

Possession of a running line for engineering work

Issue 11



Module T3

Conventions used in the Rule Book

Example

A black line in the margin indicates a change to that rule when published for the first time, and will then appear until the module is reissued.



Green text in the margin indicates who is responsible for carrying out the rule.

driver

A white i in a blue box indicates that there is information provided at the bottom of the page.



A rule printed inside a red box is considered to be critical and is therefore emphasised in this way.

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You will need this module if you carry out the duties of:

- a driver
- a signaller.

DRAFT

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DRAFT

1

Possession details

The person responsible: signaller

1.1 Possession details to be published

signaller

Except where a possession must be taken in an urgent situation, details of the possession must be published in the *Weekly Operating Notice or Engineering Notice*.

1.2 Changing the possession limits

signaller

The limits of the possession may be shortened or lengthened as long as:

- the details of the changed limits, including the planned time, are published in the *Weekly Operating Notice or Engineering Notice*, or
- in exceptional circumstances, it is agreed by Operations Control.

You must record the details in the Train Register.

1.3 Changes to the published details

signaller

Operations Control will let you and the person in charge of the possession (PICOP) know if it is necessary for any of the published details to be changed.

2 Taking the possession

The person responsible: signaller

2.1 PICOP confirming the details

The PICOP will contact the signaller, who controls the signal leading to the section of line that is to be taken under possession, and will state the published possession reference if there is one.

signaller

If you are that signaller, you and the PICOP must agree:

- the line that will be taken under possession
- whether possession is to be taken around one or more trains
- the signals leading to the possession that will be kept at danger or the block markers leading to the possession from which the route will be kept closed
- the details of any points or crossings that may be used for trains outside the possession
- the position that points within the possession must be placed in
- the arrangements to be applied for each level crossing within the possession
- the exact location of the detonator protection and whether this is less than the standard distance
- the time the possession is to be taken.

2.2 Taking possession around one or more engineering trains

When possession will be taken or lengthened around an engineering train, you must signal the engineering train concerned as normal to the signal, block marker or flexible train arrival point (FTAP) location specified in the notices.

signaller

signaller

When the engineering train arrives at the specified signal, block marker or FTAP, you must tell the driver not to move the train again until instructed to by the PICOP, engineering supervisor (ES) or safe work leader (SWL) after the possession has been granted.

When every engineering train is at its specified signal, block marker or FTAP, you must tell the PICOP.

You must record the details in the Train Register.

2.3 Arranging to block the line

signaller

When the section of line concerned is clear other than any trains at a stand as shown in section 2.2, or where the possession is to be taken for the purpose of removing derailed vehicles or any other obstruction, the following must apply.

You must make sure the signals that you agreed with the PICOP will protect the possession have been placed to danger or the routes have been closed.

If a protecting signal needs to be placed to danger by operating a signal post replacement switch (SPRS), you must arrange for this to be done.

You must also make sure all points are in the position necessary to protect the possession.

You must record the details in the Train Register.

You must arrange for the following signals to be placed to danger or routes to be closed:

- all controlled signals or routes within the possession, and
- all other signals or routes which lead to or across the possession.

If any protecting signals or routes are controlled by another signaller, you must get confirmation from that signaller that the protecting signals are at danger and will be kept at danger or the routes have been closed and will kept closed until the possession is given up.

If another signaller is involved with the possession arrangements, you must:

signaller

- tell them what the possession arrangements are
- get their assurance that they will keep to these arrangements.

If you are another signaller and are told about the possession arrangements, you must record in the Train Register:

- which line is blocked
- the limits of the possession
- the signals you must keep at danger or the routes you must keep closed to protect the possession
- the points you must operate to protect the possession
- the position that points within the possession must be placed in.

If it applies, you must place the block indicator for the affected line to **train on line**.

When all protecting signals are at danger or when the routes have been closed, you must tell the PICOP who will then complete section 1 of the possession arrangements form (RT3198). The PICOP will then read the details back to you.

When you are satisfied that all the details on the PICOP's RT3198 form are correct, you must tell the PICOP that the possession protection can be placed.

If any unworked points need to be secured, the PICOP is responsible for arranging for this to be done.

