



Tuning and Maintenance Guide

TIP. During transit and storage fork is laid horizontal, allowing hydraulic fluid to drain from damper. Launch Control & Damper will not function and fork may top out. Stroke fork right through travel with Launch-Control on/ with max' rebound setting. This will bleed air from system and prime damper. FORK MUST BE PUSHED AS DEEPLY THROUGH TRAVEL AS POSSIBLE FOR THIS PRIMING PROCEDURE TO WORK

Thank you for purchasing this handmade Pace fork! This guide contains very important information concerning the safe operation, tuning and maintenance of your fork and it is essential that it is read and followed. Please note that all high precision products require a bedding in period and your Pace fork will require minimum 20 hours use before starting to bed in. Make a note of the Serial Number of your fork and keep this and your original purchase receipt in a safe place. The serial number may be found beneath the carbon fibre bridge of the fork. Please note warranty is void should this number be removed.

Now activate the warranty on your new fork by completing and returning the enclosed Warranty Registration Card. Please see Warranty section.

More detailed RC40 maintenance details are also available @ www.pacecycles.com

INTENDED USE FOR YOUR RC40

This product is a lightweight suspension fork. Make sure that you use this product for its intended purpose, namely cross-country, enduro/marathon and all mountain/freeriding. This includes riding along moderately rocky trails where roots, depressions and small jumps may be encountered. This fork is not intended for extreme freeride, DownHill or dirt jumping/urban riding where high jumps, fallen trees, large holes and boulders or other big obstacles are ridden.

Only ride on trails or in areas designated for the appropriate use of this product. Absolutely do not transport your cycle in type of cycle

carrier where front wheel is removed otherwise fork dropouts may be damaged and fork warranty voided. If bike has been crashed carefully check for damage.

INSTALLATION

Fork. We recommend that your fork is fitted by a qualified cycle mechanic. Incorrect fitting could produce an accident and result in injury or death. Remove the old fork and fit headset crown race onto new steerer. Fit fork into frame, fork bridge to rear, inserting steerer through headtube, headset and stem then mark a line on the steerer at top of stem. Remove fork and cut steerer tube 3mm below marked line. Reinstall stem securing and adjusting according to stem and headset manufacturers instructions.

Brake. When fitting disc-brakes use mounting points on dropout carefully following brake manufacturers instructions. **Maximum recommended disc diameter is 185mm.** V-brakes cannot be fitted to this model.

Always adjust front wheel quick release lever following the manufacturers instructions and check lever is kept tight. A loose quick release can result in loss of control, injury or death. We would recommend that the lever arm is closed in a vertical locking position on lefthand dropout, as this compliments the dropout design and forms a secure location.

Maximum recommended tyre width is 2.3" and radius 335mm. Do not exceed this radius otherwise tyre may lock against underside of crown when fork is fully compressed.

Note. Do not try to remove fork steerer/stanchion tubes as these are permanently fixed to crown

TUNING AND SET-UP

Overview

All major adjustments to the function of the RC40 can be done through its external controls. Any combination of adjustment can safely be used however do not set external controls outside their operating range. We would recommend the Factory Settings as a sound starting point.

The gold coloured dial found top left of the fork crown is the Travel-Express fork travel adjustment dial- with the blue Launch Control Lockout system top right. The Launch Control dial can also be used to adjust Rebound Damping, whilst beneath the dial is the Threshold adjustment screw for the Launch Control system.

Compression adjustment is made with the red adjustment screw found beneath lower right dropout.

The RC40 also has an Active Travel Reserve feature where the last 40mm of travel always remains active, even when in Lockout mode. This is not adjustable.

FACTORY SETTINGS

Travel-Express. Long descents-130mm. At all other times set maximum travel to that recommended in your bicycle owners manual as each bicycle is designed for a certain fork travel length.

Rebound Damping. Set arms of dial to '25 minutes past midday' as if the arms of a clockface.

