



**SCOTT 2011  
BIKE OWNERS  
MANUAL**

SCOTT SPORTS SA | 17 RTE DU CROCHET | 1762 GIVISIEZ | SWITZERLAND  
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**SPARK**





The Spark should be adjusted exactly to the current rider for reaching maximum safety and fun while riding.  
All adjustments should be done at the local Scott dealer or following to this manual.

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# SPARK CONCEPT

Spark is the result of 2 years of research and development for the lightest mountain bike frame set available on the market, hitting the scale at below 1800 grams (4 pounds) including the frame, Scott Nude TC shock and TWINLOC remote control.

Scott's focus was not only on lightweight but also on a durable frame with an innovative suspension technology in combination with an optimized kinematics of the rear swingarm.

The combination of an optimized kinematics with an extraordinary suspension technology closes the gap between superlight hardtail bikes (e.g. Scott Scale) and the new generation of marathon bikes (e.g. Scott Genius).

Spark was designed for riders looking for a dual suspended race and marathon bike offering a maximum rear wheel travel of 110mm.

Scott does not see frame, rear shock and kinematics as single components which are assembled together on a bike, but as a concept with all these components working together and offering an outrageous function by matching perfectly.

## Kinematics

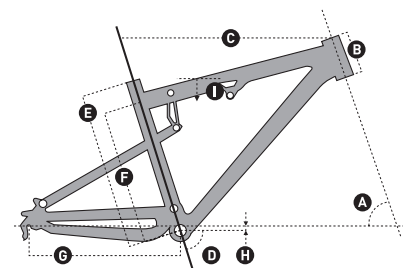
The Spark Concept is based on a new designed multi-pivot technology.

In combination with the linear shock characteristics the chain tension will be reduced and doing so the pedaling will not influence function or movement of the rear swingarm.

The Scott system, named TC (Traction Control) will allow you to reduce by remote control the rear wheel travel from 110mm to 70mm including a more progressive spring rate but still offering a supple break away.

No power will be lost and an optimum power transfer is guaranteed as the swingarm, in contrary to locked or automatic-locking systems, can follow the trail surface and will offer perfect traction and higher speed while standing on the pedals.

# GEOMETRY SPARK



Size	A	B	C	D	E	F	G	H	I		
	Head angle	Head tube length	Effective top tube horizontal	Seat angle	BB center to top of seat tube	BB center to top tube center	Chainstay length	BB offset	Standover height	Stem length	Crankarm length
	°	mm	mm inches	°	mm inches	mm inches	mm inches	mm inches	mm inches	mm	mm

SPARK CARBON																		
S	69.5°	110	4.3	555	21.9	73.5°	400	15.7	337	13.3	422	16.6	-10	-0.4	727	28.6	90	170
M	69.8°	120	4.7	585	23.0	73.5°	450	17.7	387	15.2	422	16.6	-10	-0.4	758	29.8	90	175
L	70.0°	140	5.5	610	24.0	73.5°	490	19.3	429	16.9	422	16.6	-10	-0.4	789	31.1	100	175
XL	70.0°	160	6.3	640	25.2	73.5°	540	21.3	479	18.9	422	16.6	-10	-0.4	825	32.5	110	175

SPARK ALLOY																		
S	69.0°	110	4.3	555	21.9	73.5°	400	15.7	337	13.3	422	16.6	-7	-0.3	727	28.6	90	170
M	69.0°	120	4.7	585	23.0	73.5°	450	17.7	387	15.2	422	16.6	-7	-0.3	758	29.8	90	175
L	69.0°	140	5.5	610	24.0	73.5°	490	19.3	429	16.9	422	16.6	-7	-0.3	789	31.1	100	175
XL	69.0°	160	6.3	640	25.2	73.5°	540	21.3	479	18.9	422	16.6	-7	-0.3	825	32.5	110	175

## TECHNISCHE DATEN SPARK

Travel	110/70/0mm
Suspension Ratio	2.97
Piston stroke	37mm
Shock (Eye to Eye)	165mm
Hardware Mainframe	22,2mm x 6mm
Hardware Swingarm	22,2mm x 6mm
Seatpost diameter	carbon frames 34,9mm; alloy frames 31.6mm
Headset	1 1/8" semi integr. with 44.0mm cups
Fork travel	100 - 120mm
Fork length	471 - 491mm
BB housing	73mm
Front derailleur	Downswing 34.9mm Downpull
Bearings	2 x 61900 (22x10xT6) 6 x 63800 (19x10xT7)

## TWINLOC – REMOTE CONTROL LEVER

The TWINLOC remote control lever is the evolution of the already outstanding TRACLOC system of Scott.

