RST
RAPID SUSPENSION TECHNOLOGY

OWNER'S MANUAL

ENGLISH

KILLAH
STITCH
STORM
ROGUE
RENEGADE
TITAN series
CHAMP series
F1RST series
AERIAL series
PULSE series
SPACE
VOGUE
VIVAir
GUIDE

RST

RST Limited Warranty

This warranty covers bicycle products manufactured by Dah Ken in both Taiwan and China factory under RST brand (the “RST Products”).

Warranty Period

RST warrants that the RST Product is free from defects in materials and workmanship under normal conditions and reasonable use for a period
of two years from the date of original purchase of bicycle or RST Product. This warranty is only between RST and the original purchaser and is NOT transferable.Claims under this warranty must be made through an RST dealer or where the bicycle or the RST product was purchased. Warranty is at the full discretion of RST or their official distributors and will cover only defective materials and workmanship.

Warranty Exclusions

This warranty does not cover the following:

1.The RST product if it has been modified or repaired by a person other than an authorized RST dealer or service center.
2.The installation of non-genuine RST parts and/or accessories.
3.The RST Product if it has been used for rental or commercial purposes
4.Damage resulting from causes other than defects in materials and workmanship, including but not limited to: accident, abuse, misuse, neglect, stunt, acrobatics riding, ramp jumping, improper assembly or installation, improper repair, lack of maintenance, alteration, modification or other abnormal, excessive or improper use.
5.The damages caused by the use of parts that are not compatible, suitable and/or authorized by RST for use with RST product.
6.Damage occurring during transportation of the RST product.
7.Damage to products that are not manufactured by RST.
8.Damages resulting from normal wear and tear, including but not limited to damage or deterioration to the surface finish, aesthetics, appearance or the repainting of RST Product.
9.The warranty is void if the serial number or production code has been deliberately altered, defaced or removed.
10.Stripped threads are not covered.
11.Any product that has not been maintain as per RST’s recommended service intervals.
12.Any bending, non-alignment defects or loosening which happen to the steerer tube, fork crown, stanchions and lower casting of the product in the Dirt Jump and/or Free Ride category.

■ Normal wear and tear parts are identified as follows:

1	Dust seal	2	Air sealing O-ring	3	Rubber moving parts	4	Rear shock mounting hardware and main seal	5	Stripped threads/bolt
6	Remote lockout cable	7	Bushing	8	Stanchion (upper tube)	9	Pivot	10	Lubricant—grease

■ Suggested replacement/service intervals of wear and tear parts as follows:

Part Name	Dust seal	Air sealing O-ring	Rubber moving parts	Rear shock mounting hardware and main seal	Remote lockout cable	Lubricant—grease
Need to replace	6 months	1 year	1 year	1 year	1 year	6 months

Warranty Handling Process

RST reserves the right of all final warranty or non-warranty decisions.
To make a valid claim under this warranty, please return the RST Product to an authorized RST dealer or the place of purchase with the original, dated invoice or receipt. Your dealer will contact the local RST warranty service center to handle your warranty claim.
In the USA, dealers should call the RST-USA warranty service center at (661)-360-9946. Customers in countries other than USA should contact their local dealer or distributor or RST Europe Office.
If, having inspected the RST Product, RST accepts that the RST Product is defective; RST will either repair or replace the RST Product without charge.
In the event that a product needs to be replaced and is discontinued or not available, RST reserves the right to replace the product with one of equal value, no credit or refund will be issued.
The warranty duration and laws may vary from country to country and/or state to state.
RST reserves the right to revise this limited warranty without notice.
All parts and components out of warranty period need to be purchased.

Importance of maintenance

RST feels that scheduled/ recommended regular maintenance is very important and necessary to guarantee the performance and life of RST Products, please carefully refer to OWNER’S MANUAL for the details.
All forks, that have been in service 5 years or more, should be inspected and serviced annually if they are going to remain in use.

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XC1800-122

RST

RAPID SUSPENSION TECHNOLOGY

CONGRATULATIONS on selecting an RST suspension fork. You have chosen the best suspension components for your bicycle! This RST fork is fully assembled and ready to be installed onto your bicycle.