2.4 Arranging detonator protection at the standard distance

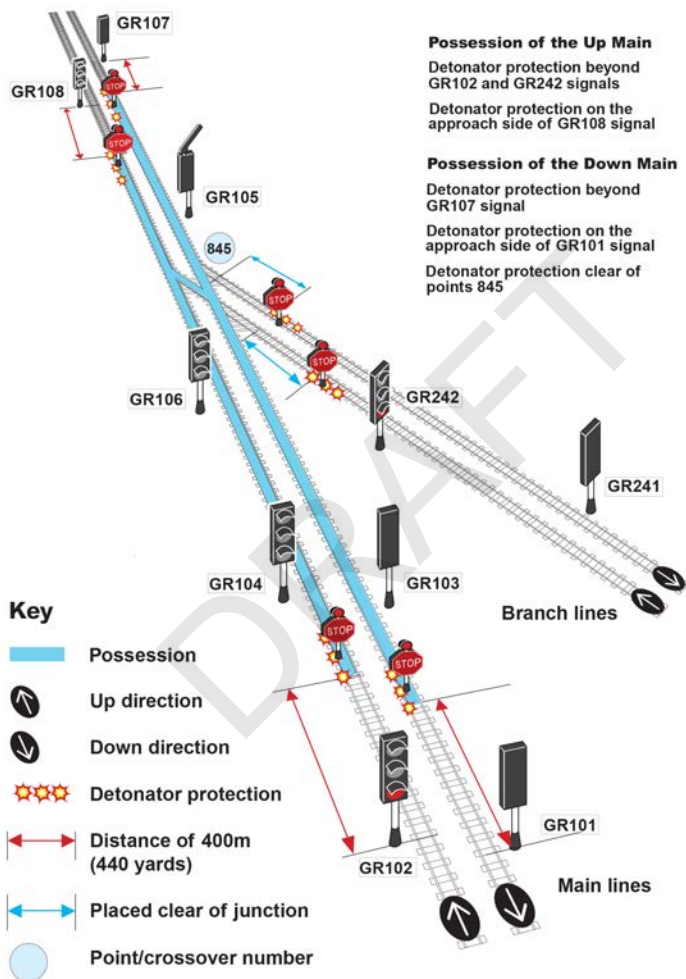
signaller

The PICOP will arrange for detonator protection to be placed as shown in diagram T3.1, or where points are involved, diagram T3.2.

You must record in the Train Register that standard detonator protection has been provided.

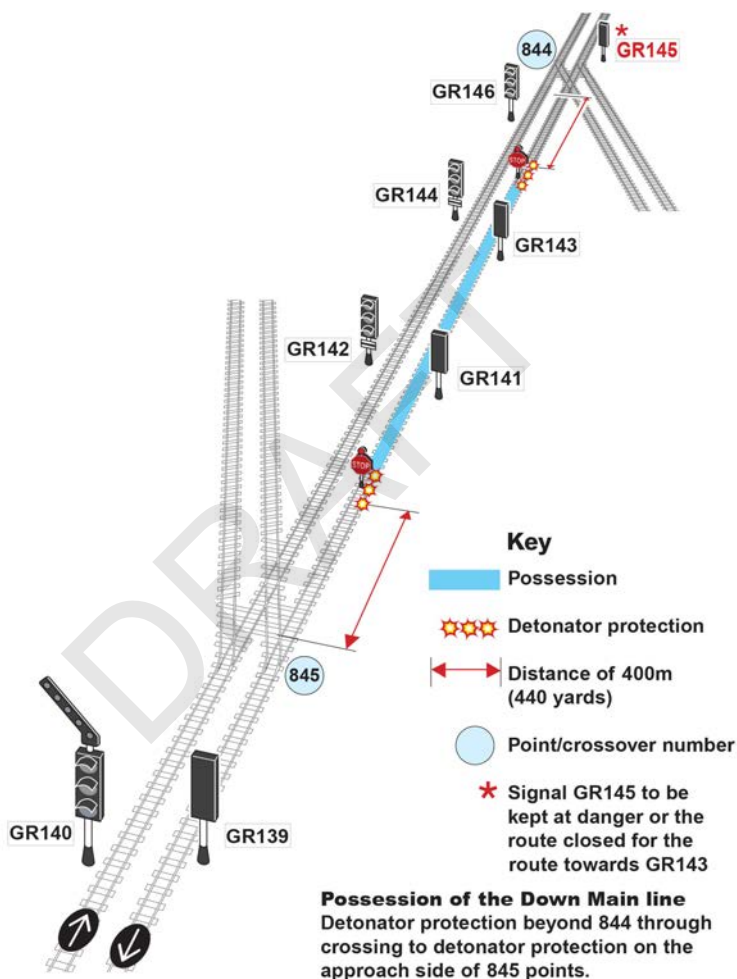
The PICOP will not provide detonator protection:

- at a crossover, siding or loop where it joins the line under possession, or
- on a single line where the PICOP has the token as protection.



Standard detonator protection

Diagram T3.1



Standard detonator protection-points involved

Diagram T3.2

2.5 If the standard distance is not available

If, due to the work that is to take place, it is not possible to place the detonator protection at the standard distance as shown in diagram T3.1 or diagram T3.2, the following must apply.

signaller

- The detonator protection must be placed as close to the standard distance as possible.
- Any train movement approaching the detonator protection from within the possession must be made as shown in section 4.8.

You must record in the Train Register that the standard distance for detonator protection is not available.

