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1. GENERAL

1.1 VALIDITY
This manual describes the component specified on the front page and the footer. It is valid for the construction level of the component on the 26.09.18. Deviations are possible and all items are subject to technical changes.

1.2 SAFETY
The safety instructions are classified as follows:

- **DANGER**
  ...indicates a hazardous situation that, if not avoided, will result in death or serious injury.

- **CAUTION**
  ...indicates a hazard with a medium level of risk which, if not avoided, may result in minor or moderate injury.

- **NOTE**
  ...indicates a potentially hazardous situation that may result in damage to property.

1.3 TARGET GROUP
This manual is intended for end users and dealers. It offers the possibility for experienced users to carry out small maintenance works on their own. If there are any doubts concerning the own skills, a DT Swiss service center should be contacted.
If the work is not carried out properly, any warranty claims expire.

1.4 LAYOUT
The cover page and the footing provide information about the type of product and manual as well as the version of the manual. On the back you will find the DT Swiss contact details. A list of all DT Swiss service centers can be found at www.dtswiss.com.
This manual is intended for being printed as an A5 booklet. Only print this manual if electronic usage is not possible.
1.5 DT SWISS MANUAL CONCEPT

The DT Swiss manuals are split into the following types of manuals:

- **User Manual**: Information for the end user on how to install and use the component.
- **Technical Manual**: Detailed information for the end user and the dealer on how to maintain the component, spare parts and technical data.

1.6 USING THIS MANUAL

The steps described in this manual must be carried out in the order they are shown. If steps are ignored or executed in a wrong order, the function of the component cannot be guaranteed.

Instructions begin with the table «Preparatory Steps» and end with the table «Closing Steps». The instructions in these tables must be carried out.

1.7 GENERAL MAINTENANCE INFORMATION

Unless otherwise specified, moving parts, threads, O-rings and seals must be greased before assembly.

CLEANING

For an optimal result of the maintenance works, every component that will be disassembled must be cleaned. Only use cleaners which do not damage the components. Especially the cleaning of O-rings and sealings requires mild cleaners. Observe the instructions for use of the respective cleaning agent.

DT Swiss recommends the following cleaning products:

- Motorex Rex
- Motorex Swissclean
- Motorex OPAL 2400, 3000 OPAL, OPAL 5000

Use soap water or similar mild cleaners for external cleaning.

TOOLS

To ensure a damage-free mounting and dismounting of the components, only use the tools which are mentioned in this manual. Special tools are indicated at the beginning of a chapter in the table “Required material”.

The use of different tools is at the discretion of the user. If components are damaged by the usage of differing tools, the user is liable.

DT Swiss special tools are precision tools. Damage-free mounting and dismounting of the components can only be ensured if the tools are working properly and if the conditions of the tools are perfect. Always keep the tools in their original packaging or adequate devices to save them from damages.
1.8 ENVIRONMENTAL PROTECTION
The statutory regulations shall apply. Whenever possible, waste has to be avoided. Waste, especially carbon, lubricants, cleaners and any other fluids must be disposed in an environmentally compatible manner. Only print this manual if electronic usage is not possible.

1.9 EXCLUSION OF LIABILITY
The activities listed in this manual may only be carried out by persons with sufficient specialist knowledge. The user is liable for any damage or consequential damage caused by wrong maintained or wrong installed components. If you have doubts, please contact your allocated DT Swiss pro level service center.

1.10 WARRANTY (EUROPE)
In addition to the general guarantee required by law, DT Swiss AG based in Biel/Switzerland, provides a guarantee for 24 months from the date of purchase. DT Swiss AG shall reject any liability for both indirect damage caused by accidents and consequential damage. Any contradictory or extended national rights of the purchaser are not affected by this warranty. Place of performance and jurisdiction is Biel/Switzerland. Swiss law shall apply.

Submit any warranty claims to your retailer or a DT Swiss service center. Any defects recognized by DT Swiss AG as a warranty claim will be repaired or replaced by a DT Swiss service center.

