

Engineering Procedure
Signalling and Control Systems

PR S 43021

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

Version 1.0

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Procedure

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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

Summary of changes from previous version

Summary of change	Section

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); and</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>	<ul style="list-style-type: none"> • Candidate presents for the assessment fully equipped to lead a track circuit commissioning team. (ie 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 <p>The candidate was not adequately prepared for the assessment, lacks prerequisites or requires significant additional training and experience.</p> <p>These deficits should be addressed before re-applying for assessment.</p> • Not yet competent <p>The candidate lacks one or more elements to be assessed competent.</p> <p>The candidate may be reassessed on the missing elements, as soon as they can be prepared.</p> • Competent to work under supervision <p>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.</p> <p>Competence can be granted on the basis of a satisfactory supervisor's report, following a period of work under supervision.</p> • Competent <p>The candidate has satisfied all requirements.</p>

1.1 Item	1.2 Details
7 Candidate debriefing	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.
8 Reporting & records	Assessor notifies candidate and candidate's supervisor by forwarding to each a copy of the Competency Assessment Record Sheet which is part of the Assessment Tool and, if the candidate was assessed competent, a copy of the Record Sheet to the Principal Engineer Signalling Integrity for updating of RG S 41415.
9 Reference Documents	<ul style="list-style-type: none"> • ST S 43021 Engineering Standard Signalling & Control Systems Competency Standard – Set to Work, Test and Certify Track Circuit • MN S 43021 Engineering Manual Signalling & Control Systems Competency assessment tool - Set to Work, Test and Certify Track Circuit (with appropriate question set) • Track Circuits training course notes <p>Set-to-work manuals for the type of track circuit being assessed:</p> <ul style="list-style-type: none"> • TMG 1352 J/S SR & DR Track circuits - setup, test and certify • TMG 1353 AC S/R Track circuits - setup, test and certify • TMG 1354 AC D/R Track circuits - setup, test and certify • TMG 1355 CSEE UM71 AF Track circuits - setup, test and certify • TMG 1356 WBS FS2500 AF Track circuits - setup, test and certify • TMG 1357 ML TI21 AF Track circuits - setup, test and certify • PR S 41500 EB1 Track 200 AF Track Circuit set to work and Certification <p>Equipment Manuals for the type of track circuit being assessed:</p> <ul style="list-style-type: none"> • TMG E1360 Jeumont Schneider Track Circuits