2.6 When detonator protection is in place

The PICOP will tell you when all detonator protection is in place.

signaller

When you are sure that the line concerned is correctly protected, you may grant the possession to the PICOP.

You must enter these details in the Train Register.

2.7 Using the token as protection

If the token is used as protection, the PICOP does not need to arrange detonator protection on a single line.

signaller

You must give the token to the PICOP or give a release so that it can be obtained from a token instrument that is not at the signal box. You may then grant the possession to the PICOP.

You must enter these details in the Train Register.

The PICOP must keep the token until the possession is given up.

2.8 'Back-to-back' possessions

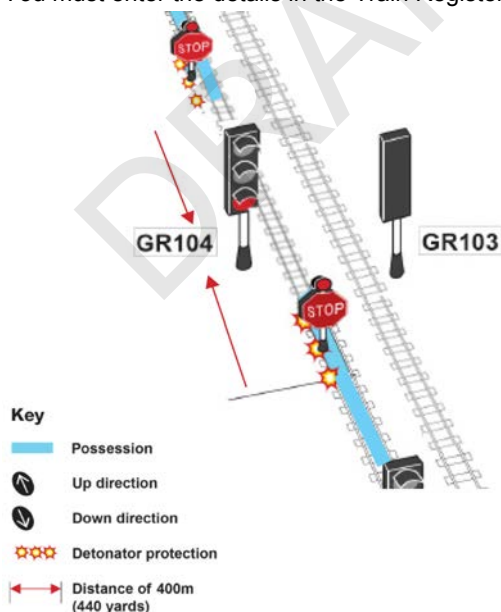
signaller

When one possession is adjacent to another possession on the same running line, the same signal can be used to separate both possessions.

The PICOP for each possession will arrange for their own detonator protection to be placed in the normal way on the approach to the signal at the exit from one possession, and beyond the signal for the possession for which it is the protecting signal.

The signal separating both possessions must be a signal that has been placed to or is being kept at danger and must not be located within the detonator protection limits of any other possession.

You must enter the details in the Train Register.



'Back-to-back' possessions Diagram T3.3

3

Arrangements at level crossings

The person responsible: signaller

The PICOP must not allow any train or OTP movement to take place, or any work to be carried out, that will affect the operation of any level crossing until the necessary arrangements have been put in place for that level crossing.

signaller

You must reach a clear understanding with the PICOP about the arrangements that will apply at each level crossing.

You must record in the Train Register the arrangements that are applied for each level crossing within the possession.

In addition to the instructions shown in module TS9 *Level crossings - signallers' regulations*, you must:

- tell any crossing keeper who will be affected by the possession arrangements
- tell the PICOP when an attendant is appointed or withdrawn at a level crossing.

4

Train movements

The person responsible: signaller

4.1 Movements towards the possession

signaller

You must keep the route closed and not clear any signal leading to the possession.

When an engineering train is to enter the possession, you must authorise the driver to pass the signal at danger or pass an end of authority (EoA) without a movement authority (MA) and proceed to the detonator protection.

You must get permission from the PICOP before doing this.

If there is no detonator protection because the token is being used as protection, you must agree with the PICOP the exact location you must authorise the driver to proceed to.

4.2 Propelling

signaller

You must not allow any of the following movements to be propelled unless the details are published in the *Weekly Operating Notice* or *Engineering Notice*.

- Movements entering the possession.
- Movements leaving the possession.

If it is necessary to propel when details have not been published, you must get authority from Operations Control before you can allow any of the above movements to be propelled.

4.3 Entering the possession at the detonator protection

Before you give the driver permission to proceed towards the detonator protection, you must make sure:

signaller

- the PICOP has given you permission
- you have not authorised a conflicting movement.

When the engineering train has entered the possession, the PICOP will tell you when the detonator protection has been replaced.

4.4 Entering the possession at an intermediate point

Before you give the driver permission to proceed from the protecting signal or protecting block marker towards the possession, you must make sure:

signaller

- the PICOP has given you permission
- the PICOP has positioned someone at the intermediate point to give instructions to the driver
- you have not authorised a conflicting movement to take place.

You must tell the driver to stop and get instructions from the person at the intermediate point.

The PICOP will tell you when the engineering train has entered the possession and is clear of the points or crossings at the intermediate point.

You must then return the points to the agreed position.

4.5 Entering the possession from an adjacent siding under possession

signaller

If a movement is to enter the possession from an adjacent siding under possession, you must first agree with the PICOP and the person in charge of the siding possession (PICOS) how this is to be done.

4.6 Leaving the possession

signaller

a) Standard arrangement

When the PICOP tells you that an engineering train is ready to leave the possession, you must personally authorise the driver to pass:

- beyond the protecting detonators out of the possession, or
- through points or crossings that are protecting the possession at an intermediate point.

You must make sure that the line is clear and safe for the movement to proceed before you authorise the driver to pass beyond the detonators.

If you can, you must signal the train normally beyond the protecting detonators.

