

Network Safeworking Rules and Procedures

Clipping and Securing Points

Rule Number: 9000

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Document History

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1. Purpose

The purpose of this procedure is to outline how Points are secured in a normal or reversed position. Points clips may also be used to Secure expansion joints for Wrong Running-Direction movements.

2. General

Facing Points on Running Lines must be set and secured for the safe passage of Rail Traffic.

Where the Points can be set and secured in the Network Control System, the Network Controller must do so.

Where a Competent Worker requires Blocking Facilities to be applied to Points, Rule 6003 Blocking Facilities apply.

The Points must be clipped if it cannot be assured that the Points will remain in the correct position.

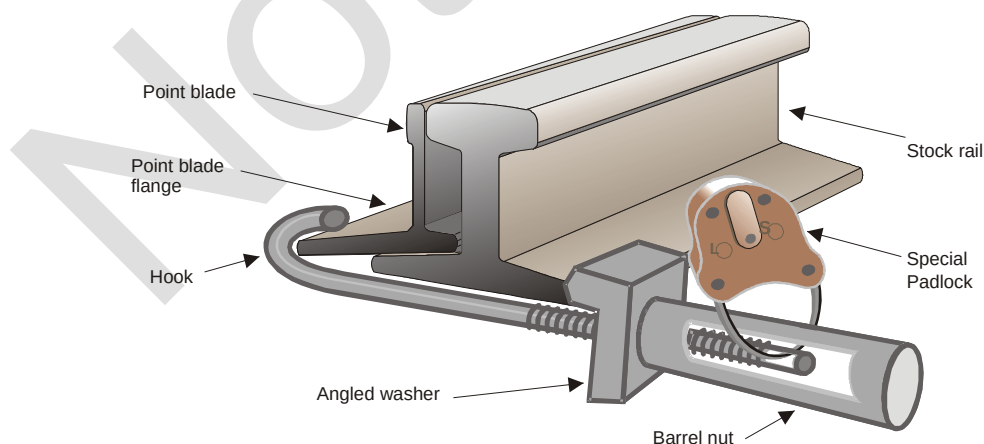
Mechanical Points must be set and padlocked using a Special Padlock.



NOTE: Where mechanical Points cannot be padlocked, they must be clipped.

Point clips must be padlocked using a Special Padlock. If the Points clip cannot be padlocked, the Points must be inspected before each Rail Traffic movement.

Figure 9000-1 Example of a fitted Points clip



3. Fitting a Points Clip

3.1 Competent Worker

Make sure that you can do the work safely.

Where necessary, get Authority from the Network Controller to clip the Points and an assurance the Points will not be operated.

Make sure that you use the correct type of Points clip.

Make sure that the Points are in the correct position.

Fit the Points clip at the correct position, as close to the toe of the Point blade as possible, for that set of Points.



WARNING: Over tightening the Points clip can cause rail roll that may lead to derailment.

Make sure that the Points clip is fitted:

- to the underside of the rail;
- between the sleepers;
- with the jaws of the Points clip positioned on the rails and tighten; and
- where practicable, use a Special Padlock to padlock the Points clip;

Where “K” blades are in use, make sure the “K” blades are aligned with the main Points and clip the closed “K” blade;



NOTE: In some cases, such as when connecting rods have been disconnected for maintenance, it may be necessary to clip all Points blades to ensure the safe passage of Rail Traffic over them.

Make sure that the Points are properly closed and that the Route is correct before allowing Rail Traffic to Travel.

4. References

6003 Blocking Facilities

5. Effective Date

1 February 2020

Network Safeworking Rules and Procedures

Using Railway Track Signals

Rule Number: 9004

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1. Purpose

This procedure outlines how Railway Track Signals are used to warn Rail Traffic Crews.

2. General

Railway Track Signals consist of an orange plastic disc containing a chemical composition and are sealed. A wire piece is attached and is used to Secure the Railway Track Signal to the Track.

When the Rail Traffic Travels over the Railway Track Signal, a chemical reaction takes place due to the pressure and a loud noise is created.

Railway Track Signals are used to protect workers, worksites and obstructions on Track in the Network.

The number of Railway Track Signal explosions together with associated signs and flags indicate what Rail Traffic Crews must do.

3. Railway Track Signal Response Table

Figure 9004-1 RTS response table.

Number of explosions	Rail Traffic Crew response
Two	Sound one long Whistle. Reduce to and Travel at Restricted Speed. Look for and obey any warning signals. In the absence of any warning or Handsignal, be prepared to stop within 2500 metres.
Three	Sound one long Whistle. Stop immediately. If not advised by a Protection Officer as to the cause, contact the Network Controller.

3.1 Responding to a Single Railway Track Signal

If Rail Traffic has not previously travelled over any Railway Track Signals and explodes a single Railway Track Signal, the Rail Traffic Crew must:

- sound one long Whistle.
- reduce to and Travel at Restricted Speed.
- look for and obey any warning signals.
- tell the Network Controller.
- be prepared to stop within 2500 metres, in the absence of any warning or Handsignal.

If Rail Traffic has already travelled over Two Railway Track Signals and explodes a single Railway Track Signal, the Rail Traffic Crew must:

- sound one long Whistle.
- stop immediately.
- contact the Network Controller, if not advised by a Protection Officer as to the cause.

4. Placing Railway Track Signals



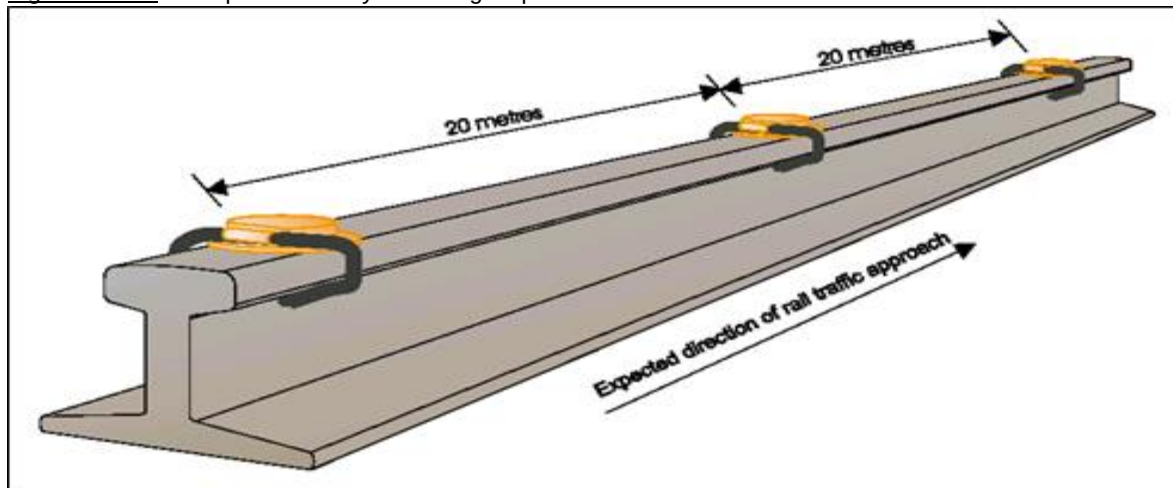
WARNING: Except in Emergencies, do not use Railway Track Signals:

- **underground;**
- **in tunnels;**
- **in steep-sided cuttings;**
- **within 20 metres of workers; or**
- **where prohibited by Arc Infrastructure.**

Competent Workers must place Railway Track Signals:

- on all rails of the line to be Protected, including all 3 rails where there are dual gauge track:
 - opposite each other to ensure they explode simultaneously;
- on the rail at least 20 metres before the Handsignaller's position;
- on the departure side of Fixed Signals;
- on the approach side of stop signs, stop ahead signs, flags and Handsignallers;
- centrally on the railhead with the clasp facing towards the expected direction of Rail Traffic approach;
- by bending the clasps around the railhead; and
- 20 metres apart to ensure distinct and separate explosion.

Figure 9004-2 Example of Railway Track Signal placement.



Placing of Railway Track Signals Near Public Crossings and Platforms

Railway Track Signals must not be placed within 50 metres of any Level Crossing or Platform. Where necessary, the distance must be increased beyond the Level Crossing or Platform.

5. Removal of Unused Railway Track Signals

Where the placement of Railway Track Signals required for Protection no longer exists, all unused Railway Track Signals must be removed from all rails and accounted for.

6. Storing Railway Track Signals

Competent Workers must:

- return unused Railway Track Signals to their containers; and
- keep packed Railway Track Signals in a Secure place.

7. Dealing with Failed Railway Track Signals

If Railway Track Signals do not explode when run over by Rail Traffic:

- leave failed Railway Track Signals on the rail;
- report the failure immediately to a supervisor; and
- if necessary, place new Railway Track Signals on the railhead.



NOTE: When dealing with failed Railway Track Signals, Competent Workers must refer to the Manufacturer's Material Safety Data Sheet.

8. References

Nil

9. Effective date

1 February 2020

Network Safeworking Rules and Procedures

Piloting Rail Traffic

Rule Number: 9006

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1. Purpose

This procedure details the protocols where, when required, Pilots accompany Rail Traffic Crews to direct Rail Traffic movements.

2. General



WARNING: Rail Traffic Crews are responsible for the safe operation of Piloted Rail Traffic.

A Pilot must be used when the Rail Traffic Crew is unfamiliar with the Route, the Pilot must be qualified for the Route.

A Pilot may be used when Rail Traffic is to Travel through a Work on Track Authority and the Rules allow for Rail Traffic entry to the worksite.

The Pilot must:

- confirm with the Network Controller, Possession Protection Officer or Protection Officer, as required by this Procedure, when and where to meet the Rail Traffic to be Piloted;
- have knowledge of the Route;
- give clear directions to the Rail Traffic Crew; and
- tell Rail Traffic Crews about operating restrictions and conditions in a timely manner.

3. Piloting Over an Unfamiliar Route

To Pilot Rail Traffic over a Route unfamiliar to the Rail Traffic Crew, the Pilot must:

- be Competent in the operation of Rail Traffic over the Route;
- ensure that the Rail Traffic has an Authority to Travel over the Route; and
- ensure that Rail Traffic is operated safely over the Route.

4. Piloting Rail Traffic Through Work on Track Authorities

The Possession Protection Officer or Protection Officer must appoint a suitably qualified worker to act as the Pilot.

The Pilot must:

- establish and maintain Effective Communication with the Network Controller and the Possession Protection Officer or the Protection Officer;
- confirm how entry into, and exit from, a Work on Track Authority will be authorised;
- confirm with the Possession Protection Officer or Protection Officer:
 - the Route to be taken;
 - the Locations of all worksites; and
 - the contact details of all Protection Officers within the LPA or Work on Track Authority.

4.1 Rail Traffic Entering a Work on Track Authority



WARNING: Only Rail Traffic Associated with an LPA or WoTA may enter the LPA or WoTA

The Pilot must get authority to enter a:

- Local Possession Authority (LPA) from the Possession Protection Officer; or
- Work on Track Authority (WoTA) from the Protection Officer.

The Pilot must:

- act under the direction of the Possession Protection Officer or Protection Officer;
- make sure that Points and Crossovers are set and Secured correctly before Travelling over them; and
- tell the Rail Traffic Crew the Locations of worksites.

4.2 Rail Traffic Entering a Worksite

Before making a movement within a LPA Authority or Work on Track Authority, the Pilot must contact the Possession Protection Officer or Protection Officer and get:

- authority for the movement; and
- an assurance that the intended Route is Clear and that no conflicting movements have been, or will be, authorised.

If there is no Competent Worker at the Location of the In-Field Protection the Pilot must:

- get the authority of the Possession Protection Officer or Protection Officer to remove the Protection;
- remove or arrange to remove the Protection before passing the Location; and
- replace or arrange to replace the Protection after passing the Location.

4.3 Rail Traffic Departing the Authority

The Pilot must get the Network Controller's authority for Rail Traffic to exit a LPA or Work on Track Authority.

The Pilot must tell the Network Controller and Possession Protection Officer or Protection Officer when the Rail Traffic has exited the LPA or Work on Track Authority.

5. Keeping Records

The Network Controller, Possession Protection Officer and Protection Officer must make a Permanent Record of relevant details, including the details of entry into and exit from worksites and Work on Track Authorities.

6. References

Nil

7. Effective Date

1 February 2020

Network Safeworking Rules and Procedures

Protecting Work from Rail Traffic on Adjacent Lines

Rule Number: 9010

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1. Purpose

The object of this procedure is to provide instruction for the Protection of workers from Rail Traffic on Adjacent lines in the Network.