Warranty and guarantee claims can only be made by the original purchaser with a valid sales receipt. There shall be no claim under the guarantee for:

- Normal wear and tear caused by use of the components
- Incorrect assembly
- Incorrect or nonexistent maintenance
- Incorrectly completed repairs
- Use of unsuitable products
- Modification of components
- Incorrect use or misuse
- Carelessness
- Leasing, commercial use or use in competitions
- Damage caused by accidents
- Delivery and transport damage
- Modification, defacing or removal of the serial number
2. DESCRIPTION

The damping unit controls the compression and rebound speed of the fork. During compression and rebound movements of the suspension fork, oil is pressed through holes with adjustable cross section and through small spring plates [shims] which allow more oil to pass through as the oil pressure increases (the faster the movement of the suspension fork, the higher the oil pressure).

The damping unit is a closed system. The damping oil is separated from the air in the fork by a preloaded floating piston. This prevents the oil from foaming and ensures a constant damping performance even on long, rough downhills.

2.1 COMPRESSION

The damping unit was rethought right from the start in the design of the F 535 suspension fork. A system was realized that allows different damping characteristics over the stroke of the fork. In the first third of the travel, the suspension fork responds extremely sensitively, with a firmer characteristic after the first third of the travel. This system provides maximum traction and at the same time high control and feedback on the ground.

The low-speed compression [LSC] can be pre-adjusted in three steps «OPEN», «DRIVE» and «LOCK» for different terrain and different demands.

OPEN

Full functionality and sensibility of the fork can be attained in the mode «OPEN». This setup is mostly suitable for downhills, technical and rough uphills and comfortable rides on flat trails.

In order to meet the requirements of all riders, the low-speed compression can be set in "OPEN" mode with the setup tool (Torx T10). The fork is very sensitive and comfortable when the compression damping is fully open (counterclockwise to the stop). To use the full potential of the fork, we recommend using it with the compression damping fully open regardless of the rider’s weight and the bicycle. The compression damping can be incrementally increased for a less sensitive response.

DRIVE

The «DRIVE» mode sets the fork into a very firm mode. The fork moves, but is very firm. Movements from pedaling are mostly eliminated. This setting is mostly advantageous for sporty and efficient pedaling on flat trails and uphills.

LOCK

The «LOCK» mode blocks the fork in fully extended position. This is mostly suitable for situations where no suspension is needed (for example riding on the road or connecting trails). The lockout in the «LOCK» mode is hard and defined. A blow-off valve protects rider and material from unexpected hits.

High speed compression (HSC)

The setup of the high-speed compression leads to a controlled feeling even on hard hits, jumps or steps. The high-speed compression is pre-set and is not adjustable.
When the fork compresses, the piston inside the oil chamber is pushed upwards. Some of the oil passes through a one way valve past the piston (see figure 1) into the lower part of the oil chamber. Thus the volume beneath the piston is smaller than above, only part of the displaced oil can flow into the space beneath the piston. This excess oil is pushed through the damping circuit into the upper part of the damping unit. The preloaded floating piston creates a counter pressure to the inflowing oil.

**Low Speed Compression (LSC)**

In the «OPEN» mode the oil flows through the oil channel of the low-speed compression (LSC) and thus over the adjusting needle, which position can be adjusted with the external compression adjuster (see figure 1/OPEN 1). The position of the adjusting needle controls the flow resistance of the oil and thus the intensity of damping. The higher the flow resistance, the higher the damping.

The oil flows through the channel of the low-speed compression into an area where the oil presses a preloaded piston downwards (see figure 1/OPEN 1). The piston can be pressed down until the oil channel of the incoming oil is closed by a sliding bushing. From this position, the oil can only flow through the channels of the high speed compression (see figure 1/OPEN 2). This function gives the suspension fork its characteristic property: The damping responds very sensitively over the first third of the travel. After exceeding the first third of the spring travel, the damping becomes firmer and thus prevents too rapid and deep immersion in the travel.
High speed compression (HSC)

Additionally, the oil flows through the oil channel of the high-speed compression (HSC). Shims are placed at the end of the oil channel. These shims only open when a defined oil pressure is attained. Oil which cannot flow through the oil channels of the LSC (because of fast deflection of the fork, and thus big displacement of the oil generated by the piston), flows through the oil channels of the HSC. This ensures separate damping characteristics on small and medium or on fast compression speeds.

In «DRIVE» mode, the oil channel of the «OPEN» mode is closed. The oil flows through a separate oil channel onto a special shim stack [see figure 1DRIVE].

