

This Service Information bulletin supersedes S.I. 72 04 96 dated April 1996 which should be removed and discarded from your S.I. binder.

SUBJECT: Fault Codes 16/17 or 24/25 in SRS Control Module

MODEL: 3 Series (E36), 5 Series (E34, E39), 7 Series (E38), 8 Series (E31)

Situation: The SRS airbag light comes "ON" and stays illuminated for up to two minutes after starting the vehicle. This may happen either every start or sporadically.

This bulletin does **not** refer to complaints of permanent illumination of the SRS airbag light.

Cause: Since the model year 1994, all vehicles have been equipped with an air bag central activation units (ZAE or MRS on later models), capable of monitoring the safety belt buckles by means of mechanical microswitches within the buckle assembly.

Unfortunately, due to some defects in the printed circuit board or the contacts of the switches, the monitored resistance values could fluctuate under mechanical load.

The airbag control module fault memory readout will display either "Fault Code 16/24" (driver seat) or "Fault Code 17/25" (passenger seat). The fault can be present or not present at the time the technician attempts to diagnose the fault.

Important: These faults have no effect on the airbag deployment function.

When this fault occurs, the system will default to the deployment of both airbags (driver and passenger) regardless of whether a passenger is seated in the front seat or not.

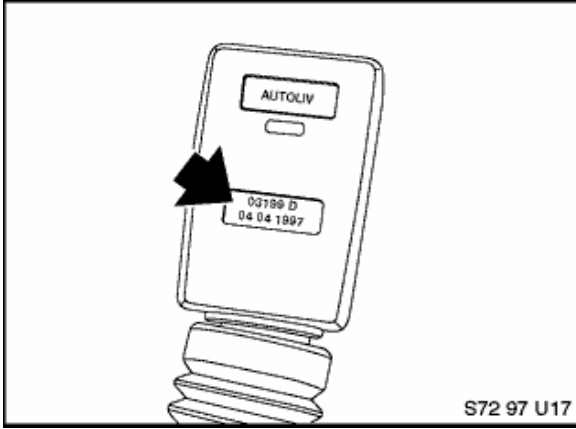
Vehicles Affected: All models with ZAE or MRS Airbag Systems (E36, E34, E39, E38, E31) are affected as of production date 4/94.

Correction: In order to rectify those problems, various improvements to the microswitch were implemented, with the most recent ones in:

- January '97- gold plated 100 Ohm contacts
- April '97- gold plated both contacts of the switch, 100/400 Ohm).

The safety belt latch with the latest improvements to the mechanical microswitch can be identified by the date **04.04.1997** or higher, stamped on the receptacle housing.

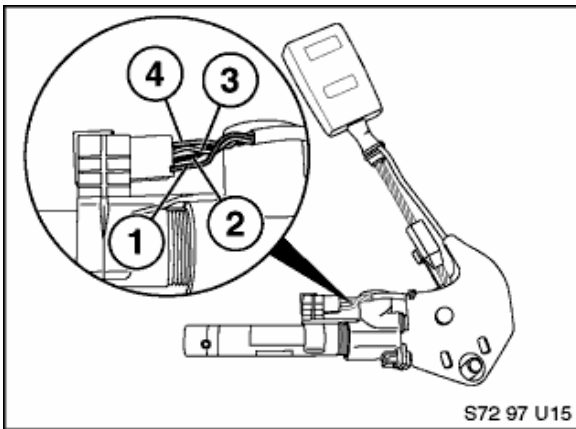
Part manufactured after 04.04 1997



Furthermore, BMW has introduced a Hall Effect sensor replacing the mechanical microswitch. This production change took place in:

- June '97 for E36/2 (318is, 328is, 318ic, 328ic)
- July '97 for E36/4/5 (318i, 328i, 318ti)
- September '97 for E38, E39
- November '97 for Z3

The improved parts can be recognized in all models by the 4 pin, 4 wire connector (additional red wire supplies power to the Hall Effect sensor).



Four wires on the safety belt buckle side=Hall Effect Sensor.

- 1 - Red
- 2 - Black
- 3 - Grey
- 4 - Brown

In 3/97 the vehicle harness of all models but the Z3 was modified providing a 4 pin connector on the vehicle harness side of the seat buckle connection. This was done in preparation for the introduction of the Hall sensor which requires a 4 pin connection. The Z3 had a 4 pin connector on the vehicle harness side from the beginning of US production.

