

BRAKE SYSTEM BLEEDING PROCEDURE

A. Bleeding of brake system (fluid DOT4)

1 Tools

Tools:

- seringe 30cm³ (ideal 60cm³).
- EPDM hose
- lots of rags

USE ONLY DOT4
(DOT4 is the brake fluid used in cars and motorbikes brake systems. It is available in every car centre.

2 Method

Bleed the brake system consist in removing all air bubbles. If bleeding is not done properly, bubbles can stay in brake system. it will result poor brake performances, or no brake torque at all.

Push and pull brake fluid slowly

Next are some recommendations:

A. Inject brake fluid from caliper (Brake lever in released position)

- open reservoir (remove reservoir cap).
- Push slowly DOT4 brake fluid with a seringe from the lower point (caliper bleeder).
- Continue till no bubbles appears in fluid reservoir.
- Repeat the operation 2 or 3 times at each caliper.

At this step, you should have some brake pressure when pulling master cylinder lever. If you feel no effort at all on the master cylinder lever, that means too much air bubbles are still in the brake system. Repeat the operation A.

B. Remove air bubbles (Brake lever in released position)

Always keep fluid in reservoir.

- Open, pull 1-2 cm³ of brake fluid and close bleeding screw.
- start at the caliper and do all the bleeders.
- repeat operation 2 or 3 times.

C. Remove last air bubbles

Always keep fluid in reservoir

- Open and close quickly each bleeder while pulling on master cylinder lever.
- Do all bleeders 2 or 3 times
- Between each bleeder, release and pull lever 5-6 times and check if lever is harder to pull (or push) than before.

Correct bleeding is done when master cylinder piston travel is not more than 3-4 mm.

Do not use thinner or equivalent, it will damage seals

Clean only with dry rags or with soaper water

Air bubbles stay always at upper points

Check your brake lines

Bleeders should be at each upper point of brake system

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B. Security check before flying

it is necessary to check next points before the first flight

- All bolts and nuts must be torqued to appropriate value and locked with wire.
- Distance between controls and new parts must be checked.
- Wheels must turn freely on the axle (2 revolutions min. when turning with hand).
- Safety wire around the disc must be in place.
- Level of brake fluid adjusted to maximum (indicated on reservoir).
- Clean brake fluid with dry rags.
- Place lever in parking position during 15min and check eventual leakage of fluid around parts and fittings. Torque again if necessary.
- Place lever in parking position and check that plane cannot be moved by 2-3 persons.

On the ground:

- Check brake efficiency: performs 2-3 stops at low speed on taxiway (do not perform more than 2-3 consecutive brakings, system can overheat).
- place lever in parking position and apply engine power: the plane should not move at all, even at full power.
- After these tests, check again that wheel are turning freely when brakes are released (2 revolution min. when turning by hand).

ATTENTION: Brake efficeincy can be surprising. Make sure than you can control the new brake system before flying.

For any question, please contact directly BERINGER SA.