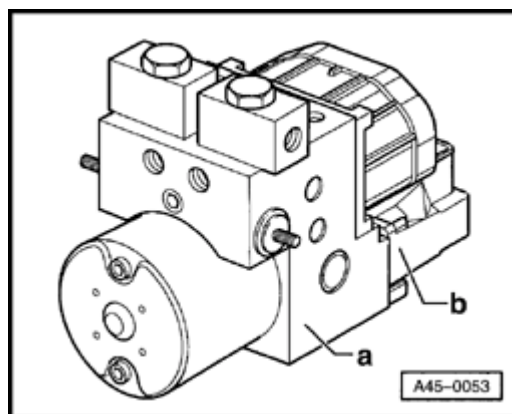


Anti-lock Brake System (ABS), Bosch 5.3

A traction control system (TCS/ASR) is available as optional equipment for front-wheel-drive models.

The brake system of the ABS is split diagonally. The brake servo assistance is provided pneumatically by a vacuum brake servo unit.



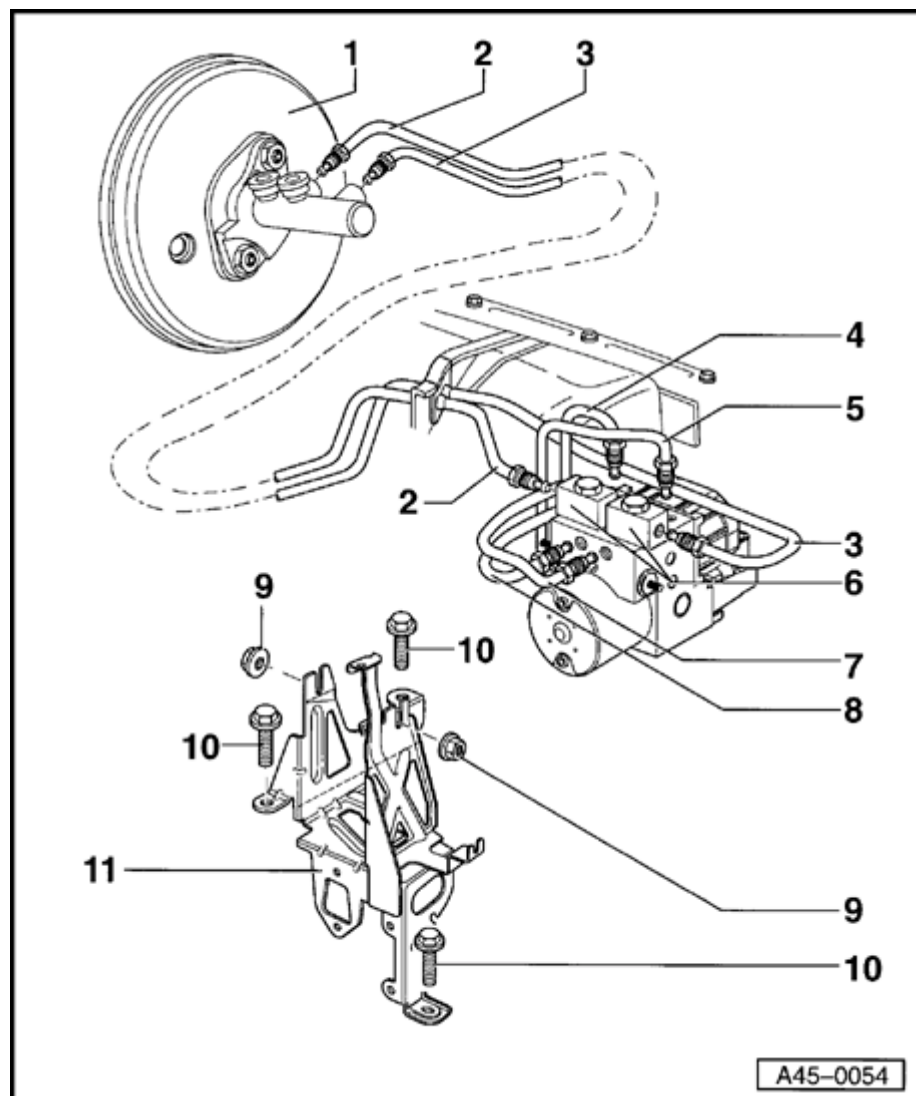
A Hydraulic unit -a- and ABS control module -b- form a single unit. The combination of these two components is termed the hydraulic control unit.

