension so that it does not unhook from the seatpost lever and push the D.2 ST-Ri into the seat tube up to the previously determined seat height. At the same time, pull the complete cable guide back towards the handlebar (Fig. 9.5.3). Fix the height of the seatpost by using the seatpost clamp (max. 6 Nm).



Fig. 9.5.3

4. Hold the cable housing against the remote lever already mounted on the handlebar and turn the handlebar 90° in both directions.

The cable housing should make a slight curve in front of the headset and allow the handlebars to be turned easily in both directions. (Fig. 9.5.4)

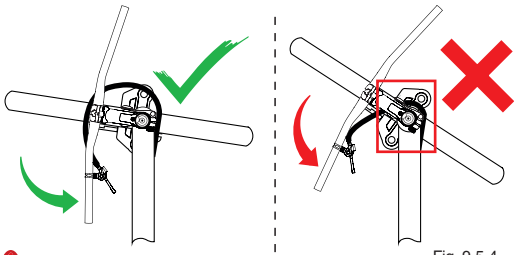


Fig. 9.5.4

**NOTE:** If an angle-adjustable stem or a handlebar height adjustment system is installed, the length of the cable guide must be adjusted accordingly!

5. Mark the cable housing to the correct length to shorten it later. (Fig. 9.5.5)

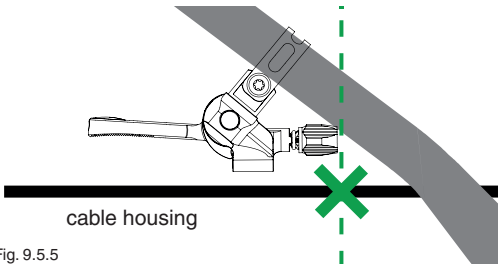


Fig. 9.5.5

6. As before, keep the cable slightly under tension! Open the seat clamp and pull the seatpost out of the frame. At the same time, push the entire cable guide back until it protrudes approx. 30 mm from the seat tube. (Fig. 9.5.6)

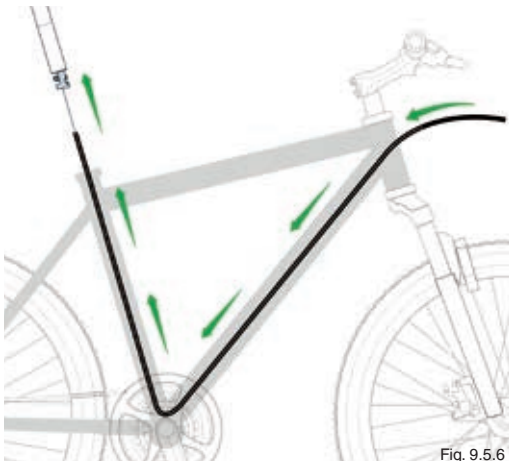


Fig. 9.5.6

7. Pull the cable approx. 2/3 out of the cable housing and shorten the housing to the previously marked length using a high-quality side cutter. Make sure that the cable housing is not crushed at the cut edge so that the inner cable can be pushed through without any problems.

8. Push the end cap onto the cable housing as far as it will go. (Fig. 9.5.8)

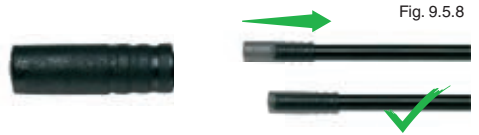


Fig. 9.5.8

9. Push the cable through the shortened housing and the end cap. As before in Fig 9.4.2, make sure that the flexible end cap and cable housing are correctly seated in the socket of the release mechanism. The cable should protrude 150-200 mm from the cable housing.

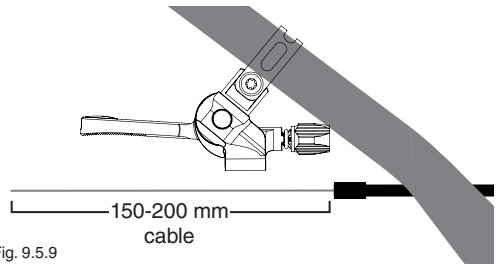


Fig. 9.5.9

10. Keep the cable slightly under tension and push the seatpost back into the frame at the same time as the cable housing. Move the housing further towards the handlebar. Make sure that the inner cable and the cable housing are correctly seated on the release unit (Fig. 9.5.10). Fix the seatpost at the desired seat height in the seat tube. After the seatpost, cable housing and cable have been correctly mounted in the frame, the cable should protrude from the housing on the handlebar side.



