

1. Brake Mounting

MAGURA Louise + Clara



5 YEARS WARRANTY!
leakproof warranty on brake lever and caliper

Warning! Check before every ride:

- Make sure that the brake system does not have any mechanical damage.
- Make sure that the brake system does not have any leaks by activating the lever blade, holding it and checking the tubing connections for eventual leaks.
- Make sure that the brake lever pressure is o.k. by pulling the lever blade and ensuring that full braking performance is achieved before the lever blade touches the handlebar.
- Louise and Clara do not have an automatic wear adjustment. Check therefore before every ride the wear of your brake pads. Minimum thickness of a pad has to be 1 mm.
- **Watch out!** Check the gap between the right side of the brake caliper (seen in rotation direction) and the rotor for a correct distance (c.f picture 8 on page 18). The gap has to be twice as wide as on the opposite side.
- Make sure that the rotor and the brake pads are free of oil and grease.
- New brakes and/or new rotors or brake pads must be run in (seated) by braking down 30-50 times from a speed of 30km/h to achieve the maximum brake power. After initial wear in period readjust both pads closer to the rotor to eliminate excessive lever-play.
- Never touch either the rotor or the brake caliper after long braking as this may cause serious injury. (Risk of burns!)

- It is important to completely understand the operation of your brake. Improper use may result in loss of control or an accident, which could lead to severe injury. Be sure to learn the proper braking technique and operation of your bicycle. Consult your professional bicycle dealer and the owner's manual for this.

Tools for mounting (+ maintenance)

- Allen key 2* and 5 mm
- sharp knife
- 8mm open end wrench
- mounting device*
- Torx T25 key*
- Torx T7 key (only Clara)
- large pliers or a vice

(* delivered with the brake)

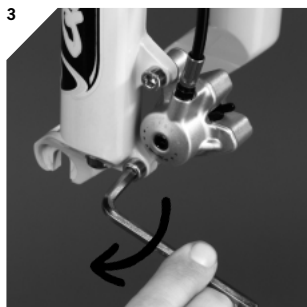
Warning: always insert the allen and Torx key completely to prevent damages of the bolts.

1 Unpack your Louise or Clara:

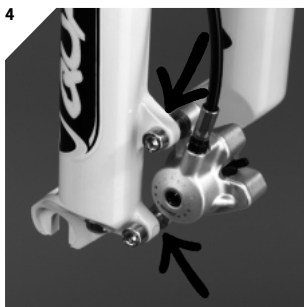
- 1 brake lever
- 2 caliper (shown is International Standard version, also available as Manitou Postmount version)
- 3 fitting bolts for caliper (2 pieces)
- 4 rotor
- 5 0,2mm spacers (8 pieces)
- 6 fitting bolts Torx T25 for rotor (6 pieces)
- 7 tubing inserts
- 8 olives
- 9 mounting device
- 10 Torx T25 key

2 Mount the brake lever to the handlebar with a 5mm allen key. Tightening torque 4Nm/34 in.lbs.

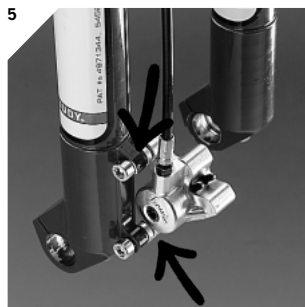
Warning: Louise and Clara are compatible with frames and suspension forks which meet the international standard for disc brake installation. Never mount Louise or Clara with adaptors or brackets from other manufacturers. All warranty will be void in case of any misuse. Only use direct mounting parts from MAGURA resp. the frame and suspension forks' manufacturer.



3 Mount the caliper onto the frame with the two 5mm Allen screws.
Tightening torque: 6Nm/51in.lbs.

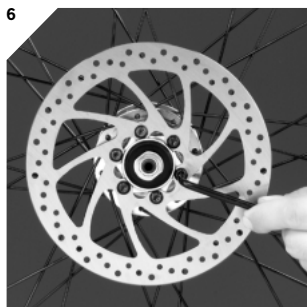


4 For a clean and drag free positioning of the caliper you may have to use the 0,2mm spacers which you should install as shown by the arrow.