To protect the possession, after the movement has left it, you must restore to their original position all points that you have operated for the movement.

b) When the standard distance is not available

You can carry out these instructions only if both of the following apply.

- The details are published in the *Weekly Operating Notice* or *Engineering Notice*.
- The detonator protection has been placed in relation to points.

The PICOP can allow an engineering train to proceed to the last stop signal before reaching the detonator protection.

The PICOP must not allow the engineering train to approach the signal until you have given the PICOP permission to do so.

When the engineering train has arrived at the signal, the PICOP will tell you that:

- the engineering train is ready to leave the possession
- the line is clear and safe for the train to run on between the signal and the detonator protection.

You must personally authorise the driver to proceed beyond the signal out of the possession.

You must make sure that the line is clear and safe for the movement to proceed beyond the detonator protection before you authorise the driver to pass beyond the signal.

If you can, you must signal the train normally beyond the signal.

To protect the possession, after the movement has left it, you must restore to their original position all points that you have operated for the movement.

signaller

4.7 Leaving the possession directly into a siding under possession

If a movement is to leave the possession directly into an adjacent siding under possession, you must first agree with the PICOP and the PICOS how this is to be done.

signaller

signaller

4.8 Movements towards the detonator protection

signaller

a) When the standard distance is not available

If the detonators have not been placed at the standard distance from points or crossings, the PICOP will not allow a movement to approach the detonator protection from within the possession without your permission.

You must give this permission only when any previous movement you have authorised through those points or crossings has passed clear.

After giving permission for the movement towards the detonator protection to be made, you must not allow a train to pass over the points or crossings until the movement has passed clear or has been completed.

b) When there are two 'back-to-back' possessions

If there are two 'back-to-back' possessions on the same line, neither PICOP will allow a movement to approach the detonator protection from within a possession without your permission.

You must give this permission only when you have confirmed with the PICOP of the other possession that any previous movement you have authorised has been moved clear again or has come to a stand.

4.9 Leaving the possession when there is no detonator protection

signaller

When the PICOP is using the token as protection, you must agree with the PICOP how each movement is to leave the possession.

5

Movements over level crossings

The person responsible: signaller

5.1 When these instructions apply

You must apply the instructions shown in sections 5.2 to 5.11 as appropriate when authorising a movement to enter or leave the possession.

signaller

If the ES, PICOP or SWL is responsible for authorising the movement, the following will apply.

AHBC

The ES, PICOP or SWL will get your permission before allowing an engineering train to pass over an AHBC that is not being locally controlled.

You must not give this permission if you are aware of any reason why the train must not pass over the level crossing.

OTP will not be allowed to pass over an AHBC level crossing unless it is being locally controlled.

CCTV, OD or RC

If the crossing is not being locally controlled, the ES, PICOP or SWL will get confirmation from you that the barriers have been lowered and the crossing is clear before they authorise the movement to pass over the level crossing.

5.2 Before making a movement

signaller

Before the movement takes place, you must give details of the movement to those personnel operating:

- any CCTV, OD or RC level crossing
- other level crossings, if possible.

5.3 AHBC locally controlled

signaller

You must tell the driver that the movement must not pass over the level crossing unless the crossing attendant is displaying a green handsignal.

5.4 AHBC that is not locally controlled

signaller

Only an engineering train that is to pass normally over the level crossing and in a direction that has controls, may be allowed to proceed over the level crossing.

You must tell the driver not to stop specially before passing over the level crossing.

5.5 CCTV, OD or RC locally controlled

signaller

You must tell the driver that the movement must not pass over the level crossing unless the crossing attendant is displaying a green handsignal.

5.6 CCTV, OD or RC that is not locally controlled

You must not allow any movement in the wrong direction to pass over the level crossing.

signaller

For other movements, you must not authorise the driver to pass the signal or block marker protecting the level crossing until the barriers have been lowered for the movement.

You must then tell the driver not to stop specially at the level crossing.

5.7 AOCL and ABCL not switched off

If the level crossing has not been switched off as shown in module TS9 *Level crossings - signallers' regulations*: regulation 4.1, the following must apply.

signaller

You must instruct the driver of a train that is to pass over the level crossing normally, to proceed over the level crossing only when it is safe to do so.

For any train movements not passing normally over the level crossing, you must not allow the movement to take place unless:

- the level crossing has been closed to road traffic, or
- a competent person is positioned at the level crossing and has stopped road traffic by displaying a red handsignal on both sides of the level crossing.

You must instruct the driver to stop at the level crossing, sound the horn and then pass over the level crossing only when it is safe to do so.

5.8 AOCL and ABCL that has been switched off

signaller

If the level crossing has been switched off as shown in module TS9 *Level crossings - signallers' regulations*: regulation 4.1, the following must apply.

During daylight

You must instruct the driver of a train that is to pass over the level crossing to stop the train at the level crossing, sound the horn and then pass over the level crossing only when it is safe to do so.