Fig. 9.5.10

11. Thread the inner cable through the adjustment screw of the remote lever (Fig. 9.5.11.a).



Fig. 9.5.11a

Then insert it into the guide groove. (Fig. 9.5.11.b)



Fig. 9.5.11b

Finally, push the cable through the lever until it comes out of the rear hole. (Fig. 9.5.11c).



Fig. 9.5.11c

12. Return the remote lever to its original position. Tension the cable protruding from the lever by hand or with pliers. The end cap of the cable housing must be seated in the adjustment screw as far as possible. Fix the tensioned inner cable by tightening both clamping screws on the underside of the remote lever with a 2 mm hexagon socket to 3 Nm (Fig. 9.5.12).



Fig. 9.5.12

13. Press the remote lever several times by hand. The cable will be stretched and the cable housing will settle slightly in the socket. Now check the tension of the cable. If the tension is not sufficient, loosen the clamping screws and retighten the system. Fix the clamping screws again with the specified torque. Operate the remote lever again several times and check the function.

14. Push the ferrule, which is open on both sides, with the collar first onto the cable until it is completely seated in the hole in the lever. Then crimp the ferrule tightly with pliers. Shorten the cable directly behind the ferrule with a side cutter (Fig. 9.5.14). The crimped ferrule prevents the cable from splicing.



Fig. 9.5.14

15. The shortened end of the cable should fit completely into the space under the screw cap. (Fig. 9.5.15)



Fig. 9.5.15

16. The cable end is then covered by tightening the screw cap. (Fig. 9.5.16)



Fig. 9.5.16

### 9.6 Saddle installation

1. Loosen the saddle clamp screw of the left and right saddle clamp (Fig. 9.6.1) until the gap of the holding groove is approx. 9 mm (Fig. 9.6.2). When unscrewing the saddle clamp screw, the saddle clamp opens by the pressure of the concealed spring without twisting.

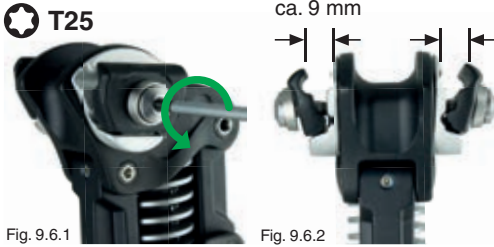


Fig. 9.6.1

Fig. 9.6.2

2. Insert the saddle rail from above into the right or left holding groove of the saddle clamps (Fig. 9.6.3).

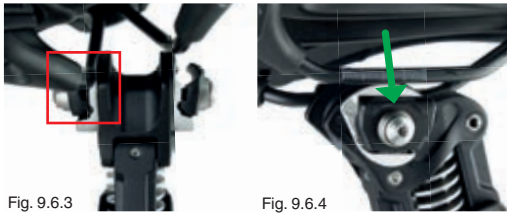


Fig. 9.6.3

Fig. 9.6.4

3. Then press the saddle rail into the groove of the opposite saddle clamp (Fig. 9.6.4). A slight pressure point must be overcome before the saddle frame audibly engages in the saddle clamp.

4. Tighten the two saddle clamp bolts until the saddle frame is loosely held in the saddle clamps. It should still be possible to easily move the saddle lengthwise by hand and adjust the angle in the detent of the saddle clamps.

**NOTE :** Ignoring the torques can lead to falls can lead to falls, injuries and / or damage to individual components. Tighten the saddle clamp bolts to the required torque after a short running-in period of approx. 5 km, as well as during regular inspections!

### 9.7 Seat angle / seating position adjustments

1. The seat clamps and the head of the D.2 ST-Ri seatpost are equipped with forged fine toothing. This allows you to individually adjust the desired saddle angle. You can also move the saddle rail lengthwise in the seat clamp (Fig. 9.7.1). The saddle rail must not be clamped in the curved area. Only clamp in the straight area of the saddle rail!



