



AUSTRALIAN RAIL TRACK CORPORATION LTD

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Discipline
Engineering Standard - NSW

Category
Signalling

Title
User of Master Keys and Staffs

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The technical content of this document has been approved by the relevant ARTC engineering authority and has also been endorsed by the ARTC Safety Committee.

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About This Standard

This Standard defines the procedures and tests to be followed when using Master Keys and Master Staffs.

Document History

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List of Amendments –

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1 GENERAL

Master Keys and Master Staffs are issued to particular Signal Engineers, and Mechanical Maintainers whose duties require them to examine, test and maintain the interlocking apparatus at Intermediate Sidings and unattended Crossing Loops. They may also be used by Mechanical Gangers to facilitate the testing of points when carrying out alterations or renewals.

Maintenance personnel before being issued with Master Keys and Master Staffs must be suitably accredited by the discipline's licensing board in the applicable signalling safeworking requirements and Network Rules and Procedures prior to issue.

NOTE: THE TERM 'MASTER KEY' WHEN USED IN THESE INSTRUCTIONS UNLESS OTHERWISE EXPRESSLY STATED, SHALL MEAN 'MASTER KEY' OR 'MASTER STAFF'.

The following requirements must be observed:

NUMBER AND INSCRIPTION ON KEY

Each Master Key is number and inscribed with the name of the signalling person to whom it is issued.

CUSTODY OF MASTER KEY

The signalling person to whom a Master Key is issued will be responsible for its safe custody, and except in the cases provided for in 1.1 and 1.2, must not allow it out of their possession.

A receipt must be obtained each time a Master Key is transferred from one signalling person to another.

The Maintenance Signal Engineer is to maintain a register of Master Keys and Master Staffs, listing the names and number/s of the Master Key/Staff for the personnel concerned in their area of control. A copy of the register is to be forwarded to the ARTC General Manager ISP or nominated Signalling representative. All Master Keys/Staffs when not in use and considered spare are not to be kept on the region but are to be forwarded to the Principal Engineer Signal Design for safe keeping.

The ARTC GM ISP or nominated Signalling representative will maintain a record of the issue of all Master Key/Staffs in use on the network and hold in safe keeping all Master Keys and Master Staffs that are no longer in use.

1.1 Master Key lent to Network Control

In order to facilitate traffic working in the event of an accident or other emergency, a signalling person, upon receipt of authority from The Maintenance Signal Engineer may loan their Master Key to the Train Control Officer in charge of the operations.

When the loan of a Master Key is required by a Train Control Officer, the following procedures must be followed:

- i) Network Control must advise The Maintenance Signal Engineer, explaining the circumstances and requesting that authority be given for a Master Key to be loaned to a Train Control Officer .

- ii) The Maintenance Signal Engineer will then advise the signalling person concerned authorising them to hand their Master Key to the Train Control Officer in charge at the station at which the Key is required. Advice is also to be given to the Train Controller for the area concerned.
- iii) Upon receipt of such authority, the signalling person may hand their Master Key to the Train Control Officer in charge and obtain a receipt for it.

Note: Until authority is received from The Maintenance Signal Engineer it will be permissible for the signalling person concerned to use the Master Key under the direction of the Train Control Officer in charge, but a written request must be received from the Train Control Officer each time the key is used.

- iv. When the work for which the Key was required is completed, the Train Control Officer must return the Key promptly to the signalling person from whom it was borrowed and obtain a receipt for it.
- v. The signalling person must advise The Maintenance Signal Engineer when the Master Key is handed to and returned by the Train Control Officer and must subsequently maintain a record, explaining the date, time and circumstances in which the Master Key was loaned and attaching the Train Control Officer 's receipt for it.

1.2 Transfer of Master Key from Mechanical Maintainer to Assistant or Relief Maintainer

- i) When authorised specially by the Maintenance Signal Engineer in order to provide for periodical leave, the mechanical maintainer (on sections manned by one mechanical maintainer only) may, before going off duty, secure the Master Key as directed by the Maintenance Signal Engineer until it is transferred to the Assistant or Relief maintainer.

On sections manned by a Mechanical Maintainer and an Assistant, the former may, before going on leave, hand their Master Key to the Assistant, who must deliver it to the Relief Maintainer when that signalling person takes up duty. A receipt must be obtained by the holder of the Master Key, and the Maintenance Signal Engineer must be advised each time the Master Key changes hands.