During darkness

The movement of a train over the level crossing must not take place unless:

- the level crossing has been closed to road traffic, or
- a competent person is positioned at the level crossing and has stopped road traffic by displaying a red handsignal on both sides of the level crossing.

You must instruct the driver to stop at the level crossing, sound the horn and then pass over the level crossing only when it is safe to do so.

| 5.9 Manually-controlled level crossing

signaller

You must instruct the driver to pass over the level crossing only if the level crossing barriers or gates are closed to road traffic.

If it is a traincrew operated (TMO) level crossing, you must make sure that a competent person is available to operate the level crossing before authorising the driver to proceed.

5.10 Crossing with red and green warning lights (R/G)

You must instruct the driver to stop at the level crossing, sound the horn and then pass over the level crossing only when it is safe to do so.

signaller

5.11 Barrow or foot crossing with white light indicators

You must instruct the driver to pass over the level crossing only when it is safe to do so.

signaller

6

Change of personnel

The person responsible: signaller

6.1 Change of PICOP

signaller

The PICOP will tell you the name of the new PICOP if there is a change. You must record the details in the Train Register.

6.2 Change of signaller

signaller

If you are the new signaller taking duty, you must countersign the entries in the Train Register.

DRAFT

7

Giving up the possession

The person responsible: signaller

7.1 Giving up the possession around engineering trains

The PICOP may give up the possession around engineering trains standing at the agreed stop signals or block markers on the line under possession, as long as all of the following apply.

signaller

- The line is signalled by track circuit block (TCB) or ERTMS and the train is standing at a location where the train detection is by means of track circuits and not by axle counters.
- The movement, after the possession is given up, will be in the normal signalled direction and will be driven from the leading cab.
- You have agreed with the PICOP the stop signal or block marker to be used.
- The agreed signals are controlled signals or signals that you can replace to danger when the possession is to be given up around two or more trains.
- The agreed block markers are ones at which you can keep the route closed when the possession is to be given up around two or more trains.
- Each train is standing at a separate signal or block marker.

When the engineering train arrives at the agreed stop signal or block marker, you must:

- tell the driver to make no further movement until you have given verbal permission for the engineering train to proceed, then
- tell the PICOP the train has arrived at the agreed stop signal or block marker and will not be moved.

You must not start the arrangements to give up the possession until all the engineering trains have arrived at the agreed signals or block markers.

7.2 Removing the protection

signaller

When the possession is no longer needed, the PICOP will:

- if single line working is still in operation, tell the pilot that the possession is being given up
- arrange to release any unworked points or train-operated points that have been secured
- arrange for the detonator protection to be removed.

If the token is being used as the protection and the possession is no longer needed, the PICOP will:

- return the token to the signal box at either end of the section, or
- place it in an instrument that is not at a signal box after reaching a clear understanding with you about what is to be done.

7.3 Signaller being told when the possession is no longer needed

signaller

The PICOP will tell you that the line is clear and safe for trains to run on (or if section 7.1 applies, clear and safe other than the trains standing at the agreed signals or block markers) when:

- any unworked points or train-operated points that had been secured have been released
- the detonator protection has been removed.

7.4 Confirming the possession is given up

signaller

You must record the details in the Train Register. You must read the entry back to the PICOP.

When the entry has been made in the Train Register and if the PICOP agrees with the entry, this is confirmation that the possession has been given up.

8

Resuming normal working

The person responsible: signaller

8.1 Restoring signals and block indicator

When the PICOP has given up the possession, you must arrange for all signals that have been kept at danger or all routes which have been kept closed to be restored to normal working.

signaller

If it applies, you must arrange for the block indicator to be restored to **normal**.

8.2 Telling personnel the possession is given up

You must tell the following that the possession has been given up:

signaller

- any other signaller concerned
- any crossing keeper concerned.

If you are another signaller who is told the possession has been given up, you must write the details in the Train Register.

8.3 AHBC, CCTV, OD or RC level crossings

You must arrange for normal working to be restored at any AHBC, CCTV, OD or RC level crossing at which an attendant has been appointed.

signaller

8.4 Possession given up around an engineering train

signaller

If the possession was given up with an engineering train standing at a stop signal or block marker, you must tell the driver of that train that the possession has been given up and to proceed obeying all signals or in-cab indications.

8.5 First train over the affected portion of line

signaller

a) Checking the operation of track circuits

You must specially watch the operation of the track circuits during the passage of the first train over the line that was affected by the possession.

b) On a TCB line

On a TCB line, you must not allow a second train to pass over the line that was affected by the possession unless there is a controlled signal which you have replaced to danger between the first and second trains.

c) On an ERTMS line

On an ERTMS line, you must not allow a second train to pass over the line that was affected by the possession unless there is an EoA at which the route is closed between the first and second trains.

d) Intermediate block signals

If there are intermediate block signals, you must not clear the section signal for a second train until the first train has arrived at the signal box ahead.