Fig. 9.7.1

2. Once you have determined your saddle position, tighten the saddle clamping screws with a torque wrench in combination with a Torx T25 to a torque of **12 - 14 Nm** (Fig. 9.7.3). It is important to meet this value for safety reasons! The correct tightening torque is printed on both saddle clamps of the support (Fig. 9.7.2).



Fig. 9.7.2

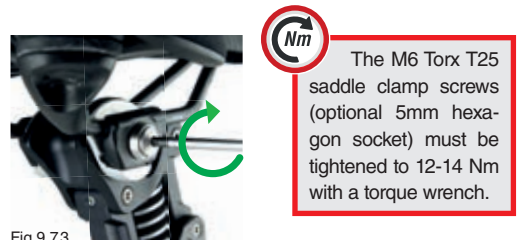


Fig. 9.7.3

3. To adjust the desired seat height, open the clamping screw or the quick-release lever of the seatpost clamp on the frame. Move the saddle to the desired position and retighten the clamp to the specified tightening torque (**max. 6 Nm**) or close the quick-release lever. (p. 8, Fig. 8.7.1 / 8.7.2)

4. The spring mechanism of the seatpost already compresses somewhat due to the load when sitting on the seat. Therefore you can fix the saddle approx. 10 mm higher to compensate for this. Your specialist dealer will be happy to advise you on this.

## 10. CHANGING SPRING ELEMENT

### 10.1 Removal of the suspension



**NOTE:** The D.2 ST-Ri seatpost can remain mounted in the bicycle frame to change the spring, also the saddle does not have to be removed for this purpose! We generally recommend using the Mudcover ST to prevent soiling of the spring mechanism.

1. Unscrew the M5 grub screw on the lower, large bearing in the rear arm of the D.2 ST-Ri seatpost using a 2.5 mm Allen key. Turn the screw counterclockwise until it protrudes approx. 2 mm from the arm. Then use a suitable tool to push the 8 mm stainless steel axle out of the bearing. (s. Fig. 10.1.1)

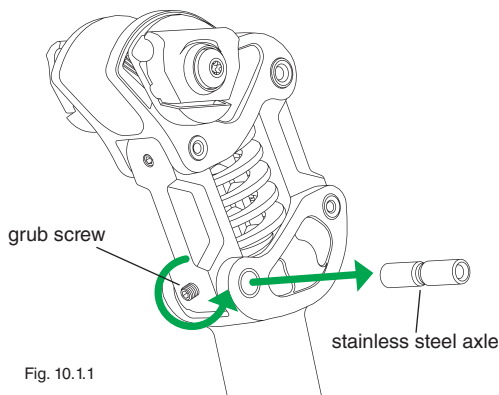


Fig. 10.1.1

2. After the axle is removed, open the parallelogram mechanism by pulling the rear spring arm up by hand. This will cause the entire upper part of the seatpost to tilt forward in the direction of travel. (see Fig. 10.1.2).

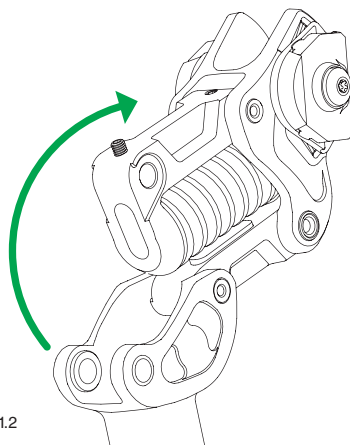


Fig. 10.1.2

3. Swing the rear spring arm upwards in the small head joint until the spring element is released from the adjustment in the spring plate. Now you can remove the spring element by hand. (see Fig. 10.1.3).

Use this opportunity to check the condition of the elastomer damper elements in the seatpost base, spring arms and head of the D.2 ST-Ri and, if necessary, to clean the inner area of the spring element mount!

