



This Service Information bulletin supersedes S.M. B63 202 04 **dated April 2005**

SUBJECT**Automatic Headlamp System Does Not Switch Off the Lights****MODEL**

E46 (3 Series)

E53 (X5)

E60, E61 (5 Series)

E63, E64 (6 Series)

E65, E66 (7 Series)

E83 (X3)

E85 (Z4)

E90, E91, E92 (3 Series)

SITUATION

Low beam headlamps switch on spontaneously or stay on, even in daylight.

Vehicles concerned: E46 (3 Series), E53 (X5), E60, E61 (5 Series), E63, E64 (6 Series), E65, E66 (7 Series), E83 (X3), E85 (Z4), E90 (3 Series)

CAUSE

Normal operation

PROCEDURE

On most vehicles, the following settings may be selected using the Car and Key Memory/Personal Profile:

- Normal
- Sensitive
- Very sensitive

In the normal setting, the lights switch off about 1/2 an hour later than in the sensitive setting (in the morning), or on about the same period earlier in the evening.

The situation is reversed in the very sensitive position. The lights switch off about half an hour earlier in the morning, and on about half an hour later in the evening.

The headlamps switch off after a delay of about 5 seconds after the vehicle exits from a tunnel. This value is fixed, and is influenced very little by the sensitivity levels.

The system has built-in hysteresis to prevent constant switching on and off. This means that the threshold value for

switching on the lights is at a lower light value than the threshold value for switching off.

As a matter of principle, the sensitivity of the two sensors detecting the brightness of the ambient light cannot match that of the human eye. The vehicle-standard phototransistors that are used in the rain/light sensor (RLS) are mainly sensitive to light in the infrared range, which acts with a higher intensity on the light sensor in very cloudy conditions.

In contrast to this, human eyes are more sensitive to the blue light range.

These different sensitivities mean that the sensor receives a much lower proportion of infrared light when there is light cloud cover or clear blue skies – particularly in the winter – and the RLS switches the lights on earlier or leaves them switched on for longer than the driver would.

Entering a tunnel with very bright street lighting in the center of the roadway is also a critical situation. Street lighting radiates a high proportion of infrared and so the headlamps switch on relatively late even though the driver feels that they should really have switched on sooner.

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