

Sydney Trains



Engineering System Integrity
Engineering Procedure
Signalling and Control Systems

PR S 43021

Set to Work, Test and Certify Track Circuit (SCP21)

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Document control

Version	Date	Author/Prin. Eng.	Summary of change
1.0	29 May 2018	Mark Albrecht	First issue as Sydney Trains document
1.1	13 December 2022	David Mulley	3 year review: no changes to technical content. Date and version number updated.

Summary of changes from previous version

Summary of change	Section
TMG 1352 updated to MN S 41352, TMG 1353 updated to MN S 41353, TMG 1354 updated to MN S 41354, TMG 1355 updated to MN S 41355, TMG 1356 updated to MN S 41356, TMG 1357 updated to MN S 41357 to reflect the latest version of the standard	1.2

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1 Set to Work, Test and Certify Track Circuit (SCP21)

This unit covers the procedure and the current requirements for the authorisation of personnel to lead a team carrying out commissioning set to work, test and certification of track circuits.

1.1 Item	1.2 Details
<p>1. Prerequisites</p> <p>Qualification</p> <p>Training course</p> <p>Requirements</p>	<p>Candidate will have satisfied the following prerequisites, or approved equivalents</p> <p>Signal Electrician Team Leader or Work Group Leader, or Signal Engineer (experienced or Field)</p> <p>Qualified in appropriate TfNSW Track Circuit training course</p> <p>For each type of track circuit for which accreditation is sought, the candidate should:</p> <ul style="list-style-type: none"> • Understand the critical nature of track circuits and their correct operation • Understand the role of track circuits and bonding in DC traction current return areas • Be able to read track plan/signalling plan and track insulation plan and interpret their details on the ground • Have practical experience in setting to work and adjusting • Know and understand how the track circuit operates • Know the track circuit’s normal range of operating levels for various track lengths and configurations • Recognise when the track circuit is not operating correctly • Know how to set up and adjust the track circuit <p>Recognise basic types of failure, and suggest the probable cause</p>

1.1 Item	1.2 Details
<p>Tools and equipment</p> <p>5. Competence Assessor</p> <p>6. Assessment Outcomes</p> <p>7. Candidate debriefing</p>	<ul style="list-style-type: none"> • Candidate presents for the assessment fully equipped to lead a track circuit commissioning team. (I.e. with all equipment and documentation as detailed in the commissioning procedure/s for the type of track circuit under assessment.) <p>These requirements shall be assessed and certified by the Principal Engineer Signal System or by delegated persons having the requisite technical and assessment competencies</p> <p>Based on the evidence provided in the documentary materials provided, the desktop assessment and the hands-on assessment, the candidate is assessed to be:</p> <ul style="list-style-type: none"> • Not ready for assessment The candidate was not adequately prepared for the assessment, lacks prerequisites or requires significant additional training and experience. These deficits should be addressed before re-applying for assessment: • Not yet competent The candidate lacks one or more elements to be assessed competent The candidate may be reassessed on the missing elements as soon as they can be prepared • Competent to work under supervision The candidate has demonstrated all prerequisites and skills at a basic level, but has not shown a sufficient level of mastery to be able to perform effectively without guidance. Competence can be granted on the basis of a satisfactory supervisor’s report, following a period of work under supervision: • Competent The candidate has satisfied all requirements <p>Assessor debriefs the candidate on the outcomes of the assessment, the elements (if any) in which they were found to be not yet competent, and their options for future re-assessment or appealing the outcome</p>

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