2. General



WARNING: Adjacent lines may be under the control of a different Network Controller or Rail Infrastructure Manager.

Rail Traffic on lines Adjacent to Work on Track is a danger to workers. Workers must be Protected from all Rail Traffic.

Where there is an Adjacent line, appropriate Work On Track Authority, including required In-field Protection and Blocking Facilities, must be used on the Adjacent line.

A WOTA for the Adjacent line is not required where a Safety Management Plan, approved by the Approved Operations or Infrastructure Delegate, has controls in place to prevent intrusion of workers or plant and equipment into the Adjacent line's Danger Zone.

Excluding Rail Traffic from Adjacent lines gives the highest level of Protection.

During the Safety Assessment for the work, and as Protection requirements change, the Possession Protection Officer or the Protection Officer must decide on the best means to reduce the risk from Rail Traffic on Adjacent lines.



NOTE: Where Lookout Working is being used and there is an adjacent line an appropriate protection method must be used for the adjacent line.

3. Means of Risk Reduction

If the Safety Assessment indicates that workers need to be Protected from Rail Traffic on Adjacent lines, the Possession Protection Officer or the Protection Officer must choose one or more of the following means to reduce risk.

3.1 Local Possession Authority

A Local Possession Authority (LPA), in accordance with Rule 3001 Local Possession Authority (LPA), may be taken out over Adjacent lines to exclude Rail Traffic.

3.2 Work on Track Authority

A Work on Track Authority (WoTA), in accordance with Rule 3005 Work on Track Authority (WoTA), may be taken out over Adjacent lines to exclude Rail Traffic.

3.3 Lookout Working

Lookout Working may be used, in accordance with Rule 3013 Lookout Working, to provide warning of approaching Rail Traffic on Adjacent lines.



NOTE: The use of Rule 3025 Temporary Speed Restriction may be used to reduce the speed of approaching Rail Traffic on the Adjacent line to ensure correct Sighting Distance for Lookout Working.

3.4 Using Demarcation Fencing

Demarcation Fencing may be used to define:

- a boundary;
- a Safe Place; or
- an exclusion area.

The Protection Officer must:

- Put appropriate Protection or Safety Measures in place to Protect workers installing Demarcation Fencing.
- Make sure that the Demarcation Fencing is installed before starting other work.
- Make sure that the Demarcation Fencing can withstand disturbances caused by passing Rail Traffic.
- Keep workers and equipment on the safe side of the Demarcation Fencing.
- If necessary, place Competent Workers to make sure that workers stay within the Demarcation Fencing.
- Make sure that the Demarcation Fencing is kept in good condition throughout the work.
- Make sure that nothing is stacked or placed against the Demarcation Fence.

3.4.1 Demarcation Fencing



WARNING: Demarcation Fencing is only a warning that a boundary exists. It may not stop workers from entering a Danger Zone on an Adjacent line and may not indicate a Safe Place.

Demarcation Fencing is an easily seen, continuous boundary marker, placed between a worksite and an Adjacent line.

Demarcation Fencing used within the Network must be of a type approved by Arc Infrastructure.

4. References

3001 Local Possession Authority (LPA)

3005 Work on Track Authority (WoTA)

3013 Lookout Working

3025 Temporary Speed Restriction

5. Effective Date

1 February 2020

Not in Use

Network Safeworking Rules and Procedures

Operation of Points

Rule Number: 9012

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1. Purpose

The purpose of this procedure is to provide instructions for operating and managing Points in the Network.

2. General

The normal position of Points will be indicated by the diagram of signalling in Centralised Traffic Control (CTC) Territory and the Station sketch in Train Order Territory.

Points on Running Lines over which Rail Traffic is to pass must be Secured for the safe passage of Rail Traffic.

Points may be operated by electric motors or mechanically by the use of a hand lever.

Electric motor operated Points in CTC Territory are remotely operated by the Network Controller.

The different types of motors in use are:

- Type "D84M".
- Type "X".
- Type "Y".
- Type "Modified Y".
- Type "W".
- Type "Z".

Should one or more of the motors fail to operate or if electronic detection of the Points is lost, an indication will be displayed in Network Control. Signals controlling Routes over Points with no detection will only display a STOP indication.

When a Points failure or loss of detection occurs, the Points may be required to be manually operated by a crank handle or manual lever attached to the electric Points motor. The crank handle is kept in a cabinet close to the electric Points motor.

Locally operated Points are provided in yards, depots and Train Order Territory, for the setting of Routes for Rail Traffic movements, these Points can be either electrically or mechanically operated by a Competent Worker.

Locally operated Points are:

- Self-Restoring Points (SRP);
- Little david levers;
- Rigid levers (May be a D84M);
- Cheese knobs;
- Racor levers.

Non moveable Points include:

- Transposition of common rail;
- Gauntlets.

Points giving Access to CTC Territory may be Secured by a Switchlock. Refer to Procedure 9024 Operation of Switchlocks.

3. Setting Points

3.1 Indications of Points Setting

The setting of Points must be communicated to Rail Traffic Crews, by:

- Signal indication;
- Points Indicators;
- Direct observation of the Points; or
- Other Competent Workers.

Points that are operated by hand must be examined to ensure that the Points are set for the intended Route.

Points on Running Lines must be Secured to prevent Points blade movement or unintended operation.

3.2 Hand Operated Points

The Network Controller must authorise the operation of Points on Running Lines for Shunting or maintenance purposes.

3.3 Restoration of Points



WARNING: At approved junctions and other approved Locations, Points may be left set for the movement and not restored.

Rail Traffic Crews must be prepared to find the Points incorrectly set at these Locations.

Points and locking mechanisms on Running Lines must be restored to their normal position after use unless otherwise instructed by the Network Controller.

In Train Order Territory, other than Self-Restoring Points (SRP), Rail Traffic Crews must advise the Network Controller that the Siding is Secured and the Annett's Key Is On The Locomotive (AKOL).

4. Movement Over Points



WARNING: Points must not be operated while Rail Traffic is moving over or standing on the Points.

4.1 Rail Traffic

Rail Traffic must remain Clear of the Points until they are correctly set for the movement.

4.2 Competent Workers

Competent Workers must stand in a Safe Place, well Clear of Points and operating mechanisms, when Rail Traffic is passing through Points.

4.3 Trailing Points

Rail Traffic must not run through Trailing Points that are not correctly set for the movement.



WARNING: Points must not be operated while Rail Traffic is moving over or standing on the Points. Rail Traffic Crews must not Set Back after Points have been run through until the Points have been inspected and declared safe.

If Rail Traffic runs through a set of Trailing Points, the Infrastructure Representative must be advised and:

- the movement must continue in the same direction; and
- the Points must be inspected by a Competent Worker before another movement is made over them.

5. Damaged Points



WARNING: Competent Workers required to inspect or hand operate Points must make sure that:

- safety measures are in place before starting work in the Danger Zone; and
- there is an easily reached Safe Place near the Points.

If Points are found to be defective or damaged, the Network Controller must be advised and the Points must not be used until:

- the Points are inspected by a Competent Worker and found safe for the intended movement;
- a Competent Worker makes the Route safe for the Rail Traffic movement by clipping the Points in accordance with Procedure 9000 Clipping and Securing Points; or
- the Points are inspected and repaired by a Infrastructure Representative.

6. Failed Electrically Operated Points

If the electrically operated Points are unable to be operated correctly, the Points must be:

- placed into the hand operated mode;
- isolated by the removal of the crank handle; or
- set and clipped for the intended Route, in accordance with Procedure 9000 Clipping and Securing Points.

7. Manual Operation of Electric Points

7.1 Network Controller Responsibilities

When Points fail or have lost detection, the Network Controller must:

- make further attempts to operate the Points and if they still do not work correctly, arrange for a Competent Worker to attend the Points.
- advise the Infrastructure Representative and record on the Network Control Diagram:
 - the number of the defective Points; and
 - when repairs have been completed.
- electronically lock the Points. This will ensure that the Points cannot move should the power be reinstated.
- instruct the Competent Worker to visually check the Points for Obstructions. If an Obstruction is found, instruct the Competent Worker to safely remove the Obstruction.
- give permission to remove the crank handle and manually operate the Points into either the normal or reverse position, if no obstruction is found.
- instruct the Competent Worker not to replace the crank handle until authorised to do so.
- authorise the Rail Traffic Crew to pass the relevant signal at STOP in accordance with Rule 6013 Passing Fixed Signals at STOP, when advised by the Competent Worker that the Points are in the required position.
- advise the Rail Traffic Crew to ensure that the Points are set correctly before Travelling over them.

7.2 Competent Worker Responsibilities



- **WARNING: When removing an Obstruction from Points mechanisms do not place hands between or near parts that can move**

The Competent Worker, when instructed to manually crank Points must:

- have Communications Equipment and, during periods of darkness and poor visibility, a torch;
- visually check the Points for any Obstruction that may be preventing the blades from closing. If an Obstruction is found, contact the Network Controller, then safely remove the Obstruction;
- liaise with the Network Controller who will advise which sets of Points are to be cranked, and the position (normal or reverse) if the failure of the Points is not due to an Obstruction;
- obtain permission from the Network Controller before removing the crank handle from the switch in the cabinet;
- not replace the crank handle until Rail Traffic has passed completely over the Points, and then only when instructed to do so by the Network Controller;
- ensure all Points with the same number and K Blades, if present, have been cranked to the position nominated by the Network Controller;
- check that all the Points are set correctly for the passage of the Rail Traffic once the Points have been cranked to the required position; and
- advise the Network Controller that the Points are set correctly.

7.3 Responsibilities of the Rail Traffic Crew

Where no Competent Worker is present and the Rail Traffic Crew are instructed to pass a signal at STOP, the Rail Traffic Crew must, before moving across each set of Points, stop and examine the Points to ensure that they are set for the safe passage of the Rail Traffic.

7.4 Resumption of Normal Working

When normal working is to resume, the Network Controller will instruct the Competent Worker to return the crank handle to its switch.

When the crank handle has been returned to its switch the Network Controller must be advised.



NOTE: Points are to be tested after the crank handle is restored to the switch.

8. Points Motors

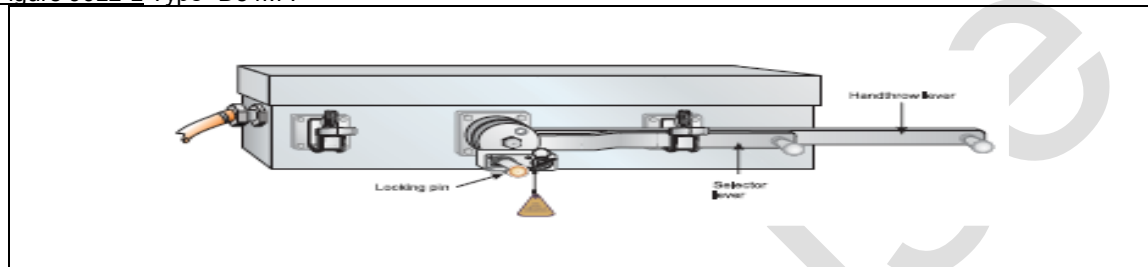
8.1 Type “D84M”



WARNING: Where D84M type points motor is to be set and secured using points clips to prevent normal operation, they must be placed in Hand mode prior to securing.

The following instructions are to be followed when using a Type “D84M” Points motor.

Figure 9012-1 Type “D84M”.