Sources of malfunctions are reduced as a result of the direct link between the two components.

CAUTION!

- ◆ ***It is not possible to repair the hydraulic control unit. If faulty, it should be replaced.***
- ◆ ***The bolts which connect the individual components of the hydraulic control unit must not be loosened.***

45-19



ABS hydraulic control unit and brake lines

The tightening torque for all brake lines on the Audi A4 is 15 Nm (11 ft lb).

1 - Brake master cylinder and brake servo

2 - Brake line

- ◆ Brake master cylinder/primary piston circuit to hydraulic control unit

3 - Brake line

- ◆ Brake master cylinder/secondary piston circuit to hydraulic control unit

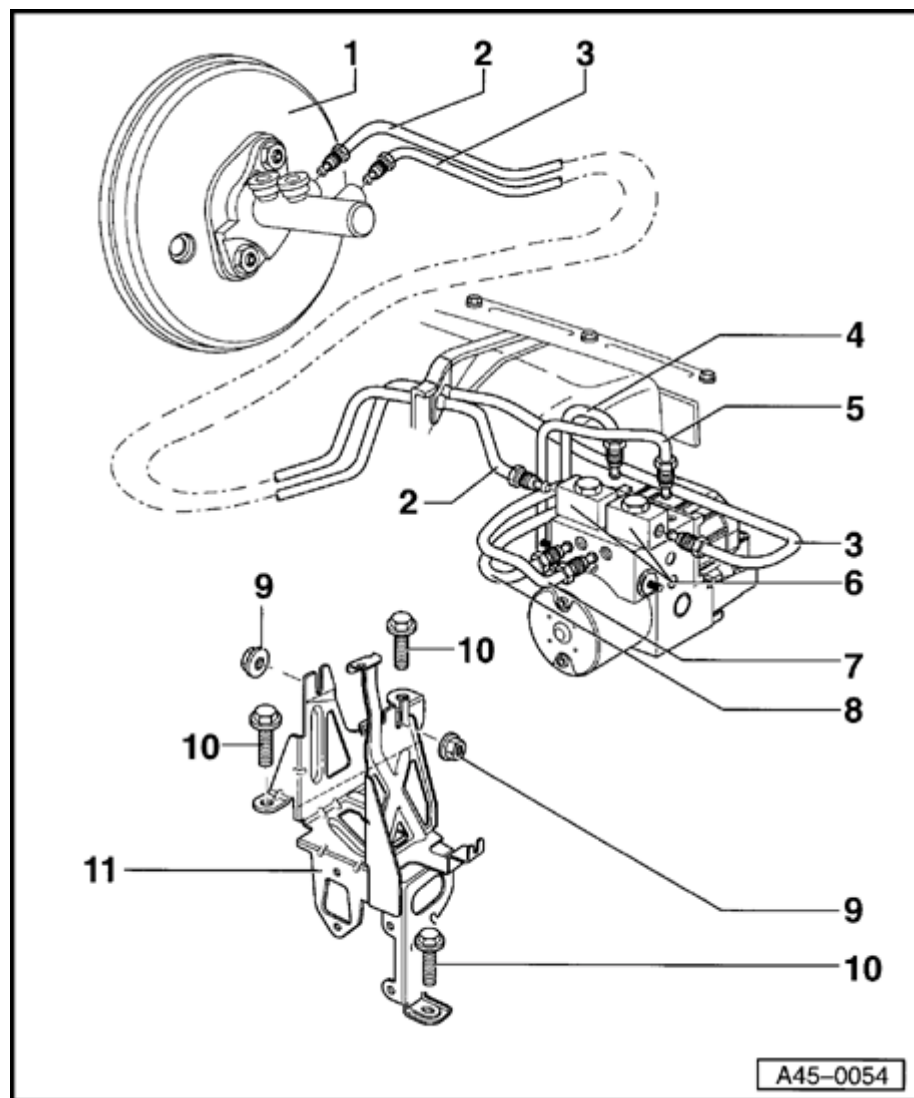
4 - Brake line

- ◆ Hydraulic control unit to left-front brake caliper

5 - Brake line

- ◆ Hydraulic control unit to right-front brake caliper

45-20



6 - Suction dampers

- ◆ Designed to improve pressure build-up during operation of EDL
- ◆ Discontinued; phased in integration into hydraulic control unit