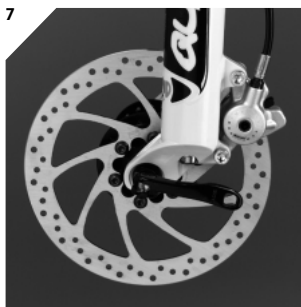


5 If you use a thru-axle hub you add the thicker 3mm spacers. These are either available separately (code 0720829) or come supplied with the MAGURA Gustav M thru-axle hub. If necessary you can also use additionally the 0,2mm spacers for a drag free position.

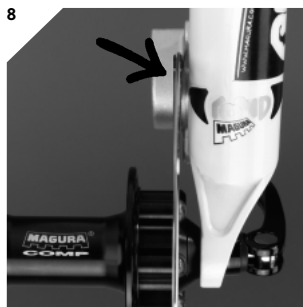




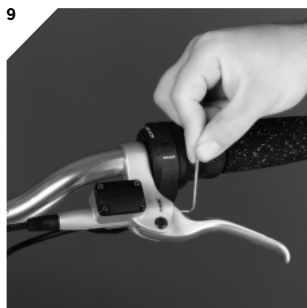
6 Mount the rotor with the 6 Torx T25 bolts onto the hub.
Tightening torque: 4Nm/34in.lbs. Watch out for a correct rotation direction of the rotor (laser arrow). Use only new original bolts, or thread-lock if you use old bolts. **Tighten the bolts in a cross pattern.** Install the wheel by positioning the rotor between the brake pads and fixing the wheel in the dropouts.



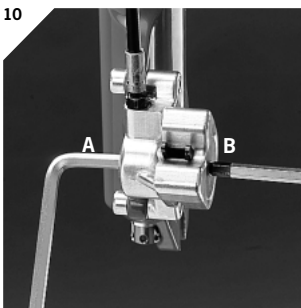
7 Correctly mounted Louise or Clara disc brake.



8 Details of a correctly installed wheel. Warning! Check the gap between the right side of the brake caliper (seen in rotation direction) and the rotor for a correct distance. The gap between caliper and rotor (see arrow) has to be twice as wide as on the opposite side. **Make sure that the rotor is pushed against the fixed brake pad and never against the caliper body!**



9 reach adjust (**only Louise!**) is done with the 2 mm allen screw in the brake lever. The lever blade moves away from the handlebar when turning the allen screw clockwise.
Warning: after reach-adjustment always check for free movement of the leverblade, otherwise back up the set screw half a turn! Clara does not have a reach adjust and cannot be retrofitted!



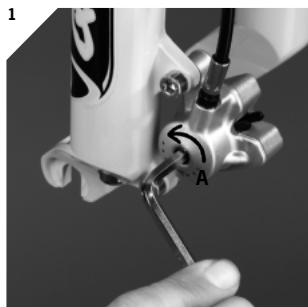
10 Ensure a drag free function of your Louise or Clara by turning in the two 5 mm allen screws A + B clockwise. Begin with screw B. The pad gets closer to the disc. Unscrew the screw slightly as soon as there is the slightest drag. Repeat this procedure with screw A. With the correct distance between pad and rotor you also ensure correct brake lever pressure. Check again the correct positioning of the brake caliper, and adjust, if necessary, with the 0,2mm spacers.

Warning: Never screw in the 5 mm allen screw A and never pull the lever blade while the pads and the wheel with mounted rotor are not mounted.

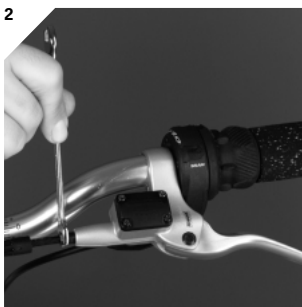
Warning: Make sure a correct function of the brake after any reach adjust and/or lever pressure adjustment.

11 Run in (seat) the whole system by braking at least 30 times from a speed of 30 km/h to achieve maximum brake power. This is always necessary with a new brake or after having replaced the disc and/or pads. After wear in period readjust both pads closer to the rotor to eliminate excessive replay.

2. Shorten the tubing



1 Turn back the 5 mm allen screw A (see arrow) counter-clockwise **until stop**. Do not round off 5 mm allen screw.
Maximum torque: 2Nm/17in.lbs.



