

GERT8000-S7 Rule Book



Observing and obeying signalling indications Train warning systems Reporting signalling failures and irregularities Issue 3



Module S7

September 2017
Comes into force 02 December 2017



Conventions used in the Rule Book

	Example
A black line in the margin indicates a change to that rule and is shown when published in the module for the first time.	
Green text in the margin indicates who is responsible for carrying out the rule.	
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.	

Published by:

RSSB

The authoritative version of this document is available at www.rssb.co.uk

Contents approved by Traffic Operations and Management Standards Committee.

For information regarding the Rule Book, contact:

enquirydesk@rssb.co.uk

First issued December 2013

Issue 3, September 2017

Comes into force 02 December 2017

© Copyright 2017

Rail Safety and Standards Board Limited

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

- driver
- person controlling train movements
- shunter
- signaller.

Contents

Section

1

General duties

- 1.1 Obeying signals, the ERTMS driver machine interface (DMI) and block markers
- 1.2 Train signalled towards a wrong route
- 1.3 Signals that control the exit from sidings
- 1.4 Entering an ERTMS area from a siding
- 1.5 Signal not showing or not showing correctly
- 1.6 Train stopped or nearly stopped at a signal at danger

2

Starting a train after stopping

- 2.1 Train stopped on the approach to a signal or end of authority (EoA)
- 2.2 Train stopped before the whole train has passed a signal that is showing 'proceed'

3

Movements made on the authority of a position-light, subsidiary or shunting signal

- 3.1 Passenger train at a position-light or semaphore shunting signal
- 3.2 Route indication not shown
- 3.3 Returning to the approach side of a signal

4

When a train or shunting movement is required to reverse

- 4.1 Authority for the movement to be made
- 4.2 Train standing beyond a signal

Section

5

Automatic warning system (AWS)

- 5.1 Cancelling an AWS warning indication
- 5.2 AWS warning when a semaphore distant signal shows clear
- 5.3 AWS warning when there is no AWS track equipment

6

Train protection and warning system (TPWS)

- 6.1 TPWS operation other than approaching buffer stops
- 6.2 TPWS operation when approaching buffer stops
- 6.3 Temporary isolation of TPWS train equipment
- 6.4 TPWS train stop override
- 6.5 TPWS operation other than a SPAD

7

Reporting signalling failures and irregularities

- 7.1 Signalling equipment
- 7.2 Boards and indicators
- 7.3 Signals difficult to see because of sunlight, streetlights or reflections
- 7.4 Signals, lineside boards or signs becoming difficult to see because of trees, foliage or other obstructions
- 7.5 Shunting movements
- 7.6 ERTMS failures or irregularities
- 7.7 Reporting a signal/AWS/ERTMS/TPWS failure or irregularity

Section

8

ERTMS failures or irregularities

- 8.1** If the train fails to transition when entering an ERTMS area
- 8.2** If the train fails to transition when leaving an ERTMS area
- 8.3** Train receiving a trip
- 8.4** Resuming normal working

1 General duties

The person responsible: driver (or person controlling train movements)

1.1 Obeying signals, the ERTMS driver machine interface (DMI) and block markers

a) Trains on which ERTMS is operating

driver

You must obey the indications on the driver machine interface (DMI), except when it is necessary as shown in the rules to travel at a lower speed than that indicated.

On lines with lineside signals if you have received an MA that extends beyond a signal at danger, you must stop the train as quickly as possible and immediately tell the signaller.

You must observe ERTMS cab signalling boards.

b) Trains on which ERTMS is not operating

driver (or person controlling train movements)

You must obey each signal which applies to the movement of your train.

1.2 Train signalled towards a wrong route

If a train has been signalled towards a wrong route, you must:

- stop the train as soon as it is possible to do so safely
- tell the signaller.

driver (or person controlling train movements)

1.3 Signals that control the exit from sidings

driver

If the signal applies to more than one siding and there are other trains standing in these sidings, you must not move forward and foul any of these sidings when the signal clears, until the person in charge of movements gives you permission to do so.