In mode «LOCK» (see figure 1LOCK), a slider closes the oil channels of the low-speed compression (LSC) and high-speed compression (HSC). The oil can only flow through the blow-off channel. Shims at the end of the blow-off channel open the access to the HSC channel at a defined oil pressure. The blow-off itself does not represent a damping function, it protects rider and material from big hits.

2.2 REBOUND

The preloaded floating piston pushes the oil from the upper part of the damping unit into the oil chamber when the fork is released. The oil can flow directly from the upper unit of the damping unit into the oil chamber. The rebound damping happens in the damping piston.

Low-speed rebound (LSR)

When the fork rebounds slowly, the oil flows through the oil channel of the low-speed rebound (LSR). An adjusting needle, which position can be adjusted with the red rebound adjuster, controls the flowing resistance through the LSR oil channel. The position of the adjusting needle controls the flow resistance of the oil and thus the intensity of damping. The higher the flow resistance, the higher the damping.

High speed rebound (HSR)

Additionally, the oil flows through the oil channel of the high-speed rebound (HSR). Shims are placed at the end of the oil channel. These shims only open when a defined oil pressure is attained. Oil which cannot flow through the oil channels of the LSR (because of fast rebound speed of the fork and thus big displacement of the oil generated by the piston) flows through the oil channels of the HSR. This ensures separate damping characteristics on small and medium or on fast rebound speeds.

![figure 2: Rebound - Function in Detail](image_url)
2.3 SPRING

The Line Air system consists of a bypass located in the air chamber. The bypass ensures that the pressure inside the negative air chamber is higher than in the positive air chamber when the fork is fully extended. This reduces the force of the beginning stroke. The fork responds very smooth and offers more comfort and traction.

FUNCTION IN DETAIL

After inflating or changing the air pressure:

When the fork compresses, the piston moves over the bypass of the air chamber. When the piston is located on the bypass, the bypass ensures a pressure equalization of the positive and negative air chamber (see red arrow).

![figure 3: Pressure compensation via the bypass valve](image)

Function during operation:

Due to the pressure equalization, the pressure in the negative air chamber is higher than in the positive air chamber when the fork is fully extended. This increased pressure inside the negative air chamber counteracts to the breakaway torque and improves the response characteristics drastically.

When the fork is compressed further, only the air inside the positive air chamber is compressed.

When the fork extends again, a pressure builds up in the negative air chamber and the cycles starts again.

![figure 4: Pressure conditions with unloaded fork](image)
2.4 SPRING CONNECTOR

The spring unit is connected to the lower unit of the fork via a spring connector.

The spring connector basically consists of a coil spring and a guide bushing.

The steel spring of the spring connector absorbs minor impacts before they can be transferred to the spring unit. Since the spring unit with its sliding seals is more inert than a steel spring, the slightest unevenness is absorbed by the steel spring of the spring connector without the seals’ static friction having to be overcome.

In the event of major impacts or sustained force on the lower unit, the steel spring in the spring connector is compressed to such an extent that the force is transmitted directly to the spring unit. The cycle starts anew when the fork is relieved and loaded again.

FUNCTION IN DETAIL

A The fork is fully extended. No force is applied to the spring connector.
B The fork starts to compress. On the first millimetres of the travel, the entire force is absorbed by the spring connector without air being compressed in the air chamber [static friction of the seals].
C The force acting on the fork compresses the spring connector further. The piston of the air chamber starts to move and compresses the air in the air chamber.
D After approx. 30 mm of travel, the spring in the spring connector is completely compressed. The entire force acting on the suspension fork is transmitted directly to the piston of the air chamber.
3. SMALL SERVICE
3.1 REQUIRED TOOLS AND MATERIALS

