

NR/SIG/10665/Mod 033		
Medium Voltage DC Track Circuit - Service (NR/ROSE/TC-A3/1)		
Issue No. 01	Issue Date: 07/12/13	Compliance Date: 01/03/14

Includes:	Standard AC-immune DC track circuits with non-adjustable feedsets (medium voltage) as defined in NR/L2/SIG/11755 section 4.2.1. Or those with BR904 or Westatic R4/R4B feedsets.
Excludes:	Those Track circuits listed above that contain un-staggered IBJs.



Warning

Red bonds are very dangerous if they become disconnected. Never touch them as there could be a dangerous voltage. Report to E.C.O any found.

Service A

NOTE:

If any adjustments or renewal of equipment have occurred then the **TRACK CIRCUIT FULL TEST (251)** shall be carried out in place of the tests listed below.
Any adjustments or repairs shall be classed as corrective maintenance (NR/SMS/Part/A02).

1.0



Examine

1.1

The track circuit for potential causes of track circuit failure.

1.2

Visually, all associated IBJ for degradation or damage.



2.0



Test

2.1

IRJ TEST (041) at a frequency set by S&T Maintenance Engineer.

2.2

Using a clamp meter the continuity of TC double tail cables.

(The current passing through each leg to the rail of double tailed TC should be approximately equal. Any significant variation indicates a disconnection or high resistance cable or connection).

NOTE: Where a Feed End Relay is fitted complete the follow test at the Feed End in addition to the Relay End of the track circuit.

2.3

Obtain a drop shunt and pick up shunt value (NR/SMS/Part/Z03 for values).

NOTE: ONLY when a track circuit bonding configuration includes 'Parallel Bonding' should the following test be completed at all extremities of that track circuit.

2.4

Drop shunt at all extremities of the track circuit.

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3.0 **Check**

- 3.1 Track connections are tight, including any TC interrupters.
- 3.2 Rail to Rail, jumper & fishplate bonds.
(Disconnected 'Yellow Bonds' must be repaired immediately).
- 3.3 Tail cables for damage, security and suitably protected.
- 3.4 Condition of P.Way (Report defects). 
- 3.5 For metallic objects in close proximity to track (remove where possible).

All Disconnection Boxes (if provided) for the following:

- 3.6 For signs of wet or dry wire degradation.
- 3.7 Terminations are secure and free from corrosion.
- 3.8 Cables are labelled correctly.
- 3.9 Cable glands are effective.
- 3.10 Lid fits securely and padlocked.

4.0 **Measure**

- 4.1 At the Feed End of the track circuit the DC voltage across the rails.
- 4.2 At the Relay End the DC voltage across the relay coil when energised.

5.0 **Record**

All reading and test results on the record card.
(Compare the results with previous readings. Where there is a significant variation retest, if any adjustments are required a **TRACK CIRCUIT FULL TEST (251)** shall be carried out).

6.0 **Report**

Any adjustments made, components replaced or out of specification items on a WAIF.

End of Service A.