9

Driver's duties

The person responsible: driver

9.1 Authority for movement of engineering trains (See diagram T3.4)

You must make movements only if you have the authority of the following personnel.

driver

b) PICOP

The PICOP (or competent person on the PICOP's behalf) will authorise you to make a movement that is required to:

driver

- go past the location of the detonator protection into the possession
- pass through points or crossings that are protecting the possession at an intermediate point when entering the possession
- enter or leave the possession from a siding that is also under possession
- move between the detonator protection at each end of the possession and the nearest work site
- pass the work-site marker board (WSMB) at the exit from a work site, this will be showing two yellow flashing lights
- move between work sites.

driver

The PICOP will wear an armlet on the left arm, or a badge on the upper body, with PERSON I.C. POSSESSION in red letters on a yellow background.

c) ES or SWL

The ES or SWL (or a competent person on the ES's or SWL's behalf) will authorise you to make a movement:

- past a WSMB into a work site, this will be showing two red flashing lights
- within a work site.

The ES or SWL can permit a person to travel in your cab to give you instructions about the working of your train while loading and unloading, as shown in module SS2 *Shunting*.

The ES will wear an armlet on the left arm, or a badge on the upper body, with ENGINEERING SUPERVISOR in blue letters on a yellow background.

The SWL will wear an armlet on the left arm, or a badge on the upper body, with SWL in blue letters on a yellow background.

9.2 Reaching a clear understanding with others

driver

You must reach a clear understanding with the person authorising the movement as to:

- what you must do
- how far the movement is to proceed.

9.3 Headlights and tail lamps

If the train is detained outside a work site, you must make sure that:

- a red light is showing at both ends of the train
- the headlights are switched off.

driver

9.4 Detonator protection

Detonator protection is three detonators placed on the same rail, 20 metres (approximately 20 yards) apart with a possession limit board (PLB) placed at the centre detonator.

driver

9.5 Indicating each work site

A work-site marker board (WSMB) will be placed in the 'four-foot' at each end of the work site. See diagram T3.5.

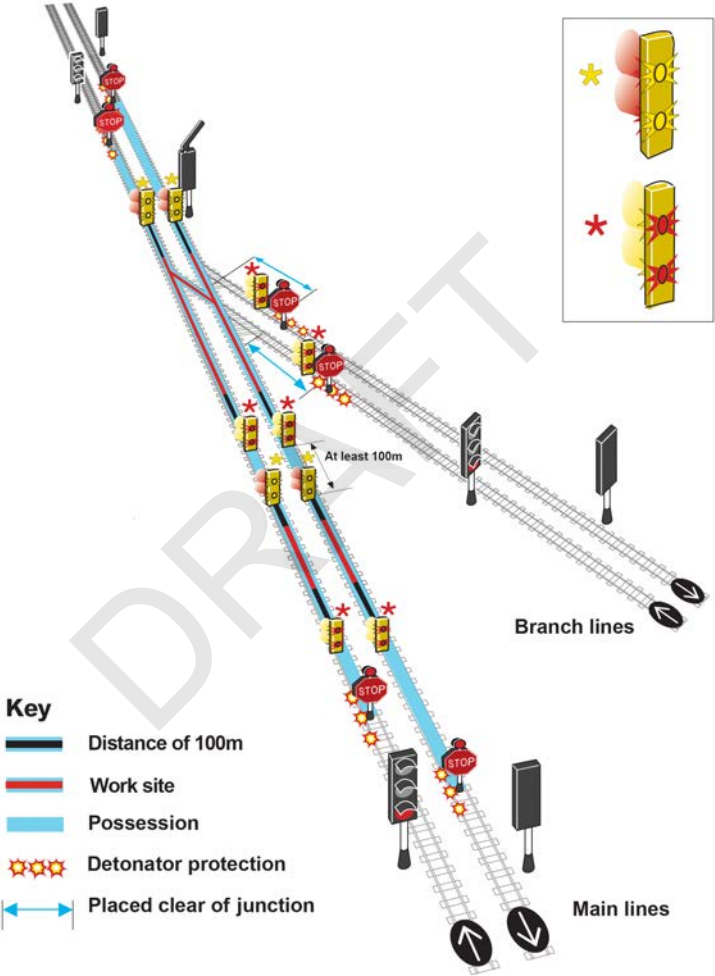
driver

The WSMB for one work site will be no closer than 100 metres (approximately 100 yards) from the WSMB of another work site.

WSMBs are not needed if there will be no engineering trains or OTP movements within the possession.

Only the ES or SWL can give authority for your train to pass the WSMB displaying two red lights and enter the work site.

Only the PICOP can give authority for your train to pass the WSMB displaying two yellow lights and leave a work site.



