

## MAGURA LOUISE/CLARA DISC BRAKE SERVICE AND SETUP NOTICE

When initially installing the Magura Louise or Clara calipers to the fork and frame, it is very important to refer to the Magura instruction manual about the proper positioning of the caliper relative to the rotor. The brake set includes spacers to be placed between the frame or fork and the caliper to both center and parallel the caliper relative to the disc rotor. It is very important that the caliper be properly aligned relative to the rotor, so that the rotor doesn't rub the caliper body when the brakes are applied and the rotor is being flexed. See the Magura instruction manual for a diagram of the proper alignment. On Cannondale bicycles equipped with a CODA front hub, you must use the 2mm spacers between the fork and the caliper to assure proper alignment.

**WARNING: Under no circumstances should the disc brake mount on the frame or fork be modified in any way. The disc brake mount is a structural member of the frame, and modification may weaken the mount. A modified brake mount may bend or break, resulting in a loss of braking power and risk of injury or death to the rider.**

If it is necessary to shorten the hydraulic line on the Magura system, please follow the instructions in the Magura Louise or Clara instruction manual. Note that the hydraulic tubing must be CUT AT THE LEVER END, NOT THE CALIPER END. You must use a new black compression fitting and tubing insert each time that the line is cut. These are available from Magura directly. See the Magura contact information on the bottom of the back page.

To achieve optimal performance and stopping power from the Magura single piston hydraulic disc brakes, the brake pads also need to be set up according to the instruction manual, with the fixed pad 0.2mm from the rotor. This is a very close tolerance. According to the Magura manual, the 5mm pad adjuster screws should be screwed in towards the rotor until there is contact, and then "Unscrew the screws accordingly as soon as there is the slightest drag. With the correct distance pad/rotor you ensure at the same time a correct brake lever pressure (Free Play Adjustment)."

We have found that the best way to achieve this setup of the brake pads is to screw in the 5mm pad adjustment screw for the fixed (spoke side) pad just until the pad begins to slightly brush the rotor **AND LEAVE IT THERE**. Repeat this procedure for the pad on the piston side of the caliper. This setup will allow the brake pads to slightly brush the rotor for the first ride or so, but will position the pads very close to the rotor and will allow them to wear in parallel to the rotor. The bike should be ridden slowly on smooth ground several times and the brakes applied at least 30 times before final adjustment is made, allowing time both for the pads to wear in and for the rider to become acclimated to the feel and performance of the Magura system. As the brakes are used on the first ride or two, the pads will wear slightly, leaving the suggested 0.2mm gap. After this procedure, make sure that the brakes still provide good stopping power on the first pull of the brake lever before riding the bike off road, in traffic, or in any other potentially hazardous settings.

This tight tolerance between the brake pads and the rotor means that the rider will get good braking power even on the first pull of the brake lever, as hydraulic pressure is built within the system. As the brake pads and rotors wear over time, the above procedure will need to be repeated to maintain consistent braking power.

**WARNING: It is imperative that the brake pads be set as closely as possible to the rotor, so that adequate stopping power can be applied on the initial pull of the brake lever, as hydraulic pressure is built within the system. If the pads are not set closely enough to the rotor, the rider may not get adequate response from the first pull of the brake lever, and the bike may not slow or stop. This could lead to an accident with attendant risk of injury or death.**

Once the break-in period and final adjustment have been made, the amount of lever pull on each brake can be adjusted with the 5mm pad adjustment screw ON THE PISTON SIDE OF THE CALIPER ONLY! The fixed pad must be set as close to the rotor as possible at all times. After adjustment, again make sure that the brakes still provide good stopping power on the first pull of the brake lever before riding the bike off road, in traffic, or in any other potentially hazardous settings. Between each adjustment, allow the brake pad to retract fully so that you can accurately judge how much pull of the lever is required to make contact between the pads and the rotor. We recommend waiting a few seconds between pulls to assure complete pad retraction.

If it is necessary to bleed the Magura system, you must use Magura 5W fluid, available from Magura. This is the same fluid that all Magura hydraulic brake systems use. Additionally, you must either use the Magura bleeder fitting to attach the syringe to the caliper, or may simply use the syringe by twisting the syringe nozzle into the threaded bleed port on the caliper. Consult the Magura instruction manual for the fluid bleeding process.

While the Magura Louise and Clara systems provide excellent stopping power and control, they are not 100% drag-free systems. The Louise and Clara brakes are open hydraulic systems with only one moving piston which relies on the flexing of the rotor to make contact with the inside (fixed) brake pad. To achieve the optimal stopping power, the brake pads have to be set as closely as possible to the rotor. This may necessitate slight drag between the pads and the rotor, especially during the initial break-in period.

Additional question or requests for spare parts, bleeder kits, technical assistance, or copies of the Magura instruction manual should be addressed to Magura USA directly at:

(800) 448-3876	telephone
(618) 395-4711	fax
magura@magura.com	email

