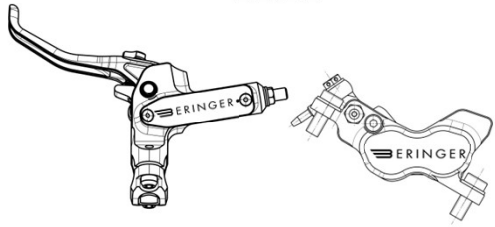


ASSEMBLY AND BLEEDING GUIDE



4 PISTONS CALIPER
MTB DH/ENDURO

BR4VE

#RIDEBERINGER



The brakes are safety devices. It is imperative to read completely and follow the instructions in this user guide, and to keep this document even after the warranty date has passed.

SUMMARY

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 - a. Mounting the pads
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Compatible only with DOT4 or 5.1

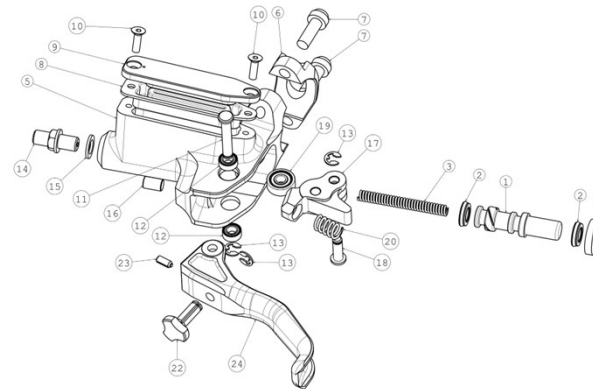
Braking kit content

- A front brake not bled: caliper + left master cylinder
- A rear brake not bled: caliper + right master cylinder
- 2 pairs of red pads (1051)
- 2 pairs of green pads (1054T)
- 1 connection kit with 85 cm hose for the front and 160 cm for the rear
- 1 bleeder screw
- 1 bleeding wedge
- 100 mL of DOT4

System Exploded Views

1.a) Master cylinder nomenclature

Change your brake fluid at least every year (normal use) or after each race (competition) with approved DOT 4.

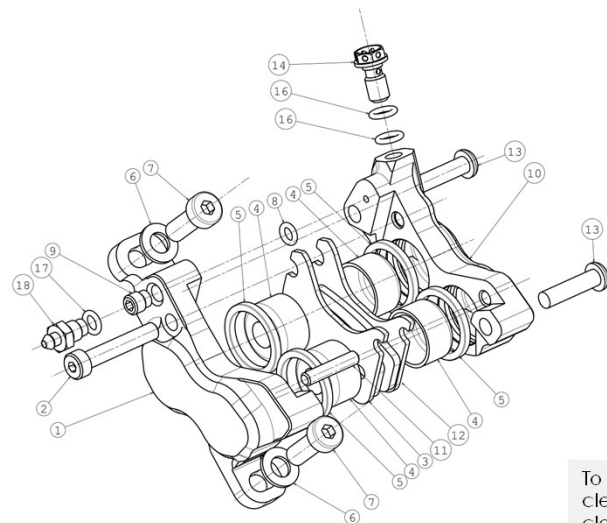


Compatible only with DOT4 or 5.1

#	DESCRIPTION	REFERENCES
1	Piston 10.15	PI57
2	Seals b2275	22 111 012
3	Spring BRO8	11 111 640
4	Dust cover (Type DLI 8/15/3)	22 111 013
5	Left housing	MCBR4VEGCA
	Right housing	MCBR4VEDCA
6	Hinge clamp	DCBR4VEB
7	Clamp bolts M5 x 14	22 111 014
8	Diaphragm	22 111 015
9	Lid left / right	COUBR4VEG/D
10	Lid bolt M3 x 10 Inox A2 DIN	22 111 016
11	Pivot bolt MC Br4ve Inox	AXELEVBR4VE
12	Ball bearing D8	22 111 017
13	Crecent rings D3.2 DIN 6799	11 111 168
14	Straight connector M6 CC919	22 111 018
15	Sealing washer 9,9x6,3x1 mm o-ring copper	22 111 019
16	Bolt M5 x 8 Inox	11 111 149
17	Cam (rocker)	BABR4VEB
18	Pivot ball bearing D12	AXEBASBR4VE
19	Ball bearing D12	22 111 020
20	Lever spring Inox A2	11 111 272
22	Adjuster screw left / right	MOBR4VEG/D
23	Spring plunger	22 111 021
24	2 fingers lever blade	LEVBR4VEB

System Exploded Views

1.b) Caliper nomenclature



#	DESCRIPTION	REFERENCES
1	Caliper front face	FAVETRBR4VE
2	Front slider bolt	22 111 022
3	Left pad	1051G/1054TG
4	Magnetic piston D18	PI10
5	Pistons seals D18 EPDM	22 111 023
6	Washer 2 Inox A2 Ø6xØ12 ép.1.2	11 111 232
7	Bolts M6 x 16	22 111 009
8	O-ring Ø4 x 1,5 EPDM 70	22 111 024
9	Needle screw	22 111 025
10	Caliper rear face	FARETRBR4VE
11	Rear slider Ø4x20	22 111 026
12	Right pad	1051D/1054TD
13	Bolts M5 x 20	22 111 027
14	Connector bolt 7075 anodised	22 111 028
16	Washers 9,1x5,9x1 O Ring copper	22 111 029
18	Bleed nipple	22 111 030

To clean the caliper, never use solvent, brake cleaner, basic chemicals, weed killer or pressure cleaner. Use soapy water. Rinse with clean water without pressure. Do not blow the calipers with compressed air.