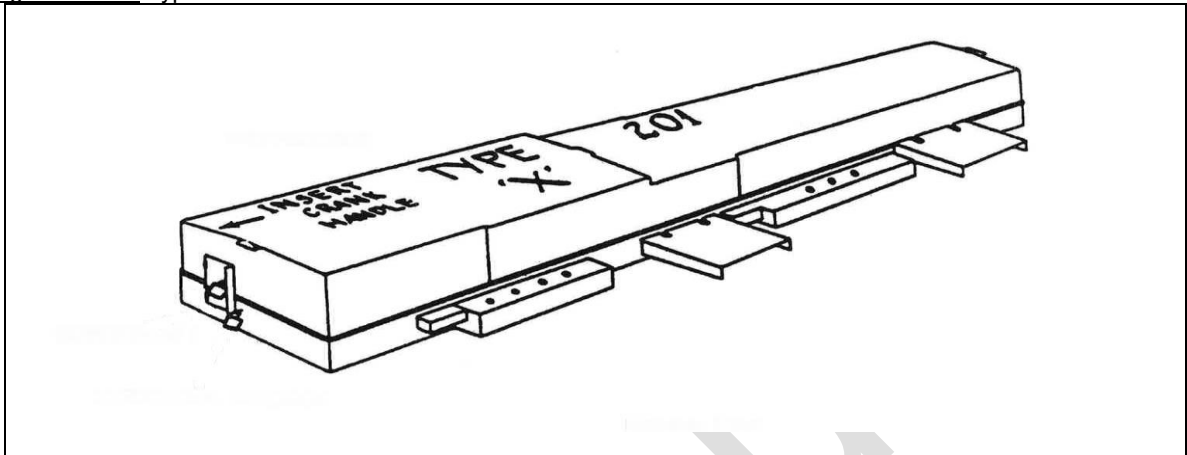
- Obtain the Network Controller’s permission to operate the Points machine.
- Find the correct Emergency Operating Lock (EOL) cabinet for the Points.
- Unlock the cabinet with a Traffic Standard key.
- If there are instructions in the cabinet to help you operate the Points, read and follow them.
- Turn the EOL keys from LOCKED to UNLOCKED. Take them from the cabinet in the correct order; Removing them will cause Network Control to lose detection of the Points.
- Check the key labels to make sure they are the correct keys.
- Unlock the Traffic Standard lock securing both the handthrow and the selector levers.
- Turn the EOL key in the EOL lock on the Points machine. The lock captures the key.
- Pull out the locking pin to allow the levers to be moved.
- Lift the catch holding the selector lever.
- Move the selector lever from MOTOR to HAND. Keep the lever in place with the catch.
- Lift the catch holding the handthrow lever.
- Move the handthrow lever to move the Points to the required position.
- Make sure that the switch rail is hard against the stock rail.
- Secure the handthrow lever with the Traffic Standard lock.

Keep the handthrow lever in place with the catch. If it is not held by the catch when the switch rail is hard against the stock rail, tell the Network Controller.

8.2 Type “X”

The following instructions are to be followed when using a Type “X” Points motor.

Figure 9012-2 Type “X”.

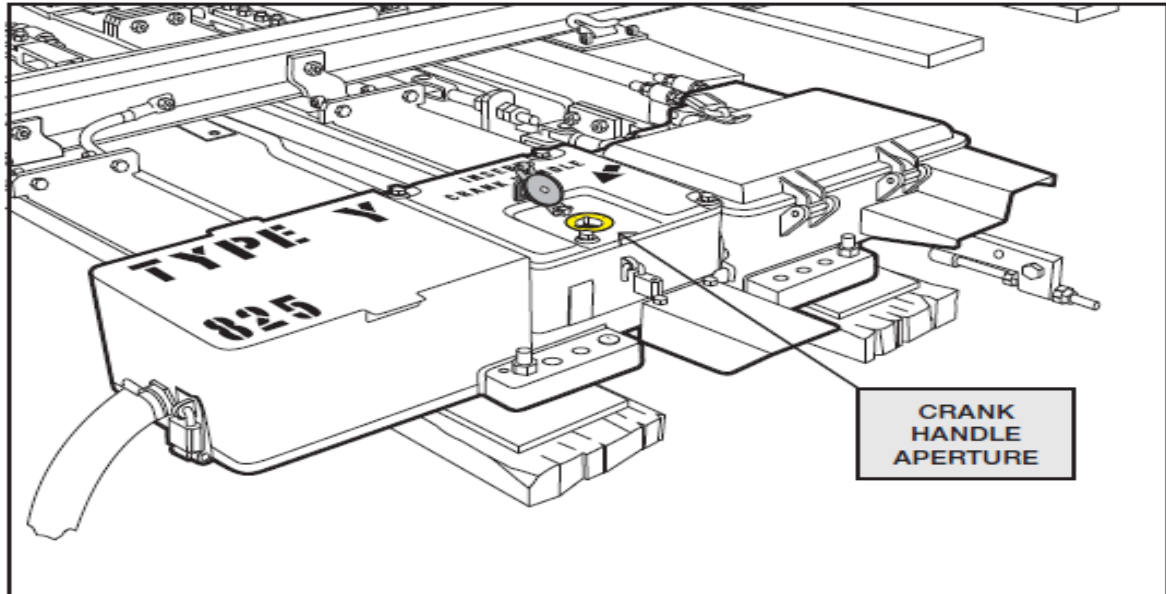


- Unlock the Traffic Standard lock and open the hinged cover plate at the end of the machine above ground level.
- Insert the crank handle through the slotted guide plate, lift the plate with the handle against the spring and then push crank handle through guides.
- Rotate slowly to locate the nibs in the slotted guide plate and push them home to engage the motor shaft.
- The crank handle must be wound until it will go no further.
- Check all the Points to ensure that they are set correctly and then contact the Network Controller.
- Follow the instructions from the Network Controller.
- When the Network Controller advises normal working is to resume, remove the crank handle and then close and padlock the cover plate.
- Replace the crank handle into the crank handle switch.
- Contact the Network Controller before leaving the area and ensure that the crank handle cabinet is locked.

8.3 Type “Y” and “Modified Y”

The following instructions are to be followed when using Type “Y” and “Modified Y” Points motors.

Figure 9012-3 Type “Y” and “Modified Y”.

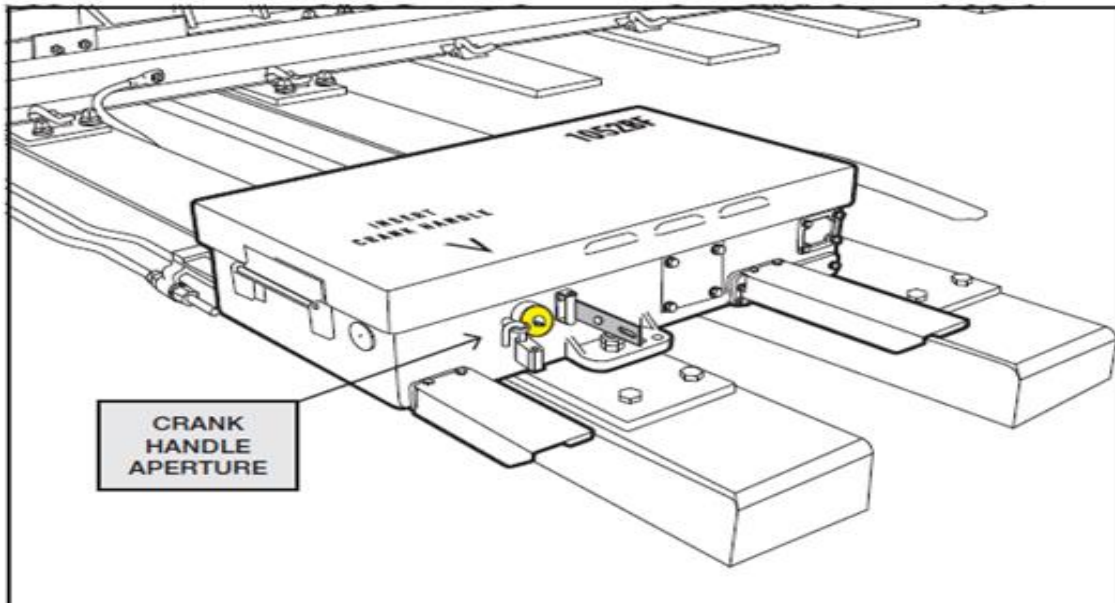


- Unlock the Traffic Standard lock and open the crank handle aperture cover by exerting downward pressure on the hasp to release it.
- On the type “Y”, remove the plug under the aperture cover using the crank handle.
- Insert the crank handle into the motor.
- Locate the indicator which shows the position of the Points.
- The crank handle must be wound until it will go no further and the indicator shows the required position.
- Check all the Points to ensure that they are set correctly and then contact the Network Controller.
- Follow the instructions from the Network Controller.
- When the Network Controller advises normal working is to resume, remove the crank handle, and replace and padlock the hasp.
- On the type “Y”, replace the plug under the aperture cover.
- Replace the crank handle into the crank handle switch.
- Contact the Network Controller before leaving the area and ensure that the crank handle cabinet is locked.

8.4 Type “W”

The following instructions are to be followed when using a Type “W” Points motor.

Figure 9012-4 Type “W”.



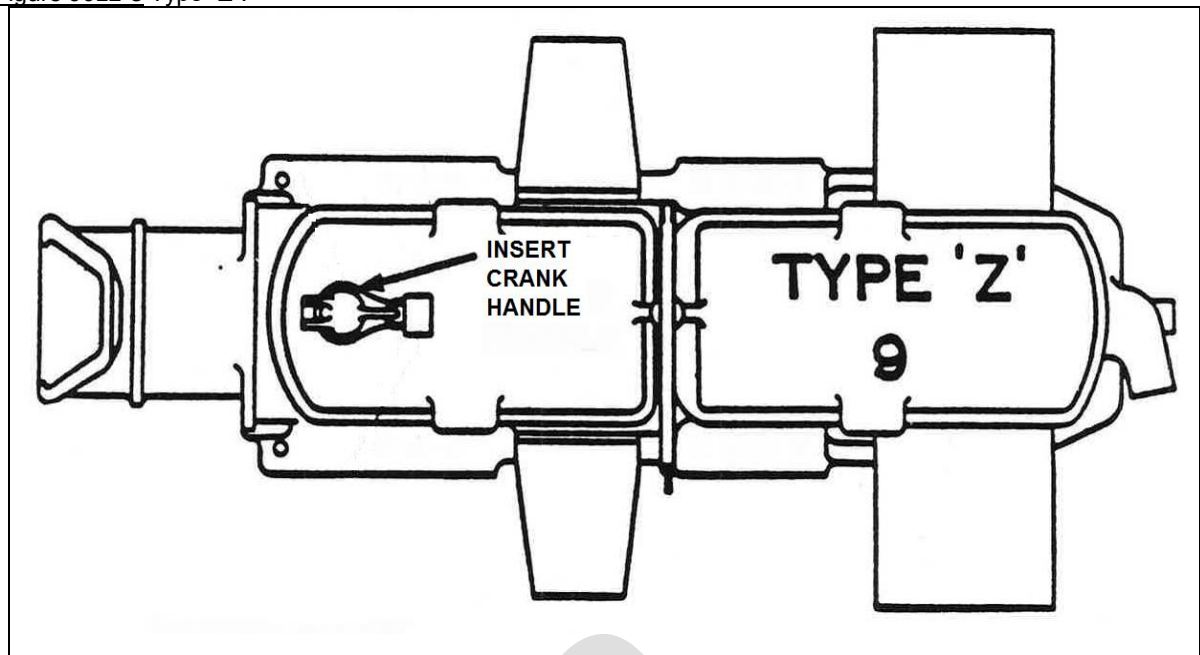
WARNING: Care should be taken when turning the crank handle (as instructed below) to ensure that the operator's hands are not damaged by the heads of the bolts in the sleeper. It is recommended that gloves be worn.

- Unlock the Traffic Standard lock and open the hinged cover plate on the side of the machine.
- Insert the crank handle into the circular hole behind the cover plate.
- Wind the crank handle until there is an audible “click”, at which point the indicator will show the required position of the Points. (Note: continue to crank even after the point where the blade appears to be flush with the rail).
- Follow the instructions from the Network Controller.
- When the Network Controller advises normal working is to resume, remove the crank handle and then close and padlock the cover plate.
- Replace the crank handle into the crank handle switch.
- Contact the Network Controller before leaving the area and ensure that the crank handle cabinet is locked.

8.5 Type “Z”

The following instructions are to be followed when using a Type “Z” Points motor.

Figure 9012-5 Type “Z”.