ENGLISH

CAUTION

Proper care and maintenance of your RST product is necessary for longevity and optimum performance.
Failing to perform routine maintenance will greatly decrease the performance of the product and may lead to premature deterioration or even failure of the product. Lack of maintenance may also jeopardize the safe operation of your fork and will void the warranty.

GENERAL WARNING

This manual contains important information about the safe operation and maintenance of your fork. Reading this manual entirely, and properly maintaining your bicycle and suspension fork is essential. To ensure that your RST fork performs properly, we recommend that you have your fork installed by a qualified bicycle mechanic. Prior to riding your bicycle, you should inspect your suspension fork to ensure that no damage has occurred during the course of riding.
Do not ride your bicycle if the fork shows any signs of bending, cracking, leaking, or if it is missing any of the original supplied components. Any fall from your bicycle can result in serious injury or even death. Following these instructions can help you reduce the risk of being injured. We recommend returning your suspension fork to your dealer or an authorized service center annually for a thorough inspection and service.

IMPORTANT

This is an off-road fork, and as such, does not come with proper reflectors for on-road use.
Have your dealer or mechanic install proper reflectors to meet the Customer Product Safety Commission's (C.P.S.C.) requirements for bicycles if the fork is going to be used on public roads at any time.

CONSUMER SAFETY INFORMATION

1. Never remove or have the steerer tube or stanchions removed from the crown. The steerer tube and stanchions (inner legs) are press fit at the factory. Press fitting of the inner legs and steerer tubes has higher performance versus having clamped stanchions or steerer tubes, but they can NOT be pressed out and changed. Pressing them out will permanently damage the crown beyond repair and render it unsafe for any use.
2. Do NOT attempt to thread a thread-less steerer tube. Cutting threads will weaken the steerer tube and cause an unsafe condition. The only safe thing to do is to obtain the proper crown/ steerer from your dealer, contact RST USA warranty service center or RST Europe.
3. Any other alteration or modification to your fork should be considered unsafe and will void the warranty. Contact your dealer, RST USA warranty service center or RST Europe prior to modifying your fork in any way for safety information.
4. Do not use an RST fork if any parts are broken, bent, cracked, or you suspect may be damaged. Contact your dealer, RST USA warranty service center or RST Europe, if you have any question concerning the integrity or condition of your fork.
5. RST recommends that you inspect your fork before every ride for wear and damage. Please pay particular attention to the crown, stanchions, sliders, dropouts and brace for any sign of cracks, bending or damage.

WARRANTY INFORMATION

Any RST fork found, by the factory, to be defective in materials and/or workmanship within two year from the date of purchase will be repaired or replaced at the option of the manufacturer, free of charge, when received at the factory with proof of purchase, freight prepaid. This warranty does not cover any fork that has been subject to misuse or abuse, including but not limited to, any breakage, bending, damage cause by crashes and/or assembly, improper maintenance, or other excessive, improper or abnormal conditions. This warranty does not cover paint damage.

Any modifications or alterations made by the user will render the warranty null and void. This warranty is expressly in lieu of all other warranties, and any implied are limited in duration to the same duration as the expressed warranty herein. RST shall not be liable for any incidental or consequential damages. In the event that a product needs to be replaced and is discontinued or not available, RST reserves the right to replace the product with one of equal value, no credit or refund will be issued.

This product is not intended for use in stunt or acrobatics riding, ramp jumping, or similar activities, the user assumes all risks of personal injury, product damage or failure, and any other losses which may arise under such use.

If for any reason, warranty work is necessary, return the fork to the place of purchase, In the USA and Canada, dealers should call RST USA warranty service center. Customers in countries other than USA should contact their local dealer or distributor or RST Europe.

