

# GPR Stabilizer Air Bleeding & Fluid Changing Instructions

1. Remove damper from your bike using a 5mm Allen key to remove both damper bolts
2. If you need to perform a fluid change, either annual maintenance or switching to a stiffer or softer fluid weight, completely drain damper fluid by removing both fluid fill screws above the 'G' and 'R'. If you just need to top off the damper to bleed it, **DON'T** dump out all the fluid and keep reading. Using a dime or penny, carefully remove both anodized lid screws, as they get damaged easily if you use a screwdriver. If you have a newer damper (early 2004), the fluid fill screws are located on the underside of the damper. For a fluid change, remove both fill hole screws. For topping off and bleeding, remove only one screw. Depending on the damper model, make sure fill holes are downward facing and slowly rotate the arm back and forth approximately 4-5 times, or until all fluid is completely drained from damper. Place damper over a trash can or used fluid container or your shoes and the floor will get it
3. Before starting to fill the damper w/ new fluid, or just topping it off and bleeding the air out of it, turn dial to the #1 setting and move vane to the center position. We exclusively use Silkolene synthetic fork fluids, but most synthetic fork fluids will work. For dampers w/ a 1-6 dial, dirtbikes use 10wt, ATV's 15wt and sport bikes work best w/ a 20wt fluid. Sport bike racers (track day and AMA racers) and stunt riders will usually use a 30wt fluid. If you ride tight woods, or feel the #1 setting was too stiff for you, you may try a 5 or 7wt fluid. If you want more damping and find yourself riding at #5 or #6, you may want to try a stiffer fluid weight. For newer dampers, w/ 1-8 adjustment dial range, 2wt is used for dirt/atv and 5wt for sport bikes, as the dampers internal componentry and fluid flow adjustment is completely redesigned. Newer dampers (1-8, late 2004), have a broader range of adjustment and if you feel you need the damper stiffer w/ 5wt on the #8 setting than give us a call, as #8 is as stiff or stiffer than the original damper set at #6 w/ 30wt fluid. Damping is very personalized per rider, per conditions and ability and with a broad range of over 100 degrees of 'on the fly' fluid adjustments there is definitely a fluid weight and setting that will work for you
4. For a complete fluid change, using a squeeze bottle, like a mustard or ketchup squeeze bottle, insert tip in fill hole above 'R' and begin to fill reservoir until you have fluid exiting out of the fill hole above the 'G'. For best results, insert tip in opposite hole, 'G', after fluid has exited that hole and repeat the above step until you have fluid exiting the other hole, 'R', as that should assist in removing air bubbles that the fluid will carry with it as it is exiting the fill holes. If you have a new damper, repeat the above procedure filling the fluid fill holes located underneath the damper. For just topping off, you should have only one fluid fill hole opened and you can skip to step #6
5. Cap hole hand tight above 'G' w/ color coordinated threaded fill hole screw using a dime or penny. If you have a newer damper, cap only one of the two holes underneath
6. With one of the two holes capped, very slowly move the arm to one side first while holding the damper in your hand either flat or with the side of the damper that has the uncapped hole slightly elevated higher than the rest of the damper. There is no need to submerge the entire damper in a fluid bath to fill it. Make sure fill holes are right side up so you can see and brush aside tiny air bubbles as they surface. Air bubbles will exit the damper from the remaining uncapped fill hole as you slowly move the vane/arm back and forth. Lightly sweep aside the air bubbles out of the fill hole area w/ your finger. Before moving the vane again, you will need to add fluid drops to the opening immediately as you remove or brush aside air bubbles. Always keep a meridian of fluid resting on top of the uncapped hole, as if the fluid level dips too low you'll force air into the damper instead of out, pretty much undoing all the work you just did bleeding the air out. As most of the remaining air bubbles are removed you should eventually have a small amount of fluid resting above the fill hole and spilling over onto the damper, perfectly normal and quite messy, so keep a clean rag under your damper on top of your work bench to catch residual fluids. Repeat this step 10-30x or more until all air bubbles have stopped bleeding out of the remaining uncapped fill hole. Once all the air bubbles have been properly bled, carefully cap the remaining fill hole
8. After you have capped the last fill hole, move the vane back and forth on the #1 and then the #6/#8 settings, feeling for any remaining air bubbles and making sure that the #6/#8 setting has a noticeable amount of stiffness compared to the # 1 setting. You may need to put the damper back on your bike, as turning the arm by hand on the #6/#8 setting is very difficult if not impossible depending on what weight fluid you have in the damper. If you feel air bubbles (back and forth action NOT smooth), remove one cap screw and repeat the above steps again
9. Lastly, wash all fork fluids off damper w/ solvent and thoroughly dry off w/ air hose. Don't submerge the damper in solvent, as extended amounts of contact w/ solvents may damage the seals and/or damper
10. Re-install the damper on your bike and go ride w/ your fresh fluid and/or newly bled unit. Damper may be slightly stiffer w/ new fluid and/or a re-bled unit, so be prepared for slightly different damping characteristics at the same numbers you have been used to running before you serviced your damper