

00 04 13 (920)

Electrical check of LVDS data lines

Vehicles with top rear side view camera (TRSVC)



Note!

From April 2015 onwards, 2 sets of test cables (male and female respectively) are available to dealer organisations as a supplement to test kit 2299380.

These ease the electrical testing of LVDS data lines.

Subject matter

The LVDS data line between the cameras and the TRSVC control unit consists of a CVBS line and a local interconnect network bus.

The CVBS line transmits image data. Communication between the TRSVC control unit and the cameras is over the local interconnect network bus.

For this reason, it is possible that the image from the camera is displayed but communication between the TRSVC control unit and a camera is not OK.

When this happens, the TRSVC control unit can not communicate with any camera and faults are entered for all cameras.

In the majority of cases water penetrates into the LVDS data line and causes this problem.

This can not be seen from outside. The LVDS data line must be tested.

Due to the fact that the line between the TRSVC control unit and the left bumper camera (if installed) is the longest, this problem occurs mostly for the left bumper camera. This LVDS data line must be firstly checked.

It is possible that the problem disappears for a short time after the camera has been briefly disconnected and then reconnected, however this does not rectify the problem.



Coloured connectors on the TRSVC control unit:

White connector: Bumper camera, left

Green connector: Bumper camera, right

Blue connector: Reversing camera

Red connector: Exterior mirror camera, right

Black connector: Exterior mirror camera, left

Procedure



Note!

The check of a LVDS data line is described based on the example of the rear view camera: see graphics below.

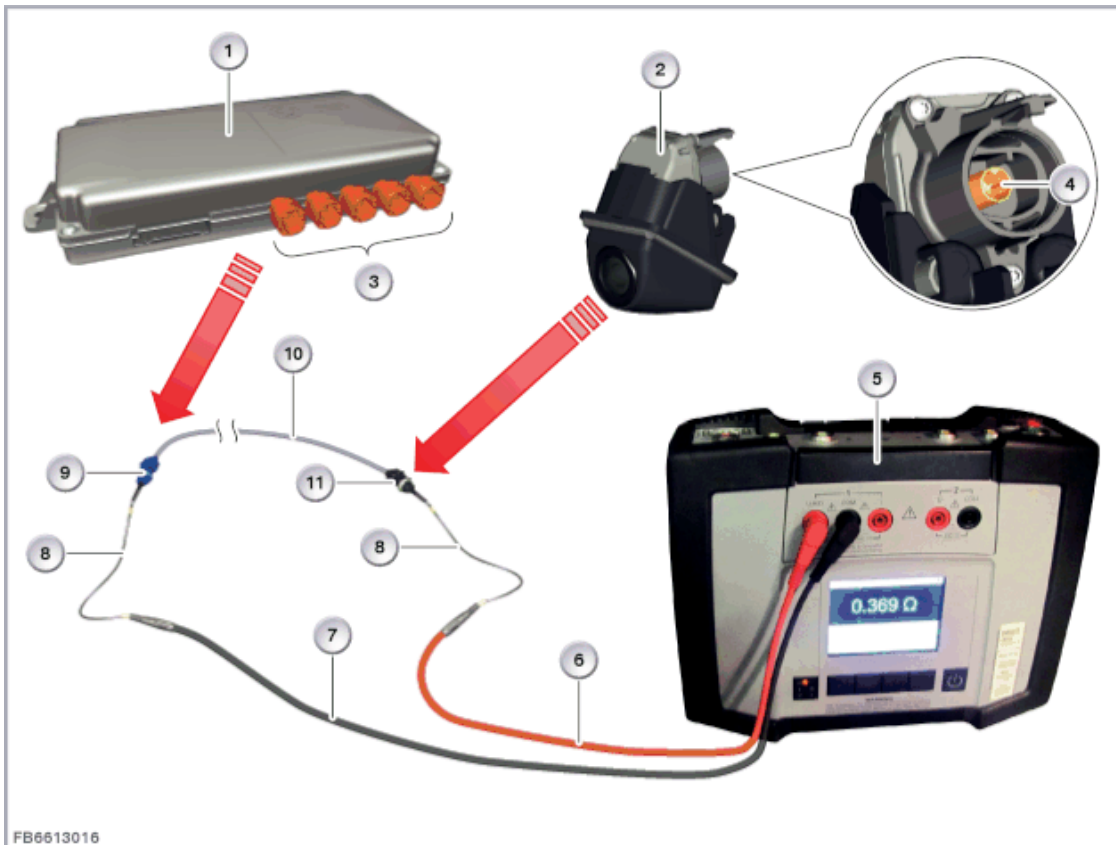
The check is carried out with the aid of the test kit "Case for electrical contacts": (order number 83 30 2 299 380).

1. Disconnect the connector on the TRSVC control unit (blue connector) and the rear view camera.
2. Remove test cables 1A and 1B from the test kit "Case for electrical contacts".

3. Connect test cable 1A in the disconnected connector (bushing) of the rear view camera.
4. Connect test cable 1A to the Integrated Measurement Interface Box or multimeter by using a measuring cable. Before this the Integrated Measurement Interface Box or multimeter must be adjusted to a resistance measurement.
5. Connect test cable 1B to the Integrated Measurement Interface Box or multimeter by using a measuring cable .
6. Connect test cable 1B in all bushings in the disconnected connector of the TRSVC control units individually one after the other.
7. Resistance is to be measured **at only one pin** (Integrated Measurement Interface Box) or the multimeter may emit an acoustic signal **at only one pin**.
8. If point 7 does not occur, this means the LVDS data line is faulty and must be replaced.
9. Points 3 to 8 must also be carried out one after the other for the other 3 bushings on the connector of the rear view camera.

Connect test cable 1A to the next bushing connector of the rear view camera. Carry out points 4 to 8.

Graphics examples:



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LVDS data line bushing on rear view camera



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