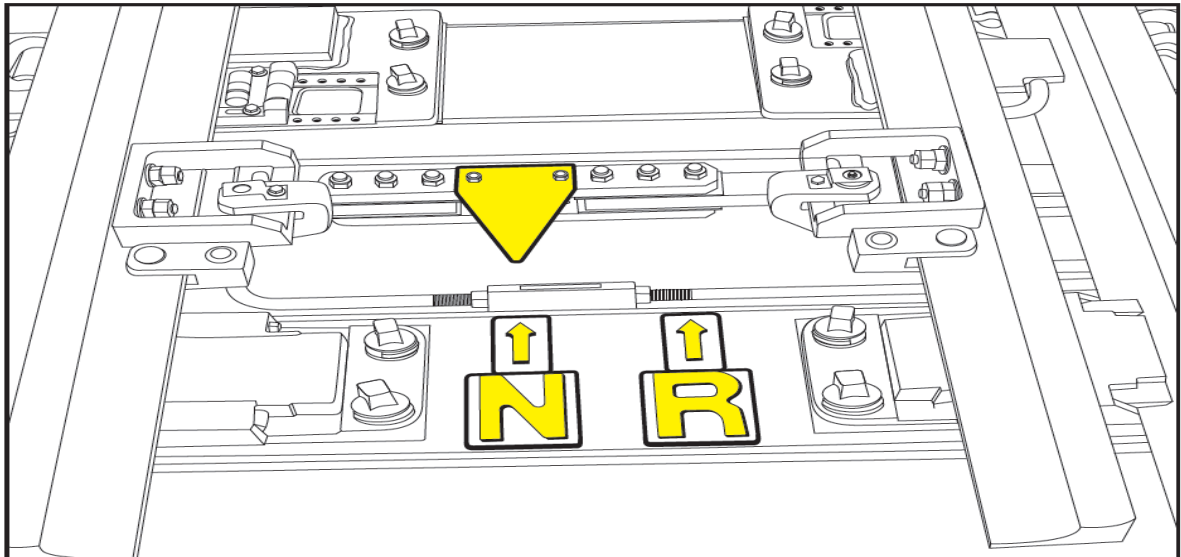
- Unlock the Traffic Standard lock and open the crank handle aperture cover.
- Move the slide directly over the crank handle socket and insert the crank handle into the motor.
- The crank handle must be wound until it will go no further and the indicator shows the required position.
- Check all the Points to ensure that they are set correctly and then contact the Network Controller.
- Follow the instructions from the Network Controller.
- When the Network Controller advises normal working is to resume, remove the crank handle, ensure the slide has moved aside to the fullest extent possible and replace and padlock the hasp.
- Replace the crank handle into the crank handle switch.
- Contact the Network Controller before leaving the area and ensure that the crank handle cabinet is locked.

9. Additional Information

9.1 Normal or Reverse Indicators

To indicate the normal and reverse setting of the Points, metal letters are provided, fixed on the sleeper at the toe of each blade. “N” indicates the Points are set normal; “R” indicates the Points are set for reverse.

Figure 9012-6 Normal or Reverse indicator.



9.2 K Blades

At some Dual Gauge turnouts where a conflict of gauge occurs, the Points may be provided with K Blades. For this reason it is necessary to thoroughly examine the Points before Rail Traffic is permitted to Travel over them.

Figure 9012-7 K Blades.

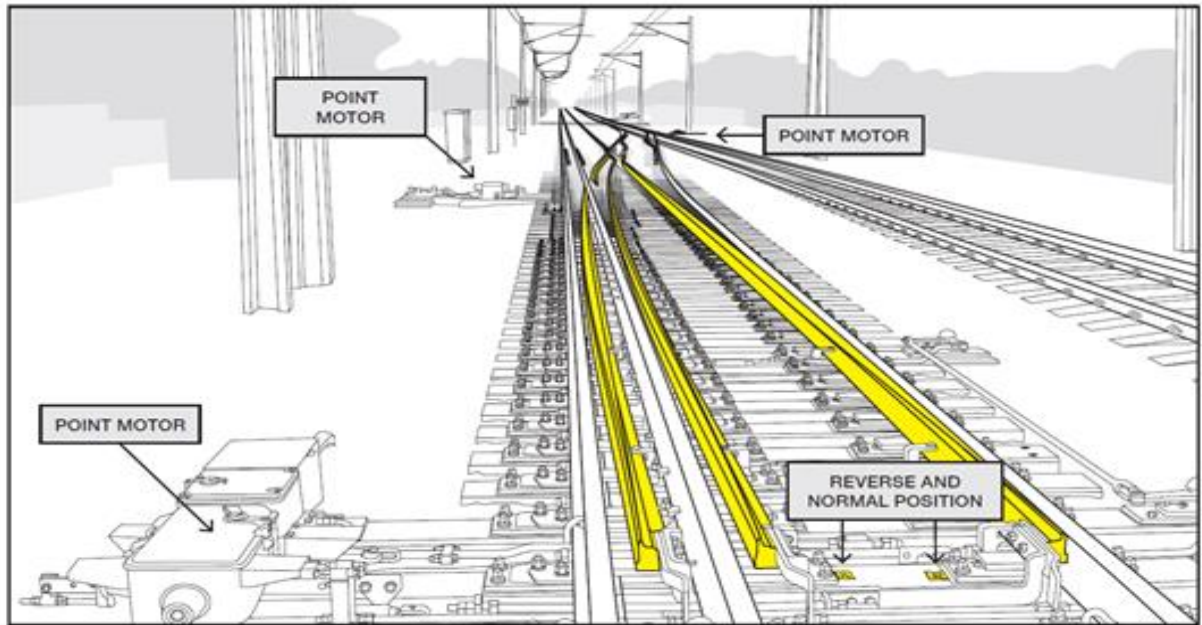
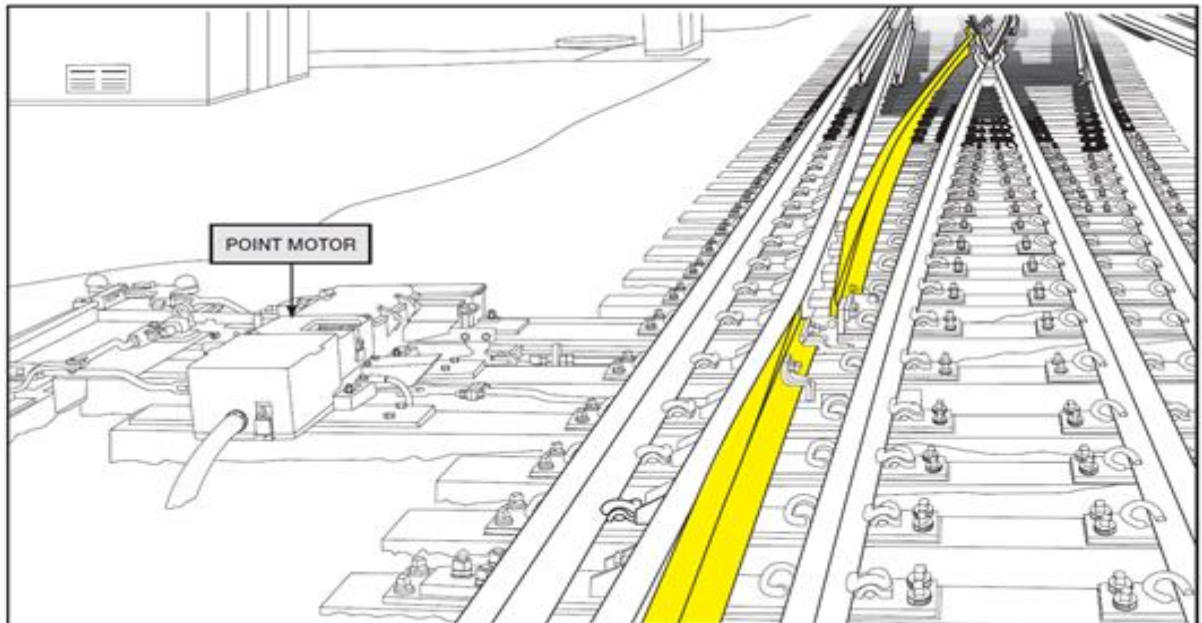


Figure 9012-8 K Blades.



9.3 Catch Points

Catch Points are Points placed at depots and Sidings. The purpose of these Points is to derail any vehicle which might run out onto a Running Line and become a danger to Rail Traffic movements on that line.

Usually they are a single blade that will lead the Rail Traffic away from the Main Line. These single blades can be controlled by any of the types of Point motors that have been described already in this instruction.

Figure 9012-9 Single Blade Catch Point.



10. Clipping and Securing Points

If it cannot be assured that the Facing Points on Running Lines will remain in the correct position, the Points are to be secured in accordance with Procedure 9000 Clipping and Securing Points.

11. Permanent Record

The Network Controller and the Infrastructure Representative must keep a Permanent Record of the Points failure.

12. References

6013 Passing Fixed Signals at STOP

9000 Clipping and Securing Points

9024 Operation of Switchlocks

13. Effective Date

1 February 2020

Not in Use

Network Safeworking Rules and Procedures

Written Authorities and Forms

Rule Number: 9016

Arc Infrastructure maintains the master for this document and publishes the current version on the Arc Infrastructure website. All changes and updates to the Network Safeworking Rules and Procedures are authorised by the Arc Infrastructure Rule Book Committee. This document is uncontrolled when printed.

Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	Dd mm yyyy	All	Major Review

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1. Purpose

This procedure describes how to compile, Issue, Cancel and Fulfil Authorities and forms used in the Network.

2. General

Authorities and forms are used:

- in Systems of Safeworking in certain circumstances; and
- to make sure safeworking instructions and information are clear, complete and Issued in a consistent way.

Rail Traffic Crews and Competent Workers must establish Effective Communication with the Network Controller.

Written Authorities and forms may be:

- transmitted using voice communication and recorded in writing in accordance with Rule 2007 Network Communications; or
- sent electronically.

All Cancelled and Fulfilled written Authorities and forms must be retained for at least 3 months and forwarded to the approved operations delegate if requested..

3. Forms Used

3.1 Rail Traffic Authorities

Authorities and safeworking instructions are Issued to Rail Traffic Crews on one of the following forms.

- Movement Authority which includes:
 - Alternative Movement Authority (AMA)
 - Train Order; and
 - Relief Rail Traffic Authority (RRTA)
- Restraint Authority.

3.2 Work on Track Authorities

Work on Track Authorities and safeworking instructions are Issued to Protection Officers.

3.3 Other Safeworking Forms

Other forms that may be required in relation to Safeworking for Rail Traffic Crews and other workers are:

- Worksite Protection Plan;
- Infrastructure Booking Advice (IBA);
- Rail Traffic Working Advice;
- Condition Affecting the Network (CAN); and

3.4 No Safeworking Forms

In the event there are no safe working forms available, the Competent Worker may write out the form and the information required to be captured (text only) on a blank sheet of paper. In that event, the Competent Worker must confirm all information is captured as required by section 5.4 of this rule.

4. Issuing Authorities

4.1 Preparation of an Authority

Authorities Issued by the Network Controller, must:

- be uniquely identified;
- contain only information or instructions essential to the specific task;
- be filled out and recorded in an approved format;
- be filled out and recorded without deletions, alterations, or additions;
- not contain any letters, words or numerals surrounded by circles, brackets or other characters; and
- contain only authorised abbreviations.

4.2 Assurances

Before preparing an Authority, the Network Controller must ensure all information is up to date relating to:

- Rail Traffic identification;
- Authorities currently in effect;
- the Location of Rail Traffic affected by, or having an effect on, the Authority;
- the Location of worksites affected by, or having an effect on, the Authority;
- the integrity of the Route;
- Track conditions; and
- any Temporary Speed Restrictions (TSR's) or other warnings for which advice is required.

4.3 Authority Format

The following information must be recorded in the spaces provided on the Authority form:

- for electronic transmission:
 - Authority ID
 - status
 - Limit of Authority (blocking)
- for manual transmission:
 - Authority ID
 - status
 - Limit of Authority (blocking)
 - name of PO or RTC
 - contact details of PO
 - name of control desk
 - date
 - time

4.4 Manual Transmission

When dictating an Authority, the Network Controller must dictate at a speed that allows the recipient to record it during transmission.

The Network Controller must:

- clearly pronounce all information;
- pronounce each digit individually (e.g. ONE – SIX – TWO);
- spell Location names immediately after they are spoken (e.g. ALPHA, A-L-P-H-A); and
- pause if conditions do not allow the transmission to continue clearly.

Voice communications are to be carried out in accordance with Rule 2007 Network Communications.

4.5 Error During Manual Transmission

If an error is detected during transmission of the Authority, the Network Controller must:

- cease Issuing the Authority;
- tell the recipient to endorse “NOT ISSUED” in upper case block letters with the date, time, recipient name and signature diagonally across the face of each copy of the partially prepared form; and
- Issue a new Authority.



NOTE: Where the system allows it, the new Authority may be Issued with the same number as the one marked NOT ISSUED.

5. Receipt of Manual Authority

During transmission the recipient must legibly record:

- the Authority as it is being transmitted;
- Location names in upper case block letters; and
- details as they are being transmitted, not from memory, presumption or notes.

5.1 Challenging Errors

If an error or inconsistency is identified or suspected during transmission of an Authority, the recipient must:

- challenge the Authority; and
- seek clarification.