While TRACLOC allows the change on the Scott rear shocks Nude TC and Equalizer 2 between the Scott patented Lock-out, traction and full-mode on the fly from the handlebar, the TWINLOC now allows also the remote control of the front fork to shift between lock-out and open mode at the same time when you change the modes on the Scott rear shox.

The 3 modes on the lever and suspension units are:

- **Full Travel Mode:** full travel rear, full travel front
- **Traction Mode:** traction mode rear, full travel front
- **Lock-out Mode:** lock-out rear, lock-out front

Scott offers different TWINLOC levers with following fork/rear shock combinations:

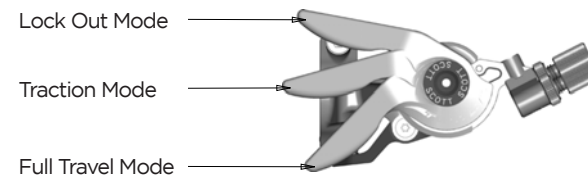
- Nude TC with adapters for SRAM /RockShox fork and FOX fork/DT Swiss fork (Scott Article number: 216351)
- DT M210 with adapters for SRAM /RockShox fork and FOX fork/DT Swiss fork (Scott Article number: 216352)

Please note that the DT Swiss M210 rear shock does not offer a traction mode, but only lock-out and full-mode.

Important: You can only assemble the TWINLOC remote lever in "left side upward position" on the handlebar.

You have 3 positions on the TWINLOC remote lever.

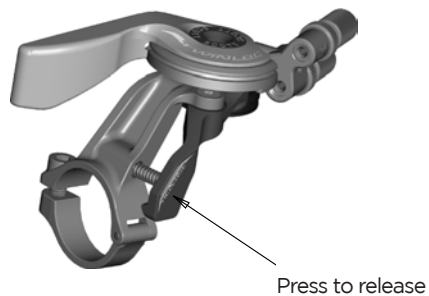
- **most forward position:** lock-out rear, lock-out front
- **middle position:** traction mode rear, full travel front
- **most backward position:** full travel rear, full travel front



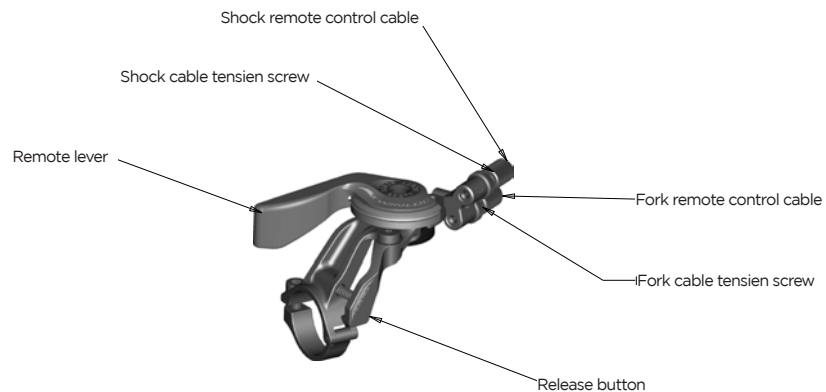




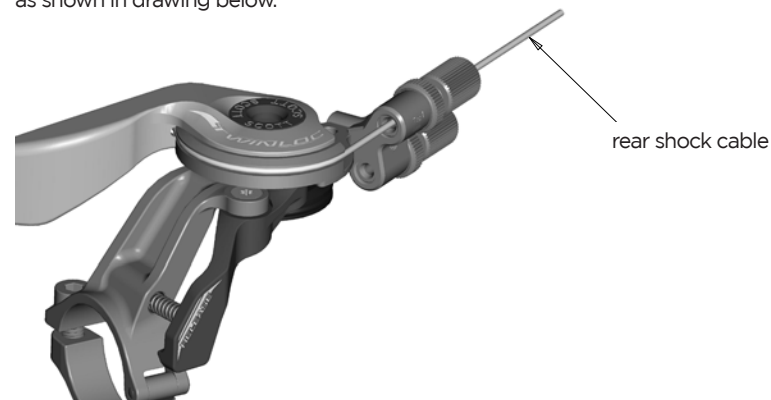
Change the modes by pushing the lever with your fingers frontward and release them by tapping the release button (one mode per push/release)



For the different parts of the TWINLOC lever mentioned in the following instruction please refer to the drawing with parts names below:



Please note that the cable for the rear shock is ALWAYS the upper cable on the lever as shown in drawing below.