Indication of work sites

Diagram T3.5

9.6 During the movement

a) Making the movement

driver

You must:

- make the movement at caution
- not exceed 25 mph (40 km/h) at any point in the journey when entering, making a movement within, or leaving the possession
- make any movement in a work site at no greater than 5 mph (10 km/h) unless you are given specific instructions by the ES or SWL
- be prepared to stop before reaching a handsignal that is being displayed.

You can use GSM-R radio to speak at any time about details of the movement being made.

You must also carry out the instructions shown in module S5 *Passing a signal at danger or an end of authority (EoA) without a movement authority (MA)* or TW7 *Wrong-direction movements* until your train is brought under the control of a signal after you leave the possession.

When vehicles are being loaded or unloaded, you must also carry out the instructions shown in module SS2 *Shunting*.

driver

b) Passing a signal or block marker within the possession

You must not pass a signal at danger or a block marker within the possession unless you are authorised to do so by the PICOP, or by the ES or SWL if it is inside a work site.

You can pass without authority a signal showing a proceed aspect or indication, but you must disregard the normal meaning of that signal.

c) Level crossings

You must not pass over any level crossing unless you have been given instructions to do so.

When you pass over the crossing, you must carry out the relevant instructions regarding level crossings shown in module S5 *Passing a signal at danger or an end of authority (EoA) without a movement authority (MA)* or TW7 *Wrong-direction movements*.

9.7 When a possession is to be taken around one or more engineering trains

a) Conditions

driver

If the arrangements have been published, the signaller can grant possession to the PICOP when your train is standing at a specified signal, block marker or flexible train arrival point (FTAP) on the line on which the possession will be taken.

The specified signal, block marker or FTAP this applies to will be shown in the *Weekly Operating Notice* or *Engineering Notice*.

b) Proceeding to the specified signal, block marker or FTAP

Your movement to the specified signal, block marker or FTAP will be signalled under normal arrangements.

c) Arriving at the specified signal, block marker or FTAP

When your train arrives at the specified signal, block marker or FTAP the signaller will instruct you to make no further movement until you are authorised by the PICOP, ES or SWL, as appropriate.

9.8 When a possession is to be given up around engineering trains

a) Conditions

The PICOP can give up the possession with engineering trains standing at stop signals or block markers on the line under possession, as long as:

- the movement, after the possession is given up, will be in the normal signalled direction
- the movement is driven from the leading cab.

The PICOP will agree with the signaller which stop signal or block marker each train will stop at.

If the possession is to be given up around your train, one of the following will apply.

- If your train is standing at a signal or block marker within a work site, the ES or SWL will tell you that the work site is being given up, and you must not move your train.
- If your train is not within a work site, the PICOP will tell you the location and identity of the signal or block marker you must stop at.

driver

b) Arriving at the specified signal or block marker

When your train arrives at the specified signal or block marker, or if it is already standing there, you must immediately contact the signaller. You must make no further movement with the train until the signaller tells you to proceed.

The PICOP will tell you, and anyone else on the train, that the line you are standing on must be considered as no longer under possession.

c) When the possession has been given up

When the possession has been given up, the signaller will tell you this and the conditions under which the train may proceed.

9.9 Leaving the possession

You can carry out these instructions only if all of the following apply

- The details are published in the *Weekly Operating Notice* or *Engineering Notice*.
- The detonator protection has been placed in relation to points.
- The detonator protection is less than the standard distance of 400 metres (440 yards) from the points.

The PICOP can authorise you to proceed to the last stop signal before reaching the detonator protection to wait for the signaller to give permission for the engineering train to leave the possession.

When you have arrived at that signal, you must not make any further movement until the signaller personally authorises you to proceed from the signal, past the location of the detonator protection and leave the possession.

driver

10

Protection zones

The people responsible: driver, signaller

10.1 Setting up the protection zone

You can only agree to set up a protection zone (PZ) if details have been published in the *Weekly Operating Notice or Engineering Notice*.

signaller

The ES or SWL will contact you and tell you the published PZ reference (if there is one).

You and the ES or SWL must agree the following.

- The line the PZ will be set up on.
- The locations the work will take place between.
- Whether the PZ will be set up around a train.
- The signal leading to the PZ that will be kept at danger.
- The exit signal beyond the PZ that will be kept at danger.
- The limits of the PZ, which must be from at least 400 metres (440 yards) beyond the protecting signal to at least 200 metres (200 yards) before reaching the exit signal.
- Which signals may need to be passed at danger within the PZ, and that the ES or SWL can pass your authorisation to do so on to the driver.
- What wrong-direction movements may be necessary towards the start of the PZ, and that the ES or SWL can pass your authorisation for the movement to the driver.
- What type of additional protection will be used.

If additional protection will be provided by disconnecting signalling equipment, you must agree the necessary disconnections with the signalling technician. You must tell the ES or SWL when the disconnections have been made.

signaller

You can use a track circuit operating device (T-COD) as additional protection only if all the following conditions apply.