INSTALLATION INSTRUCTION

It is extremely important that your RST fork is installed correctly by a qualified bicycle mechanic. Improperly installed forks are extremely dangerous and can result in serious and/or fatal injuries. Ensure that the proper steerer tube has been delivered on your RST fork. The steerer tube may need to be cut to length to fit your bicycle head tube. If you are not familiar with this procedure, or do not have proper tools to cut the steerer tube, it is recommended that you seek a dealer with a qualified bicycle mechanic to perform installation.

WARNING

The steerer tube and stanchions (inner legs) are a one-time precision press fit at the factory and can not be removed from the crown. Replacement of the entire crown/steerer assembly must be done to change steerer tube lengths or diameters.
Attempting to remove and replace the steerer tube or stanchions will result in an unsafe condition and should never be done.

FORK INSTALLATION

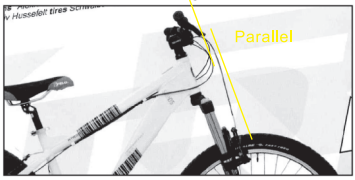
1. Remove the old fork from your bike.
2. Measure the length of steerer tube to fit your bicycle head tube, make sure there is sufficient length to install the stem (refer to the stem manufacturer's instructions), you can use your old fork as guide for cutting the length of steerer tube.

3. Install the headset crown race (as per manufacturer's instructions) firmly against the top of the fork crown.
4. Clean and lubricate the headset bearings and races.
5. Insert the steerer tube into the head tube of the frame.
6. Install the upper bearings, stem spacers, and stem.
7. Install the stem cap and bolt. Tighten the bolt to headset manufacture's specifications.
8. Install the handlebars to desired height and torque stem pinch screws or stem clamping system to manufacturer's specifications. Adjust the headset until you feel no play and drag.
9. Install the brakes and adjust per manufacturer's instructions.
10. Install the front wheel into the dropout counter bore. The quick release must be tightened after it is properly seated into the dropout counter bores to manufacturer's specifications.
11. Make sure to check the tire clearance. To check tire clearance, remove the air pressure and/or spring stacks and compress the fork completely to make sure a minimum of 1/4'' (6.4mm) of clearance exists between the top of the tire and the bottom of the crown.
12. Your new fork is designed to break-in during your first few rides (about 20 hour total riding time). Prior to break-in, you may notice your fork feels tight and slightly sluggish. Following the break-in period, your fork will feel much smoother and will react to bumps much better than when you first put in on your bike.

SAFETY MAINTENANCE

Before every ride, please perform the following inspection:

1. Ensure that quick release skewers and thru axles are properly adjusted and tight.
2. Wipe the stanchions and outer legs clean and check entire fork for any obvious damage.
3. Check the headset for proper adjustment.
4. Ensure that the front brake cable is properly routed and check brake adjustment.
5. Check top caps, brake posts and shaft bolt for proper torque.
6. Please pay particular attention to ensure that steerer and stanchion tubes are still parallel. (Bending of the fork forward or backward is a common trait of hard landings.)



Whenever the performance of the fork is noticed to have diminished or it has reached a service interval (whichever occurs first), perform the following procedures:

PERFORMANCE MAINTENANCE

1. Disassemble fork and thoroughly clean grease and residue from each part.
2. Inspect all parts for damage such as cracks, abrasions, and normal wear. If any parts are found to be damaged or excessively worn in anyway, replace them immediately. Stop using this product until the damaged or worn parts have been replaced. If all the parts are in usable condition, proceed to step 3.
3. Apply a liberal amount of approved grease to the upper and lower bushing, stanchion, valve assembly, and wipers. Fill the wiper pocket with a generous amount of grease. Do not use a lithium grease as it can cause damage to the bushing material and the seals.

Bushing replacement:
In the event that an RST fork is founded to have excessive play between the stanchion and outer leg, the bushings will need to replaced.
All forks, that have been 5 years or more, should be inspected and serviced annually if they are going to remain in use.

IMPORTANT

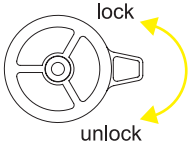
Replacing bushing requires special tools to remove and install the bushings properly. RST strongly recommends this work should be done by a qualified mechanic with the proper tools. Improperly installed bushings are extremely dangerous and can result in serious and/or fatal injuries.