Mounting instructions

2.a) Mounting of pads

Necessary tools

- 3 mm hex wrench



Mounting of the pads

1. Unscrew the front slider bolt (2) from the caliper and remove it completely from its housing.
2. Remove the used pads by rotating them upwards around the captive rear slider (11).
3. Wipe the pistons with a dry, lint-free cloth to clean them.
4. Return the cleaned pistons to their housing by pushing them with your finger or using the used pads.
5. Install the new pads by firmly positioning them on the rear slider in the dedicated housing.
6. **After checking that the thread of the front slider bolt (2) still contains thread lock, reposition it in its housing.** If there is no longer any green thread lock (the original one), add a drop of blue thread lock (Loctite 243 type). When installing a new axle for the first time, the thread lock may block significantly when screwing. In this case, do not hesitate to loosen and tighten several times until the screw is fully in its housing. Do not use excessive force or you risk damaging the thread on the caliper. **Recommended tightening torque: 3 N.m.**

Mounting instructions

2.b) Caliper mounting

Necessary tools

- 5 mm hex wrench



Caliper positioning and mounting

1. First, push the caliper pistons all the way back into their housing so that the pads are pressed against the interior faces on each side (already the case if the kit is new). This operation can be done simply by hand or with a flat screwdriver by pressing on the part without trim of the pads.
2. Place the caliper over the location of the "Postmount" fork, or base bracket, and position the screws and washers without tightening completely.
3. Position yourself above the caliper so that you can see the positioning of the pads in relation to the disc and the caliper mating surface. **The joint surface must be as centered as possible in relation to the disc.** This will allow you to obtain more uniform braking and above all to avoid any deformation of the disc in the long term.
4. Tighten each M6 fixing screw little by little.
5. **Once you are certain of the positioning, you can apply the recommended tightening torque: 10 N.m.**
6. After tightening the caliper, activate the brake several times so that the pads come into contact with the disc. When released, the disc must be centered in relation to the caliper. It must not rub on one side of the caliper or on its outer diameter.

Mounting instructions

2.c) Master cylinder mounting

Necessary tools

- 4 mm hex wrench

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Master cylinder positioning and mounting

- Unscrew the 2 Clamp bolts M5 (7) which hold the hinge clamp.
- Position your master cylinder on your handlebars, making sure there is no interference with other levers.
- Reposition the hinge clamp with the 2 Clamp bolts M5 (7) and tighten them so that the master cylinder is held but can be adjusted in rotation.
- Once the optimal position has been found, screw in the Clamp bolts (7) completely, ensuring that the tightening is even on each screw.

Recommended tightening torque: 4 N.m.

Mounting instructions

2.d) Hose adjustment and connection

Necessary tools

- open-end wrench of 8 mm
- open-end wrench of 10 mm
- Hydraulic Hose Cutter
- Hydraulic hose needle driver



Master cylinder hose connection

- Make sure that the straight connector (14) and the copper washer (15) are securely in place on the master cylinder.
- Take the end of the hose to be fitted and thread the elements of the fitting kit in the following order, leaving 1 cm between the end of the hose and the components (except needle):
 - Compression nut
 - Olive
 - Needle
- To make it easier to insert the needle, it is recommended to use a guiding tool.
- Once the edge of the needle is firmly pressed against the edge of the hose, place the small copper washer on the end of the needle. Bring back the olive and the compression nut to pre-screw the latter onto the straight connector.
- Using the 8 open-end wrench, tighten the compression nut.
Apply a torque of 12 N.m.



Master cylinder connector

Compression connector nut
ref 22 111 0--

Olive Ø5 ext
ref 22 111 034

Needle Ø2.1int
ref 22 111 033

O-ring copper 3,3x6,6x0,8mm
ref 22 111 032

Straight connector nut
ref 22 111 018

O-ring copper 9,9x6,3x1mm
ref 22 111 019

Preparing the caliper for bleeding

- Push back the pistons (4) by pressing on the pads (3 and 12), or if necessary, by leaning on the pads with a flat screwdriver. Be careful not to damage the trim, press on the upper part close to the slides (2 and 11).
- Remove the pads to avoid any risk of contamination:
 - Remove the slide screw (2) with a 3mm hex wrench
 - Turn the pads and slide them out of the caliper
- Place the bleeder wedge provided and secure it with the slide screw (2), barely tightening the latter
- If necessary, replace the needle screw (9) with the bleed nipple (18) supplied with gasket, leaving the conduit securely closed: screw in fully without forcing with an 8 mm open-end wrench.
- Leave the 8 mm open-end wrench in place on the bleed nipple (18) so you can easily open or close the channel.
- Position a tube with or without a syringe on the tip of the bleed nipple (18)

