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.

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.**
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
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:

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.

- 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.