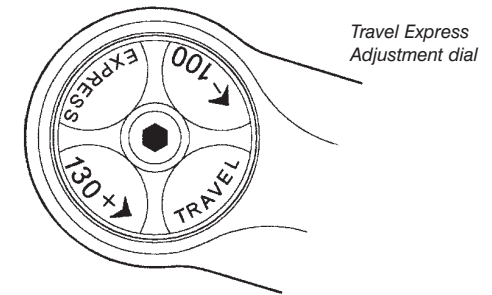
Compression Damping. Two full rotations out from fully wound in position. Use silver indicator slot to count turns.

Launch-Control. Depress dial to engage Lockout mode when climbing, whilst road riding or sprinting. Ride in suspension mode at all other times.

Launch-Control Threshold. Top of screw should be level with top of thread (housing face). **Important Note;** Only adjust Launch-Control threshold screw with Launch-Control lever depressed.

TRAVEL-EXPRESS

This system allows you to adjust fork travel anywhere from 130 through to 100mm. The large dial and indentations allow adjustment with a gloved hand. One 'click' of the dial represents approximately 3mm of travel. Rotate clockwise to reduce travel and anticlockwise to increase. Do not try and force dial past its adjustment stops and outside its operating range.



Travel Express Adjustment dial

Use longer travel settings over rough ground and descents. Use shorter travel settings at other times should this suit your bicycles geometry better (consult your dealer or bicycle manual).

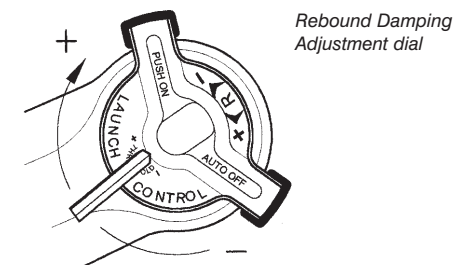
When the fork is under load or when increasing travel, dial may be more difficult to turn. This is quite normal.

The RC40 is equipped with a travel indicator band around the stanchion upper tube. The fork seal will push this up so as to indicate travel used.

Tip. Make sure Launch-Control is not engaged (dial depressed) whilst adjusting Travel-Express as it will make travel adjustment difficult.

REBOUND DAMPING

This is the most important damping setting on your fork. The 'R' etched into the Launch Control dial indicates damping is reduced (fork extends quickly) when rotated anti-clockwise ('-') and increased ('+') when rotated clockwise (fork extends slowly).



Rebound Damping Adjustment dial

Too fast a rebound speed bounces the front wheel off the ground when fork is rapidly extending. Too much rebound damping will produce a fork which is less lively and active so that the fork cannot return fast enough, ready to absorb the next bump impact. This can lead to 'packing down' where the fork can not extend fast enough after a series of bumps, resulting in the fork becoming shorter with every bump impact.

Try slightly different settings using the Factory Setting as your starting point and always judge correct rebound damping when riding, not in the workshop. We would not recommend riding fork with rebound dial rotated to extremes of adjustment as fork action will be overdamped/underdamped and will not be working within its operating range.

Tip; Take care when depressing Launch-Control that dial is not rotated (altering your preferred rebound damping setting).



COMPRESSION

The operating range of the compression adjustment screw is from 1 turn out through to 3 full turns out (from fully wound in position). Do not exceed these thresholds otherwise the Launch-Control system will not function correctly.

The minimum amount of compression damping will produce the most active and efficient fork action. Compression damping effectively tries to slow down the compression of the fork during a bump impact thereby spreading the time it takes for the fork to compress.

Rotate the adjuster screw fully in, then counting the number of rotations of the silver indicator slot (see diag.3), increase damping. Try and find a setting where a bump impact compresses the fork very quickly, but does so without the bump impact being

felt as a jolt or a spike. Too much compression damping will transmit the force of a bump impact through the fork into handlebars. Rotating the screw out will decrease the damping effect and speed up the compression of the fork during a bump impact. Too little damping will produce a highly active fork but one which may bottom out too easily.