Preparing master cylinder

- Rotate the master cylinder so that the reservoir is as horizontal as possible. To do this, slightly unscrew the M5 clamp bolts (7) which hold the clamp hinge (6) to the handlebars.
- Unscrew the two lid bolts (10) which hold the cover (9)
- Remove the cover (9) and the membrane (8)
- Adjust the clearance adjustment wheel (22) so that the lever is as far away from the handlebars as possible

Caliper hose connection

- Make sure there is a connector bolt (14) with 2 copper washers pre-mounted on the caliper.
- Take the other end of the hose, if you have already connected the master cylinder. If it is the rear kidney, after securing the caliper in place on the base, look at the necessary length of hose when the handlebar is turned 90° (parallel to the axis of the bike) on the right side.
- Before cutting, always keep a small margin of 2-3 cm in case you need to readjust or recut after a bad connection.
- Thread the fitting components onto the hose, leaving 1 cm between the end of the hose and the components:
 - Banjo nut
 - Olive
 - Banjo
- The banjo can be placed just by pressing and screwing the needle into the hose conduit. Make sure you have good contact between the edge of the banjo and the edge of the hose.
- Bring the olive towards the banjo, as well as the nut that you will screw onto the banjo.
- Use a size 5 BTR key, for example, slipped into the hole in the banjo and the open-end wrench 10 to tighten the nut.
- Unscrew the banjo screw from the caliper and collect the copper washers that were on it. Position these on each side of the banjo and place the connector bolt so as to assemble into the caliper.
Tighten the connector bolt applying a maximum torque of 6 N.m.

Caliper connector



9x6x1mm o-ring copper
ref 22 111 029

Banjo Ø2.1int
ref 22 111 036

Olive Ø5 ext
ref 22 111 034

Banjo nut Ø5 ext
ref 22 111 035

Bleeding Instructions

3) Bleeding of the system



System positioning

Before you start bleeding, make sure that the master cylinder is in a position higher than the caliper, and that the hose slopes steadily downward to the caliper. This will prevent bubbles from getting stuck in the hose.

Use only approved DOT 4 brake fluid, excluding any other silicone-based "racing" fluid (immiscible).

Tightening torques for the bleeder screw (18): 3 N.m.

After pressing it, the master cylinder piston must return quickly, completely, freely and smoothly to its maximum rest position in order to bring the braking circuit to atmospheric pressure.

Necessary tools

- 2 mm hex wrench
- 3 mm hex wrench
- 4 mm hex wrench
- 5 mm hex wrench
- open-end wrench of 8 mm



Bleeding the system

- With the open-end wrench of 8 mm open the hydraulic channel via the bleed nipple (18) and operate the master cylinder lever without releasing it
- Close the channel with the 8 wrench and release the lever
- Repeat these operations several times until the jar is almost empty (not completely so as not to risk letting air bubbles enter)
- Fill the jar again with DOT 4 and repeat the previous operations until no more air bubbles escape into the pipe connected to the bleed nipple.
- Finally, keep the purge channel closed and pressurize the system by operating the lever several times. You should feel the lever getting hard on your finger fairly quickly. If this is not the case, you will need to check that there are no bubbles either on the master cylinder side or on the caliper side.

Caliper bleeding checks

- Check for leaks from the banjo side (14).
- Detach the caliper from the fork or chainstay and tap it lightly to loosen any bubbles stuck in the hydraulic system.
- Position the caliper so that the bleed nipple (18) is the highest point and bubbles can easily travel up to it.
- Activate the lever and open the hydraulic channel using the bleed nipple (18). Then close the channel before releasing the lever.
- If no bubbles come out and the system still does not appear to be fully pressurized, proceed to checks on the master cylinder.

Master cylinder bleeding checks

- The hydraulic channel on the caliper side must be closed by the bleed screw (18) or the needle screw (9) during all of the following operations.
- Make sure there is no leak at the connection (14):
 - Wipe the fitting carefully with a tissue
 - Pressurize the circuit by operating the lever and see if small bubbles or liquid flow towards the support area of the connection with the casing or towards the hose.
- Tilt the jar slightly forward by loosening the hinge clamp (6), then operate the lever 2-3 times to check that there are no bubbles
- Do the same manipulation by positioning the jar backwards.
- Finally reposition the jar horizontally, fill with DOT 4 to the brim if necessary, replace the membrane (8) and the lid (9), and screw the subset onto the jar.
- Detach the master cylinder from the handlebars and place it in an almost vertical position, taking care to never turn the jar upside down (risk of a bubble passing through).
- Activate the lever several times to remove any bubbles stuck between the fitting and the end of the housing.
- Replace the master cylinder as before on the handlebars.
- If following these checks, the system does not fully pressurize, it is because air remains stuck somewhere in your hose.