

**DTB**

Date: March 4, 2009
Order No.: P-B-91.60/99e
Supersedes: P-B-91.60/99d dated June 12, 2007
Group: 91

Revision History

Revision	Date	Purpose
e	3/4/09	Warranty Information Updated
d	6/12/07	Notes Added for Short Test and Returned Parts
c	2/6/07	Applicable Models / Part Numbers / Work Instruc. and Warranty Info. Updated
b	4/13/06	Numbering Sequence Corrected – No Change to Content
a	1/17/06	Process, Part No. Description and Damage Code Update
-	12/12/05	Initial issue

**SUBJECT: Model 211.022/026/056/065/070/072/076/077/082/083/087/090/256/265/276/277/282/283/287
Model 219.372/375/376/377
SRS Light Illuminated**

If you receive customer reports in the above model vehicles of the SRS light being illuminated accompanied by either of the diagnostic fault codes listed below, perform the following procedure.

i **Note:** Replacement of the contact spiral is not necessary for this repair procedure. Returned contact spirals will be subject to testing and may be debited if found to be operational.

Fault Codes:

DTC 9103 – the resistance value in the ignition circuit containing component R12/13 is too high

DTC 9123 – the resistance value in the ignition circuit containing component R12/14 is too high

i **Note:** Short test printout from STAR Diagnosis required to be sent with returned connectors.

1. Remove the Steering Column Module (SCM). Refer to WIS document AR54.25-P-2802T(A) (211) or WIS document AR54.25-P-2802TX (219).
2. Disconnect battery ground cable. Refer to WIS document AR54.10-P-0003T(A) (211) or AR54.10-P-0003TX (219).

i **Note:** The battery ground cable must be disconnected. If this step is omitted, other faults may be introduced into the vehicle when cutting the SCM harness.

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3. Remove instrument panel bottom section on driver's side. Refer to WIS document AR68.10-P-1505T (211) or AR68.10-P-1505TX (219).
4. The 211 SCM harness routing has two versions (Figure 1 and 2).
5. On the 219, cut the cable tie securing the SCM harness to the steering column (Figure 3).
4. Unclip SCM connector from jacket tube by pushing on lock tabs (Figure 4).



Figure 1 P-B-91.60/99
Harness routing version 1 (approx. length 220mm)



Figure 2 P-B-91.60/99
Harness routing version 2 (approx. length 330mm)

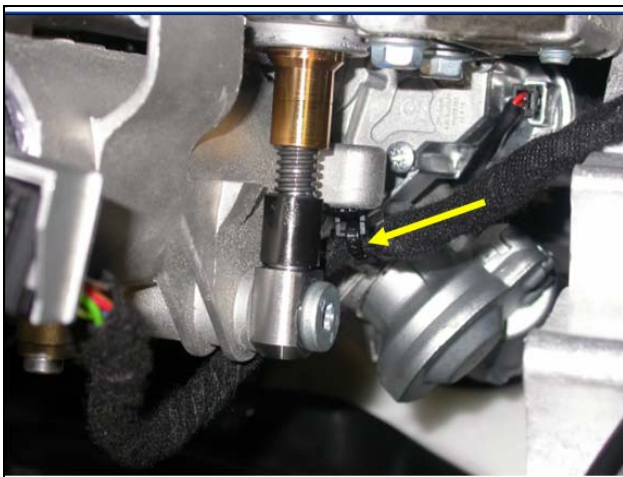


Figure 3 P-B-91.60/99c
219 Steering column cable tie location

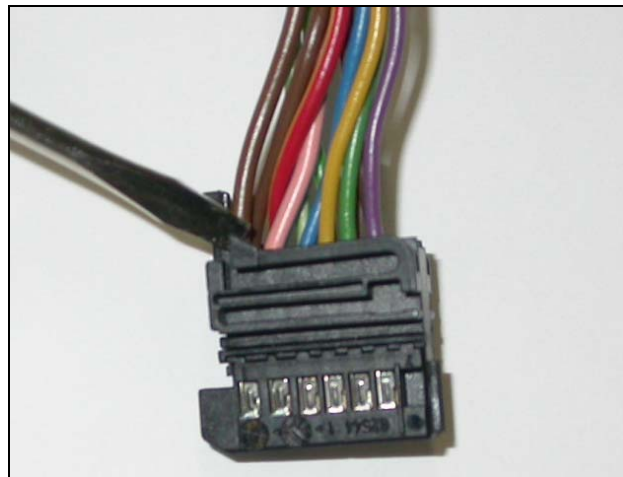


Figure 4 P-B-91.60/99
Push lock tab on N80 connector to release from bracket.
One tab on each side of connector.

Procedures for 211/219, As of Model Year 2005:

6. The repair harness is color coded to match the car side of the harness. Pins 1, 8 and 12 of the SCM connector are brown wires and cannot be interchanged. Pins 5 and 11 are both green wires and cannot be interchanged. These wires should be cut and spliced one at a time to ensure that they are connected correctly.

i Note: The repair harness includes brown wire (0.75 BN) connected to pin 1 and a pink-blue wire (0.75 PKBU) connected to pin 2 of the SCM connector. If the vehicle does not have steering wheel heater or steering wheel gear shift control, these wires will not be used. Cut both wires 50 mm from the lead end and insulate each wire with fabric tape.