1.4 Entering an ERTMS area from a siding

driver

While waiting for an MA or other authority at the exit from sidings, if possible, you must not allow the front of the train to stand foul of any other siding. This applies unless the person in charge of movements gives you permission to do so.

1.5 Signal not showing or not showing correctly

driver (or
person
controlling
train
movements)

If a signal is not showing or not showing correctly, you must treat:

- a stop signal as being at danger
- a distant signal as being at caution
- a position-light signal, subsidiary signal or shunting signal as being at normal.

You must do this if any of the following applies.

- No signal is shown when there should be one.
- The aspect of a colour light signal is not clear or obvious.
- There is no light at all.
- A white light is showing instead of a red, yellow or green.
- A semaphore signal is not showing correctly.
- One light is showing at a position-light signal or subsidiary signal when there should be two.

1.6 Train stopped or nearly stopped at a signal at danger

If you have stopped or nearly stopped at either of the following types of signal at danger and that signal changes to a proceed aspect or indication, you must be prepared to stop at the next stop signal worked by the same signalbox.

driver

- A colour light signal that cannot display a yellow aspect.
- A semaphore signal.

This does not apply to the signal controlling the entrance to an intermediate block section.

2 Starting a train after stopping

The person responsible: driver (or person controlling train movements)

2.1 Train stopped on the approach to a signal or end of authority (EoA)

driver (or person controlling train movements)

If you have to stop the train on the approach to a signal that is showing 'proceed', you must make sure the signal still shows 'proceed' before you re-start the train.

If you have to stop a train on which ERTMS is in operation before the end of the movement authority (MA), you must make sure you still have a valid MA to proceed before you re-start the train.

If the train cannot continue, you must tell the signaller immediately.

2.2 Train stopped before the whole train has passed a signal that is showing 'proceed'

driver (or person controlling train movements)

If you have stopped the train before the whole train has passed a signal that is showing 'proceed', you may act on the aspect or indication that was being displayed when you passed the signal. This applies unless you are instructed that the train is not to proceed.

3

Movements made on the authority of a position-light, subsidiary or shunting signal

The person responsible: driver (or person controlling train movements)

3.1 Passenger train at a position-light or semaphore shunting signal

Unless authority is published or you are instructed to do so by the signaller or another person acting on the signaller's instructions, you must not proceed with a passenger train on the authority of:

driver

- a semaphore shunting signal
- a position-light signal.

However, you may proceed with a passenger train on the authority of a position-light or semaphore subsidiary signal if you are entering a permissive platform line.

3.2 Route indication not shown

If a position-light or subsidiary signal is cleared but the normal route indication is not shown, you must:

- make sure the movement is made at caution
- be prepared to stop before you reach any obstruction.

driver (or person controlling train movements)

3.3 Returning to the approach side of a signal

driver (or
person
controlling
train
movements)

If you have made a shunting movement on the authority of a position-light signal, a shunt-ahead signal or a semaphore shunting signal, you must not proceed on your journey until:

- the movement has returned to the approach side of a signal
- the signal displays the appropriate proceed aspect or indication for the movement.

If the shunting movement cannot return to the approach side of the signal, you must carry out the instructions shown in section 4.2.

4

When a train or shunting movement is required to reverse

The person responsible: driver (or person controlling train movements)

4.1 Authority for the movement to be made

a) Trains on which ERTMS is NOT operating

When a train or shunting movement is required to reverse, you must only allow the movement to take place when one of the following applies.

- The signal controlling the movement is cleared.
- The signaller gives you permission to move towards a signal which will control the further movement of the train.
- The leading end of the train is standing beyond the signal controlling the movement and the signal cannot be cleared, and the movement is to proceed in accordance with section 4.2 b).
- There is no signal for the movement and the signaller gives you permission to make a wrong-direction movement.

driver (or person controlling train movements)

b) Trains on which ERTMS is operating

When a train or shunting movement is required to reverse, you must only allow the movement to take place when one of the following applies.