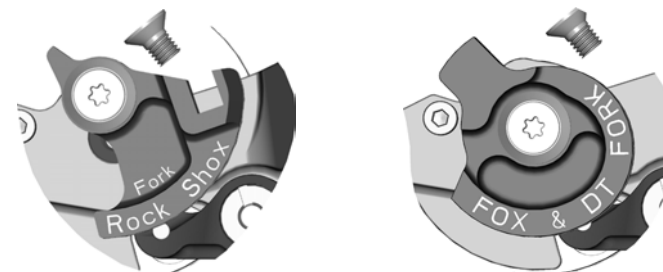
There are different versions for different rear shock models. Please make sure that your lever fits to the rear shock of the bike.



For the assembly of the remote control of the front fork lock-out 2 different cable systems are existing.

The different roll for the pull of the fork remote cable can be changed within few minutes to adapt the lever to your fork model/brand.

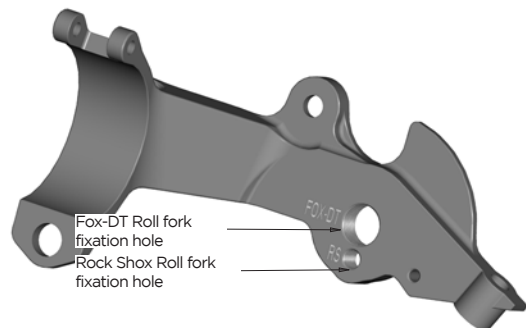
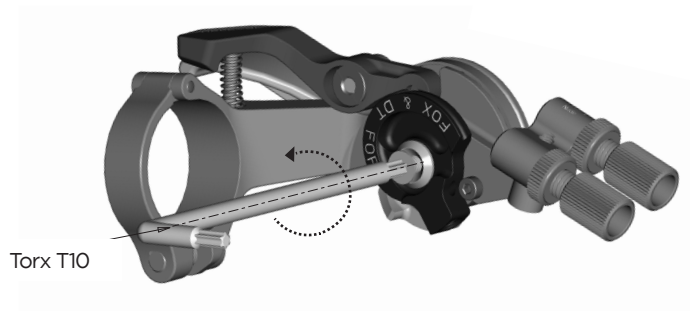
You will see on the downside of the roll the indication of fork brand.



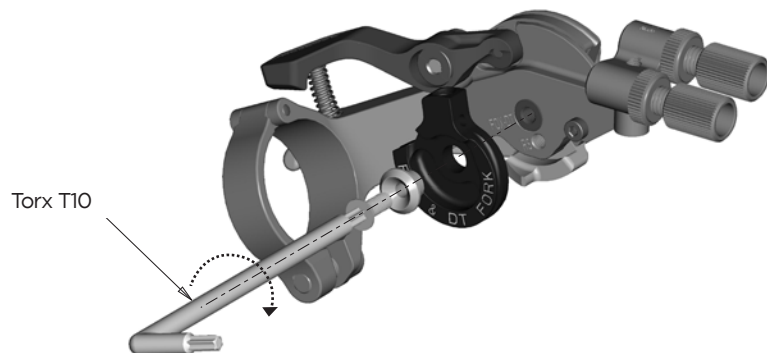


To change the rolls to match another fork brand pls follow the drawings below:

### Roll fork unmounting



### Roll fork mounting



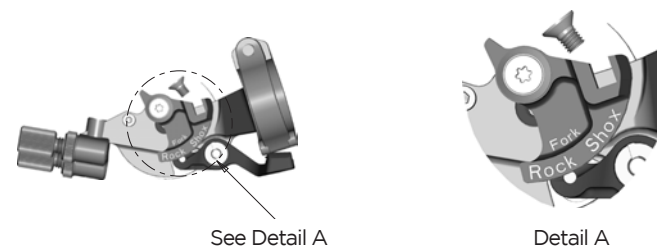
## ASSEMBLY OF THE REMOTE CABLE

### SRAM/RockShox forks:

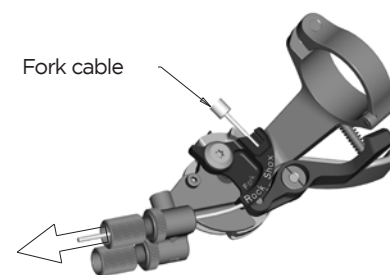
#### Important:

Please make sure the lockout of SRAM/RockShox fork is activated after transport correctly. Therefore please compress fork 5-10 times before following the manual on remote cable installation and adjustment.

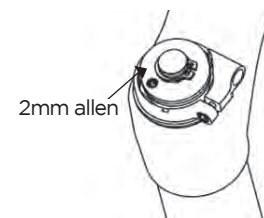
The lever should show on the downside of the cable roll follow indication:



To assemble the cable please bring the lever into the All Travel Mode, push the cable into the lever-eyelet as shown on drawing below, push it through the pre-cut cable housing and fix it at the assembly unit on top of the right side of the fork crown.



Fix the cable with the 2mm allen screw on the barrel adjuster on the fork crown with a tightening torque of 0.9Nm/ 8lb/in, cut the cable and secure it with a cable end-cap. Please refer for this action also to the manual of SRAM/RockShox attached to the bike.

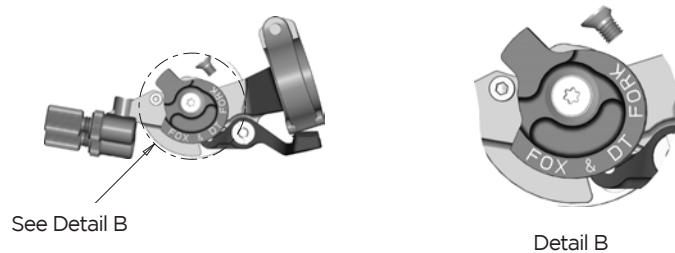


## FOX-DT Swiss forks

### Important:

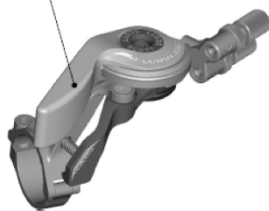
Please make sure the lockout of FOX/DT fork is activated after transport correctly. Therefore please compress fork 5-10 times before following the manual on remote cable installation and adjustment.

The lever should show on the downside of the cable roll follow indication:

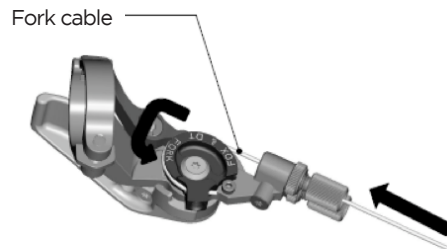


To assemble the cable please bring the lever into the Full (Travel) Mode

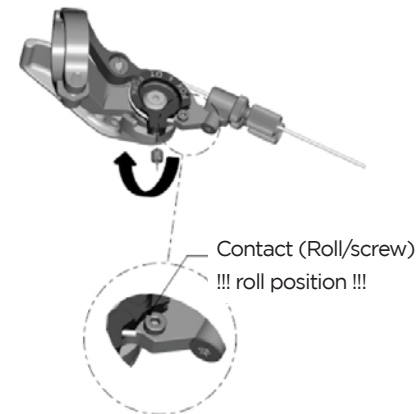
Full mode



push the pre-cut cable through the pre-cut cable housing into the lever as shown on drawing below



and secure the cable by fixing the 2mm allen screw with a tightening torque of 0.9Nm/ 8lb/in as shown on the drawing below on the roll.



Cut the cable 5mm behind the roll and secure it with a cable end-cap.

