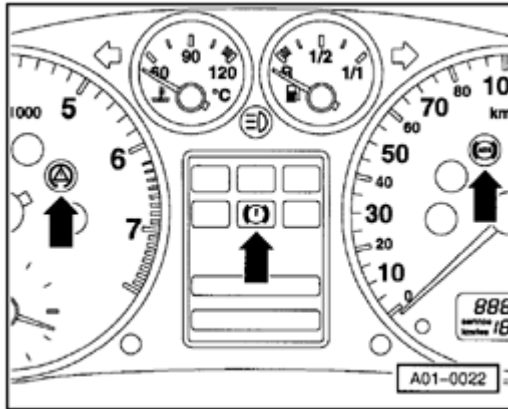


ABS/EDL Bosch 5.0

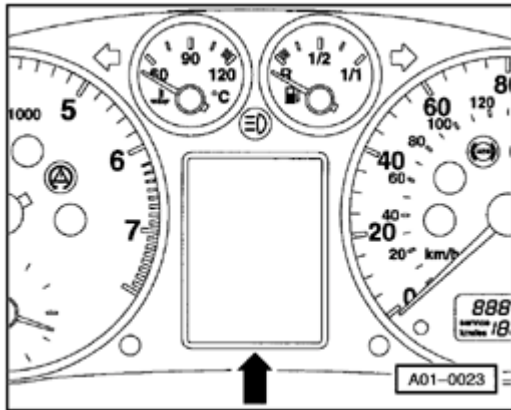
Warning lights, functional overview

- ◆ If On Board Diagnostic (OBD) has detected a malfunction in the system, it indicates the malfunction by lighting up warning lamps when ignition is switched on. The warning lamps are located in the instrument cluster.



Instrument cluster without DIS

- ◆ The illustration shows the ABS/EDL warning light -K47- (right arrow), the warning light for brake system -K118- (center arrow, red symbol for "brake system malfunction") and the traction control indicator light -K86- (left arrow).



A Instrument cluster with DIS

- ◆ For DIS, there is no warning light for brake system -K118-. The red "brake system malfunction" symbol appears in the display.
- ◆ If the ABS/EDL warning light -K47 and the red symbol for "Brake system malfunction" are not lit, but the brake system is not functioning properly, check for malfunctions in the mechanical/hydraulic brake system components.

⇒ [Repair manual, Brake System, Repair Group 46](#)

⇒ [Repair manual, Brake System, Repair Group 47](#)

| ABS - K47- | Brake system | ASR - K86- 1) | Possible reasons why the indicator lamps light up |
|------------------|-----------------|------------------------|---|
| | | | <p>If an irregularity occurs during the self test after ignition is switched on, and the warning lamps -K47- and -K86- do not light up for 2 seconds, check the warning lamps; "Electrical test" ⇒ page 01-68 , carry out test steps 19 and 21. The possible causes are as follows:</p> <ul style="list-style-type: none"> ◆ The battery voltage is insufficient. None of the lamps in the instrument cluster light up. Check the battery. <p>⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations</i></p> <p>⇒ Repair Manual, Electrical Equipment, Repair Group 90; Instrument cluster</p> |
| X | | X 1) | <ul style="list-style-type: none"> ◆ The ABS warning light does not light up during the self-test. There is a short to Ground (GND) in the wiring that controls the ABS warning light between terminal 32 of the ABS control module -J104- and the instrument cluster. This malfunction does not affect activation of the ABS warning light. For vehicles equipped with ASR, the traction control indicator lamp lights up during the self-test; "Electrical test" ⇒ page 01-68 , carry out test step 19. |
| | | | <ul style="list-style-type: none"> ◆ The vehicle is equipped with ASR. The ABS warning light lights up during the self-test. The traction control indicator light does not light up during the self-test "Electrical test" ⇒ page 01-68 , carry out test step 21. |

- 1) The traction control indicator light is only available in vehicles equipped with ASR.

| ABS -K47- | Brake system | ASR -K86- 1) | Possible reasons why the indicator lamps light up |
|--------------|-----------------|--------------------|---|
| X | | X ¹⁾ | <ul style="list-style-type: none"> ◆ If activation of the lamps and the voltage supply are OK, the warning lamps light up for 2 seconds during the self-test after ignition is switched on. ◆ The vehicle is either equipped with or without ASR, warning lamps do not switch off after self-test. However, the red "brake system malfunction" symbol did not go on. Carry out the "Electrical test", ⇒ page 01-68 , test step 20 and observe the next example of lighting warning lamps. |

¹⁾ The traction control indicator light is only available in vehicles equipped with ASR.