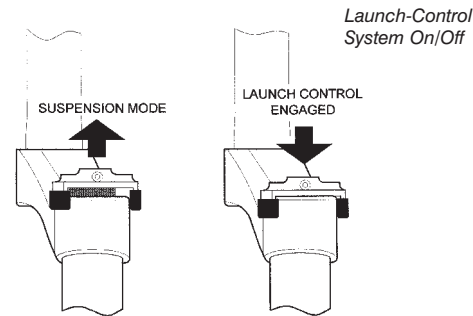
Minimum compression damping is 3 turns out from fully wound in

Important Note; Remember, do not exceed maximum/minimum compression adjustment screw thresholds otherwise Launch-Control will not function correctly.

Tip; Always judge the correct compression damping when riding, not in the workshop.

LAUNCH-CONTROL

This system allows you to decide when the fork should be locked out (press blue dial down) and can be manually turned off by pulling dial back up. However the system will automatically turn off the lockout (pushing the dial back out and returning the fork to suspension mode) when the fork encounters a 'high speed impact'. Manually press the Launch-Control dial down again if you wish to re-engage the system after a bump impact



Understanding the difference between high and low speed bump impact is the key to setting the Launch Control system up. Once set correctly the system should not then require regular resetting. 'High speed' does not refer to the speed at which you are riding but when the fork compresses very rapidly- in fact this can be at speeds of 130mm in less than 0.1 of a second. Riding into a kerb or very heavy

braking would represent high speed fork compression whereas riding through a smooth dip in the ground would produce a slow speed compression of the fork.

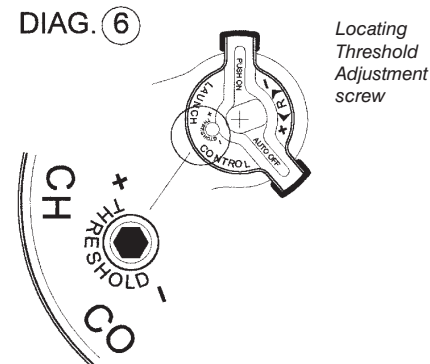
A high speed impact would be sensed by Launch Control and would activate the suspension whilst a slow speed load would not- the fork would remain locked out.

The fork is designed so that when locked out the fork will still compress, becoming shorter, but will not extend. This acts as a climbing aid, shortening the fork for better climbing geometry. However if you still require an active but shorter fork when climbing shorten the fork length with the Travel-Express dial. The Active Travel Reserve feature of the fork works in unison with Launch-Control so that even when locked out and with fork compressed 90mm, a high speed bump impact will allow fork to travel and suspension mode to re-engage.

Note 1; Launch-Control is very sensitive. When fork is fully extended if you engage Launch Control then rapidly press down on fork, system may instantly re-activate suspension mode again. There is nothing wrong with the system when it does this however the threshold at which the system reverts to suspension mode needs to be adjusted.

Note 2. With Launch-Control engaged when riding relatively smooth trails, you may feel a gentle 'thudding' as the system allows small amounts of fork compression then instantly locks out. This is quite normal.

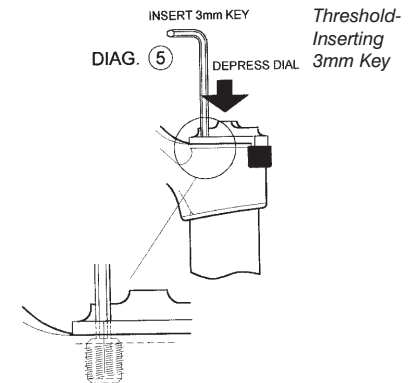
Tip; Launch-Control can also be manually turned off by pulling up on handlebars then sharply pushing down again (simulating a high-speed bump impact).



ADJUSTING LAUNCH-CONTROL THRESHOLD

The bump threshold of Launch-Control can be adjusted to suit rider weight and personal preferences. That is, once Launch-Control is engaged (blue dial depressed) if you find the system turns back to suspension mode too easily or only does so after a very heavy bump impact the point at which Launch-Control engages suspension mode can be adjusted. This point is referred to as the Threshold. Rotate Launch-Control dial until the small hole in the upper flat face of the dial (etched '+Threshold-' diag 6.) reveals threshold screw beneath. Depress dial to engage Launch-Control. Insert a 3mm key into threshold screw (see diag.5).