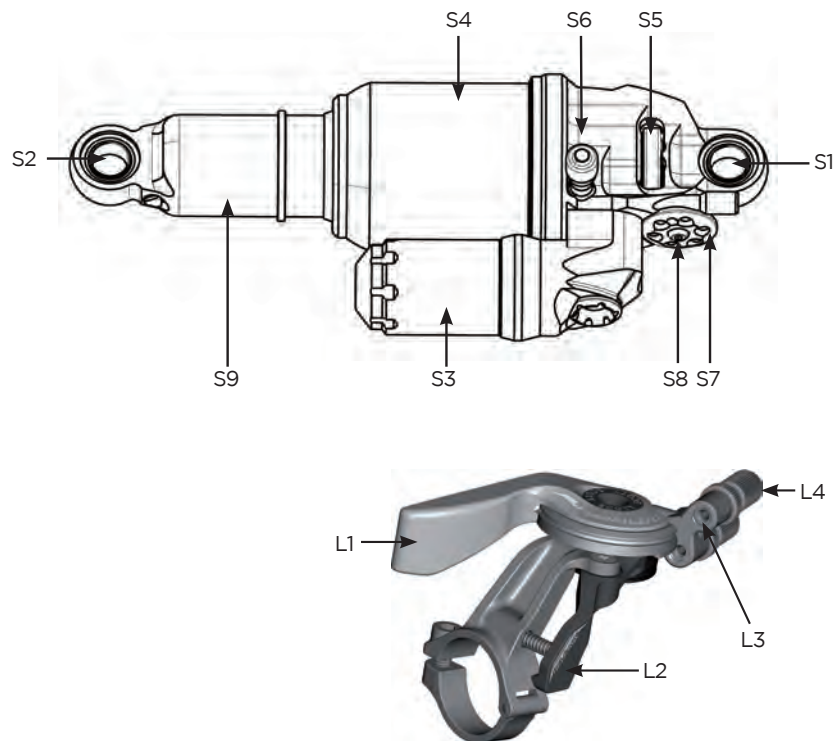
Please refer for this action also to the manual of FOX or DT Swiss attached to the bike. In case you need to remove the remote cable completely from the forks of FOX or DT Swiss please follow the instructions of the related fork manuals of the fork manufacturers or contact a fork service center / your local dealer to do so.

### TIP:

To check for accurate cable tension, please try to move the plastic end cap of the cable housing at the barrel adjuster on the remote lever. There should be "no-play" between cap and barrel adjuster. In case of "play" please turn the barrel adjuster clockwise until "no-play".

## NUDE TC SHOCK UND TWINLOC REMOTE CONTROL LEVER

In der untenstehenden Abbildung des Dämpfers und des Fernbedienungshebels können Sie die Bauteile mit Nummern bezeichnet finden, die in dieser Bedienungsanleitung verwendet werden.



S1 Front eyelet/ Shock Bolt	L1 Remote Lever
S2 Rear eyelet/ Shock Bolt	L2 Release Lever
S3 Piggy-Back	L3 Tension Screw
S4 Shock Housing	L4 Allen Screw
S5 Rebound-Screw	
S6 Positive Chamber Valve	
S7 Lock Out Barrel	
S8 Cable fixing Screw	
S9 Shock Piston	

## BASIC SET-UP OF THE TWINLOC REMOTE CONTROL OF NUDE TC SHOCK

To ensure perfect function of the Nude TC shock it is very important to follow the steps shown below exactly

### IMPORTANT

For all following actions the TWINLOC lever needs to be in "ALL TRAVEL-MODE" position!



- 1 thread in cable along the groove and pull it tight gently



- 2 press the release lever twice whilst still pulling the cable to set the lockout-lever into the «open» position



- 3 Thread in the cable...
- 4 ...make it stepping out along the piggy back



- 5 Unmount the M4 headless screw.

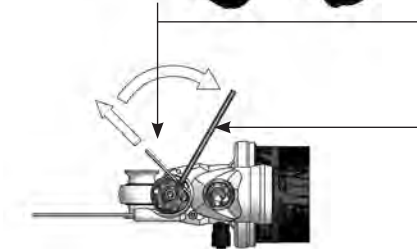




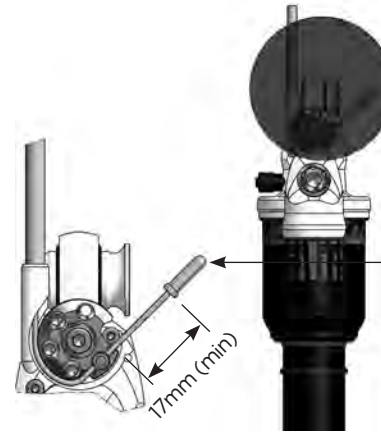
**6** Create a loop and put it into the open groove on the remote wheel..