| ABS - K47- | Brake system | ASR - K86- 1) | Possible reasons why the indicator lamps light up |
|------------------|-----------------|------------------------|---|
| X | X | X ¹⁾ | <p>The vehicle can be equipped either with or without ASR. The ABS/EDL lamp remains constantly lit after ignition is switched on and the the red "brake system malfunction" symbol also lights up 3 seconds after ignition is switched on.</p> <p>WARNING!</p> <p>Driving the vehicle presents the risk of accident! The brake system will only be partially functional. Because brake pressure at the rear wheels is no longer regulated via Electronic Brake Distribution (EBD), the rear wheels tend to brake excessively. This causes the rear of the vehicle to break loose.</p> <p>The possible causes are as follows:</p> <ul style="list-style-type: none"> ◆ Voltage supply between 6.5 and 10.5 volts and vehicle speed is above 6 km/h; carry out "Electrical test", test step 23 ⇒ page 01-68 . Once the voltage supply is adjusted to above 10.5 volts, warning lamps will switch off again. ◆ There is a malfunction that affects the ABS system. Check DTC memory ⇒ page 01-97 . ◆ The VAG1551 Scan Tool (ST) is connected and the data link to the ABS control module (w/EDL) -J104- was established. For vehicles with automatic transmission and high-line instrument cluster, the red "brake system malfunction" symbol does not appear immediately after the ignition is switched on. Instead, the note "Depress brake pedal before engaging gear" appears in the display. Press the brake pedal and select a gear. The red brake warning light appears, if the light control is working properly. |

- 1) The traction control indicator light is only available in vehicles equipped with ASR.

| ABS -K47- | Brake system | ASR -K86- 1) | Possible reasons why the indicator lamps light up |
|--------------|-----------------|--------------------|--|
| | | X ¹⁾ | <p>The vehicle is equipped with ASR:</p> <ul style="list-style-type: none"> ◆ There is a malfunction that affects only the ASR system. The ABS and EDL systems are not deactivated. Check DTC memory ⇒ page 01-97 . ◆ ASR is switched off via the traction control button. If the traction control indicator light does not light up in this case, check the switch and the indicator light, carry out the "Electrical test", steps 21 and 22 ⇒ page 01-68 . ◆ ASR is in adjustment mode. The traction control indicator light blinks 3 times per second. ◆ Short circuit to B+ in the traction control button: The traction control indicator light switches off five minutes after ignition is switched on. ◆ The lamp remains constantly lit after ignition is switched on, but none of the above mentioned conditions are true. There is a short to Ground (GND) in the wiring that controls the traction control indicator light between terminal 31 of the ABS control module -J104- and the instrument cluster. |
| | | | <p>There is an irregularity present or a complaint has been made. The indicator lamps go on during the self-test and then go out. The possible causes are as follows:</p> <ul style="list-style-type: none"> ◆ The DTC 00526 "Brake light switch -F-" is stored in DTC memory , check DTC memory ⇒ page 01-97 . ◆ The DTC 00668 "Vehicle voltage terminal 30" is stored in DTC memory , check DTC memory |

| | | | |
|--|--|--|--------------------------------|
| | | | ⇒ page 01-97 . |
|--|--|--|--------------------------------|

| | | | |
|--|--|--|--|
| | | | ◆ The onset of EDL was temporarily shut-off to avoid an overheating in the brake system. |
|--|--|--|--|

1) The traction control indicator light is only available in vehicles equipped with ASR.

| ABS - K47- | Brake system | ASR -K86- 1) | Possible reasons why the indicator lamps light up |
|------------------|-----------------|------------------------|---|
| X | X | | <p>The vehicle can be equipped either with or without ASR. No DTCs are stored in DTC memory. The ABS lamp remains constantly lit after ignition is switched on and the the red "brake system malfunction" symbol also lights up 3 seconds after ignition is switched on. The traction control indicator lamp does not light up even for vehicles equipped with ASR.</p> <ul style="list-style-type: none"> ◆ Voltage supply for control module less than 6.5 volts; carry out "Electrical test" step 23 ⇒ page 01-68 . ◆ There is an open circuit or short circuit to B+ in the wire that controls the ABS warning lamp between terminal 32 of the ABS control module -J104- and the instrument cluster; carry out "Electrical test" step 19 ⇒ page 01-68 . |
| | X | | <p>No DTCs are stored in DTC memory. The red "brake system malfunction" symbol remains lit after ignition is switched on.</p> <ul style="list-style-type: none"> ◆ The brake fluid level is too low ◆ Malfunction in instrument cluster: Carry out "Electrical test" step 20, page ⇒ Page 01-68 . |

1) The traction control indicator light is only available in vehicles equipped with ASR.