

OWNER'S MANUAL & FITTING INSTRUCTIONS

# ORSS CARTRIDGE WP

122-021-137-001



| RECOMMENDED SETTINGS |                                   |
|----------------------|-----------------------------------|
| Oil Quantity         | 350-400ml*                        |
| Fork Oil             | 5wt                               |
| Spring               | 435-660-XXX                       |
| Spring Preload       | 8mm                               |
| Fork Position        | See Manufacturer's Specification. |

\*USING OIL LEVELS OTHER THAN K-TECH RECOMMENDED QUANTITY MAY RESULT IN DAMAGE TO THE CARTRIDGE KIT

INTRODUCTION

The K-Tech Off Road Spring System has been designed to replace the air system in the latest off road motorcycles, this simple design allows you to remove the original air spring system and replace it with a more conventional spring system. This direct replacement spring system requires no machining to install and also features external spring preload adjustment.

- Spring preload adjustment
- Direct replacement (No machining required)
- Hard chrome piston rod
- Aircraft grade aluminium parts
- Wide range of spring rates available

K-Tech Suspension Ltd products are manufactured to fit specific brands and models. Under no circumstances should any K-Tech Suspension Ltd products be fitted to an application other than that for which it has been designed, tested and manufactured.



The front forks are a very important part of the motorcycle and will affect the safety and stability.



Read the instructions carefully and make sure you understand them before you proceed. If you have any queries please contact your dealer or nearest supplier of K-Tech Suspension immediately.



K-Tech Suspension Ltd. cannot be held responsible for any damage to vehicle, front fork, personal injury or property if the installation instructions are not followed exactly.



The Cartridge Kit only fits into the **LEFT HAND FORK LEG** and must only be fit into this leg.

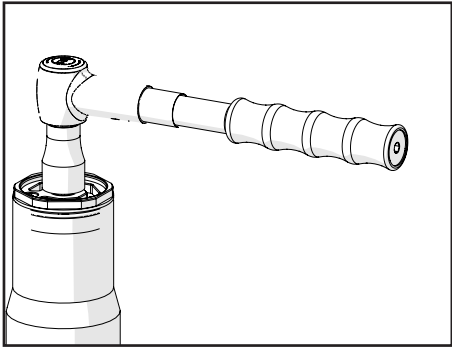
These procedures should only be carried out by a qualified motorcycle technician. K-Tech Suspension Ltd will not be liable for any damages caused in any way to/ by the product and any injuries sustained if the product is fitted by someone who is neither an authorised dealer of K-Tech Suspension Ltd or have the relevant qualifications in motorcycle technology. K-Tech Suspension Ltd will also not be liable if the correct tools are not used throughout the process of fitting and adjustment of a K-Tech suspension Ltd product. Please refer to the manufacturer's workshop manual before attempting this procedure.

You will need to remove the front forks from the bike before fitting the cartridge, consult the manufacturer's workshop manual to do this.

\*\*\*This product is not designed or intended for highway use.\*\*\*

# ORSS FRONT FORK CARTRIDGE

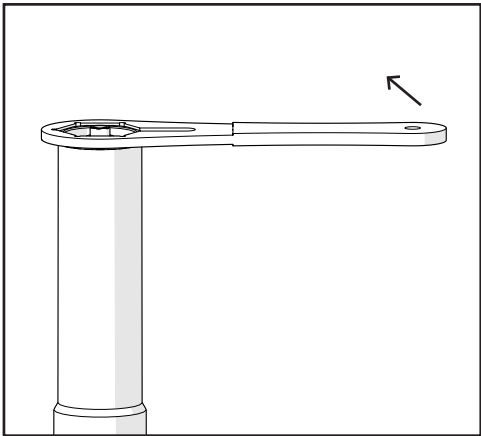
## ADJUSTMENT



Preload Adjustment:-  
Adjust using 12mm socket on the hex in the centre of the top cap.  
Adjustment range is 18 turns.  
All settings should be made from the fully out (anti-clockwise) position.