Important Note; Only adjust Launch-Control threshold screw with Launch-Control lever depressed!



Low Threshold. Launch-Control turns lockout off and engages suspension mode too easily. Example; climbing a smooth trail with small bumps, even a small 'high speed' bump activates the suspension. Depress Launch-Control dial and screw threshold screw in 1/2 of one turn

High Threshold. Launch-Control will not turn lockout off and engage suspension mode. Example. Riding into a moderately sized obstacle such as a rock or root does not activate suspension mode. Depress Launch-Control dial and screw threshold screw out one turn.

Important Note; It is not recommended that Launch-Control is used for extended periods with threshold screw wound fully in as internal damage can be caused to some parts. This setting should only be used in 'one-off' special circumstances.

Tip; In certain circumstances the threshold adjustment you have chosen may cause the Launch-Control dial to only partially pop out after an impact, so that fork is midway between suspension and lockout mode. Depress Launch-Control dial and screw threshold adjustment screw either in or out half of a turn.

MAINTENANCE

General. After every ride wash dirt and dust from fork using soap and water. Do not direct powerful water jets at the fork. Always depress the Launch-Control dial before washing fork as this will protect the delicate dust shield beneath dial. Carefully clean away grit and dirt from the wiper seals so that surface of stanchions and internal parts cannot be damaged by caked on trail debris. Take care not to disturb garter springs around seals. Pay particular attention when riding through salt water (winter/coastal roads) making sure fork is regularly washed clean.

Service interval. To maintain damping, lock-out performance and quality fork action your RC40 should be regularly serviced.

Before every ride! Warning! Riding a bike which has not been maintained and inspected before every ride is dangerous. Do not ride without first checking fork action is operating correctly and that securing nuts and any mounting screws are in place and tight.

After every 10 hours riding. Lubricate stanchions with a few drops of light oil. Dry Teflon lube is recommended.

After every 25 hours of riding. Lubricate Travel Express dial. Use a 2.5mm key to loosen screw then remove dial. Take care not to loose small detent balls and springs. Carefully clean all parts. Smear light coat of copper grease on underside of dial and around circlip. Reassemble.

Re-touch any scratched paintwork on dropouts as exposed magnesium can rapidly corrode.

After every 50 hours of riding. To maintain the quality action of the fork and increase bearing and stanchion coating life, wiper seals and rings should be cleaned and lubricated. For a detailed description of procedure please visit www.pacecycles.com.

Maximum period between a Full Service is 1 year. At this point stanchion wiper and foam seals should be replaced and hydraulic oil changed. We recommend this work is carried out by your dealer or alternatively the Pace Cycles factory. For a

detailed description of procedure please visit Pace website.

After each service fit brake and front wheel following manufacturers fitting instructions (make sure quick release is tight). Make sure all parts and fittings are in place and correctly adjusted before checking fork action is OK, then carefully test ride bike.

TROUBLE SHOOTING

Damping and Launch-Control does not appear to operate.

Fork tops out hard.

Tip; When transporting, laying down or inverting bicycle/ fork always depress Launch Control dial. Otherwise hydraulic fluid may gradually drain from damper. To reprime damper first ensure compression adjuster screw is set to factory setting, with rebound adjuster dial set at maximum/with Launch Control on; -Push fork as far through travel as possible. Repeat if necessary. Damper is primed when Launch Control locks out.

Launch-Control dial pops back out to suspension mode too easily.

1. Compression damping screw is screwed too far in, outside its adjustment range. Refer to Compression Damping in Tuning and Set-up section.

2. Threshold needs adjusting. Refer to Threshold in Launch-Control section.

Travel-Express dial is very hard to turn.