**7** Pull the cable tight..

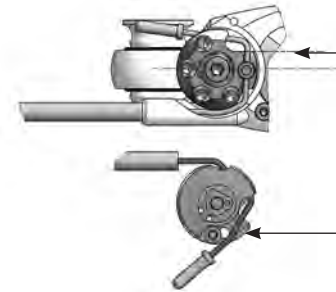


**8** ...then tighten the headless 4mm-screw by using a 2mm-Allen key (max 1.3Nm)



**9** Put on the end cap and make sure to have at least 17mm of free cable length.

view from below



In Traction Mode about parallel to shock body

hang in cable

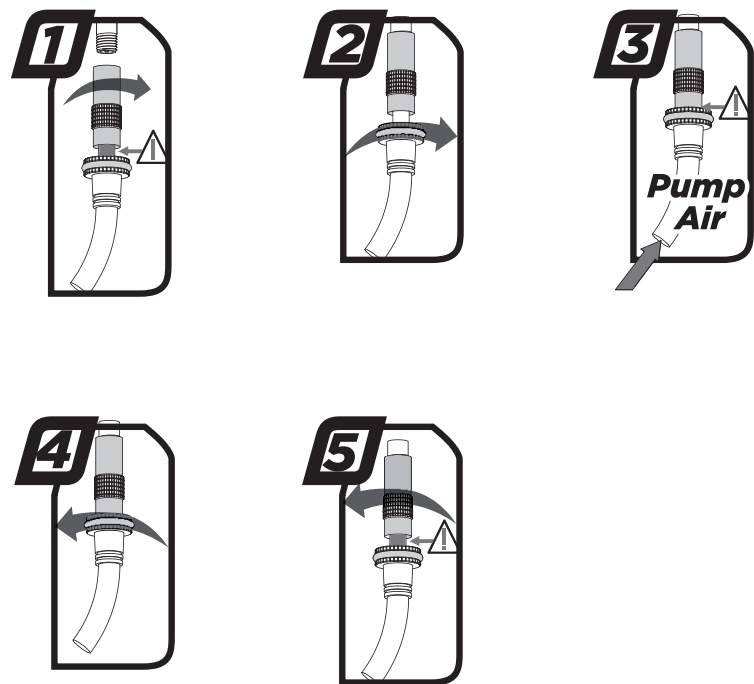


## BENÖTIGTE WERKZEUGE FÜR DAS DÄMPFER SET-UP

For the set-up of the shock we recommend to use a shock pump with a scale up to 20 bars/300 psi with a special air valve connector preventing from air getting away while removing the pump from the shock valve, this will result in an exact air pressure.

**Please note that air will flow into the hose and indicator when counterchecking the air pressure, so you have to set up again the recommended pressure after this action.**

**Make sure to balance at least this air loss when you make a check of the air pressure of the shock. Pls also note that the indicators of shock pumps have a tolerance of max. 10%**



## SET-UP SPARK WITH NUDE TC SHOCK

The Set-Up of the Scott Nude TC Shock can be easy done within a few minutes.

### IMPORTANT

For all adjustments of the air spring the remote lever has to be in position "all travel".

To adjust the air pressure of the positive chamber of the Scott Nude TC Shock please refer to the following instruction:

1. Remove the valve cap of the valve (S6) located on the shock housing (S4).
2. Mount the shock pump with its adaptor on the valve
3. Pls take into account that it takes some air pressure from inside the shock to drive the indicator on the pump. Make sure to balance at least this air loss when you make a check of the air pressure of the shock. Pls also note that the indicators of shock pumps have a tolerance of max. 10%
4. Pump the recommended pressure into the shock. On the inner side of the left seatstays you will find a table showing the recommended air pressure of the positive chamber according to the rider's weight.
5. When you reached the needed pressure remove the pump and put the valve cap on the valve