- The use of a T-COD at a particular location is authorised by the *Sectional Appendix*.
- The signalling equipment is working normally.
- The work will not affect the operation of the track circuit concerned.

When the protecting signal has been placed to danger, you must check that the track circuit concerned is showing clear. You can then give the ES or SWL permission to place the T-COD on the line or to activate it.

When the ES or SWL tells you that the T-COD has been placed on the line or activated, you must check that the track circuit is showing occupied.

When you are sure that the line concerned is correctly protected and the signal beyond the PZ has been placed to danger, you can grant the PZ to the ES or SWL.

You must record all the details in the Train Register.

10.2 Setting up a PZ around an engineering train

signaller

If it has been published in the *Weekly Operating Notice* or *Engineering Notice*, you can allow the PZ to be set up around an engineering train that is standing at a signal or FTAP location specified in the notice. You must signal the train normally.

When the engineering train arrives at the specified signal or FTAP, you must tell the driver not to move the train again until told to by the ES or SWL after the PZ has been granted.

When the engineering train is at its specified signal or FTAP, you must tell the ES or SWL.

You must record the details in the Train Register.

If it has been published in the *Weekly Operating Notice* or *Engineering Notice*, the signaller can grant the PZ to an ES or SWL when your train is standing at a signal or FTAP on the line the PZ is to be set up on.

driver

Your movement to the specified signal or FTAP will be signalled under normal arrangements.

When you arrive at the specified signal or FTAP the signaller will tell you not to make any further movement until you are authorised by the ES or SWL

10.3 Movements entering the PZ

The only trains that you can allow to enter the PZ are:

signaller

- the engineering train that is to work within the PZ
- an on-track machine that is to work as part of the same engineering work.

When the train arrives at the protecting signal, you must ask the ES or SWL:

- for permission to allow the train to enter the PZ
- how far the train can proceed, either to a signal or to an FTAP.

If the ES or SWL gives you permission to allow the train to enter the PZ, you must tell the driver:

- to pass the protecting signal at danger
- to proceed to the signal or FTAP
- to stay there and not make any further movement until authorised by the ES or SWL.

If your engineering train or on-track machine is required to enter a PZ, your train will be stopped at the protecting signal.

driver

driver

The signaller will tell you:

- that you are authorised to pass that signal at danger
- to proceed to a specified signal or FTAP
- to stay there and not make any further movement until you are authorised by the ES or SWL.

10.4 Movements within the PZ

driver

The only person who can authorise you to make a movement within the PZ is the ES or SWL.

When you have arrived at the signal or FTAP within the area of the PZ, the ES or SWL will tell you:

- where you are required to move to
- to pass signals at danger when necessary
- not to make any further movement until the ES or SWL authorises you.

You can make any wrong-direction movements if necessary when the ES or SWL authorises you to.

You must make sure that you do not make any wrong-direction movement that will bring the train within 400 metres (440 yards) of the protecting signal.

When your train is to leave the PZ, the ES or SWL will tell you to:

- move your train to the end of the PZ which is at least 200 metres (200 yards) before reaching the exit signal
- to stop there and contact the signaller.

You must make all movements within the PZ at caution, and carry out any other instructions given to you by the ES or SWL.

10.5 Leaving the PZ

The ES or SWL will tell you when an engineering train is ready to leave the PZ.

signaller

When the train arrives at the end of the PZ, the driver will contact you.

If you can give permission for the train to leave, you must, if you can:

- clear the exit signal
- signal the train normally.

You must make sure the line is clear and safe for the movement to proceed before you authorise the driver to proceed.

You must tell the driver:

- that the train is leaving the PZ
- to proceed normally
- to obey all signals.

If you cannot clear the exit signal for any reason, you must also authorise the driver to pass that signal at danger and to obey all others.

When your train is to leave the PZ, the ES or SWL will tell you to:

driver

- move your train to the end of the PZ on the approach to the exit signal
- stop the train there and contact the signaller.

When you have permission to leave the PZ the signaller will tell you that:

- you are leaving the PZ
- you can proceed normally
- you must obey all signals.

driver

If necessary, you will also be authorised to pass the exit signal at danger and obey all other signals.

10.6 Giving up the protection zone

signaller

When the PZ is no longer needed, the ES or SWL will tell you that:

- the work has been completed
- all engineering trains have left the PZ
- all personnel are clear of the line
- additional protection can now be removed.

If the PZ was protected by disconnecting signalling equipment, after the PZ has been given up, you must arrange for a signalling technician to make the necessary reconnections.

You must check that the track circuit where the T-COD was used is showing clear. If it is not showing clear, you must check with the ES or SWL that the T-COD has been removed or deactivated.

The ES and SWL will then confirm that the PZ has been given up.

You must record the details in the Train Register.



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