## FITTING THE CARTRIDGE

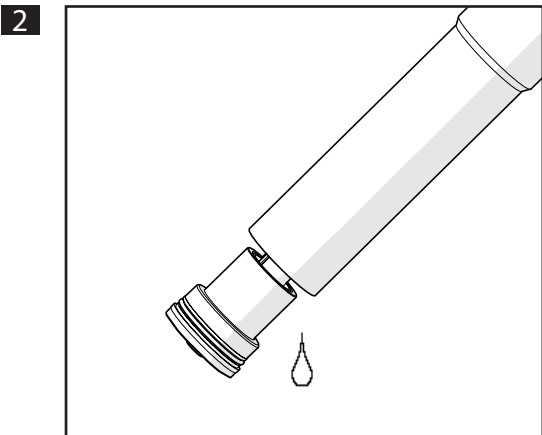
1



113-010-032 is provided with every kit.

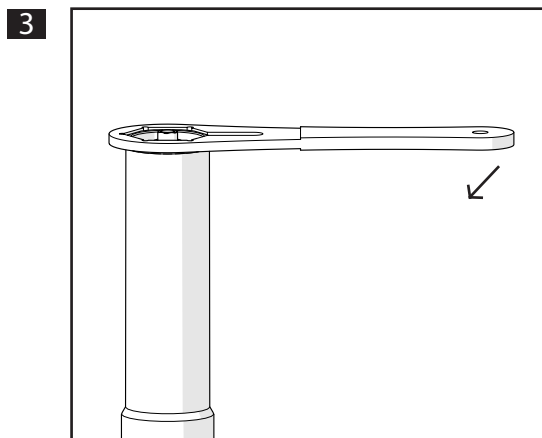
Loosen off the Standard top Cap and unscrew from the outer tube using the top cap tool (113-010-032)

## FITTING THE CARTRIDGE



Make sure you have a suitable container to catch the oil.

Empty out the oil inside the fork leg by tipping it up and letting the oil drain out.

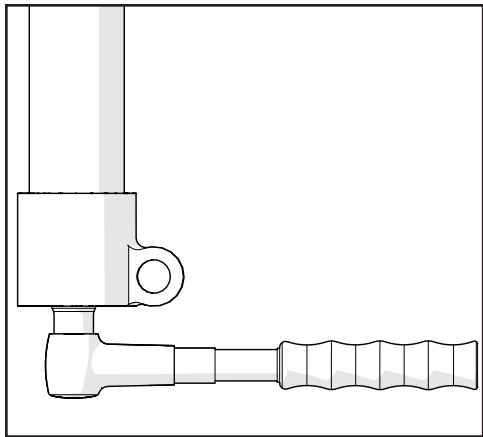


Screw the top cap back onto the outer tube but do not tighten up.

# ORSS FRONT FORK CARTRIDGE

## FITTING THE CARTRIDGE

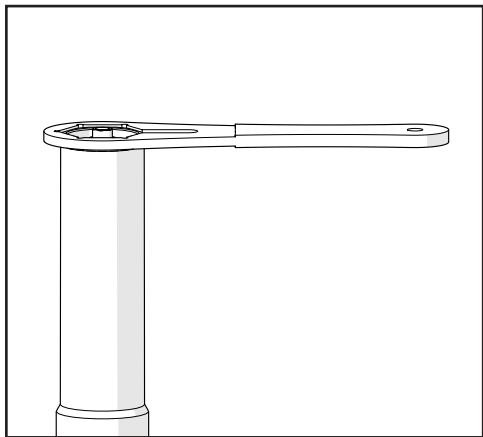
4



Any Oil still in the fork leg may drain out of the fork bottom when doing this. Make sure you have a suitable container underneath.

Unscrew the Base Valve from the bottom of the fork bottom using a 19mm socket.