5.2 Error During Receipt

If the recipient makes an error during receipt of the Authority the recipient must:

- cease recording the Authority;
- advise the Network Controller that an error has been made;
- when advised to do so, endorse “NOT ISSUED” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of the recipient’s copy of the partially prepared form; and
- prepare to receive another Authority.

5.3 Forms Transmitted Electronically

If an Authority or form is delivered electronically, the recipient must make sure that the Authority or form is legible and contains no omissions.

5.4 Read Back of Authorities or Forms

The recipient must read back their copy of the Authority or form to the Network Controller.

The Network Controller must:

- during the read back, verify that the Authority or form matches the Authority or form that has been transmitted;
- review all fields in the form and confirm all details match; and tell the recipient the time at which the read back is confirmed as correct.

5.5 Error During Manual Read Back

If an error is detected during read back of the Authority or form, the Network Controller must:

- ask for that portion of the Authority or form to be read back again;
- if it is confirmed that the Authority or form contains an error:
 - tell the recipient of the error;
 - if manually issued, tell the recipient to endorse “NOT ISSUED” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of each copy of the form; and
 - re-Issue the Authority or form.

5.6 Authority In-Effect

An Authority is deemed to be In-Effect at the time of confirmation of the correct read back.

An Authority remains In-Effect until it is:

- Fulfilled, or
- Cancelled.

When an Authority is In-Effect it must not be altered or rewritten.

6. Fulfilling an Authority

An Authority is Fulfilled after all instructions contained within it, have been carried out.

When an Authority is Fulfilled, the Rail Traffic Crew, Possession Protection Officer or Protection Officer must advise the Network Controller of the time that the Authority was Fulfilled and for manually issued Authorities;

- endorse “FULFILLED” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of each copy; and
- the Network controller must fulfill the authorities issued in Network Control System.

When an Authority that was manually prepared is Fulfilled, the Network Controller must endorse “FULFILLED” in upper case block letters with the date, the time the Authority is Fulfilled, the Network Controller’s name and signature diagonally across the face of their copy.

7. Cancelling an Authority

If it is not possible to carry out all of the instructions contained within an Authority, the Authority must be Cancelled.

The Authority currently In-Effect must be Cancelled before a replacement Authority containing altered instructions can be Issued.

The manner of Cancellation and the type of a replacement Authority is determined by the System of Safeworking in use.

When an Authority is Cancelled the Network Controller must:

- tell the recipient to endorse “CANCELLED” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of each copy; and
- if manually prepared, endorse “CANCELLED” in upper case block letters with the date, time, Network Controller’s name and signature diagonally across the face of the Network Controller’s copy.

8. References

2007 Network Communications

9. Effective Date

1 February 2020

Network Safeworking Rules and Procedures

Using Track Closed Warning Devices and Rail Clamped STOP Signs

Rule Number: 9018

Arc Infrastructure maintains the master for this document and publishes the current version on the Arc Infrastructure website. All changes and updates to the Network Safeworking Rules and Procedures are authorised by the Arc Infrastructure Rule Book Committee. This document is uncontrolled when printed.

Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	Dd mm yyyy	All	Major Review

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1. Purpose

The purpose of this procedure is to detail the protocols for using Track Closed Warning Devices or Rail Clamped Stop sign. These devices are used to warn Rail Traffic Crews that the Track beyond the device is closed to Rail Traffic.

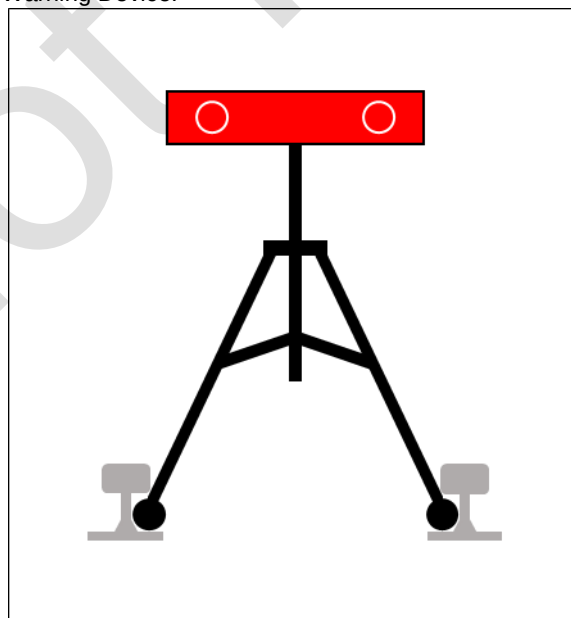
2. General

2.1 Track Closed Warning Device

A Track Closed Warning Device must:

- be of metal construction;
- facilitate the locking of the legs into different gauge Tracks;
- be placed inside the rail gauge with the leg supports under the rail head;
- be locked into position using a Special Padlock;
- include a headboard which must be approved by Arc Infrastructure; and
- be insulated so as not to activate:
 - signals; or
 - Protection for Level Crossings.

Figure 9018-1 Track Closed Warning Device.



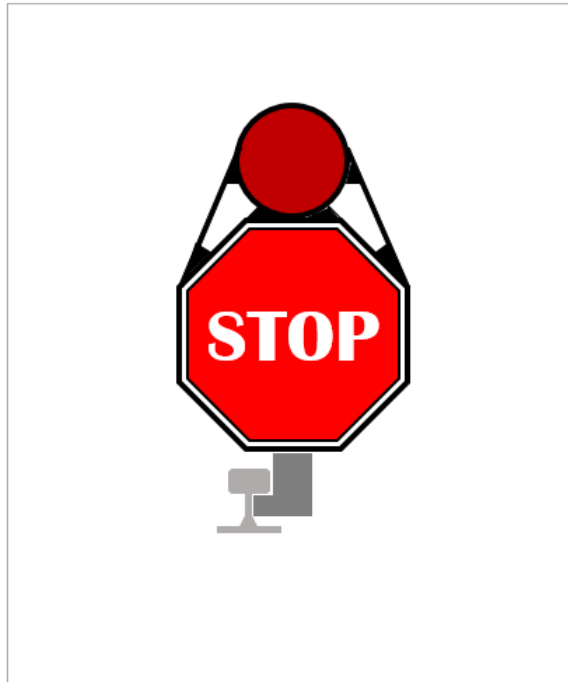
2.2 Rail Clamped STOP Sign

A Rail Clamped STOP Sign must be type approved by Arc Infrastructure:

- be clamped to the head of the rail;
- be locked into position using a Special Padlock;

Rail Traffic must be brought to a stand before reaching the Track Closed Warning Device or Rail Clamp STOP sign.

Figure 9018-2 Rail Clamped Stop Sign



3. Placing a Track Closed Warning Device or Rail Clamp STOP Sign

The Protection Officer must ensure that the Track Closed Warning Device or Rail Clamp STOP sign is Fit for Purpose and:

- that the lights are working correctly; and
- spare batteries and globes are available.

The Protection Officer must place the Track Closed Warning Device or Rail Clamp STOP Sign:

- in accordance with the In-Field Protection requirements of the LPA or Work on Track Authority;
- in such a position that any Rail Traffic entering the affected Section must pass over it; and
- where located at a signal, on the departure side of Fixed Signals.

The Competent Worker must not place the Track Closed Warning Device or Rail Clamp Stop sign on fish plates or within Points or Crossovers:

Figure 9018-3 Example of the position of the Track Closed Warning Device when only one main line is obstructed.

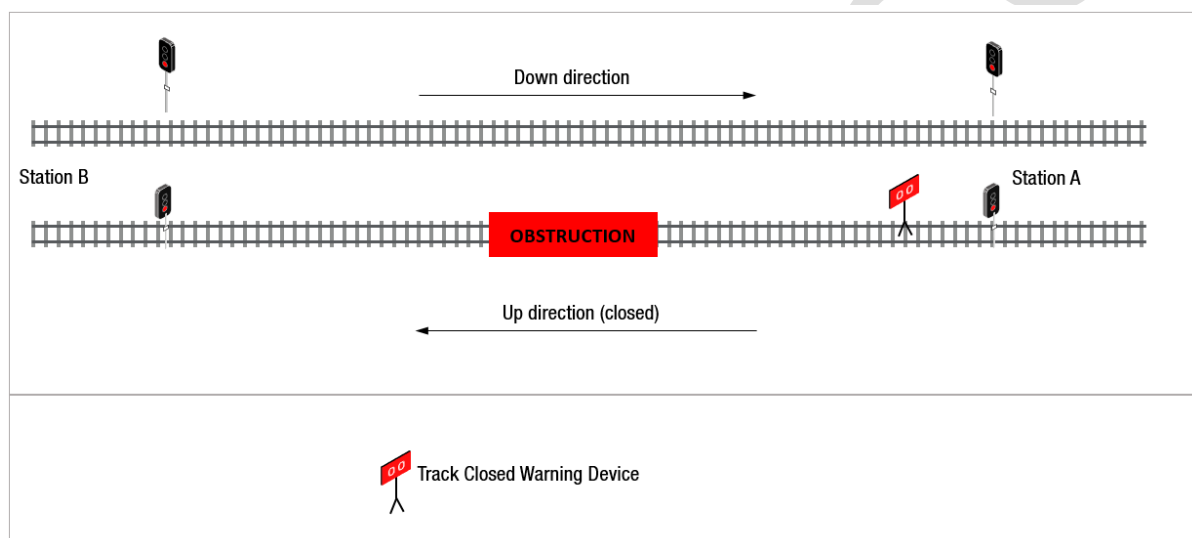


Figure 9018-4 Example of the position of the Track Closed Warning Device when placed at limit of shunt board and a cross over.

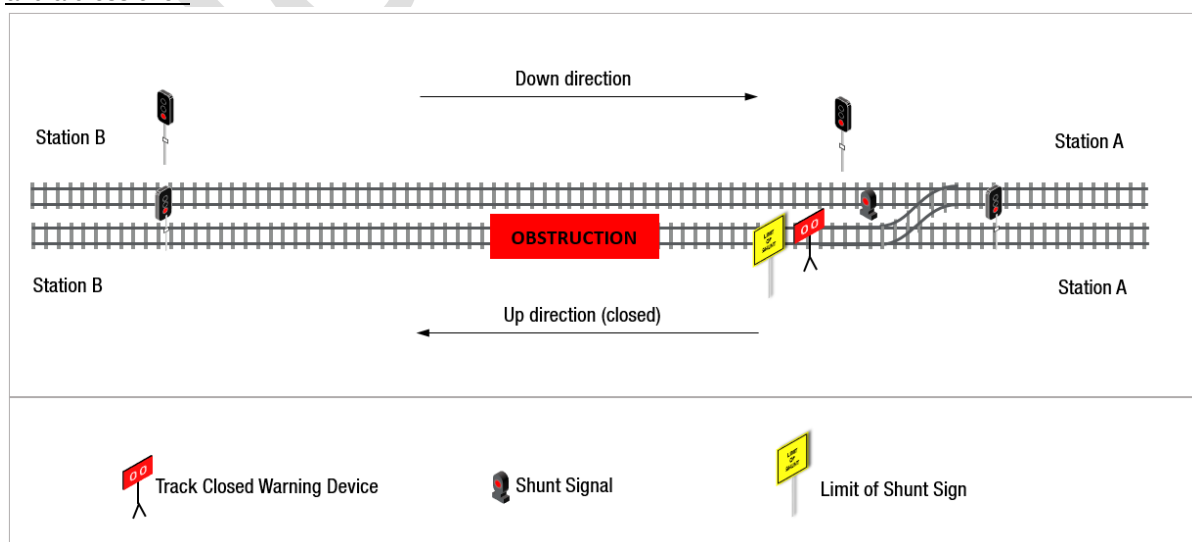
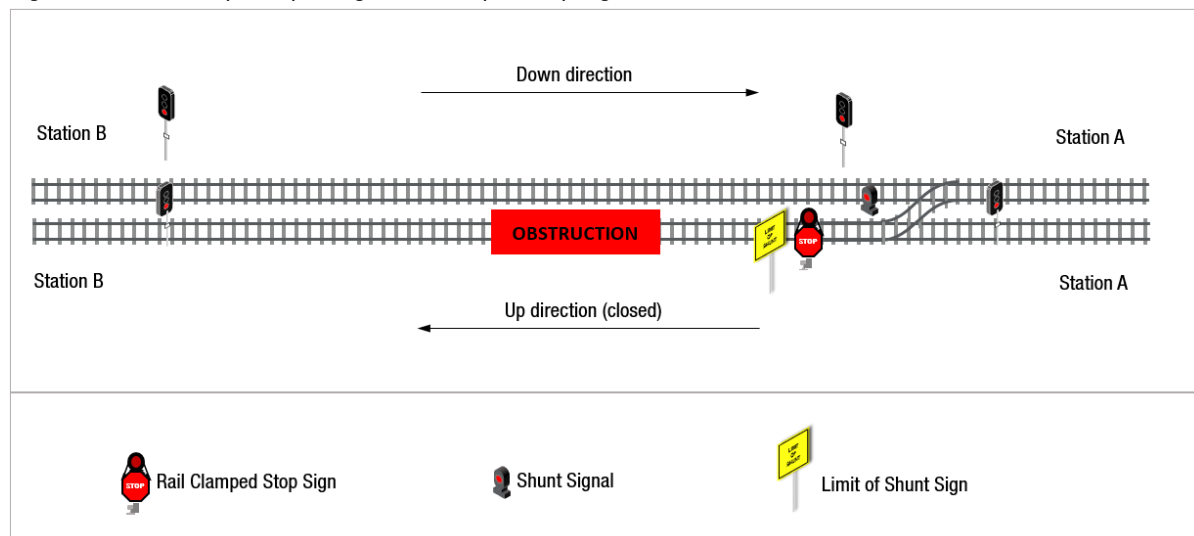


Figure 9018-5 Example of placing a rail clamped stop sign.