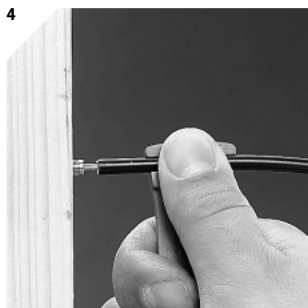
2 Unscrew the 8mm sleeve nut on the brake lever and pull out the tubing **carefully**. **Hold the tubing carefully to avoid any loss of oil.**

Warning:
Never activate the lever blade of your Louise with the system open!



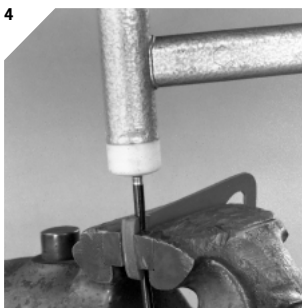
3 Shorten the tubing with a sharp knife, never use pliers or saws. The best tool is the MAGURA cutter (code 0321 233).

Warning:
Hold the tubing carefully so that it cannot snap away! Cut the tubing squarely!



4 Press manually a new insert into the tubing until it is **fully seated**. Use for the mounting device...

Warning:
The installation of the insert is absolutely necessary. A missing insert may result in failure of the whole brake and severe injury!



...or clamp the mounting device as shown into a vice and hammer the insert into the tubing. If your frame is not equipped for routing hydraulic lines you should now mount the rear tubing fitting kit. Please refer to the instructions applied with the kit.

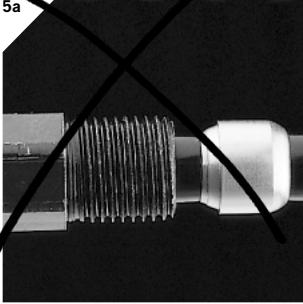


5 Slide on the sleeve nut and a **new!** olive onto the tubing.

Warning:
Do not crosstread! After initial start by hand use a 8 mm open end wrench and tighten to 4 Nm/34in.lbs.



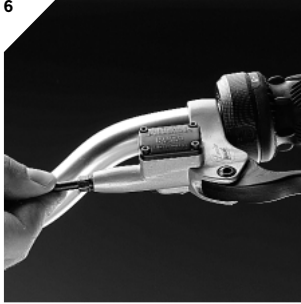
5a



5a In case you have an old brass colored olive, make sure that the ragged side points to the sleeve nut. Push the tubing with the sleeve nut and new olive **fully** into the brake lever and tighten the sleeve nut.

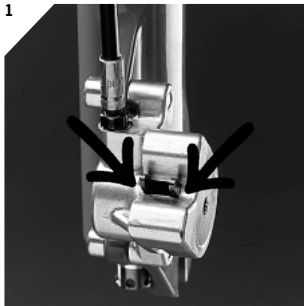
Warning:
Do not crossthread! After initial start by hand use a 8 mm open end wrench and tighten to 4 Nm/34in.lbs.

6



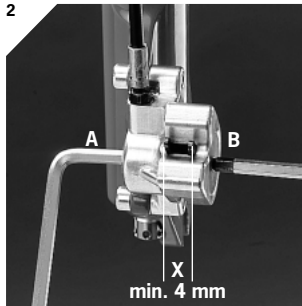
6 Warning! Always check for correct installation by pulling on the tubing. Make sure that the system has no leaks by activating the lever blade, holding it and checking the tubing connections for eventual leaks.

3. Maintenance



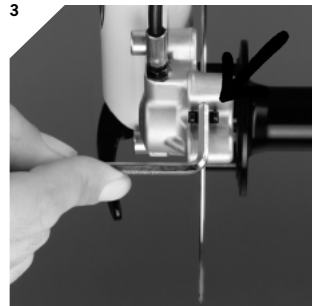
Louise or Clara are virtually maintenance free if correctly installed. A regular change of the used MAGURA Blood oil is not necessary because this does not absorb water like the brake liquid used in cars and on motorcycles. The only regular maintenance work is therefore the brake pad wear adjustment (**Louise and Clara do not have an automatic wear adjustment!**) and pad change.

