

NR/SIG/10665/mod 020		
AC 50 Hz Track Circuit - Service B (NR/ROSE/TC-B1/1)		
Issue No. 01	Issue Date: 02/03/13	Compliance Date: 07/09/13

Includes:	50Hz AC Track Circuits (including Single & Double rail types)
Excludes:	Those Track circuits listed above that contain unstaggered IBJs, have parallel bonding, have isolating transformers at the relay end of a single rail TC, or more than one TC uses the same multi-core/ tail cables within the TC feed or relay arrangements.

1. GENERAL



Warning

High voltages may be present on the terminals of capacitors.

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 B

2. All Disconnection Boxes (if fitted)

2.1



Check

- | For signs of wet or dry wire degradation.
- | Terminations are secure and free from corrosion.
- | Cables are labelled correctly.
- | Cable glands are effective.
- | Lid fits securely and padlocked.
- | Tail cables for damage, security and suitable protected.

2.2



Test

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

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



Before starting the following test contact the signaller for permission

Complete a Drop Shunt at Relay End.

Drop Shunt Values Ohms	Ohms	Ohms
TC Type	Minimum	Desired
50Hz AC Double rail With Impedance Bonding	0.3	0.6 to 1.0
50Hz AC Single or Double Rail Without Impedance Bonding	0.5	0.8 to 1.2
50Hz AC VT1(SP) (Single rail)	0.5	1.5 to 2.5



Test

2.3

At a frequency set by local policy from the S&T Maintenance Engineer:



Each IBJ using one of the following methods

(If any readings are below 150ohms or any other defects are noted, that part of the joint is faulty and shall be reported as a corrective maintenance item. It is essential for the continued correct operation of the track circuit that the joint is repaired or replaced as soon as reasonably practicable.)

Track stagger at each end of track circuit.

3. For VT1(SP) Track Circuits Only:

When applying a train shunt set to 0 Ohms across the rails check that the track relay drops. Remove the train shunt, check that the track relay picks after a minimum delay period of 2 seconds after the train shunt has been removed. This proves the SP Unit is functioning correctly.

4. All Track Circuit Types