

DDC Installation Notes for the KLR250

Thank you for purchasing these Drop-in Damper Cartridges (DDCs) for your KLR250. Cogent Dynamics offers full installation services. *For consumer installation, these notes assume familiarity with damper rod type fork internals and the necessary technical tools and skills. No drilling, welding or other modifications are necessary to complete the installation.*

Installation of your new DDCs requires that your forks be in good condition and have the proper type and level of fork oil. Your Cogent DDCs were calibrated for use with Spectro 85/150 5w Synthetic Petroleum Blend Cartridge Fork Fluid. We also recommend that you incorporate the appropriate springs for your application. *If purchased in "kit" form (DDCs, springs, spacers, oil) and combined with the optional DDC installation tool it will be an easy "drop-in" installation.*

Oil level / Preload Recommendations for use with the KLR250 DDCs

Rider Weight	Spring Rate	Oil Level	Preload
140-200 lbs	0.42 Kg/mm	150 mm*	8 mm**
200 + lbs	0.42 Kg/mm	140 mm*	8 mm**

The fork oil level (air gap measurement) must be measured with the forks fully collapsed with the damper rod intact and no other components in the fork. Once the oil is installed, bleed the forks (slowly pump up and down) to release any entrapped air. When air bubbles cease to appear, check the oil level again as it may be necessary to add a little more oil.

We highly recommend the DDC installation tool for DDC installation / extraction. It will remove steps from the installation and the tool handle can also be used to assist in measuring the oil level. If the installation tool is not utilized for installation, we recommend dry fitting the components and measuring the DDC/spring stack before adding oil. Once oil is in the fork, it will not be possible to check the seating of the cartridges, but if all the measurements remain the same it will be possible to ascertain that the cartridge is seated properly and not become dislodged during the installation process.

Once the oil level is set, attach the DDC to the magnetic tool tip and insert the DDC with the Nyloc nut facing down, through the oil, onto the top of the damper rod. Insert the fork spring over the tool handle and into the fork. Apply slight downward pressure on the spring to hold the DDC in place and remove the tool. Add the washer (if originally present), then the spacer and install the fork cap.

*Note that oil level is also a tuning parameter. A higher oil level will give a firmer feel with more bottoming resistance and a lower oil level will give a plusher feel with less bottoming resistance. We recommend changing the oil level by 10 ml at a time to accomplish this, test riding between each oil level change.

**Preload is the measure of the distance between the top of the DDC/spring/spacer stack and the top of the fork (while fully extended) minus the length of cap when fully installed. The ability to vary preload allows the ability to change sag. To increase preload and decrease sag, you would utilize a longer spacer. To decrease preload and increase sag, you would utilize a shorter spacer. Never utilize a spring/spacer combination that will allow a negative preload value.

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