Make sure that handlebars are not being pressed down during adjustment (ideally lift wheel off ground). Also make sure Launch-Control dial is not engaged & that dial has been lightly lubricated (refer to Maintenance section- after 25 hrs of riding)

Travel adjusts by itself

Travel-Express dial needs cleaning or has had too much grease added (refer to Maintenance section- after 25 hrs of riding)

Rebound damping seems very slow in all settings. Compression damping screw is screwed too far in, outside its adjustment range. Refer to Compression Damping in Tuning and Set-up section. Alternatively check that Launch-Control dial is not partially depressed.

Launch-Control dial only partially pops out on impact. In certain circumstances the threshold adjustment you have chosen may cause the Launch-Control dial to only partially pop out after an impact, so that fork is midway between suspension and lockout mode. Depress Launch-Control

dial and screw threshold adjustment screw either in or out half of a turn.

Oil can be seen on stanchions

Wiper seals are designed to allow a small amount of oil to escape as this lubricates stanchion tubes and removes contaminants from seal. However if a large amount of oil is passing seals replace seals and foam wiper rings. Alternatively check fork has not been overfilled with oil.

WARRANTY

Warranty is Void on this product unless Warranty Registration Card enclosed is completed, signed and returned to Pace Cycles Limited by Registered Mail within ten (10) days of purchase. This is an express precondition to the activation of this warranty.

Pace Cycles Limited warrants any component part of this fork for a period of two years from date of purchase to be free from defects in workmanship or materials, and reserves the right to either replace or repair defective parts. Pace Cycles Limited shall not be held liable for any incidental, consequential, indirect or special damages associated with the use of this fork.

In the event of a defect the purchaser or their supplying dealer should contact Pace Cycles Ltd in the UK for a Warranty Returns Number before returning product.

This warranty only applies to original owner. Product should be returned in a clean condition carriage prepaid and original proof of purchase invoice must be included.

This warranty does not apply to products which have not been correctly installed, tuned and serviced according to this Tuning and Maintenance Guide or that has been misused, altered, crashed, neglected or used for activities not recommended such as trials, jumping, stunt riding or downhill racing (see 'Intended Use' section at start of this guide).

Oils, seals, decals and lever dial grips have a service life less than two years and are not covered by this warranty. Corrosion damage to magnesium dropouts, carbon fibre slider assembly or upper fork tubes caused by scratches will not be warranty covered.

This Warranty is the sole and exclusive remedy and supersedes any previous warranty or undertaking.

SERVICING GARTER SEALS & FOAM RINGS. CARBON SLIDER REMOVAL

TOOLS REQUIRED

13mm open ended spanner. 5mm key. Soft faced hammer. Large flat blade screwdriver. Cleaning rag. Silicone Grease. Pace Suspension Lube (A seal kit and Silicone Sealant will also be required if seals are being replaced)

This Manual explains how to remove carbon slider if slider is being removed simply to clean seals. No hydraulic oil will be lost from fork using this method and all internal parts can be left undisturbed. If slider is being removed as part of full fork strip please also follow separate 'Replacing & Servicing Coil Spring' and Damper Removal' sections

REMOVING SLIDER

Important; Fork must remain vertical at all times. Do not depress damper internals or spring otherwise hydraulic oil will be lost and will need replacing

- Wipe seal area, carbon slider and dropouts until perfectly clean
- Remove wheel. Engage Rebound/Launch Control dial (17.press down)
- Support bicycle upside-down. Leave for 5 minutes so oil drains into upper tubes
- Unscrew M6 brake calliper screws using a 5mm key & remove brake calliper
- Screw compression adjuster screw fully in then remove Nuts (16) from threaded housings at base of both dropouts. Use 13mm spanner
- The threaded housings are locked into the dropouts with an internal taper
- To unlock carefully tap free with soft faced hammer. DO NOT use a hard hammer otherwise damage can be caused to threads and internal parts
- Slowly draw off Carbon Slider (1)

Note; Do not touch or disturb Damper Body or Spring assemblies which are now stood out of upper stanchion tubes