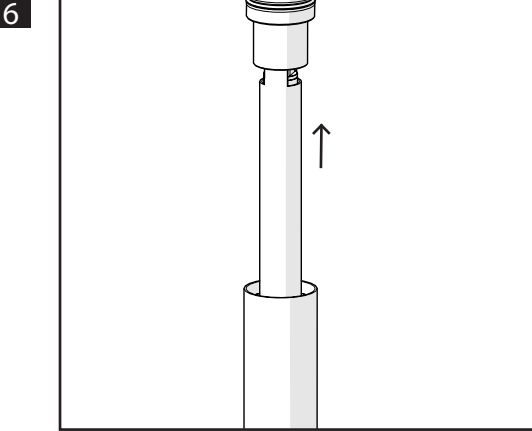
5



Remove the top cap from the outer tube using the top cap tool (113-010-032)

6

## FITTING THE CARTRIDGE



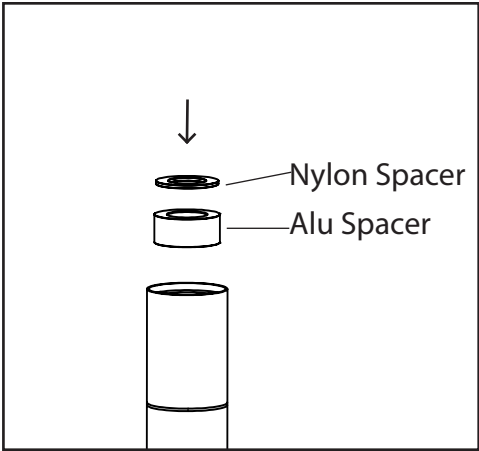
Remove the standard cartridge from the forks by pulling the top cap up and out of the forks.

You are now ready to fit the K-Tech cartridge.

# ORSS FRONT FORK CARTRIDGE

## FITTING THE CARTRIDGE

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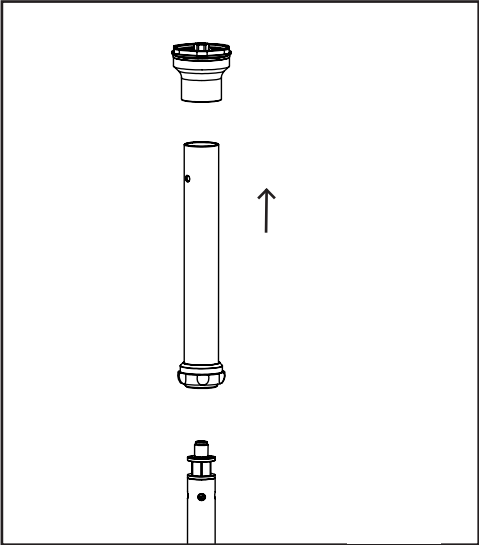


Ensure to insert the aluminium spacer with the chamfer facing downwards as shown-below



Before installing cartridge, insert aluminium foot spacer first, then nylon washer, into lower fork tube and ensure they are positioned concentrically inside the fork foot

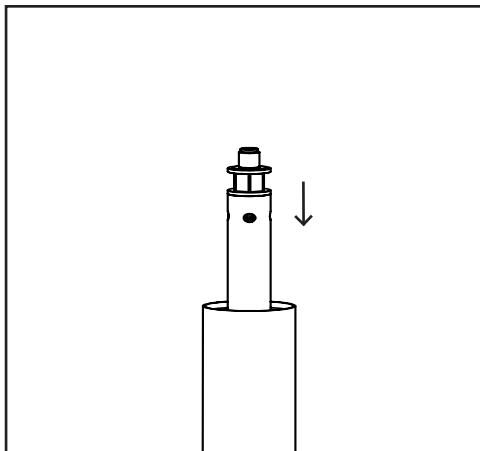
8



Remove the Top cap and preload spacer from the K-Tech cartridge.