- ii) In emergency, such as illness of the Mechanical Maintainer, the Mechanical Maintainer must hand their Master Key to the Assistant and obtain a receipt for and advise the Maintenance Signal Engineer that the Master Key has been transferred, and the receipt, together with a report of the circumstances, must be immediately forwarded to the Maintenance Signal Engineer. A signalling person must not in any other circumstances hand over the Master Key in their custody unless authorised to do so by the Maintenance Signal Engineer.

1.3 Transfer of Master Key from Maintenance Supervisor to Mechanical Ganger.

In order to facilitate the work during alterations or renewals, the Maintenance Signal Engineer, may transfer their Master Key to the Mechanical Ganger or other suitably accredited person in charge of the work. The Maintenance Signal Engineer must maintain a record, specify the nature of the work and the period for which the Master Key will be required. The Maintenance Signal Engineer must arrange for the Master Key to be returned to them at the expiration of the period.

1.4 Testing and Cleaning Interlocking Apparatus at Unattended Crossing Loops and Intermediate Sidings other than Train Order territory.

- a) The testing and cleaning of points at unattended Crossing Loops may be carried out under the following conditions only:
 - i) Where the crossing loop is situated in electric train staff territory and provided that delays to trains will not occur, a staff may be withdrawn following approval from the Train Controller in the usual way and used to release the Frame; or, if there is a train at the Crossing Loop, the staff carried by the train may be used.
 - ii) The Master Key or Master Staff may be used to release the Frame, but the signalling person concerned must not release the Frame or attempt to move the points until satisfied that a train is not nearing the Home signal, and that signal is at stop.
 - iii) Where the points concerned are motor operated the ESML or EOL arrangements are to be used. The removal of the handle or key will ensure the protecting signals are held at stop. The ESML handle or EOL key must not be removed until authority has been received from the Network control officer. The provisions of Network Rule NWT 308, (control signal blocking) and Network Procedure NPR 703, (Working using control signal blocking) are to be followed.
- b) The testing and cleaning of points and interlocking machines at Sidings situated between two Stations (intermediate Sidings) may be carried out under the following conditions:
 - i) When the Siding is situated in train staff territory and is being shunted by a train - in which case the Staff carried by the train is to be used.
 - ii) Where a train staff cannot be obtained or it is impractical, a Master Key may be used to release the frame provided, before any work is commenced a TOA or TWA is first obtain and the provisions of the applicable Network Rules and Procedures, NWT 304 & NPR 701 or NWT 306 & NPR 702 are followed.

- iii) Where the intermediate siding is protected by control signals, The provisions of Network Rule NWT 308, (Control signal blocking) and Network Procedure NPR 703, (Working using control signal blocking) may be applied to protect the work.
- iv) Where the intermediate frame is released by a key obtained from a releasing switch and there are signals leading up to the siding that are placed at stop by the taking of the release, after receiving authorisation from the Network control officer, the release is to be obtained in the normal manner and the releasing switch key used to release the frame.

A master Key is not to be used to by-pass the function of the releasing switch unless the release cannot be obtained due to operational conditions, in which case the Master Key may be used providing a TOA or TWA has been obtain and the provisions of the applicable Network Rules and Procedures, NWT 304 & NPR 701 or NWT 306 & NPR 702 are followed.

1.5 Testing and Cleaning of Interlocking Apparatus at Train order loops and loop sidings.

- a) Interlocking Frames in Train Order territory are released by an operators key, therefore Master Keys generally cannot be used with this system of safeworking for maintenance purposes. Alternative methods are sometimes used to release frames at certain locations and it may be permissible to utilise a Master Key providing the applicable safeworking arrangements are in place. However where the release for the frame can be obtained via the use of the operators key then this method is to be used.
 - i. Signalling personnel required to maintain interlocking frames in train order areas must be trained and qualified in the use of Operators Keys before being issued with a key.
 - ii. Before work commences on any interlocking frame where the points will be unlocked or the drive arrangements or locking interfered with, a TOA or TWA must be obtain and the provisions of the applicable Network Rules and Procedures, NWT 304 & NPR 701 or NWT 306 & NPR 702 are to be followed.
 - iii. The restrictions regarding releasing switches as detailed in section 1.4, part (iv) above also apply and are to be adhered to.
- b) Management of Operators Keys rest with local management and any loss is to be reported in writing detailing the circumstances, to the Maintenance Signal Engineer and the applicable Train Controller for the area. It will be the responsibility of the Signal maintenance Engineer to arrange a replacement key.