

Instructions for 2512 Twin Chamber fork valve installation and service.

Disassemble forks completely:

Valving components.

- Remove fork cap.
- Pour oil out of inner chamber.
- Taking a 21mm socket (Impact style) and an impact wrench remove the base bolt and rebound adjuster assembly. Use short bursts and not long durations of RPM as this can damage the components.
- Using a slot tool, remove the clicker bolt from the rod end.
- Using care remove the slot tool from rod end and let the rod return against spring tension.
- Remove the fork cylinder.
- Remove fork spring by sliding out the top.

Seal and tube disassembly:

- Using a subtle blade (Flat but small screw driver) remove the dirt scraper. Don't pry as it may mar the forks appearance.
- Using a smaller blade remove the circlip that holds the seal in place.
- Heat the seal carrier or the portion of the tube uniformly so as to facilitate easier bushing removal with out damage.
- Using quick but not forceful hits drive the tubes apart. (Speed is more important than force; never yank at the end of the stroke.) Use the quick momentum to drive the tube off. Failure to do as described above often results in bushing damage.

Internal component disassembly:

Fork cylinder: The 2512 twin chamber style fork requires the rod to be removed from the cylinder to perform internal modifications to the active compression and rebound circuits.

- The rod has several major components on it. The jam nut that should be threaded off. Using your hands or shaft blocks.
- Then using a narrow wrench remove the oil lock that remains on the rod.
- Drop the rod out the bottom of the cartridge.
- The nut holding the valving components has been staked from the factory and needs to be ground flat past the edge of the stake to remove the nut and separate the valving and piston. (Prior to the grinding process pack the orifice with grease to prevent grinding chaff from entering and being lodged in the internals.)
- After removing the stake the edge of the nut needs to be radiused of its metal bur that develops during grinding. (This bur may come free during fork use and causes numerous problems.) A polishing wheel such as cratex works very well and leaves an excellent finish. Be very careful to maintain proper shim and piston orientation during removal. Also note that may times small spacer shims are placed under the post spacer, or valve these are easily misplaced and will dramatically impact fork performance.

-Now that all the components are free of the stem radius the first thread to prevent thread wear during reassembly.

-The passive valving (base-valve, or foot valve) needs to be removed. The nut holding the valving components has been staked from the factory and needs to be ground flat past the edge of the stake to remove the nut and separate the valving and piston. (Prior to the grinding process pack the orifice with grease to prevent grinding chaff from entering and being lodged in the internals.)

-As a precautionary measure we recommend that holding the whole assembly in a rag protect the seals of the cylinder, as you grind the nut stake off.

After the nut and valving has been removed you will need to radius the first thread in the same manner as the active stem. Proper orientation must be maintained to insure the components are assembled properly.

-Wash and clean all components thoroughly before proceeding any farther.

Assembly of fork tubes.

-Place the axle bracket in a vise and firmly tighten down.

-Placing a bag over the tube lube the seal and install the dirt scraper. (Remember that seals always work with pressure so if orientation becomes unclear use that as your guideline.) Install the circlip, oil seal, and backup washer. With round edge toward the seal. Bushing outer and then bushing inner. (After the oil seal is installed remove the plastic bag.)

-Use a 47mm seal driver to drive the seals and bushing into the seal carrier. Install the circlip and then install the dirt scraper.

Assembly of the Active compression and rebound damping.

-Build the stacks specified and then install them on the stem. Be very careful not to misalign any washers or components as they could be permanently damaged by doing so. Double-check all components for proper assembly.

-The cartridge seal in the end of the fork cylinder is very high tension and requires that the seal be protected during reassembly. Wrap the threads in Teflon tape. Cover the threads but don't apply to many layers. The end of the threads to the chrome should have a uniform layer. Push any extra below the chrome edge to prevent them being caught in the seal.

-Place the rod back into the cartridge. And use a 10mm T handle wrench to install the rod by turning and lightly press in the rod into seal and out the bottom.

-Reinstall the jam nut firmly bottoming it onto the rod.

Assembly of the Passive compression valving.

-Install the valving components on the base-valve stem add a drop of blue loctite to the threads. Tighten the nut down firmly but do not over or under tighten. If you're revalving build the necessary components and stacks.

Assembly of the cylinder.

- Place the cylinder upright in a vise. With the rod fully extended fill the cylinder to the shoulder. Bleed the cartridge by running the rod through its stroke till the action is smooth and consistent. Recheck the oil level. Make sure it is above the shoulder slightly but do not overfill, as it will make the compression valve nearly impossible to install.
- Place the compression adjuster in the cylinder and compress it till you can thread it into the cylinder. Tighten down lightly.
- Compress the inner rod completely and drain the excess fluid out.

Installing internal components:

- Install the spring in the fork tube.
- Place and align the fork cylinder in the tube.
- Using the slot tool feed the rod through the end of the fork using your finger, and then capture the end with the slot.
- Place the indexed d-rod in the rod.
- Place the 21mm bolt on the end of the rod and tighten down till it bottoms out. Then tighten the jam nut down. Torque sufficiently.
- Grease the threads before removing the slot tool. Carefully remove the slot tool and start the threads by hand.
- Using an impact wrench tighten the bolt into the base using short bursts to tighten into place. Then use a socket wrench to torque to final torque.
- Place the fork upright and fill with fluid.
- Bottom fork cap to the tube but do not tighten. The top triple clamp is responsible for keeping the cap on.

Reset your clickers and enjoy!