1 The „ears“ of new brake pads are both touching the brake caliper housing (see arrows).

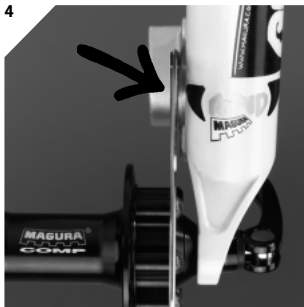


2 The brake pad wear adjustment is realized by screwing in the two 5mm allen screws A + B clockwise.

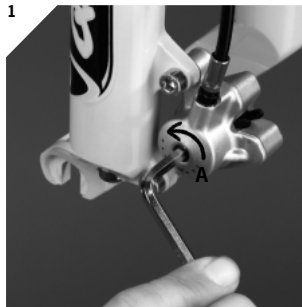
Check the wear of your brake pads regularly, i.e. at least every 50 km. When you pull the lever blade so that the wheel is blocked, the distance „X“ between the two „ears“ of the brake pads has to be at least 4 mm. If this is no longer the case you have to change the brake pads.



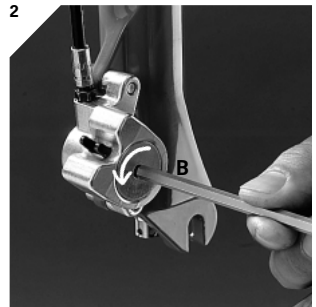
3 Brake pad wear check: **Pull the lever blade** and hold a 4mm Allen wrench in between the ears. If it's not possible to insert the 4mm allen wrench in between the brake pad ears, then it's time to replace the pads.



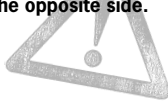
4 Warning! Check the gap between the right side of the brake caliper (seen in rotation direction) and the rotor for a correct distance. The gap between caliper and rotor (see arrow) has to be twice as wide as on the opposite side.

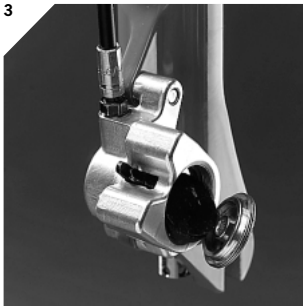


1 Brake pad change
Dismount your wheel. Turn back the 5mm allen screw A (see arrow) counter-clockwise **until stop**. Do not round off 5mm allen screw. **Maximum torque: 2 Nm/17in.lbs.**



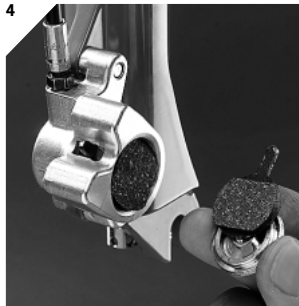
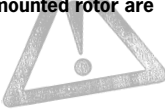
2 The opposite 5mm allen screw B has to be unscrewed fully and removed.





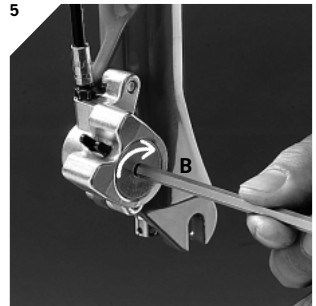
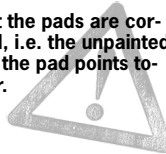
3 You can now pull out the brake pads which are held in position by magnets. The „ears“ of the brake pads make this very easy.

Warning:
Never screw in the 5 mm allen screw as long as the pads and the wheel with mounted rotor are not mounted.

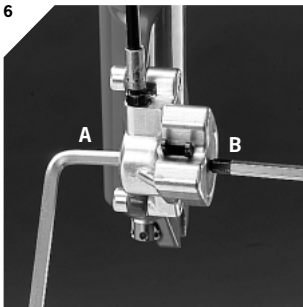


4 New pads are mounted accordingly. With the help of the magnets this is a snap.

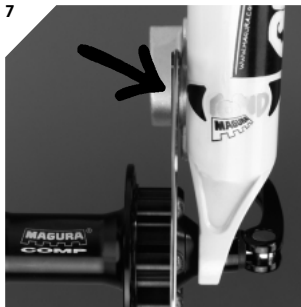
Warning:
Make sure that the pads are correctly mounted, i.e. the unpainted friction side of the pad points towards the rotor.