4. References

Nil

5. Effective date

1 February 2020

Network Safeworking Rules and Procedures

Using Standing Rail Traffic for Protection

Rule Number: 9020

Arc Infrastructure maintains the master for this document and publishes the current version on the Arc Infrastructure website. All changes and updates to the Network Safeworking Rules and Procedures are authorised by the Arc Infrastructure Rule Book Committee. This document is uncontrolled when printed.

Document History

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1. Purpose

The object of this procedure is to detail how this method is used to provide a Safe Place for workers in the Danger Zone, by stopping Rail Traffic on the Main Line. In addition, it allows Rail Traffic to transport workers to a worksite.

2. General

Some areas of the Network are not able to be reached safely; many Locations have no Safe Place for workers and repair work may need to be carried out on rail vehicles or the Track under the standing Rail Traffic.

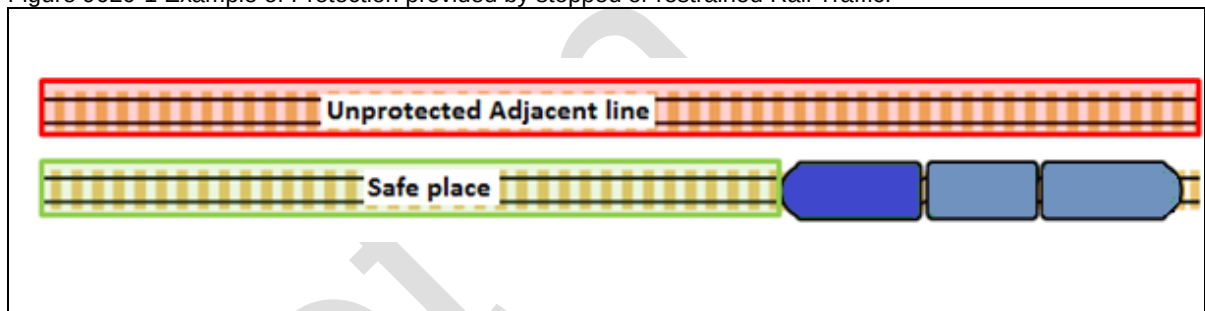
To enable minor work to be carried out, this procedure may be applied.

Using Rail Traffic to provide Protection should only be used in circumstances where it is not reasonably practicable to use a Protection method as prescribed in Rule 3000 Planning Work in the Rail Corridor.



WARNING: The Safe Place created by the Rail Traffic prevented from moving does not apply to any Adjacent line.

Figure 9020-1 Example of Protection provided by stopped or restrained Rail Traffic.



3. Communication with Network Control

The Protection Officer must contact the Network Controller and give the following details:

- their name;
- their Track access permit number;
- the type of work that is going to be carried out;
- the Location of the work; and
- the anticipated time for completion of the task.

4. Using Rail Traffic to Provide a Position of Safety



WARNING: Rail Traffic being used to provide a position of safety must reliably activate Track-Circuits, or the Rail Traffic Crew is in possession of an Authority for the Section.

4.1 The Network Controller

The Network Controller must:

- give permission before this method of Protection is used;
- advise the Protection Officer which Rail Traffic is to Travel to the worksite;
- agree with the Protection Officer, the time required to do the work;
- tell the Rail Traffic Crew the Location of the worksite; and
- advise Rail Traffic on the line, that workers will be working using Rail Traffic to provide a Safe Place.

4.2 Rail Traffic Crew

The Rail Traffic Crew must:

- stop 20 metres short of the worksite, to enable the workers to detrain and move forward to the worksite;
- advise the Network Controller on their arrival at the worksite; and
- place the Rail Traffic into neutral and apply a full application of the Automatic Brakes.

4.3 Protection Officer



WARNING: The workers shall remain on the Track which is Protected by the stationary Rail Traffic. They are not permitted to walk across to the Adjacent line or let equipment or tools Foul the Adjacent line unless the workers are Protected in accordance with Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines.

The Protection Officer must ensure that the Rail Traffic Crew:

- places the Rail Traffic into neutral; and
- makes a full application of the Automatic Brakes.

4.4 Extending the Time for Work

Where the work is likely to overrun the anticipated time, the Network Controller must be advised and a decision made to continue, or to make the area safe and finish the work at a later time.

4.5 Departing the Worksite

Once work is completed, the Protection Officer will return to the Rail Traffic.

The Rail Traffic Crew shall contact the Network Controller and advise that they are leaving the worksite.



NOTE: If work is being carried out beyond a Platform, and the positioning of the railcar would mean that the railcar is partially Platformed, then the whole of the railcar is to remain at the Platform.

5. Working Under Standing Rail Traffic

Using standing Rail Traffic for Protection is permitted for repairs to failed Infrastructure and rail vehicles where it would be unsafe for Rail Traffic to continue until the necessary repairs are carried out.



NOTE: Failed Infrastructure may be a broken rail that is under the Rail Traffic Consist.

Where possible, and it is safe to do so, the Rail Traffic Consist should be divided and Secured, in accordance with Rule 4003 Rail Traffic Integrity, to enable the work to be carried out without a rail vehicle standing over the failed Infrastructure, or the rail vehicle requiring work should be isolated from the remainder of the Consist.

The Competent Worker carrying out the repairs must advise the Network Controller that:

- Standing Rail Traffic Protection is required;
- the reasons why; and
- the anticipated duration of the work.

The Network Controller must Issue a Restraint Authority, in accordance with Rule 4001 Protecting Disabled Rail Traffic, to the Rail Traffic Crew.



NOTE: Where the Rail Traffic is to be divided for the work, the Restraint Authority must not be Issued until the Rail Traffic Consist has been divided and is again stationary.

After the Rail Traffic Crew is in possession of the Restraint Authority, the Competent Worker carrying out the repairs must request the Rail Traffic Crew to apply three step protection to the Rail Traffic.

Three step protection is:

- a full application of the Automatic Brakes;
- the controller placed in neutral; and
- the generator field switch turned off.

Where the Rail Traffic is a railcar set without a generator field switch, three step protection is:

- a full application of the Automatic Brakes;
- the controller placed in neutral; and
- the park brake on.

Work must not start until confirmation from the Rail Traffic Crew that the three step protection has been applied.

5.1 Rail Traffic to Continue

The Competent Worker must advise the Network Controller when the Infrastructure or rail vehicle has been repaired sufficiently for the Rail Traffic to continue safely.

The Network Controller will then Cancel the Restraint Authority held by the Rail Traffic Crew.

The Competent Worker will advise the Rail Traffic Crew when it is safe to remove the three step protection.

Where the Consist was divided for the repairs, the Consist must be recoupled and Rail Traffic Integrity re-established before the Rail Traffic continues.

6. Using the Rail Traffic for Accessing Worksites

6.1 Rail Traffic Crew

The Rail Traffic Crew must:

- stop 20 metres short of the worksite, to enable the Competent Worker to detrain and move forward to the worksite; and
- advise the Network Controller on arrival at the worksite.

The Rail Traffic Crew can depart the worksite only after receiving a Handsignal from the Protection Officer.

6.2 Protection Officer

Where a Competent Worker is working alone, that Competent Worker will be the Protection Officer.

The Protection Officer must:

- complete a radio check with the Network Controller; and
- when ready, give an “all clear” Handsignal to the Rail Traffic Crew.

The Protection Officer shall agree with the Network Controller on the time to be picked up if the communications fail.

The Protection Officer must not move from the position of safety until the nominated Rail Traffic has stopped, to take them from the worksite.

6.3 Departing the worksite

Once work has been completed, the Protection Officer shall contact the Network Controller and advise that the work is complete.

The Network Controller will arrange for the Protection Officer to be picked up by the next available Rail Traffic.

The Rail Traffic Crew who will pick up the Protection Officer from the worksite, shall stop 20 metres short of the worksite and advise the Network Controller.

Once the Protection Officer is on the Rail Traffic, the crew shall contact the Network Controller and advise that they are leaving the worksite, and the Network Controller will make a notation on the Network Control Diagram.

7. Keeping Records

The Network Controller and the Protection Officer must make a Permanent Record of the Protection arrangements.

8. References

3000 Planning work in the rail corridor

4001 Protecting Disabled Rail Traffic

4003 Rail Traffic Integrity

9010 Protecting Work from Rail Traffic on Adjacent Lines

9. Effective Date

1 February 2020

Network Safeworking Rules and Procedures

Operation of Self Restoring Points

Rule Number: 9022

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Document History

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1. Purpose

The purpose of this Procedure is to describe Self Restoring Points (SRP) and outline the means by which they are used to control the access of Rail Traffic to and from Crossing Locations, Sidings or junctions.

2. General

SRP:

- are electrically operated Points;
- are installed at various Stations and Sidings in Train Order Territory; and
- when reversed, under certain conditions and subject to a time delay, will automatically restore to their normal position after the passage of Rail Traffic.



NOTE: Automatic restoration of SRP is determined from Sequential Track-Circuit Occupation and therefore does not occur for Rail Traffic with insulated axles.

SRP systems provide:

- an indication that Points are locked for through movements of Rail Traffic in either the normal or reverse positions;
- electrical operation by:
 - remote operation from the Rail Traffic cabin; or
 - by local push button.

2.1 Associated Equipment

Equipment associated with SRP include:

- electric Points motor
- illuminated triangular shaped Points Indicators
- flashing Points free indicator (coloured light type)
- push button and crank handle case
- Track-Circuits
- white wayside indicator posts “A” to “F”
- remote UHF radio receiver

2.2 Types of SRP

The two types of SRP are:

- White light; and
- Coloured light (white, yellow, red).

SRP Points Indicators consist of upper and lower triangular shaped indicators. The upper indicator applies to approaching Rail Traffic in the Facing direction and the lower indicator applies to Rail Traffic approaching in the Trailing direction.

3. White Light Type

3.1 Through Movements



WARNING: Normally SRP are left set in the normal position; however Rail Traffic Crews should be prepared to stop short of the Points in the event they have been left in the reverse position or have lost detection.

If not already illuminated, approaching Rail Traffic may see the upper Points Indicator illuminate. The Points Indicator will display two white lights in a vertical alignment if the Points are set, locked and detected in the normal position.

Figure 9022-1 Typical SRP Layout – white light type



The same indication will be displayed on the lower Points Indicator if Rail Traffic is approaching from the Trailing direction.

As the last vehicle of the departing Rail Traffic Clears the Track-Circuits of the SRP, the Points Indicator lights may extinguish.

Where the Rail Traffic Crew approaches the SRP and observes the Points Indicators are flashing or due to a system failure they are not illuminated, the approaching Rail Traffic must be brought to a stand Clear of the Points and confirm the Points are correctly set and locked before traversing the Points.

All faults or failures of the SRP must be reported in accordance with Rule 2009 Reporting and Responding to Condition Affecting the Network (CAN).

Points Indicators will flash to indicate either:

- loss of detection; or
- for a predetermined time:
 - when the door for the manual operation button is first opened; and
 - when the Points are requested to move, before movement of the Points begins.

3.2 Reversing Points

3.2.1 Remote radio operation

Where remote control is provided, the on board radio equipment may be used by the Rail Traffic Crew to move Points to reverse. The control equipment will only accept a call for the Points to move after the Rail Traffic has been detected as being stationary on one of the approaches to the Points.