Suggested service intervals for all RST suspension forks			
Normal Conditions		**Severe Conditions**	
Short Sporadic Rides	Long Frequent Rides	Short Sporadic Rides	Long Frequent Rides
Every 6 months	Every 4 months	Every 4 months	Every 3 months

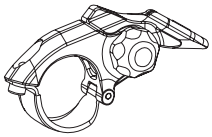
Normal wear and tear parts are identified as follows			
1	Dust seal	6	Remote lockout cable
2	Air sealing O-ring	7	Bushing
3	Rubber moving parts	8	Stanchion (upper tube)
4	Rear shock mounting hardand main seal	9	Pivot
5	Strippeds/bolt	10	Lubricant-grease

Suggested replacement/service intervals of wear and tear parts as follows			
Dust seal	6 months	Rear shock mounting	1 year
Air sealing O-ring	1 year	Remote lockout cable	1 year
Rubber moving parts	1 year	Lubricant--grease	6 months

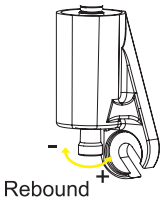
FUNCTION



1.For forks with the crown-mounted compression adjuster, rotate the adjuster counterclockwise to change the amount of compression damping to the lockout.



2.For forks with the remote lever adjuster, press the lever down to change the amount of compression damping to the lockout. Note: For more detail installation tips for the TRL or for help in troubleshooting any problems in TRL adjustments, please log on to the RST website (www.rst.com.tw) for relative information.

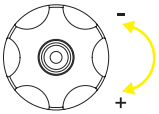


3.Rotate the rebound adjuster as indicated on the sticker to adjust the rebound faster or slower.

4.Note: A minimum amount of fork movement (0~15mm) could appear when the fork is in the lockout position. This is normal in the design of the fork.

RA Rebound adjustment

Hydraulic damping system with external rebound adjustment.

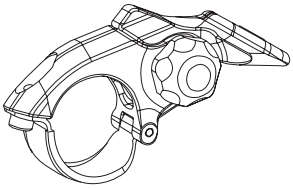


1. Rotate the rebound adjuster clockwise to increase the rebound damping and turn it counterclockwise to decrease the rebound damping.
2. Turn the adjuster knob then test the fork to make sure the rebound damping can meet your requirement. If not, try another 1/2 turn.

TRL Tiny Remote Lockout Assembly

The TRL lever is the smallest, lightest, multi-setting remote lever RST has ever offered. The interchangeable release button allows the rider to choose the optimum position of the TRL lever on either side of the handle bar.

Instruction for the TRL assembly:



1. Choose the release lever position once you found the optimum side on the handle bar for the lever
2. Unscrew the release button and take out the spring, alloy washer and fixing bolt
3. Put in the bolt first, then the alloy washer and the spring before tightening the release button
4. Tighten the open clamp with 2.5Nm maximum

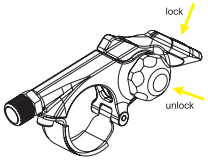
AIR Air spring system

RST air spring system provides the positive air chamber and negative coil spring to make the fork lightweight and allows for easy air pressure set up.

The Air system is a built-in type and it needs to be adjusted according to the different needs and desires of different riders. Consult the table below to select the air pressure that is the best for you.

RL

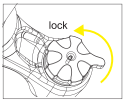
Remote Lockout



Hydraulic Remote Lock-out'' system which provide an easy way to use lock-out function from handle bar.

TNL

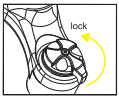
Hydraulic Lock-out



Lock-out situation:
By using lever to adjust the fork's compression from fast to slow gradually, then till lock-out position in the end.

ML

Mechanical Lock-out



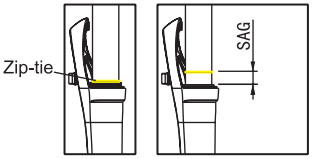
Lock-out situation:
Lock the fork easily and rapidly by any travel.