Along with this harness change, safety belt buckles with new part numbers were introduced around 3/97; these modified safety buckles had a 4 pin connector, however, only 3 pins were present in those 4 pin connectors prior to the introduction of Hall sensor buckles.

The new part numbers are as follows:

| | | |
|-------------|-----------------|-------|
| - E36, Z3- | 72 11 8 221 013 | Left |
| | 72 11 8 221 014 | Right |
| - E38, E39- | 72 11 8 221 009 | Left |
| | 72 11 8 221 010 | Right |

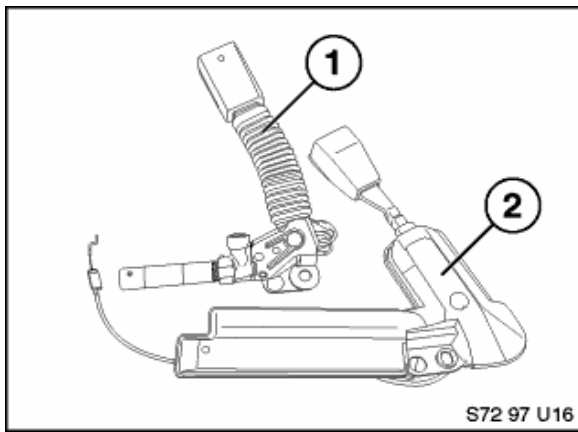
On a customer complaint basis, and if Fault Codes 16/17 or 24/25 are logged in fault memory of the control unit, replace the corresponding safety belt buckle using the appropriate part number according to EPC (also, refer to the Parts Replacement Table below). Clear the fault memory of the airbag control module.

For details on replacing the front left or right safety belt unit, refer to the appropriate repair manual, section 72/11.

Observe all relevant safety information when performing repairs to the Airbag System.

Refer to SI 72 01 95.

Important Since March of '97 production, all E36 models are fitted with the pyrotechnical tensioner units which replaced the mechanical type. In case of replacement only safety belt buckles with pyrotechnical tensioners must be used on those vehicles (P/N 72 11 8 221 013, and P/N 72 11 8 221 014).



- 1 E36 belt buckle with pyrotechnical tensioner
- 2 E36 belt buckle with mechanical tensioner

Safety Belt Buckle Replacement Table

| Model | Production Range | Part Number | Remarks (tensioner/switch) |
|------------|------------------|--|--|
| E 36/2/4/5 | 09/93 to 03/97 | for manual seats: 72 11 8 167 711 left 72 11 8 167 712 right for electric seats: 72 11 8 167 715 left 72 11 8 167 716 right | mechanical tensioner, mechanical switch (3 wires, 3 pin connector); part manufactured after 04.04.97 |
| E 36/2/4/5 | from 03/97 | 72 11 8 221 013 left 72 11 8 221 014 right | pyrotechnical tensioner, initially mechanical switch (3 wires, 4 pin connector), later Hall sensor (4 wires, 4 pin connector) |
| Z3 | from 01/96 | 72 11 8 221 013 left 72 11 8 221 014 right | same as above |
| E 38/E 39 | up to 03/97 | 72 11 8 233 537 left 72 11 8 233 538 right | pyrotechnical tensioner, mechanical switch (3 wires, 3 pin connector); part manufactured after 04.04.97 |
| E 38/E 39 | from 03/97 | 72 11 8 221 009 left 72 11 8 221 010 right | pyrotechnical tensioner, initially mechanical switch (3 wires, 4 pin connector), later Hall sensor (4 wires, 4 pin connector) |

Covered under the terms of the BMW New Car Limited Warranty.

Defect Code: 72 11 07 79 00

Labor Operation: 72 11 041 Replacing one safety belt tensioner
72 11 043 Replacing both safety belt tensioners

Labor Allowance:

| | | | |
|-----|-------|------------|--------|
| E31 | 8 FRU | E31 | 14 FRU |
| E34 | 9 FRU | E34 | 15 FRU |
| E36 | 5 FRU | E36 2-door | 7 FRU |
| | | E36 4-door | 9 FRU |
| Z3 | 6 FRU | Z3 | 9 FRU |
| E38 | 8 FRU | E38 | 13 FRU |
| E39 | 8 FRU | E39 | 13 FRU |