<table>
<thead>
<tr>
<th>Required tools and materials</th>
<th>Specification</th>
<th>Quantity</th>
<th>Article number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiper seal kit Ø35</td>
<td></td>
<td>1</td>
<td>FWKXXXXXXXXXX20369S</td>
</tr>
<tr>
<td>• 2 x wiper</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 x foam ring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2x O-ring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DT Swiss Lube Fluid</td>
<td>100 ml</td>
<td>1</td>
<td>4064XXXXXXXXXX000026</td>
</tr>
<tr>
<td>DT Swiss Fork Oil</td>
<td>100 ml</td>
<td>1</td>
<td>4064XXXXXXXXXX000024</td>
</tr>
<tr>
<td>Wiper seal mounting tool</td>
<td></td>
<td>1</td>
<td>FWTXXXXXXX10015661S</td>
</tr>
<tr>
<td>Reworked 8 mm hex bit</td>
<td></td>
<td>1</td>
<td>FXTXXXXXXX018482S</td>
</tr>
<tr>
<td>Mounting tool for spring unit</td>
<td></td>
<td>1</td>
<td>FWTXXXXXXX014126S</td>
</tr>
<tr>
<td>Syringe (minimum volume 20 ml)</td>
<td></td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Tire lever</td>
<td></td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Degreaser</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Torque wrench 25 Nm</td>
<td></td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Plastic hammer</td>
<td></td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Shock pump</td>
<td></td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>
3.2 RELEASING THE AIR

1. Unscrew the fixing screw of the cover on the spring side.
2. Remove the cover.

3. Unscrew the valve cap.

4. Carefully press the back of the valve cap onto the valve insert and slowly release the air.

5. Slowly compress the fork two times about 10 mm with the valve insert pressed and pull it apart again.
   → This balances the positive and negative air chambers.
3.3 REMOVING THE LOWER UNIT

1. Make sure the valve cap is removed and the air is completely released [see „3.2 Releasing The Air” on page 12].

2. Screw in the screw on the spring side clockwise into the lower unit using the tool FXTXXXXXXXXXXX018482S.

3. Screw in the screw on the damping side clockwise into the lower unit using the tool FXTXXXXXXXXXXX018482S.
   → After the screws have been screwed in, about 20 ml of oil runs out of both dropouts. Collect the leaking oil using a suitable container.

4. Carefully remove lower unit.

5. Collect the leaking oil using a suitable container.
6. Remove the O-rings of the connectors. If there is no O-ring on one of the connectors, it may be inside the lower unit and must be removed from there.

7. Slightly grease the new O-rings and put it on the connectors.

### 3.4 CHANGING THE WIPER SEALS

1. Remove both foam rings below the wiper seals.

2. Remove both wiper seals from the lower unit using a solid tire lever.

ATTENTION: The lower unit must not be damaged!

3. Clean the lower unit with an appropriate cleaner.
   → If you are using soap water, flush the lower unit with clear water after cleaning.
   → There must be no residual moisture inside the lower unit before re-mounting.
   → Only use lint-free textile cloths.
4. Degrease the seats of the wiper seals in the lower unit.
5. Slide the tool FWTXXXXX10015661S into the first wiper seal.
6. Carefully drive in the wiper seal using a plastic hammer.
7. Remove the tool from the wiper seal.
8. Repeat steps to mount the second wiper seal.
9. Leave the lower unit for about 15 minutes and allow the wiper seals to seat.

10. Put two new, in DT Swiss Lube Fluid soaked foam rings between the bushings and the wiper seals.
    → Make sure that the foam rings are not twisted and completely evenly between seal and bushing.
3.5 REMOVING THE SPRING UNIT

As part of the small service we recommend to remove the spring unit in order to remove introduced lubricating oil from the spring unit and from the left stanchion.

⚠️ DANGER

RISK OF INJURY FROM PRESSURIZED COMPONENTS!

If the spring unit or the air chamber cap is removed without first releasing the air, the spring unit or the air chamber cap is ejected from the stanchion after loosening the screw connection.

- Release the air completely before unscrewing the spring unit or the air chamber cap.
- While deflating the air, move the fork several times through the travel and deflate the air again (see „3. Small service“ on page 11).
- Components that may be under pressure must never point towards the face or body during disassembly.

1. Make sure the valve cap is removed and the air is completely released [see „3.2 Releasing The Air“ on page 12].
2. Clamp the fork in a suitable device so that the open sides of the stanchions points downwards.
3. Using the FWTXXXXXXXXX014126S tool, unscrew the spring unit from the underside of the left stanchion.
4. Drain the oil from the stanchion and the spring unit.

It is not necessary to clean the spring unit or the inner surface of the left stanchion. The remaining oil lubricates the sliding surfaces of the spring unit.