Cutting Procedure – First Time Repair:

- Using a Digital Multi Meter (DMM), locate the brown wire (0.5 BN) connected to terminal 8 of the SCM connector of the repair harness.
- Locate the brown wire (0.5 BN) connected to terminal 8 of the SCM connector of the vehicle harness and cut it at the connector.
- Slip the solder connector (A002 546 13 41) onto the cut wire. Strip approximately 15 mm of insulation from the repair harness wire and the SCM harness wire. Braid the 15mm stripped ends of the repair wire and SCM harness wire (Figure 5). Solder the wires in accordance with the specified repair method in WIS document AR54.18-P-0100-06A (Figure 6 and 7).
- Repeat steps 8 to 10 for the brown wires (0.5 BN) at pin 12 and (0.75 BN) at pin 1.

i **Note:** The brown (0.75 BN) wire at pin 1 only needs to be connected if the vehicle has a heated steering wheel or steering wheel gear shift control.

- Repeat steps 8 to 10 for the green wires (0.5 GN) at pin 5 and 11.
- Cut remaining wires at the SCM connector and follow step (10) for remaining wires. The repaired harness will be significantly longer than the original harness (Figure 8).

i **Note:** Use appropriate WEB ETM document to confirm pin locations and wire colors.



Figure 5 P-B-91.60/99c
Wires braided

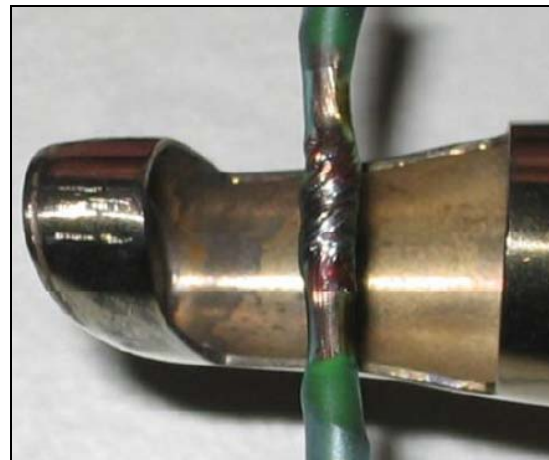


Figure 6 P-B-91.60/99c
Heat solder connector with Hot Air Gun
WE58.40Z1007-03A set to 400° C until soldering ring has dissolved

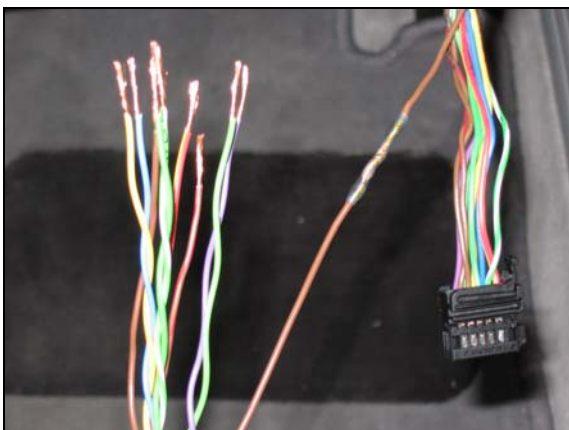


Figure 7 P-B-91.60/99c
The brown wire (0.5 BN) connected to terminal 8
(Repair as of MY 05)



Figure 8 P-B-91.60/99c
Repair harness spliced to vehicle harness
(Repair as of MY 05)

Cutting Procedure – Previous Repair:

13. If the SCM connector has been previously repaired using individual repair wires, remove the insulating tape of the repaired harness. The solder connectors should be located close to where the SCM harness comes out of the cockpit harness.
14. Using a DMM locate the brown wire (0.5 BN) connected to terminal 8 of the SCM connector of the repair harness.
15. Locate white pigtail that is spliced to the brown wire (0.5 BN) connected to terminal 8 of the SCM connector of the vehicle harness. Cut it at the solder connector so that the white pigtail and solder connector are completely removed.
16. Slip the solder connector (A002 546 13 41) onto the cut wire. Strip approximately 15 mm of insulation from the repair harness wire and the SCM harness wire. Braid the 15mm stripped ends of the repair wire and SCM harness wire, see (Figure 5). Solder the wires in accordance with the specified repair method in WIS document AR54.18-P-0100-06A (Figure 6).
17. Repeat steps 15 to 17 for the brown wires (0.5 BN) at pin 12 and (0.75 BN) at pin 1.

i **Note:** The brown (0.75 BN) wire at pin 1 only needs to be connected if the vehicle has a heated steering wheel or steering wheel shift control.

18. Repeat steps 15 to 17 for each of the green wires (0.5 GN) at pin 5 and 11.
19. Cut remaining wires at the solder connector and follow Step 17 for remaining wires. The repaired harness will be slightly longer than the original harness.

i **Note:** Use appropriate WEB ETM document to confirm pin locations and wire colors. The new repair harness needs to be spliced directly to the vehicle harness using new solder connectors.