7 - Brake line

- ◆ Hydraulic control unit to left-rear brake caliper

8 - Brake line

- ◆ Hydraulic control unit to right-rear brake caliper

9 - Nut

- ◆ 10 Nm (7 ft lb)

10 - Bolt

- ◆ 10 Nm (7 ft lb)

11 - Bracket

ABS hydraulic control unit, removing and installing

Note:

When working with brake fluid, observe the relevant safety precautions and notes ⇒ [Brake system, bleeding, page 47-23](#) .

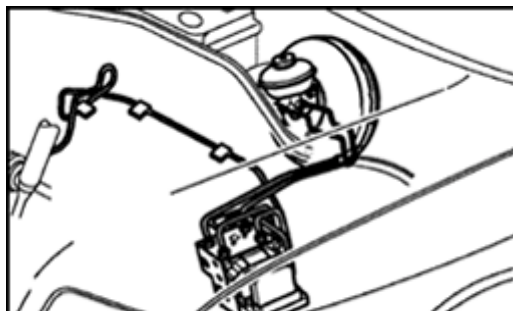
Special tools and equipment

- ◆ Sealing plugs from repair kit Part No. 1H0 698 311A
- ◆ Brake pedal depressor, e.g. from VAG1813

CAUTION!

Part numbers are listed here for reference only. Always check with your Parts department for the latest information.

Component location:



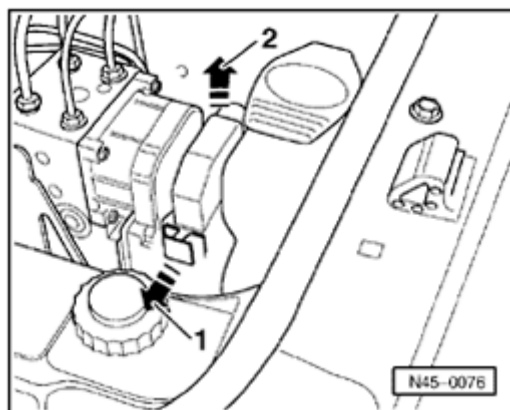
- A The hydraulic control unit is installed on the left side of the engine compartment.

Removing

CAUTION!

- ◆ *Do not bend the brake lines.*
- ◆ *Before disconnecting the battery, determine the correct coding for the anti-theft radio.*

- Disconnect battery Ground (GND) strap.



A

- Release control unit connector (arrow -1-) and disconnect harness connector (arrow -2-).
- Connect bleeder bottle to bleeder screw on left-front brake caliper and open bleeder screw.
- Install brake pedal depressor between brake pedal and driver's seat. Depress brake pedal by at least 60 mm (2 3/8 in.).

Note:

The brake pedal depressor must remain in position until all of the brake lines have been reconnected to the hydraulic control unit.

- Close left-front bleeder screw.
- Cover engine compartment to make sure brake fluid does not flow into it.
- Disconnect brake line connections on hydraulic control unit.

- Seal brake lines and threaded holes using plugs from repair kit, Part No. 1H0 698 311 A.
- Remove nuts from ABS hydraulic control unit bracket.
- Remove ABS hydraulic control unit.

Installing

Note:

When installing, pay particular attention to the following points.

- ◆ *Only remove the sealing plugs on the new hydraulic control unit when the corresponding brake line is about to be installed.*
 - ◆ *If the sealing plugs are removed too early the brake fluid can escape. If this occurs, the unit will no longer be sufficiently filled or adequately bled.*
- Bleed brake system ⇒ [page 47-23](#) .
 - Enter radio code.