RECOMMENDATION FOR AIR PRESSURE

FIRST Platinum					
Rider-Weight(kg) Pressure(Psi)	40-60 50-70	60-80 70-90	80-100 90-110	100-110 110-120	110-120 140
VOGUE					
Rider-Weight(kg) Pressure(Psi)	40-60 110	60-80 115-120	80-100 120-130	100-110 130-140	110-120 140-150
ROGUE, G U I D E , **RENEGADE, TITAN/ TITAN 15, CHAMP series, F1RST series, AERIAL series, VIVAir, PULSE AIR series**					
Rider-Weight(kg) Pressure(Psi)	40-60 60	60-80 60-80	80-100 80-100	100-110 100-120	110-120 120-150
STITCH, SPACE Jump					
Rider-Weight(kg) Pressure(Psi)	20-40 30-40	40-60 35-40	60-80 45-55	80-100 55-65	100-120 120

MEASURING AND SETTING SAG

SAG is the amount of suspension fork travel that rider sits on the bicycle without use any force on it. The SAG can help to maintain contact and traction over bumpy terrain.



Zip-tie method

1. Please install a zip tie down against the wiper seal of the fork's stanchion and without the rider on the bicycle.(see as photo1)
2. Sit on the bicycle in a normal riding position. RST recommends that you to fit up with your normal riding equipment. It may be necessary to hold yourself up against the wall to help steady yourself. Do not bounce on pedals or saddle.
3. Step off the bicycle and measure the distance between the zip tie and wiper seal. This is the sag value. RST recommends the proper value of sag should be between 15 and 25 percent of maximum travel. If the distance shorter than the 15 percent of maximum travel. It means the fork is too stiff (You need to decrease the air pressure). If the distance longer than the 25 percent of maximum travel. It means the fork is too soft (You need to increase the air pressure).
4. For Air pressure setting of all air forks, please refer to the next paragraph ''INCREASE AIR PRESSURE''.

INCREASE AIR PRESSURE

1. Unscrew the valve cap on the left leg and set aside.
2. The air fitting is of the Schrader valve type.
3. Use the RST air pump, to pressurize the fork to the desired level. (Upon removing the air pump, there may be some air lost. This is air escaping from the pump and doesn't affect the pressure setting you set the fork at).
4. To decrease pressure, it is best to use the RST air pump since the air chamber volume is quite small and will allow better control than simple depressing the center pin of the Schrader valve.
   NOTE: Since all air chambers contain a small amount of oil, you should only adjust the air pressure with the fork in an upright position. If you depress the Schrader valve manually, it is normal to see a small amount of oil mist, please use a shop towel to cover the valve to protect yourself and do not look directly over the valve.

WARNING

Changing the suspension settings on the fork can change the handling and braking characteristics of your cycle. Do not change the adjustment until you are fully familiar with the instructions and recommendations. Always check for changes in handling or braking by taking a careful test ride in a safe environment after each adjustment.

LUBRICATION

To ensure the fork's optimum performance, we recommend regular lubrication with a suspension approved grease. Please log on RST website (www.rst.com.tw) for maintenance manual information.

WARNING

1. Before disassembly of the ‘‘function system’’, it is strongly recommended to take it to an RST dealer. The authorized RST dealers will provide qualified technicians with proper tools and training to perform service correctly. Improper disassembly may damage the product and lead to failure of human injury.
2. Before completing maintenance, please make sure all screws have been securely tightened according the correct torque settings to avoid any human injury.