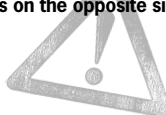
5 Then insert the 5 mm allen screw B clockwise. Apply Loctite or similar thread locker to the thread.



6 Ensure a drag free function of your Louise by turning in the two 5 mm allen screws A + B clockwise. The pads are approached to the disc. 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.



7 Warning!
Check the gap between the right side of the brake caliper (seen in rotation direction) and the rotor for a correct distance. The gap between caliper and rotor (see arrow) has to be twice as wide here as on the opposite side.

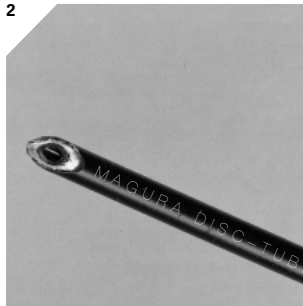




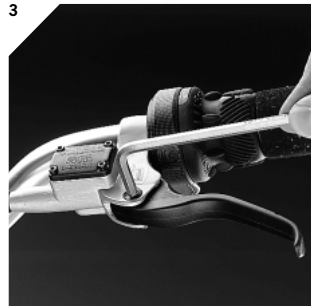
4. Repairs



1 Servicekit for Louise + Clara: Don't panic if the tubing snaps! The Louise servicekit contains everything you need.

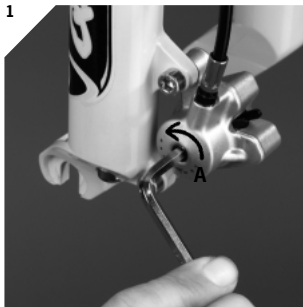


2 Triple layer reinforced disc tubing. **Warning: Only use the special disc brake tubing with „MAGURA disc tube“ print, never use the standard tubing for MAGURA rim brakes which could burst. Always cut the tubing straight.**

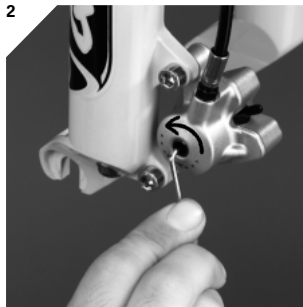


3 **Lever blade change** Unscrew the 5 mm allen screw. Remove the damaged lever blade, install the new one, screw in the 5 mm allen screw - that's all!

5. Filling and Bleeding



1 Turn back the 5 mm allen screw A (see arrow) counter-clockwise **until stop**. Do not round off 5 mm allen screw. **Maximum torque: 2Nm/17in.lbs.**



2 Unscrew the 2mm allen screw hidden in the 5mm allen screw A. Prepare the filling syringe. Install the filling tube on the syringe. Put into the end of the filling tube the barbed fitting which allows to screw the filling syringe into the brake caliper.



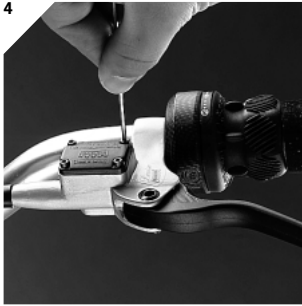
3 Screw the syringe from the Louise service-kit (code 0720996) or the filling kit (code 0720997) into the caliper and tighten it manually.

Warning:
Fill the syringe only with MAGURA Blood hydraulic oil, never use DOT brake liquid.
Make sure there is no air in the syringe and filler tube!





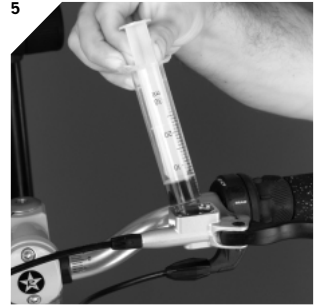
The filling and bleeding of a MAGURA brake is not a routine work. This is due to the fact that the biodegradable MAGURA blood hydraulic oil does not absorb water like DOT brake liquid in cars and on motorcycles. A filling and bleeding of a MAGURA is therefore only necessary in case of an incorrect installation or a tubing change after this has been damaged. Only use MAGURA blood hydraulic oil, never DOT brake liquid.