### Recommended Air Pressure

<table border="1"> <thead> <tr> <th>rider weight</th> <th>kg</th> <th>45</th> <th>50</th> <th>55</th> <th>60</th> <th>65</th> <th>70</th> <th>75</th> <th>80</th> <th>85</th> <th>90</th> <th>95</th> </tr> <tr> <td></td> <th>lb</th> <td>99</td> <td>110</td> <td>121</td> <td>132</td> <td>143</td> <td>154</td> <td>165</td> <td>176</td> <td>187</td> <td>198</td> <td>209</td> </tr> </thead> </table>	rider weight	kg	45	50	55	60	65	70	75	80	85	90	95		lb	99	110	121	132	143	154	165	176	187	198	209												
rider weight	kg	45	50	55	60	65	70	75	80	85	90	95																										
	lb	99	110	121	132	143	154	165	176	187	198	209																										
<table border="1"> <thead> <tr> <th>+ air setting</th> <th>bar</th> <td>5.0</td> <td>5.8</td> <td>6.6</td> <td>7.4</td> <td>8.2</td> <td>9.0</td> <td>9.8</td> <td>10.6</td> <td>11.4</td> <td>12.2</td> <td>13.0</td> </tr> <tr> <td></td> <th>psi</th> <td>73</td> <td>84</td> <td>96</td> <td>107</td> <td>119</td> <td>131</td> <td>142</td> <td>154</td> <td>165</td> <td>177</td> <td>189</td> </tr> </thead> </table>	+ air setting	bar	5.0	5.8	6.6	7.4	8.2	9.0	9.8	10.6	11.4	12.2	13.0		psi	73	84	96	107	119	131	142	154	165	177	189												
+ air setting	bar	5.0	5.8	6.6	7.4	8.2	9.0	9.8	10.6	11.4	12.2	13.0																										
	psi	73	84	96	107	119	131	142	154	165	177	189																										

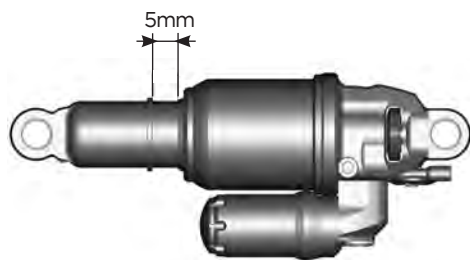


## SAG

The SAG should be 5mm on the shock piston.

To check the adjustment, please follow as shown below:

1. Sit on the bike, put your feet on the pedal
2. Put your feet back on the ground and stand over the bike without bouncing the bike during this action
3. Check if the o-ring on the shock piston has a distance of 5mm to the main dust wiper/seal between shock housing and piston.
  - if the distance between the o-ring and the main dust wiper/seal is less than 5mm, the air pressure of the air chamber is too high and should be carefully reduced by using the bleed knob of the shock pump until the distance is 5mm.
  - if the distance between the main dust wiper/seal is bigger than 5mm, the air pressure of the air chamber is too low and should be increased by using the shock pump until the distance is 5mm.



### IMPORTANT

Please note that the maximum pressure of the Nude TC shock is 15.4bar/223psi which means a maximum weight of the rider of 110kg/243lbs incl. riding gear and load.

## SET-UP OF REBOUND NUDE TC SHOCK

“Rebound” describes the speed the shock comes back to its original length after absorbing an obstacle.

By using the red rebound screw (S6) you can adjust the rebound step by step.

Please refer to the following instruction:

Ride your bike off a pavement (remain in the saddle) and check how many times it bounces.

- if it bounces 1-2 times, the set up is good.
- If it bounces more than 3 times the rebound is too fast.  
Turn the screw 1-2 “clicks” clockwise
- If it does not bounce the rebound is too slow.  
Turn the screw 1-2 “clicks” counter clockwise.



In case you want even more detailed figures of air pressure or tuning hints, you can download a program under [www.scott-sports.com](http://www.scott-sports.com) as a MS Excel file.



#### IMPORTANT:

Note that you have to mount the Scott Nude TC Shock always as shown underneath. Mounting the rear shock in a different position can cause severe damages to the frame, the linkage levers and the rear shock.



#### IMPORTANT:

After a dismantlement of the rear shock, both fixing bolts should be tightened with a tightening torque of 5Nm/44in-lbs. If this is not done correctly the rear shock can be damaged.

## SET-UP OF OTHER SHOCK MODELS

**Scott strongly recommends using only the originally assembled Shock with the Spark bike, as we designed both parts for a perfect matching combination.**

For further set up instructions on those shocks please follow the manuals of the shock producers attached to the bike.

If you want to use a different rear shock model than the one originally on the bike, please make sure that the shock will not in any position hit the frame and cause a damage to the frame.

Please follow the instruction below:

Please make sure that the rear shock or its accessory parts do not touch the frame when mounting or suspending.