The 130, 140 and 150 mm models have a volume spacer inside the left stanchion. The position of the volume spacer must not be changed and the volume spacer must not be removed.

If the volume spacer has been moved accidentally, it must be positioned so that the distance from the lower edge of the left stanchion to the lower edge of the volume spacer is 247 to 252 mm.
3.6 ASSEMBLING THE SPRING UNIT

1. Make sure that there is still residual oil on the seals of the spring unit. Grease the seals with a small amount of DT Swiss Fork Oil if necessary.

2. Push the screw connection of the spring unit as far as possible in the direction of the piston.

3. Screw in the spring unit from the bottom using the tool FWTXXXXXXXX014126S and tighten with a torque of 20 Nm. Make sure that the screw connection of the spring unit is pushed as far as possible in the direction of the piston.
3.7 ASSEMBLING THE LOWER UNIT

1. Before mounting the lower unit, the damping unit should be fully compressed once. This ensures that the correct amount of damping oil is in the damping unit. A small amount of oil may drip from the stanchion.

2. Pull out the damping unit completely. Vertical play in the damping unit is normal.

3. Check, if the O-rings of the connectors are still in place.

4. Slide the SAG O-ring onto the stanchion tube if necessary.

5. Slide the lower unit about 5 cm onto the stanchions.
6. Fix the fork 45° - 70° upright.

7. Fill 20 ml DT Swiss Fork Oil into the spring side of the lower unit.

8. Fill 20 ml DT Swiss Fork Oil into the damping side of the lower unit.

9. Allow the fork to rest in the previously fixed position for about 60 seconds to allow the bushings to be lubricated.

10. Fully slide the lower unit onto the stanchions. Do not compress the piston rods of the spring and damping unit.

11. Screw in the screw on the damping side counterclockwise into the lower unit using the tool FXTXXXXXXXXX018482S and tighten the screw with a torque of 12 Nm.

12. Screw in the screw on the spring side counterclockwise into the lower unit using the tool FXTXXXXXXXXX018482S and tighten the screw with a torque of 12 Nm.
3.8 INFLATING THE FORK

1. Inflate the fork (see user manual for detailed information).

2. Screw on the valve cap.

3. Put on the cover and tighten the fixing screw handtight (max. 0.2 Nm).
4. CONVERTING THE CONTROL ELEMENTS FROM MANUAL TO REMOTE

4.1 REQUIRED TOOLS AND MATERIALS

<table>
<thead>
<tr>
<th>Required tools and materials</th>
<th>Quantity</th>
<th>Article number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controls kit ICP remote</td>
<td>1</td>
<td>FWKxxxxxxxxxxxx20621S</td>
</tr>
<tr>
<td>2 mm Allen key</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>T10 Torx key or T10 Setup tool from the RWS-axle</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8 mm, 16 mm, 19 mm open end wrench</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8 mm socket</td>
<td>1</td>
<td>FXTxxxxxxxxx018645S</td>
</tr>
<tr>
<td>Torque wrench with Torx T10 and 2.5 mm hexagon socket insert</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

4.2 OVERVIEW CONTROLS KIT

1 cover compression
2 nut
3 O-ring
4 remote wheel
5 dust seal
6 limitation pin
7 spring
8 clamping screw for remote cable
9 washer
10 spring
11 cover
4.3 REMOVING THE MANUAL CONTROL ELEMENTS

1. Unscrew the fixing screw of the mode lever a few turns.
2. Remove the lever.

3. Unscrew the fixing screw of the cover and remove the cover.

4. Pull out the compression adjuster.
5. Hold the raster wheel with a 16 mm wrench.
6. Unscrew the compression nut using an 8 mm wrench.
   → The raster wheel must not turn while unscrewing the nut.

7. Remove the raster wheel.
8. Remove the O-ring.

9. Remove the raster caps.
10. Remove the springs.
4.4 ASSEMBLING THE REMOTE CONTROL ELEMENTS

1. Turn the lockout shaft clockwise until stop [LOCK mode].
2. Put on the dust seal.
3. Put on the spring and the limiter cap.
   → Both the spring and the limiter cap must be placed in the bore next to the mark on the damping unit.
4. Put on the spring.
   The lower arm of the spring must be placed inside the bore.
5. Put on the remote wheel.
   The arm of the spring must be placed inside the bore of the remote wheel.
6. Push down the remote wheel and screw on the nut by hand as far as possible.
7. Turn the remote wheel clockwise for about 270° until the limiter cap snaps into the hole of the remote wheel with an audible "klick" using a 19 mm wrench.