20. Insulate harness and solder connectors with fabric tape.

Securing the Repair Harness

21. Use the original harness routing and clip the SCM connector back on the jacket tube. Form a loop in the excess harness and secure it on the right side of the aluminum profile (Figure 9).
22. On the 219 use a cable tie to secure the harness to the cable anchor on the steering column (Figure 3).

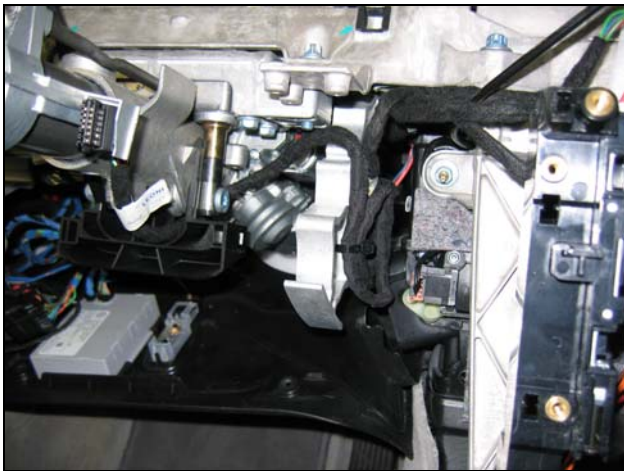


Figure 9

P-B-91.60/99c

Excess harness secured to right of the aluminum profile (Repair as of MY 05)

Procedures for Up to End of Model Year 2004:

23. Measure the length of the harness from the SCM connector to where it joins the cockpit harness. Version 1 should measure approximately 220 mm and Version 2 should measure approximately 330 mm. Record the measurement.

24. Cut the repair wires (A001 540 94 05) to the measurement in Step 20, plus 20 mm.
25. Cut the SCM connector wires connected to Airbag pins 3, 4, 5, 6, CAN pins 10, 11, 12, 13, and circuit 30 and 31, pins 8 and 9. The cut should be 150 mm from the terminal ends for harnesses that measure 220 mm, and 260 mm from the terminal ends on harnesses that measure 330 mm. If present, do not disconnect or cut the wires for steering wheel heater, pins 1 and 2.
26. Slip the solder connector (A002 546 13 41) onto one of the cut wires. Strip approximately 15 mm of insulation from the repair wire and the SCM harness wire. Braid the 15mm stripped ends of the repair wires and SCM harness wires (Figure 5). Solder the wires in accordance with the specified repair method in WIS document AR54.18-P-0100-06A (Figure 6). Repeat for all wires.
27. Remove the lock on the SCM socket connector (Figure 10). Depress the lock tab on the terminal and remove one cut wire terminal at a time. Install the appropriate repaired wire into the correct position in the socket connector and form a loop in each wire (Figure 11). Gather the loops of repaired wires that include all the solder connectors and insulate with fabric tape. If present, the wires for the steering wheel heater are not included in the loop for the repair wires.
28. Use the original harness routing and clip the SCM connector back on the jacket tube. Position the loop formed in Step 24 under the cockpit harness and secure with a cable tie (Figure 12).



Figure 10 P-B-91.60/99c
Slide lock out of connector to remove/install terminals
(Repair up to MY 04)



Figure 11 P-B-91.60/99c
Repair wire loop. Repeat for all, except steering wheel
heater wires. (Repair up to MY 04)



Figure 12 P-B-91.60/99c
Repair loop cable tied to cockpit harness (Repair up to MY 04)

All Cars:

- 29. Turn the steering wheel to ensure that the harness does not chafe at any point. The repair point must not contact the electronic ignition switch.
- 30. Reassemble the vehicle in the reverse order.

i **Note:** Replacement of the contact spiral is not necessary.

i **Note:** Return cut off connectors to the QEC along with Short Test print out from STAR Diagnosis for analysis. Claims submitted as of repair date June 13, 2007 without returned parts and printouts may be debited.

Parts Information

Qty.	Part Name	Part Number
1	Repair harness (as of MY 05)	A211 440 45 09
10	Solder connector (as of MY 05)	A002 546 13 41
10	Repair wire (up to MY 04)	A001 540 94 05
10	Solder connector (up to MY 04)	A002 546 13 41

i **Note:** The following allowable labor operations should be used when submitting a warranty claim for this repair. This information has been generated on March 4, 2009. Please refer to Netstar → Star TekInfo → Star Time for the most current labor time allowance.

In Case of Warranty

Operation: Short test, perform (54-1011)
Airbag line to steering column module, replace (02-4859)

Damage Code	Operation Number	Time (hrs.)	Model Indicator (s)
59783 01	54 1011	0.3 hrs.	T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U3, U4, U5, U6, U7, U8, Y1, Y2, Y3, Y4
	02 4859	2.5 hrs.	T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U3, U4, U5, U6, U7, U8
		2.6 hrs.	Y1, Y2, Y3, Y4