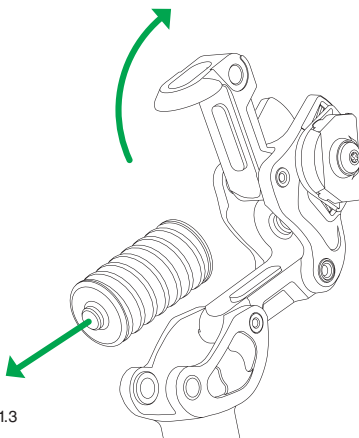


Fig. 10.1.3



## 10.2 Installation of the spring element

1. Place the original D.2 ST-Ri spring element in the parallelogram mechanism by hand. Press the spring element into the recess provided in the spring arm plate. (see Fig. 10.2.1).

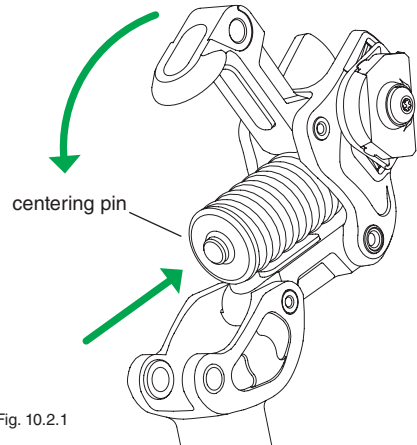


Fig. 10.2.1

2. Now swivel the rear spring arm downward to make the adjustment of the spring element between the arms. The centering pin of the spring element engages audibly in the recess of the spring arm plate. (see Fig. 10.2.2).

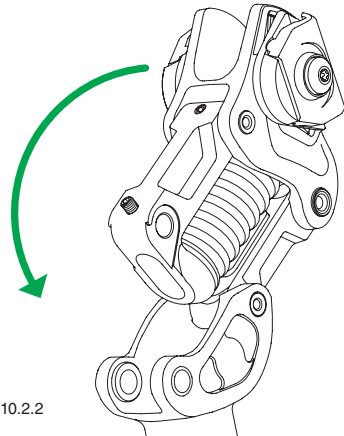


Fig. 10.2.2

3. Fold the entire parallelogram mechanism including the spring element back into the initial position. Now re-insert the axle. Make sure that the axis is correctly guided through all holes and is flush on both sides. The grub screw that fixes the axis must be secured with medium-strength screw adhesive. Screw in the M5 grub screw and tighten it firmly with a torque wrench and a tightening torque of 2.5 Nm. Before the first ride with the new spring, check the correct fit of all components. (see Fig. 10.2.3)

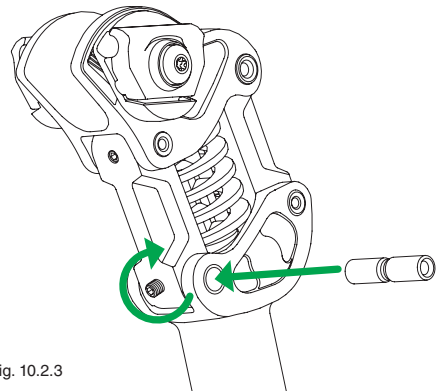


Fig. 10.2.3

## 11. OPERATING THE SEATPOST

Finally, check the functions of the D.2 ST-Ri seatpost.

While sitting on the saddle, operate the remote lever until the saddle starts to lower. Lower the saddle to the minimum height by loading it with your body weight. The built-in shock absorber provides a soft end stop. As soon as you release the lever, the lowering of the saddle should be interrupted. To have the saddle extend to the maximum position again, operate the remote lever again and completely unload the saddle. Release the lever to fix the position of the seatpost.

If the function cannot be performed as desired, check the tension of the inner cable and the routing of the cable housing. Make sure that the cable is correctly mounted on the seatpost and the remote lever!

If the saddle lowers under load without the remote lever being operated, the cable is probably under too much tension. This leads to the the valve of the gas pressure spring not closing completely and the seatpost not being locked. If necessary, reduce the pretension of the cable until the dropper function of the seatpost no longer releases unintentionally.

With the saddle clamp closed the outer tube of the D.2 ST-Ri seatpost must not slip into the seat tube of the frame under load, or be able to twist in it! If this is the case, check the clamping force of the saddle clamp (max. 6 Nm).



**NOTE:** The clamping force of the seatpost clamp should not exceed 6 Nm when fixing the post in the frame (page 8, Fig. 8.3.1). Higher values can lead to malfunctions such as reduced extending or retracting speed and damage to components of the D.2 ST-Ri.

