

GSM-R Earth Bonding Testing Arrangements

AUDIENCE:

Train Crew

Maintenance

Signallers

Control
Office

This bulletin is aimed at persons engaged in the maintenance of GSM-R Cab Radio and is provided only for information and actioned by the Operator as appropriate.

Further information and support can be obtained by contacting: NRTenquiries@networkrail.co.uk
Please ensure that the subject title of the e mail is "GSM-R Bulletin 41"

This advisory note is to clarify the GSM-R antenna earth bonding testing arrangements and resistances.

To complete a GSM-R Antenna Earth Bonding Test:

1. Ensure the Antenna feeder cable connector is disconnected from the Cab Radio and is isolated from any metal parts at the Cab Radio end.
2. From inside the vehicle, disconnect the antenna feeder from the antenna.
3. Connect the Antenna Earth Test Connector Assembly to the Antenna Connector
4. Connect the Low Resistance Tester, taking care to ensure that the test clip is 'only' in contact with the Earth Test Connector assembly and not directly touching the train body. The other earth test lead, of the Low Resistance Tester, is connected to the nearest interior vehicle earth stud.
5. Set test current to 10A and check resistance is **less than 5.0 milliohms**. Record the value.
6. In the event of difficulty achieving the required **5.0 milliohms limit**, ensure that the electrical contact between the earth leads of the Low Resistance Tester, the Antenna Earth Test Connector Assembly and the interior vehicle earth stud is good. If these surfaces are dirty it may be necessary to clean them with abrasive paper to ensure a good contact.

Further information is available in the following documents:

Siemens Generic / Typical Vehicle Maintenance Instructions for Version 2 UK GSM-R Cab Mobile document (666/HB/86205/002)

Siemens Maintenance Handbook for Version 2 UK GSM-R Cab Mobile document (666/HB/86205/000).

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