Radio operation requires the Rail Traffic Crew to enter the 3 digit code displayed on the radio code sign into their radio on UHF channel 50.

This code ensures that where there are more than one set of SRP in any area, only the correct set will respond.



Figure 9022-2 SRP radio code sign

The Rail Traffic Crew can either send the 3 digit code by selecting the appropriate command on the Locomotive touch screen display or by entering the code on their portable UHF radio handset.



NOTE: The code varies from site to site and is displayed on a sign located alongside the Points.

No in cab indications are provided, the Rail Traffic Crew must check the indicators to confirm the Points setting.

When the Points are set in the reverse position, the two white lights on the upper and lower Points Indicator will be illuminated at 45 degrees, indicating the Points are set for reverse.

When the Points are moved to reverse or normal, they remain time locked for 30 seconds. After this time it is possible to move the Points.

3.2.2 Manual operation

A manual “PRESS TO OPERATE POINTS” button is provided in the crank handle case to give manual operation of Points in the event that radio operation is not working.

Provided the Track-Circuit is Occupied, an indicator in the push button case will display “Points free” after 30 seconds.

When the push button is operated, the Points Indicator lights will extinguish and the Points will move to reverse. After the Points are set into reverse and become locked and detected, the Points Indicator will illuminate to correspond with the lie of the Points.



Figure 9022-3 Local control panel/crank handle case

At some SRP the Points free indicator may remain lit until the Points are set and detected, at which time the Points locked indicator will illuminate.

At other SRP Locations the Points free indicator will be extinguished when the button is pushed, followed by a delay before the Points move to reverse. During this time the Points Indicator lights will flash until the Points are set and detected.

The Points locked indicator will only illuminate at some Locations when they are locked by Track locking as the Rail Traffic traverses the Points or after the Points are called to move whilst the Points Indicators are flashing.

3.2.3 Shunt movements

For Shunt movements from the Main Line to the loop or junction, the Points Indicator will illuminate, if not already illuminated, when Rail Traffic comes to a stand at a predetermined distance from the Points.

The indicator will display two white lights in a vertical alignment indicating the Points are set in the normal position.

The Rail Traffic Crew may then operate the Points using either the remote or manual operation methods.

3.3 Points Restoration

After any Rail Traffic movement where the Points have been set to reverse and the last vehicle of the Rail Traffic has Cleared the SRP Track-Circuits, the Points Indicator may extinguish after a predetermined period and the Points will automatically move back to the normal position.

4. Coloured Light Type

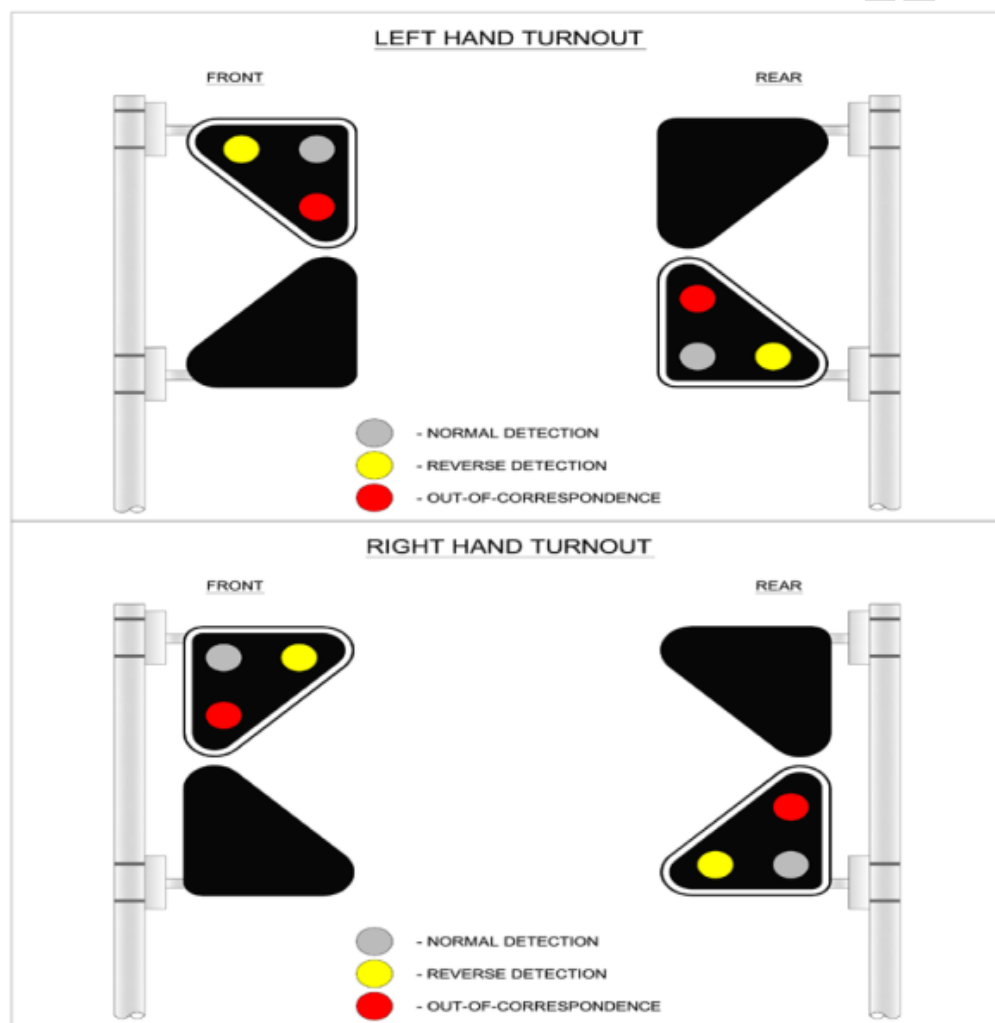
There are three LED lights (white, yellow, red).

- White – indicates the Points are set and detected in the normal position.
- Yellow – indicates the Points are set and detected in the reverse position.
- Red – indicates the Points are not detected or, are about to move.



NOTE: A coloured light type SRP Points Indicator is continually illuminated.

Figure 9022-4 Typical SRP Points Indicators layout – coloured light type



4.1 Through Movements



WARNING: Usually SRP are left set in the normal position; however Rail Traffic Crews should be prepared to stop short of the Points in the event they have been left in the reverse position or have lost detection.

When Rail Traffic approaches the SRP in the Facing direction, the top indicator should be illuminated with a white light provided the Points are set, locked and detected in the normal position.

If Rail Traffic is to pass through the Points on the Main Line in the normal position, there is no requirement to stop provided there is a white light displayed on the Points Indicator.

The same indication will be displayed on the lower Points Indicator if Rail Traffic is approaching from the Trailing direction.

Where the Rail Traffic Crew are approaching SRP, and the Points Indicator is at red or due to electrical failure the Points Indicator is not illuminated, Rail Traffic must:

- be brought to a stand Clear of the Points; and
- confirm the Points are correctly set and locked before traversing the Points.

All faults or failures of the SRP must be reported in accordance with Rule 2009 Reporting and Responding to Condition Affecting the Network (CAN).

4.2 Reversing Points

4.2.1 Remote radio operation

Where remote control is provided, on board radio equipment may be used by the Rail Traffic Crew to move the Points to reverse.

Radio operation requires the Rail Traffic Crew to enter the 3 digit code displayed on the radio code sign into their radio on UHF channel 50. This code ensures that where there are more than one set of SRP in any area, only the correct set will respond.

The control equipment will only accept a call for the Points to move after the Rail Traffic has been detected as being stationary on one of the approaches to the Points. Approaches are indicated by wayside white posts in both the Facing and Trailing directions.

Once the Rail Traffic has been detected as stationary a blue flashing light will illuminate and the 3 digit code can be used to call the Points.

The Rail Traffic Crew either sends the 3 digit code by selecting the appropriate command on the Locomotive touch screen display or by entering the code on their portable UHF radio handset.

If the code is accepted, the blue flashing light will extinguish and the Points Indicator will change to red. After 30 seconds the Points will move and the indicator will display a white or yellow indication once the Points are detected in the required position. The Points will lock for 2 minutes before becoming free again.

If the Points fail to be detected in the called position, they will immediately become free again to allow them to be returned to their original position.

The Points will re-lock and the blue flashing indicator light will extinguish if the Points are not called within 5 minutes of becoming free.

For Rail Traffic departing in the Trailing direction and waiting for a passing movement, the Points will become free for a further 5 minutes once the incoming Rail Traffic has passed over the Points.

4.2.2 Manual operation



WARNING: Rail Traffic Crews must close the crank handle case door before leaving the SRP site.

A manual push button switch is provided in the crank handle case to give manual operation of Points in the event that radio operation is not working or the Points have re-locked.

Once the crank handle case has been opened, the Points free indicator light will illuminate and the Points can be called by using the push button.

If the call has been accepted the Points will activate in the same way as using the remote radio procedure.

The Points will remain free as long as the crank handle case door is left open.

4.2.3 Shunting movements

Rail Traffic Shunting to or from the Main Line to the loop, Siding or branch line via the Points being in reverse, must stop at the SRP and operate the Points to the reverse position using either the remote or manual operation methods.

When the Points are set in reverse, the indicator will display a yellow light.

4.2.4 Points restoration

After any Rail Traffic movement where the Points have been set to reverse and the last vehicle of the Rail Traffic has Cleared the SRP Track-Circuits, the Points Indicator will change from yellow to red, and after a predetermined period, the Points will automatically move back to the normal position.

5. Signage

The maximum permissible speed approaching SRP is 40 Km/h, which applies 400m either side of the Points. “40 SRP” speed restriction signs are provided at all Locations.

“NO STANDING BEYOND THIS POINT” signs are provided on the approach to the Points Indicator.

6. Electrical Failures



WARNING: SRP that have been moved manually must be returned to their designated normal position.

A crank handle is provided for manual operation of the Points during electrical failures. Once the crank handle is removed, Point detection is lost and power to the Points machine is removed.

When manually working Rail Traffic through a set of SRP, the crank handle must be kept out of the crank handle case until all of the Rail Traffic has passed over the Points.

6.1 Restoring SRP to Normal

When crank handle operation has been used, the Points must be returned to their normal position after the Rail Traffic movement and the Network Controller advised.

To avoid undue delays to Rail Traffic, the Network Controller may give permission for the Rail Traffic Crew to leave the Points in the reverse position and the crank handle out of the crank handle switch.

The Network Controller must:

- record on the Network Control Diagram the position of the Points and that the crank handle is out of the crank handle switch;
- Issue a warning in accordance with Rule 2009 Reporting and responding to a Condition Affecting the Network (CAN) to the Rail Traffic Crew of Rail Traffic approaching that Location;
- Continue to Issue warnings until the SRP has been restored to normal and the crank handle restored to the crank handle switch.

The Network Controller can arrange for the next Rail Traffic Crew or other Competent Worker to restore the SRP and crank handle to normal.

7. Use by Track Vehicles

When Track Vehicles, that do not reliably activate track-circuits, are required to traverse over SRP, the Points must be operated using the manual operation method.

The Points must be manually restored to normal when the Track Vehicle has moved Clear of the Points.

8. References

2009 Reporting and responding to a Condition Affecting the Network (CAN)

9. Effective Date

1 February 2020

Network Safeworking Rules and Procedures

Operation of Switchlocks

Rule Number: 9024

Arc Infrastructure maintains the master for this document and publishes the current version on the Arc Infrastructure website. All changes and updates to the Network Safeworking Rules and Procedures are authorised by the Arc Infrastructure Rule Book Committee. This document is uncontrolled when printed.

Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	Dd mm yyyy	All	Major Review

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1. Purpose

The purpose of this procedure is to provide instruction in the operation of Switchlocks in Centralised Traffic Control (CTC) Territory within the Network.

2. General

A Switchlock is a device used to lock a Points lever. The Switchlock must be initially released by the Network Controller or by the positioning of the Rail Traffic prior to a Competent Worker operating a lever.

Switchlocks are usually found on Points leading to or from an Intermediate Siding or non-signalled portions of yards in CTC Territory.