SERVICING

- Carefully clean Garter Seals (22) paying particular attention to remove any dirt
- DO NOT DISTURB the foam wiper ring beneath wiper seal
- A small piece of cloth taped to a rod can be used to wipe clean inside of carbon slider, making sure not to disturb bearings or foam wiper ring
- Inspect Garter Seal and foam ring. Replace if cracked, damaged or if they contain any dirt or debris

- Smear Silicone Grease into gap between inner and outer lips of seal

- Saturate foam rings with Pace Suspension Fluid (it is OK if this goes inside fork)

- Replace slider (replace seals and foam wiper rings if damaged/contaminated)

REMOVING/REPLACING GARTER SEALS AND FOAM WIPER RINGS

- Insert large flat bladed screwdriver inside seal and carefully lever up one side of seal. Take care not to scratch or damage carbon fibre slider around mouth of slider or carbon surface where seal fits. NOTE; seal must be discarded, not re-used after it has been removed!

- Repeat on opposite side and so on until seal comes free. Remove foam rings

- Clean carbon fibre sealing surface with Acetone
- Insert new foam rings

- Apply a thin, even smear of Silicone Sealant to ribbed surface of seal. Do not miss any of the surface
- Orientate seal so that seal flange is to front and will clear rear carbon bridge

- Insert seal into mouth of carbon slider and press home using equal thumb pressure around seal, working seal into slider until seal flange meets carbon.

NOTE; seal must be pressed in level, do not press in and leave at an angle

REPLACING SLIDER

- With slider bridge to rear, carefully feed seals over Damper Body and Spring assemblies and work onto stanchion upper tubes. Take great care not to trap seals, garter seal springs or internal foam rings

- Carefully slide down carbon slider working stanchions through lower bearings until threaded housings appear through dropouts. Important; Do not force stanchion through lower bearing at an angle otherwise bearing may be moved/damaged

- Make sure threads on base of Damper and Spring assemblies and nuts are clean. Fit nuts and tighten with 13mm spanner

- Refit brake calliper and use M5 key to tighten calliper screws to brake manufacturers recommended torque figures

- Refit wheel and make sure Quick Release is tightened according to QR manufacturers instructions

- Test ride fork and make sure fork operates correctly and smoothly

DAMPER REMOVAL - DAMPER OIL CHANGE

TOOLS REQUIRED

2.5mm key. Internal circlip pliers. 13mm open ended spanner. Soft faced hammer. (Circular tool such as socket- max 31mm outside diameter). 110cc 10 weight Hydraulic Fork Oil (medium viscosity). Copper and Silicone Grease.

REMOVAL

- Hold bicycle in stand and remove front wheel

- Remove blue Launch Control dial (17) using 2.5mm key, then Foam Dirt Excluder (10) and Launch Control Spring (26)

- So that fork can be compressed top of Spring assy (32) will need to be freed

- To do this first remove yellow Travel Express dial (27) using 2.5mm key then carefully store both detent springs and balls (24).

- Now remove both LH and RH main crown circlips (4. wear eye protection)

- Fully compress fork so that both Travel Adjuster Top Cap (28) and Damper Control Top (5) pop out of crown

- Remove nut at base of RH dropout (16) using 13mm spanner and with soft faced hammer carefully tap free threaded base of Damper Body (8) Note; have a suitable receptacle beneath to catch hydraulic fork oil

- Carefully withdraw Damper Body/Control as a complete assembly

SERVICING

- Hold damper body over receptacle then fully compress & extend Damper Control Assy in and out repeatedly, pumping out all hydraulic fluid from damper

- Check damper base and top are screwed tightly onto Damper Body, and that Damper Control Top is screwed tightly onto Damper Control Tube.