4 Turn the brake lever on the handlebar and ensure that the reservoir is horizontal. Unscrew the 2 mm allen (Louise) or Torx T7 (Clara) reservoir cover screws. **These screws are not interchangeable!**



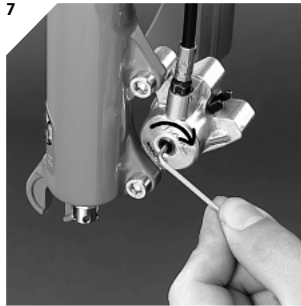
4a Remove the cover with the membrane from the reservoir. Press **the complete oil contents** of the syringe through the system until no further air bubbles can be seen.



5 Use a second syringe to suck any overflowing oil.



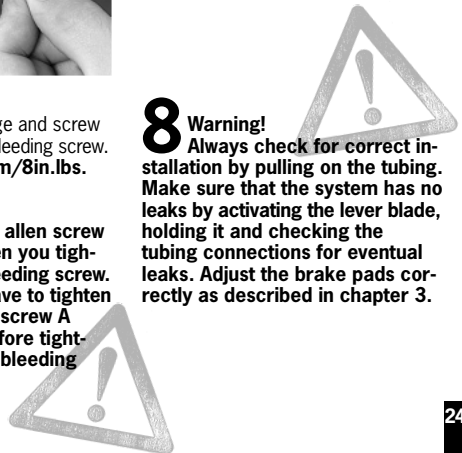
6 Replace the cover with the membrane onto the reservoir (oil has to spill for an airfree reservoir!). Place a rag around the reservoir to absorb the displaced oil. Tighten the coverscrews **evenly in a cross pattern** until the cover is flush with the reservoir. **Maximum torque 0,6 Nm/5 in.lbs.** Return the brake lever to the desired riding position.



7 Remove the syringe and screw in the 2 mm allen bleeding screw. **Maximum torque 1 Nm/8in.lbs.**

Warning: Ensure that the 5 mm allen screw A is not loosened when you tighten the 2 mm allen bleeding screw. If this happens you have to tighten again the 5 mm allen screw A counter-clockwise before tightening the 2 mm allen bleeding screw.

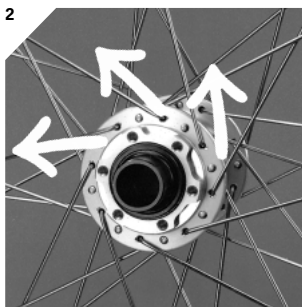
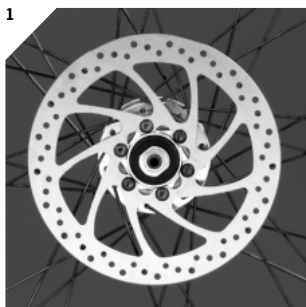
8 Warning! Always check for correct installation by pulling on the tubing. Make sure that the system has no leaks by activating the lever blade, holding it and checking the tubing connections for eventual leaks. Adjust the brake pads correctly as described in chapter 3.





6. Tips

The disc brake wheel



i.e. these spokes point forward on the front wheel (see arrows); on the back wheel these spokes point forward on the disc-side and backwards on the drive-side. All spokes have to be stressed equally and high.

Happy trails with your Louise or Clara!

1 There already exists enough literature concerning wheels, so just a few tips how a well built X-country disc brake wheel has to be.

2 Use spokes with a diameter of 2mm (arc)/1,8mm which you cross three times. No radial lacing with disc brake wheels! Head-inside-spokes (=arc-outside-spokes) have to be pulled,

For latest news and hot tips stay tuned with our website www.magura.com

7. Accessories



MAGURA braided tubing kit for Louise and Clara (0721 203), available as single kit in a length of 1700mm.



Louise: 2x CNC/black 0720987



Louise: 2x Alu/silver 0721 026
Louise: 2x Alu/black 0721 027



Louise: 2x CNC/silver 0721 009



Clara: 2x Alu/silver 0721 028

CNC (only Louise!) and cold forged aluminium lever blades (Louise and Clara)

Warning:
The lever blades of Louise and Clara are not compatible and cannot be interchanged consequently!