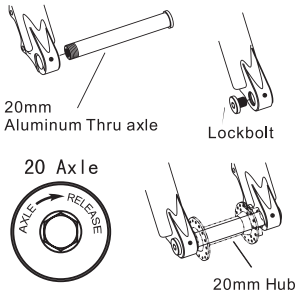
MAX. RECOMMENDATION ROTOR SIZE

MODEL NAME	TYPE	ROTOR SIZE
KILLAH/ STITCH/STORM / ROGUE/ GUIDE	POST	203(mm)
SPACE	IS	203(mm)
RENEGADE	POST	180(mm)
TITAN15/ TITAN	POST	180(mm)
CHAMP series	POST	180(mm)
F1RST series	POST	180(mm)
AERIAL series	POST	180(mm)
PULSE series	POST	180(mm)
VOGUE	IS	180(mm)
VIVAir	IS	180(mm)

SPECIAL INSTRUCTION FOR 20MM HUB AND QR INSTALLATION

Installing 20mm Front Hub

1. Slide hub (including 20mm cones) into the legs and line up with axle holes.
2. Apply grease or Anti seize to the entire 20mm axle.
3. Slide the 20mm Axle into the fork/hub from the left hand side (Disc side).
4. Gently turn the axle clockwise to connect to the axle threads in the right hand leg.
5. Once located V fully tighten the axle to 12-15Nm using an 8mm Hex key.
6. Apply grease or anti seize to the Right Hand side Axle lock bolt.
7. Gently screw-in the lock bolt into the 20mm axle end.
8. Hold the left hand side of the axle with a 8mm Hex key and fully tighten the right hand side lock bolt to 12-15Nm using a 2nd 8mm Hex Key.
9. Check that Disc brake operates correctly.



Instruction of disassemble 20mm thru axle:

1.Use 8mm allen key to loose the bolt in the right leg.

2.Use 8mm allen key to loose the 20mm thru axle.

TA : 20mm Aluminum Thru axle

Installing QR type Front Hub

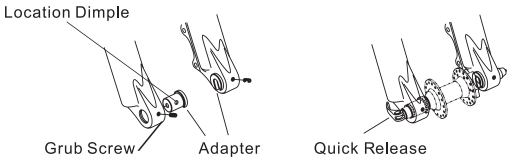
1. Identify Adaptor and parts
2. Carefully install grub-screws 3 turns into fork legs-ensuring they are not cross-threaded. (Note: this may initially be harder than normal, as grub screw may have to clear some paint residue in the threads from the leg.)
3. Remove the grub-screws.
4. Lightly grease the outside of the adaptors.
5. Install the right hand adaptor into the Right hand leg, taking care to keep the ‘’location dimples’’ in line with the grub screw hole in the fork. You should be able to see the location dimple by looking down the fork leg hole.
6. Install the grub screw and tighten gently until it contacts the adaptor.
7. Back-out the grub screw 2 full turns, and the gently try to turn the adaptor.

You should feel a small amount play, between the grub screw head and the adaptor ‘’location dimple’’-and your small turn should be stopped by the grub screw. If your rotation is not stopped, it means the grub screw head is not entering the ‘’location dimple’’. Retry. Once you are convinced that the grub screw is lined up with the ‘’location dimple’’ you can fully tighten the grub screw to 3Nm.

SAFETY NOTE: It is IMPORTANT that the grub screws are correctly located into the adaptor dimples ‘’IF NOT’’ the adaptors could rotate and cause a failure.

8. Repeat with Left Hand Adaptor.

QR :Adapter for Quick Release



SPECIAL INSTRUCTION FOR 15MM QR AXLE INSTALLATION

15QR: 15mm Aluminum Quickly Release axle

1. Slide hub into the legs and line up with axle holes.
2. Apply grease or Anti seize to the entire 15mm axle.
3. Slide the 15mm Axle into the fork/hub from the left hand side (Disc side).
4. Gently turn the axle clockwise to connect to the lock bolt threads in the right hand leg.
5. Turn the 15QR axle to the fixed position; tighten the 15QR axle to 15Nm by press the lever.
6. If need to adjust the lever position of the 15QR axle, pull open the lever of 15QR axle then remove the grub screw then adjust the lock bolt with 15QR axle to the proper position.
7. 7.Install the grub screw into the ‘’location dimples’’ of the lock bolt, tighten the 15QR axle to 15Nm by press the lever again. (Taking care to keep the ‘’location Dimples’’ in line with the grub screw hole in the fork. You should be able to see the location Dimple by looking down the hole.
8. Check that Disc brake operates correctly.