

Adaptive stop light | HELLA

General Information

The "adaptive stop light," which is also known as an "active stop light" or "dynamic stop light," is already built into many modern vehicles as an additional safety function.

This adaptive stop light function increases the awareness of other road users and reduces the risk of a rear-end collision.

Function

If the driver performs a "normal" braking operation during driving as a response to the traffic situation, the stop lights light up as normal. However, if emergency braking is performed at a speed of over 50km/h, the control unit activates the adaptive stop light in order to warn drivers behind the vehicle of the danger. Depending on the vehicle manufacturer and driving situation, the following functions can be activated:

- Stop light flashes fast
- Visible, illuminated brake light area increases
- Hazard warning light switches on when vehicle comes to a standstill

Emergency braking detection

In order to trigger an emergency signal, the control unit needs the following basic information:

- Brake pedal pressure
- Brake pedal speed
- Vehicle speed
- Vehicle deceleration
- ABS/ESP control information

Depending on the features of the vehicle, the sensor information from the rain sensor, brightness sensor and visibility sensor may also come into play.

Important safety note

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