8. Continue turning the remote wheel about 70° until stop.
   → The lockout shaft is in position «LOCK».

9. Hold in this position and tighten the nut with a torque of 5 Nm using the tool FXTXXXXXXXX018645S.

10. Put the O-ring into the remote wheel.

11. Put on the compression cover.
12. Put on the cable housing (2) and the cable adjuster (1).
   - Only cable housings with an outer diameter of 4 mm must be used.
   - Slide the cable housing through the cable holder on the backside of the fork crown (A).
   - Before and after the cable adjuster (1) there must be at least one short piece of cable housing.

13. Switch the remote lever to position “OPEN” and insert the cable through the cable housing (2).

14. Place the cable around the remote wheel and clamp it with the clamping screw. Tighten the clamping screw with a maximum torque of 1.3 Nm.
   - The clamping screw must be positioned in one of the five holes so that the cable wraps around the remote wheel as far as possible.
   - The three driving modes “OPEN”, “DRIVE” and “LOCK” must be freely adjustable.
   - The end of the cable must not touch the incoming cable (3).
   - The end of the cable must be cut as close as possible to the clamping screw.
   - Do not use a cable end cap.

15. Adjust the cable.
   - Switch to “DRIVE” mode using the remote lever.
   - Check that the markings (4) on the remote wheel and the fork crown match.
   - If necessary, adjust the cable tension via the cable tension adjuster until both markings match.

16. Put on the cover on the damping side (5) and tighten the fixing screw with the setup tool [Torx T10] handtight (max. 0.2 Nm).
5. CONVERT THE CONTROL ELEMENTS FROM REMOTE TO MANUAL

5.1 REQUIRED TOOLS AND MATERIALS

<table>
<thead>
<tr>
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</thead>
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<tr>
<td>Controls kit ICP</td>
<td>1</td>
<td>FWKXXXXXXXXXXXX20620S</td>
</tr>
<tr>
<td>T10 Torx key or T10 Setup tool from the RWS-axle</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>8 mm bit</td>
<td>1</td>
<td>FXTXXXXXXXXX018645S</td>
</tr>
<tr>
<td>16 mm, 19 mm open end wrench</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Torque wrench with a 2 mm hexagon and T10 Torx bit</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Loctite 241 or Loctite 243</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Degreaser</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

5.2 OVERVIEW CONTROLS KIT

1. fixing screw for the mode lever
2. mode lever
3. compression adjuster
4. compression nut
5. index wheel
6. O-ring
7. index pin
8. spring
9. cover
5.3 REMOVING THE REMOTE CONTROL ELEMENTS

1. Unscrew the fastening screw of the cover on the damping side and remove the cover.

2. Pull off the compression cover and the O-ring.

3. Hold the remote wheel with a 19 mm wrench.
4. Unscrew the nut of the remote wheel using the tool FXTXXXXXXXXX018645S.
   → The remote wheel must not turn while unscrewing the nut.
5. Pull off the remote wheel.
6. Remove the spring.

7. Pull off the limiter cap and the spring.
8. Remove the dust seal.
5.4 ASSEMBLING THE MANUAL CONTROL ELEMENTS

1. Insert springs and index pins into the bores of the damping unit.
   → The holes must be selected so that the index pins are offset by 120°.
2. Turn the lockout shaft clockwise to its stop (= LOCK position).
3. Put on the raster like shown in the figure.
   → One of the three pins must match in the notch direction of the raster.
4. Hold the raster with a 16 mm wrench and thread the nut onto the lockout shaft.
5. Tighten the nut with an 8 mm wrench with a torque of 5 Nm.
6. Check if all 3 positions «OPEN», «DRIVE» und «LOCK» do index with the index pins.
7. Put the O-Ring into the groove between cap and raster.