- Replace Damper Control Top and Spring Assy Top Plug O-rings if damaged

- (Part No SFA40-2431)

- Wipe clean outside surface of Damper Body and Damper Control assy, cleaning recesses in Damper Control Top and threads on threaded Damper Base
- Wind compression adjuster screw out to full extent then wipe clean all threads

- Check nut freely runs up thread on damper base

- Replace Lever Grips (18) if damaged or missing (Part No SFAUP-2469)

- Clean underside of both adjuster dials and lubricate underside of both with a little anti-seize copper grease. Clean spring

- Carefully wash clean Foam Dirt Excluder, dry and lube with a little grease

REPLACING DAMPER. FILLING WITH OIL

- Keep fork fully compressed until Damper is refitted and sealed

- Apply silicone grease to taper on Damper base and lower complete Damper assy into fork, fit nut and tighten using 13mm spanner (do not overtighten)

- Pour half of hydraulic fork oil (55cc) into fork then pump Damper Control assy fully in/out until resistance is felt as oil is drawn into damper

- Pour in remaining oil, press down brass Damper Rod then pump Damper Control assy fully in/out until fork completely locks out

- Use jaws of circlip pliers to pull Damper Rod back out then rotate Damper Control Top clockwise until its Threshold Screw (25) is aligned along an imaginary line drawn from centre of steerer to centre of stanchion

- Apply a little silicone grease to O-rings then firmly push Damper Control Top back into crown.

- Fit RH Crown Circlip, extend fork, then push Spring Assy Top Plug firmly into crown (lube O-rings with Silicone Grease) before fitting LH Crown Circlip.

Important; ensure circlip is fully engaged in its groove

Tip; if necessary use a circular tube such as a socket and tap down circlip to ensure it is correctly seated in its groove

- Fit detent springs and balls, then dial, finally tighten centre countersunk screw

- Fit protector foam, spring then rotate Damper Rod until flat faces out. Press Damper Rod down, fit Launch Control dial (aligning fastening screw with flat on Damper Rod) then press dial fully down before tightening screw with 2.5mm key

REPLACING & SERVICING COIL SPRING ASSY

TOOLS REQUIRED

13mm open ended spanner. 2.5mm key. Internal circlip pliers. Screwdriver. Soft faced hammer. (Circular tool such as socket- max 31mm outside diameter). Emery Cloth. Receptacle. 10cc Lubricating/Hydraulic Oil. Copper and Silicone Grease

REMOVAL

-Hold bicycle in stand and remove front wheel.
-Remove Nut (16) at base of LH dropout (13mm)
-Remove Countersunk Screw (13) from centre of Travel Express dial (27) with 2.5mm key
-Remove dial and carefully store both detent springs and two 2.5mm balls (24)
-Remove main crown circlip (4. wear eye protection)
-With soft faced hammer carefully tap free threaded base of Spring Assy (32)-
LH dropout. Note; have a suitable receptacle beneath to catch small amount of lubricating fluid and dispose of correctly
-Withdraw Spring Assy (32) from fork

SERVICING

-Remove retaining Circlip (33) on top of Travel Adjuster Top Cap (28), clean and use emery cloth to polish off any sharp edges on tips of circlip
-Clean all Spring Assy, Travel Adjuster Top Cap, Travel Express Dial and crown circlip groove.
Replace O-rings on Travel Adjuster Top Cap if damaged (Part No SFA40-2431)
-Check Heat Shrink spring sleeve around outside of Spring Assy is tight and has not rotated on spring (bottom of sleeve to top of aluminium spring base = 50mm).
Use heat gun to re-shrink onto spring if loose.
-Lubrication
Top and bottom surfaces of Travel Adjuster Top Cap with copper grease
Heat Shrink Sleeve and Tapered Spring assy base with silicone grease
O-rings on outside of Travel Adjuster Top Cap with silicone grease

REPLACING

-Lower Spring Assy into fork and tighten nut at fork dropout using 13mm spanner
-Add 10cc of light lubricating oil (or hydraulic oil)
-Extend fork and push Travel Adjuster Top Cap back

into fork crown

-Add crown circlip. Important; ensure circlip is fully engaged in its groove

Tip; if necessary use a circular tube such as a socket and tap down circlip- 31mm dia maximum

-Fit detent springs and balls, then dial, finally tighten centre countersunk screw