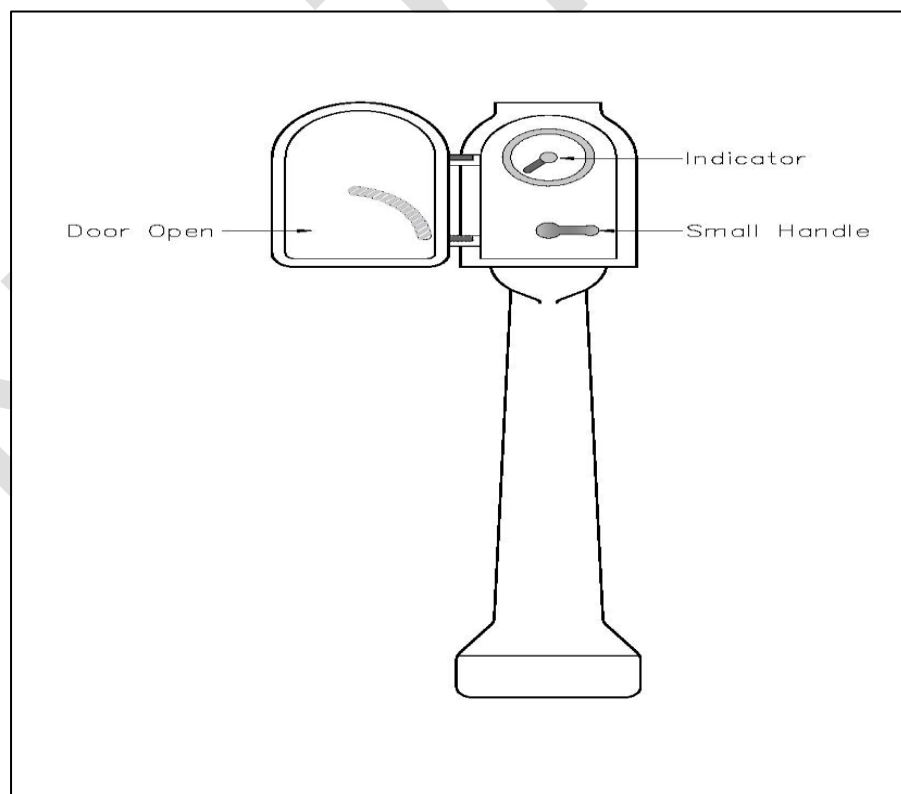
In CTC Territory, the Points leading into Intermediate and Interlocked Sidings are controlled by electric Switchlocks.

Switchlocks at Interlocked Sidings are controlled by the Network Controller.

Switchlocks contain an indicator to indicate the condition of the lock, a small handle to lock the Points and a door which is normally kept closed and locked.

Refer to local instructions as Switchlock procedures vary at some Locations.

Figure 9024-1 Typical Switchlock.



3. Operation

3.1 Interlocked Sidings

When it is necessary to operate a Switchlock at an Interlocked Siding, the Rail Traffic Crew or Competent Worker must:

- contact the Network Controller for permission and release of the Switchlock;
- open the Switchlock door, and once the free indication is displayed;
 - turn the small handle to the left position;
 - set the Points to the required direction; return the small handle to the right; and
 - close and Secure the Switchlock door.
- advise the Network Controller.

The Network Controller can then return the Switchlock to the locked position and confirm with the Rail Traffic Crew or Competent Worker that the Switchlock is normal.

3.2 Rail Traffic Acceptance Buttons (TAB)



WARNING: The TAB button must be depressed until the Rail Traffic has passed the corresponding Shunt signal at Proceed.

A Rail Traffic Acceptance Button (TAB) is provided on the side wall of the Switchlock which, when pressed will permit a Proceed indication to be exhibited on the corresponding signal, provided the Network Controller has set the signal for the movement.

When the movement of Rail Traffic is Clear of the Points the Rail Traffic Crew or Competent Worker must:

- open the Switchlock door;
- turn the small handle to the left;
- restore the Points to their normal position;
- return the small handle to the right to the normal position;
- close and Secure the Switchlock door; and
- advise the Network Controller.

The Network Controller can then return the Switchlock to the locked position.

The Rail Traffic Crew or Competent Worker must then depress and hold the TAB to allow the signal to display a PROCEED Aspect.



NOTE: The Network Controller must be advised that the Points have been restored to normal and the Switchlock is Secured.

3.3 Emergency Release

At some Locations, the Switchlock has been fitted with an Emergency release to allow the Switchlock to be operated during a signalling failure.

The Network Controller must ensure there are no conflicting Rail Traffic movements approaching the Switchlock and it is safe to use the Emergency release.

The Competent Worker operating the Switchlock during a signalling failure must:

- contact the Network Controller to obtain permission to use the Emergency release;
- break the seal and push the Emergency release down as far as it will move;
- hold the Emergency release down and move the small handle to the left; and
- operate the Switchlock as required.

The Emergency release can only be restored by a Signalling Maintenance Representative.



NOTE: The Fixed Signals affected by the Switchlock will remain at STOP until the Signalling Maintenance Representative has restored the Emergency release.

3.4 Intermediate Sidings

Small white posts marked “A”, “B” and “C” are provided alongside the line near the Points to indicate the limits of the Track-Circuit.



NOTE: Rail Traffic Crews are required to contact the Network Controller for permission to operate Switchlocks.

3.4.1 Shunting rail traffic and leaving a portion standing on the main line

When it is necessary to release a Switchlock so that a Siding can be Shunted, the Rail Traffic Crew must:

- contact the Network Controller;
- stop the Rail Traffic;
- detach the portion to be left standing on the Main Line Track-Circuit opposite the Siding on the approach side of post “C”, and Clear of the Points to be Shunted through.

The front portion of the Rail Traffic to be Shunted must be moved forward and the rear wheels of the last vehicle must be standing on the Track-Circuit beyond the Points, and between posts “A” and “B”. Then, with permission from the Network Controller, the Rail Traffic Crew must:

- open the Switchlock door; and
- turn the small handle over to the left.

The Points may then be operated to the required position by means of the Points lever, in accordance with Procedure 9012 Operation of Points.



WARNING: At Intermediate Sidings where a portion of Rail Traffic is left standing on the Main Line, if the Points are reset and the Switchlock handle has been returned to the normal position, the Switchlock will fail to release again and an Infrastructure Representative will need to be advised and attend.

At Intermediate Sidings when the small handle has been turned to the left, it must not be restored until:

- Shunting has been completed;
- the Points have been reset for the Main Line; and
- the Points lever has been Secured.

When all Shunting has been completed, the Points have been reset for the Main Line and, the Points lever has been Secured, the Rail Traffic Crew must:

- turn the small handle back over to the right, to its normal position;
- close and lock the Switchlock door; and
- advise the Network Controller.

3.4.2 Shunting rail traffic clear of the main line

When required to Shunt Rail Traffic Clear of the Main Line, the Rail Traffic Crew must position the Rail Traffic so that the wheels of the first or last vehicle of the Rail Traffic are standing on the short Track-Circuit between posts “A” and “B”, the Rail Traffic Crew may then operate the Switchlock.

When the Rail Traffic is Clear of the Main Line and the Fouling point, indicated by post “C”, the Rail Traffic Crew can restore the Points and Switchlock to their normal positions, then advise the Network Controller.

Before leaving the area the Rail Traffic Crew must be satisfied that it is all Clear and safe for the passage of other Rail Traffic.

Where Rail Traffic is to resume its journey, the Rail Traffic Crew must:

- obtain permission from the Network Controller to open the Switchlock door;
- observe the indicator and if displaying “Free”, set the Points to the required position, in accordance with Rule 9012 Operation of Points; and
- hand signal the Rail Traffic onto the Main Line, in accordance with Rule 2003 Handsignals and Verbal Commands.

When the Rail Traffic is Clear of the Points onto the Main Line, the Rail Traffic Crew may restore the Points and Switchlock to their normal positions and advise the Network Controller before proceeding.



NOTE: On some types of Switchlocks, if the hasp that Secures the door is not tightly closed, the signal in the rear of the Siding will be held in the stop position.



WARNING: Rail Traffic must restore the Points to their normal position and be locked away inside a Switchlocked Intermediate Siding, before returning to a Station in the rear to prove no following Rail Traffic has entered the Section.

3.4.3 Returning to the originating station

Where it is necessary on single line, for Rail Traffic to depart a Station, Shunt an Intermediate Switchlocked Siding and return to that Station, the Rail Traffic Crew before returning to the Station must:

- place the whole of the Rail Traffic into the Siding, completely Clear of the Main Line;
- restore the Points to normal; and
- close the door of the Switchlock;

This must be done to prove that any following Rail Traffic has not entered the Section from the Station in the rear.

The Rail Traffic can then operate the Switchlock as described in 3.3.2 when ready to return to its originating Station.

4. Reporting Faults

When a fault or failure of a Switchlock at an Interlocked Siding occurs, the Network Controller must advise an Infrastructure Representative to repair the fault.

All faults or failures must be reported in accordance with Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN).

5. References

2003 Handsignals and Verbal Commands

2009 Reporting and Responding to a Condition Affecting the Network (CAN).

9012 Operation of Points

6. Effective Date

1 February 2020

Network Safeworking Rules and Procedures

Annett's Keys

Rule Number: 9026

Arc Infrastructure maintains the master for this document and publishes the current version on the Arc Infrastructure website. All changes and updates to the Network Safeworking Rules and Procedures are authorised by the Arc Infrastructure Rule Book Committee. This document is uncontrolled when printed.

Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	Dd mm yyyy	All	Major Review

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1. Purpose

This procedure details the protocols for using Annett's keys, which provide access to Crossing Locations or Sidings in Train Order Territory that are Secured by Annett's locks.

2. General

Annett's locks Securing Main Line Points at Crossing Locations and Sidings in Train Order Territory can only be unlocked by means of an Annett's key. The Annett's key can only be removed from the lock when the Points have been returned to their normal position and securely locked.

Except where otherwise authorised, Annett's locks are not attached to Main Line Points at Terminal Stations or on Main Line Crossovers at Junction Stations.

Annett's keys are Issued in accordance with W110-200-032 Procedure for the Issue and Control of Annett's Keys.

All Locomotives operating in Train Order Territory are provided with an Annett's key that is branded with the Locomotive number.

Rail Traffic Crews must ensure the Annett's key is in its receptacle on the Locomotive at all times when not in use.

3. Shunting and Crossing Rail Traffic

On completion of Shunting a Siding or Crossing Rail Traffic at a Crossing Location that is Protected with an Annett's lock, the Rail Traffic Crew, including Track Vehicles must advise the Network Controller that;

- the Points have been restored to normal "Siding Secured" (SS); and
- the Annett's key is in their possession, or the Annett's key is on the Locomotive. (AKOL)

The Network Controller must endorse the Network Control Diagram "AKOL" and "SS" once confirmed with the Rail Traffic Crew or Competent Worker.

When required to Shunt a Siding using two Annett's keys the Network Controller must confirm with the Rail Traffic Crew that both keys are in their possession or on the Locomotive, and endorse the Network Control Diagram "2AKOL".

4. Fulfilling Train Orders

Upon arrival at a Station where a Train Order is to be Fulfilled, the Rail Traffic Crew must:

- confirm the Annett's key is on the Locomotive (AKOL);
- endorse the Train Order "FULFILLED" and "AKOL"; and
- advise the Network Controller; who will endorse their copy of the Train Order.

The Network Controller must also endorse the Network Control Diagram "FULFILLED" and "AKOL".



NOTE: If a Train Order is to be "FULFILLED" where two Annett's keys have been used, the Train Order and the Network Control Diagram must be endorsed "2AKOL".

5. Missing Annett's Keys

If the Annett's key is missing from the Rail Traffic, the Network Controller must:

- initiate action to recover the missing Annett's key; and
- advise the Rail Traffic Crew of the next Rail Traffic movement to check the Points at the preceding Station before traversing them.

If the key is not recovered before the next Rail Traffic approaches a Siding that has been previously Shunted by means of an Annett's key prior to the Train Order being Fulfilled, or is required to proceed through the Section, the Rail Traffic Crew must be warned, in accordance with Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN).



NOTE: If the Annett's key is not on the Locomotive, the Network Controller must be advised.

6. Faults

If an Annett's key becomes jammed in a lock, the Rail Traffic Crew must advise the Network Controller who will report the fault to the relevant Infrastructure Representative. The Network Controller must also warn any Rail Traffic entering the Section towards the Siding, in accordance with Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN).

7. Lost Annett's Keys

If an Annett's key becomes lost and cannot be found, arrangements must be made for a replacement key to be provided.

If an Annett's key becomes lost, refer to W110-200-032 the Procedure for the Issue and Control of Annett's Keys.



NOTE: If the original Annett's key is subsequently found, it must be returned to Arc Infrastructure.

8. References

2009 Reporting and Responding to a Condition Affecting the Network.

W110-200-032 Procedure for the Issue and Control of Annett's Keys.

9. Effective Date

1 February 2020