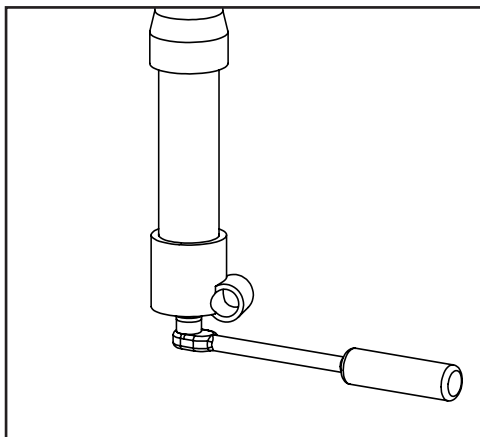
## FITTING THE CARTRIDGE

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Install the K-Tech cartridge into the fork tube.

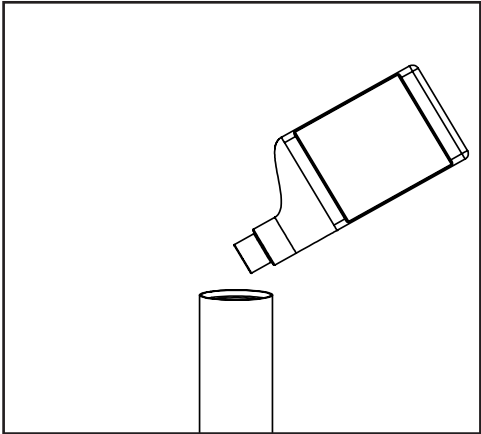
10



Install the base valve into the fork bottom. Torque the base valve to 35Nm using a 19mm socket.

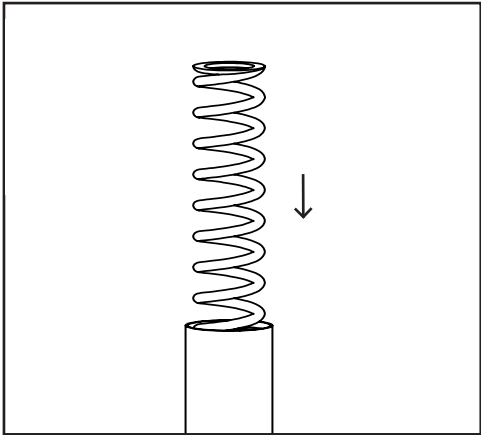
**FITTING THE CARTRIDGE**

**11**



Pour fork oil into the fork leg.  
See recommended settings (pg.2) for oil quantity

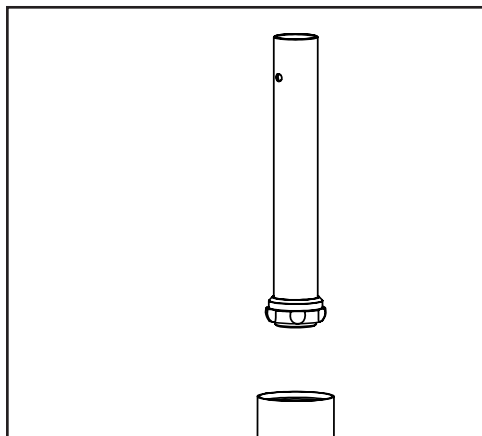
**12**



Install the chosen spring into the fork leg.

## FITTING THE CARTRIDGE

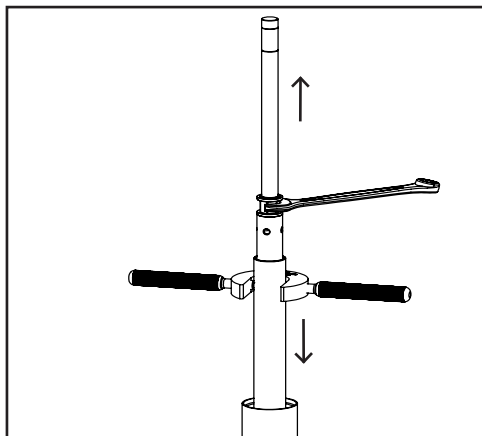
13



Make sure the holes go towards the top of the forks.

Install the spring preload spacer along with the spring pusher attached to the bottom.

