

P0571

Brake Switch "A" Circuit

Diagnostic conditions

- Battery voltage between 10 V and 16 V
- Ignition on

Possible fault causes for vehicles up to and including model year 2004

- ◆ Open circuit in the power supply for the brake light switch
- ◆ Brake light switch faulty
- ◆ Short circuit to B+ in control line
- ◆ Short circuit to ground in control line
- ◆ Open circuit in control line
- ◆ DME control module faulty

Possible fault causes for vehicles as of model year 2005

- ◆ Fault is set in PSM control module, refer to there

Affected pin for vehicles up to and including model year 2004

DME control module connector A, pin 55

DME control module connector A, pin 56

Diagnosis/troubleshooting

Note!

- ◆ *The diagnosis checks the clearness of the status reports given for the brake light switch. If the status "Brake actuated" or "Brake not actuated" is not clearly detected, this fault is set.*
- ◆ *A twin brake light switch is installed in vehicles up to and including model year 2004 which is diagnosed directly by the DME.*
- ◆ *Vehicles as of model year 2005, this brake light switch no longer exists and is replaced by the switch in the brake master cylinder. Evaluation is carried out in the PSM control module.*

Work instruction			Display OK	If not OK
1	determine model year	What is the vehicle's model year?	up to and including 2004 ⇒ Step 2	as of 2005 ⇒ see On-Board Diagnosis Manual group 0 repair group 4503 (PSM)
2	Check for further fault entries	Is the 'Clutch switch' fault also present?	No ⇒ Step 3	Yes ⇒ check and repair fuse and power supply according to circuit diagram → End
3	Check wiring for short circuit to B+	<ul style="list-style-type: none"> ◆ Remove connector A from DME control module ◆ Visual inspection ◆ Pull off plug from brake light switch ◆ Visual inspection ◆ Switch on ignition ◆ Measure voltage between DME control module connector A, pin 55, and ground ◆ Measure voltage between DME control module connector A, pin 56, and ground ◆ Switch off ignition 	0 V ⇒ Step 4	Repair wire and correct cause of damage if necessary → End
4	Check wiring for short circuit to ground	<ul style="list-style-type: none"> ◆ Measure voltage between DME control module connector A, pin 55, and ground ◆ Measure voltage between DME control module connector A, pin 56, and ground 	$\infty \Omega$ ⇒ Step 5	Repair wire and correct cause of damage if necessary → End

Work instruction			Display OK	If not OK
5	Check wiring for open circuit	<ul style="list-style-type: none"> ◆ Measure resistance between DME control module connector A, pin 55, and brake light switch connector, pin 3 ◆ Measure resistance between DME control module connector A, pin 56, and brake light switch connector, pin 4 	<p>< 2 Ω ⇒ Step 6</p>	<p>Repair wire and correct cause of damage if necessary → End</p>
6	Check power supply to brake light switch	<ul style="list-style-type: none"> ◆ Plug connector A onto DME control module ◆ Switch on ignition ◆ Measure voltage between brake light switch connector, pin 1, and ground ◆ Measure voltage between brake light switch connector, pin 2, and ground ◆ Switch off ignition 	<p>Battery voltage ⇒ Step 7</p>	<p>Repair power supply line and correct cause of damage if necessary → End</p>
7	Replace brake light switch	<ul style="list-style-type: none"> ◆ Replace brake light switch ◆ Erase fault memory ◆ Establish diagnostic conditions ◆ Read out fault memory 	<p>Fault does not occur again → End</p>	<p>If the fault occurs again ⇒ Step 8</p>
8	Check DME control module	<ul style="list-style-type: none"> ◆ Replace control module, as a test ◆ Erase fault memory ◆ Establish diagnostic conditions ◆ Read out fault memory 	<p>Fault does not occur again → End</p>	<p>Fault occurs again ⇒ DME control module was OK ⇒ Back to Step 1</p>