8. Slightly grease the toothing of the compression adapter and put it into the lockout shaft.

9. Turn the lockout shaft counterclockwise until stop (= OPEN position).

10. Put on the cover and tighten the fixing screw handtight (max. 0,2 Nm).
11. Place the lockout lever in riding direction of the fork.
12. Degrease the fixing screw of the lockout lever and put Loctite 241 onto the thread of the screw.
13. Screw in the fixing screw and tighten it to a torque of 1.2 Nm.
6. ADDING / REMOVING APT VOLUME SPACERS

6.1 OVERVIEW / FUNCTION

The APT [Adaptable Progression Tune] system allows the rider to adjust the progression of the air spring curve by adding or removing volume spacers in the fork’s air chamber. The fork is delivered with two mounted volume spacers. A further volume spacer is included for personal adjustment.

-2 SETTING: COMFORTABLE LINEAR
In this setting, without spacers, the suspension fork has a linear spring curve across the entire stroke and is barely progressive at the end of the travel. It is suitable for moderate off-road use by comfort-oriented riders.

-1 SETTING: RATHER COMFORTABLE, RATHER LINEAR
More ambitious riders looking for a rather comfortable setting use the setting with a single APT spacer. This offers a spring curve with a low progression for a smooth ride feel.

STOCK-SETTING: RATHER PROGRESSIVE
The stock setting of the forks has two APT spacers. This setting results in a rather progressive spring curve that gives more experienced riders the support they are looking for with their active riding style.

+ 1 SETTING: VERY PROGRESSIVE
When three APT spacers are used, the fork gets progressive and offers a direct ride feel. That makes this setting suitable for strong riders with an aggressive riding style.
6.2 REQUIRED TOOLS AND MATERIALS

<table>
<thead>
<tr>
<th>Required tools and materials</th>
<th>Specification</th>
<th>Quantity</th>
<th>Article number</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT ADJUSTMENT KIT F535</td>
<td></td>
<td>1</td>
<td>FWXXXXXXXXXXXX18795S</td>
</tr>
<tr>
<td>15 mm hexagon socket</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>28 mm open end wrench</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Torque wrench 25 Nm</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

6.3 RELEASING THE AIR

1. Unscrew the fixing screw of the cover on the spring side.
2. Remove the cover.
3. If necessary, clean the area under the cover to prevent dirt from entering the air chamber.
4. Unscrew the valve cap.
5. Carefully press the back of the valve cap onto the valve insert and slowly release the air.
6. **Slowly** compress the fork two times about 10 mm with the valve insert pressed and pull it apart again.
   → This balances the positive and negative air chambers.

### 6.4 OPENING THE AIR CHAMBER

1. Make sure the valve cap is removed and the air is completely released.
2. Ensure that the area around the air chamber cap is clean to prevent dirt from entering the air chamber.
3. Unscrew the air chamber cap with a 15 mm hexagon socket and a ratchet.
4. Pull the air chamber cap out of the air chamber.
6.5 CHANGING THE O-RING OF THE AIR CHAMBER CAP

1. Remove the O-ring from the air chamber cap.
2. Clean the seat of the O-ring and the thread of the air chamber cap and grease it slightly.
3. Slightly grease the new O-ring and fit it onto the air chamber cap.

6.6 ADDING / REMOVING APT VOLUME SPACERS

**NOTE**

**RISK OF DAMAGE THROUGH THE INSTALLATION OF MORE THAN THREE VOLUME SPACERS!**

If more than three volume spaces are mounted, the fork cannot compress completely.
- Never mount more than three volume spacers!

1. Add or remove the volume spacer using a 28 mm wrench.
   → The maximum number of three volume spacers must not be exceeded!
2. Tighten the volume spacer with a torque of 2 Nm.
6.7 CLOSING THE AIR CHAMBER

1. Clean the thread of the air chamber and the thread of the air chamber cap.
2. Slightly grease the thread and O-ring.
3. Screw in the air chamber cap as far as possible by hand.
4. Tighten the air chamber cap with a 15 mm hexagon socket and a torque wrench to a torque of 25 Nm.

6.8 INFLATING THE FORK

1. Inflate the fork (see user manual for detailed information).
2. Screw on the valve cap according to the number of volume spacers installed.
The kit contains various valve caps on which the number of volume spacers is marked. If the valve cap corresponding to the number of volume spacers mounted is screwed on, it is possible later to see how many volume spacers have been mounted without opening the air chamber.
3. Put on the cover and tighten the fixing screw handtight (max. 0.2 Nm).