14

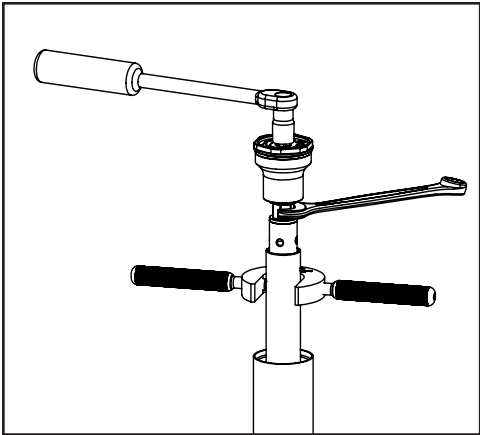


113-030-015 is provided in every kit.

Pull the piston rod up using pull up rod tool (113-030-015). Use horse-shoe pin tool 113-040-005 to push down preload tube and expose 18mm flats on rod joiner and use an 18mm spanner to hold it in place.

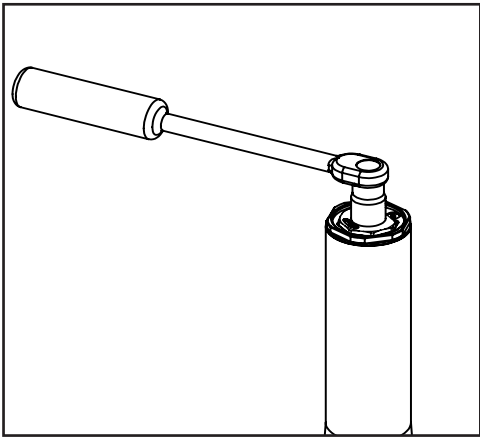
**FITTING THE CARTRIDGE**

**15**



Remove the pull up rod tool (113-030-015) and install the top cap assembly. Screw the top cap onto the rod joiner and torque to 20Nm using a 12mm Socket. Once torqued, remove 18mm spanner from rod joiner, allow preload tube to seat in top cap, then remove tool 113-040-005.

**16**

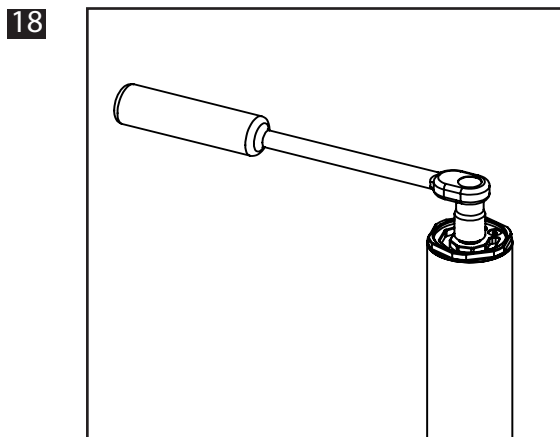


Apply Green Grease (FF-GREASE) to the top cap o-ring before installing.

Pull the outer tube up to the top cap and screw on. Tighten the top cap onto the tube using the top cap socket (113-010-107) or spanner (113-010-032).

## FITTING THE CARTRIDGE

- 17** Install the forks and wheel back into the bike with the preload adjuster wound fully out.



Preload must be set after the forks and wheel are installed into the bike, If not the wheel spindle will not be aligned.

Set the preload using a 12mm socket on the hex in the centre of the top cap. All adjustment range should be made from the fully out position ( Anti-Clockwise). 1 full turn = 1mm adjustment.

## SERVICE

K-Tech Suspension Ltd recommend that this product is serviced every 30 hours of use. It is very important that this product is serviced by an authorised dealer, as there are special tools required to guarantee correct performance of this product. K-Tech Suspension Ltd cannot be held responsible for any damage caused to/by the product if a service is overdue or was not conducted by an authorised dealer.

## ORSS FRONT FORK CARTRIDGE

## NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## ORSS FRONT FORK CARTRIDGE

## NOTES

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There is no handwriting or printed text on the page.



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[www.ktechsuspension.com/service-centres-and-partners](http://www.ktechsuspension.com/service-centres-and-partners)