For doing so release the air/remove the coil, install the shock and compress the shock completely.

If the shock touches the frame while doing so, do not use this shock in order to avoid damage to frame, swingarm or shock.

## SCOTT SMART CABLE ROUTING

The direct and straight cable system on all our full suspension models allows Smart Cable Routing which is very resistant against water and dirt.

To change the cables simply unscrew and open the cable brackets on the downtube.





## MECHANICS HINT

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The outer housing of the cables can also be fixed on the bottle cage with cable fixers, the two brackets below the cage are not needed anymore..

## ADJUSTMENT OF SEATPOST-HEIGHT

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### IMPORTANT:

The seatpost has to be inserted into the seattube at a minimum of 100mm.

Never use another seatpost diameter than 34.9mm on carbon frames or 31.6mm on alloy frames or try to use a shim/reducer between seatpost and frame.

## REPLACEABLE DROPOUT

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On Spark bikes you can replace the rear derailleur hanger.

In case the replaceable hanger is damaged by a crash or accident you can order at your local Scott dealer the replacement part with Scott article number 206473



## FRONT FORK SET-UP / CHANGE OF FRONT FORK

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For the set up of the front fork please use the fork specific manual attached to the bike. We recommend using front forks with a travel of 100 - 120mm, as this will not influence the geometry and alter handling of the bike.

## PIVOT MAINTENANCE

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The pivot and bearings on SCOTT Spark are extremely easy to maintain.

An external treatment with a grease spray after every bike wash is all you have to do. We do not recommend heavy grease sprays since these will leave a film on the parts which is difficult to remove. We recommend the same for the chain also.

If you have to change the bearings you can order them included in a service kit at your local SCOTT dealer or buy them with international parts number as shown above in the specs list in a hardware store.

In case of a change of the bearings or of the rear swingarm you should contact your local SCOTT dealer as you need special tools for disassembly and assembly

# WARRANTY

Model .....

Year .....

Size .....

Frame Nr. ....

Shock Nr. ....

Date of purchase .....



# WARRANTY

SCOTT bikes are made using the most innovative production and quality methods. They are equipped with best components of well known parts suppliers.

Doing so SCOTT warrants its frames and swingarms for five years (subject to compliance with maintenance ranges, see below) and SCOTT forks (provided it is a fork of SCOTT) for two years for defects in material and/or workmanship in case of purchase of completely assembled bikes.

This warranty of 5 years for the frames shall only be granted in case once a year a maintenance service has been effected according to maintenance requirements as set forth in this manual by an authorised SCOTT dealer.

The authorised SCOTT dealer shall confirm the effected annual maintenance service by stamp and signature.

In case such an annual maintenance service has not been effected the warranty of 5 years for the frame shall be reduced to 3 years.

Costs for maintenance and service have to be born by the owner of the SCOTT bike.

On Gambler, Voltage Fr and Volt-X the warranty period is limited to 2 years.

The warranty period starts at the day of purchase. This warranty is limited to the first buyer, what means the first person who uses the bike and only with the use it was made for. Furthermore, this warranty is limited to purchases via authorized SCOTT-dealers

The warranty is solely granted in case of purchase of a completely assembled bike to the explicit exclusion of purchases of not completely assembled bikes.

In case of a warranty claim the decision to repair or to replace the defective part is up to SCOTT. Non defective parts will only be replaced at the guarantee's own expense.

Fair wear and tear is not covered by the warranty.

A complete list of all parts of wear and tear can be found in the next chapter of this manual.

In addition, you will find at the end of this manual a protocol for the handing over of the bike which will remain in copy at the SCOTT dealer after acceptance and signature of the consumer.

It is obligatory to show this protocol of handing over together with the defective part in case of a warranty claim given that it provides evidence of purchase. Otherwise no warranty is granted.

In principle, this warranty is granted worldwide. Claims must be made through an authorized dealer, for information regarding the nearest dealer, write or call this company or the national SCOTT distributor.

Normal wear, accident, neglect, abuse, improper assembly, improper maintenance by other than an authorized dealer or use of parts or devices not consistent with the use originally intended for the bicycle as sold are not covered by this warranty.

Hereby SCOTT grants a voluntarily manufacturer's warranty. Additional entitlements according to national warrant of merchantability are reserved.

For warranty info on shock please refer to the attached manual of the manufacturer.