## 12. CARE / CLEANING

To ensure proper function and longevity, cleaning and care of the D.2 ST-Ri seatpost should be performed regularly.

Keep the parallelogram mechanism of the D.2 ST-Ri seatpost and the bearings free of dirt and clean them regularly. The protective Neoprene Mudcover effectively prevents contamination of the mechanism (mud, sand, etc.), and thus ensures a low maintenance. We recommend permanent use of the neoprene cover.

If necessary, remove any dirt adhering to the outside, especially from the inner tube of the seatpost, as this is immersed in the outer tube. Stubborn dirt can damage the surface of the post, the rubber seals, and bearings installed inside.

As a rule, they can be removed with warm water and commercially available detergents. Do not use steam cleaners or harsh cleaning agents such as acetone, trichloroethylene or methylene for cleaning, as these cleaning agents can attack the components, elastomers and bearings. For maintenance, apply Rockshox Deo, for example.

When cleaning the D.2 ST-Ri seatpost, look for damage, deformation or other changes to the components. If questions arise regarding the operational safety, your dealer will be happy to advise you!



**CAUTION:** The installed gas strut is under high pressure inside. Any manipulation of the gas pressure spring can lead to serious injuries. Never attempt to open the gas pressure spring!

## 13. WARRANTY / GUARANTEE

The following conditions, which describe the prerequisites and scope of our warranty service, do not affect the warranty obligations of the seller under the purchase contract with the end user. For the processing of a warranty claim, the purchase receipt with the date of purchase and delivery must be submitted in each case.

A warranty obligation is not triggered by minor deviations from the target condition, which are insignificant for the value and usability of the product.

Please keep the proof of purchase. Your dealer or source of supply is the contact person in the event of a complaint. For the by,schulz seatpost type D.2 ST-Ri we provide warranty according to the following conditions / points:

1. We will remedy defects free of charge according to the conditions which are demonstrably based on a material and/or manufacturing defect, if these are reported to the first end user immediately after detection and within 24 months after delivery. If the defect becomes apparent within 6 months of delivery, it shall be presumed to be a material or manufacturing defect.

2. No guarantee can be given if the defects in the product are due to transport damage for which we are not responsible, improper assembly, misuse, abnormal use, lack of maintenance or care or failure to observe operating or assembly instructions. Excluded are damages and their consequences caused by improper assembly, modification of the original parts, accidents, overloading (downhill, jumps, competitions etc.).

3. The person who mounts the by,schulz D.2 ST-Ri seatpost bears full responsibility for the mounting, compatibility and condition of the mounting parts. The warranty claim expires if repairs or interventions are carried out by persons who do not have sufficient professional knowledge or if our product is provided with spare parts, supplementary parts or accessories that are not original parts and thus cause a defect. 4.

4. In the event of a warranty claim, if we refuse or fail to remedy the defect, a replacement of equal value will be delivered free of charge within the above-mentioned period.

5. Warranty services do not cause an extension of the warranty period, nor do they set a new warranty period in motion. The warranty period for installed spare parts ends with the warranty period for the product.

6. Further or other claims, damages caused by misuse are excluded - as far as a liability is not mandatory by law.

7. These warranty conditions apply to products purchased in Germany. For by,schulz products purchased abroad, the warranty conditions issued by our respective country representative shall apply. These can be requested from the dealer from whom you purchased the product.

## 14. MAINTENANCE / SERVICE CARD

The by,schulz D.2 ST-Ri is a closed system.

Maintenance may only be carried out by the specialist dealer, preferably by the by,schulz maintenance service! The first maintenance should be carried out after 12 months or after approx. 1,000 km, then annually or approx. every 2,500 km. For this purpose, please send the support together with the completely filled out service card, as well as a copy of the purchase receipt, after prior consultation, to:

**by,schulz GmbH**  
**Bühler Street 121, D-66130 Saarbrücken, Germany**  
**GERMANY**

To keep the warranty, the first service of the D.2 ST-Ri is obligatory. Within Europe you only have to pay the costs for this. Customers outside Europe please contact the regional sales partner!

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