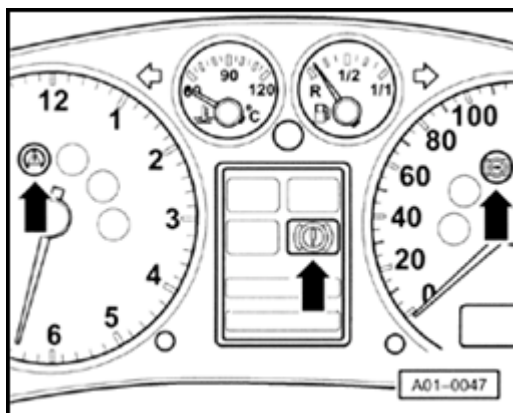


ABS/EDL/ASR Bosch 5.3

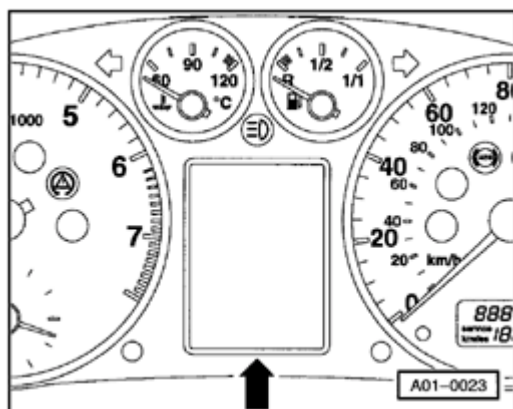
Warning light, functional overview

- ◆ 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).



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/EDL -K47-	Brake system	ASR - K86- 1)	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 01-166 , carry out test steps 8 and 10. 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 27, Battery</p>
		X 1)	<ul style="list-style-type: none"> ◆ The ABS/EDL warning light does not light up during the self-test. There is a short to Ground (GND) in the wiring that controls the ABS/EDL warning light between terminal 21 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 01-166 , carry out test step 8.
X			<ul style="list-style-type: none"> ◆ The vehicle is equipped with ASR. The ABS/EDL warning light lights up during the self-test. The traction control indicator light does not light up during the self-test "Electrical test" ⇒ page 01-166 , carry out test step 10.

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

ABS/EDL -K47-	Brake system	ASR - K86- 1)	Reasons why the indicator lamps light up
X		X ¹⁾	<p>For all vehicles:</p> <ul style="list-style-type: none"> ◆ If activation of both the ABS warning light -K47- and traction control indicator light -K86- is OK and the voltage supply is OK, the warning lamps light up for 2 seconds during the self-test after ignition is switched on. ◆ Check the voltage supply for the red "brake system malfunction" symbol. Carry out "Electrical test" step 9, ⇒ page 01-166 . If the control is malfunctioning, see the next example for lighted indicator lights. ◆ For DTCs stored in DTC memory that are no longer detected during the self-test when ignition is switched on or when a specific vehicle speed is reached and are found to be OK when checked, the red "brake system malfunction" symbol does not light up. For example: If there was a dynamic malfunction of the wheel speed sensor during the last driving period, the warning lamps automatically switch off after vehicle is restarted if wheel speed sensor is tested as OK once a vehicle speed of 2.75 km/h is reached. <p>For vehicles with control modules that do not provide EBD emergency mode:</p> <ul style="list-style-type: none"> - These vehicles can be identified by checking the note column under "Check control module version"; ⇒ page 01-128 . ◆ Voltage supply for the ABS control module -J104- is between 7 and 10 volts and the vehicle speed is ≤ 12 km/h. If the vehicle speed exceeds 6 km/h, a DTC entry will be made in DTC memory. At a vehicle speed of > 12 km/h, the red "brake system malfunction" symbol lights up; ⇒ "Check DTC memory" ⇒ page 01-187

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

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ABS/EDL -K47-	Brake system	ASR - K86- 1)	Possible reasons why the indicator lamps light up
X		X ¹⁾	<p>For vehicles with control modules that provide EBD emergency mode:</p> <ul style="list-style-type: none"> - These vehicles can be identified by checking the note column under "Check control module version"; ⇒ page 01-128 . ◆ A DTC is stored in the DTC memory the first time the vehicle exceeds 6 km/h, if the voltage supply to the ABS control module -J104- is between 7 and 10 volts and the indicator lights go on. If the voltage supply of the ABS control module -J104- exceeds 10 volts while driving, the indicator lights switch off. The DTC remains in the memory. If the voltage supply value drops below 10 volts again during the same driving cycle, the indicator lamps light up again. "Check DTC memory" ⇒ page 01-187 ◆ The indicator lights do not switch off after the self-test. However, the red "brake system malfunction" symbol did not go on. On Board Diagnostic (OBD) recognized a malfunction that did not deactivate the Electronic Brake Distribution (EBD) system. "Check DTC memory" ⇒ page 01-187

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

ABS/EDL -K47-	Brake system	ASR - K86- 1)	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>For all vehicles:</p> <ul style="list-style-type: none"> ◆ 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. ◆ On Board Diagnostic (OBD) recognized a malfunction that led to deactivation of Electronic Brake Distribution (EBD), ABS, EDL or ASR. "Check DTC memory" ⇒ page 01-187

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

ABS/EDL -K47-	Brake system	ASR -K86- 1)	Possible reasons why the indicator lamps light up
X	X	X ¹⁾	<p>Additional information for vehicles with control modules that do not provide EBD emergency mode:</p> <ul style="list-style-type: none"> - These vehicles can be identified by checking the note column under "Check control module version"; ⇒ page 01-128 . ◆ Voltage supply for the ABS control module -J104- is between 7 and 10 volts and the vehicle speed is > 12 km/h. A DTC will be entered in DTC memory once vehicle reaches a speed > 6 km/h. "Check DTC memory" ⇒ page 01-187

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

ABS/EDL -K47-	Brake system	ASR -K86- 1)	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 01-187 ◆ 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 10 and 11 ⇒ page 01-166 . ◆ 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 20 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 "Brake light switch -F-" is stored in DTC memory , check DTC memory ⇒ page 01-187 . ◆ The DTC "ABS/instrument cluster electrical connection" is stored in DTC memory , check DTC memory ⇒ page 01-187 .

			◆ The onset of EDL was shut-off to avoid an overheating in the brake system, read measuring value block ⇒ page 01-140 .
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1) The traction control indicator light is only available in vehicles equipped with ASR.

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ABS/EDL -K47-	Brake system	ASR - K86- 1)	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/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. The traction control indicator lamp does not light up even for vehicles equipped with ASR.</p> <ul style="list-style-type: none"> ◆ There is an open circuit or short circuit to B+ in the wire that controls the ABS/EDL warning lamp between terminal 21 of the ABS control module -J104- and the instrument cluster; carry out "Electrical test" step 8 ⇒ page 01-166 . ◆ Voltage supply for control module less than 6 volts; carry out "Electrical test" step 1 ⇒ page 01-166 .
	X		<p>No DTCs are stored in DTC memory. The red "brake system malfunction" symbol remains lit after the 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 9, ⇒ page 01-166 .

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