- An MA is received.
- There is no signalled route for the movement and the signaller gives you permission to make a wrong-direction movement.

4.2 Train standing beyond a signal

driver

a) When the signal can be cleared for the reverse movement

If any part of your train is standing beyond the signal controlling the movement, you must not start the movement until the signal is cleared.

If you cannot see the signal, you must ask the guard, shunter or driver at the other end of the movement to tell you when the signal is cleared.

person
controlling
train
movements

If any part of your train is standing beyond the signal controlling the movement, you must not give the signal to the driver to start the movement until the signal is cleared.

If you cannot see the signal, you must check the signal yourself or ask the driver to tell you when the signal is cleared.

driver (or
person
controlling
train
movements)

b) When the signal cannot be cleared for the reverse movement

If the signal cannot be cleared, you must:

- find out whether a movement can be made which will allow the whole train to be positioned on the approach side of the signal
- if necessary ask the signaller for permission to do this.

driver

If it is not possible for the train to return to the approach side of the signal, you must ask the signaller for permission to proceed beyond the signal in the direction to which it applies.

5 Automatic warning system (AWS)

The people responsible: driver, signaller

5.1 Cancelling an AWS warning indication

You must immediately cancel each warning indication and:

- obey the signal aspect or indication, or
- control the speed of the train to no more than the speed shown on the warning board, emergency indicator or other indicator.

driver

If you do not immediately cancel the AWS warning indication, the brakes will be automatically applied. In this case you must:

- make sure the train comes to a stand
- tell the signaller what has happened.

If you are both sure that it was not TPWS on track equipment that caused the brake application, the train can proceed normally.

driver,
signaller

5.2 AWS warning when a semaphore distant signal shows clear

You must treat a semaphore distant signal as being at caution if you receive an AWS warning indication when the signal is showing a clear indication.

driver

You do not need to treat the signal as being at caution if:

- the signal changes to a clear indication after the train has passed over the AWS magnet
- a warning board or emergency indicator is positioned at the signal.

5.3 AWS warning when there is no AWS track equipment

driver

If you receive an AWS warning indication and you are certain that the train has not passed over any AWS on track equipment, you must:

- proceed normally
- report this to the signaller at the earliest opportunity.

6 Train protection and warning system (TPWS)

The person responsible: driver, signaller

6.1 TPWS operation other than approaching buffer stops

If an automatic brake application is initiated as a result of the operation of TPWS, you must:

driver

- acknowledge the TPWS brake demand
- make sure the train comes to a stand
- tell the signaller what has happened
- carry out the instructions you are given by the signaller
- not make any further movement of the train until instructed.

If you and the signaller are sure that TPWS on track equipment did not cause the brake application, the train can proceed normally.

6.2 TPWS operation when approaching buffer stops

If an automatic brake application is initiated as a result of the operation of TPWS when approaching buffer stops, you must:

driver

- acknowledge the TPWS brake demand
- after the train has come to a stand, move forward to the normal stopping point if it is safe to do so
- tell the signaller what has happened
- carry out the instructions you are given by the signaller.

6.3 Temporary isolation of TPWS train equipment

driver

You must only isolate TPWS equipment when:

- you are authorised in the rules
- you are specifically authorised due to a TPWS fault.

6.4 TPWS train stop override

driver

You must only use the TPWS train stop override when authorised in the rules.

6.5 TPWS operation other than a SPAD

signaller

When a train is stopped by the TPWS, the driver will contact you.

If you and the driver are sure the TPWS was not activated by on track equipment, the train may be allowed to proceed normally.

If TPWS was activated by on track equipment, you must:

- get the driver's answers to the questions on form Activation of TPWS (RT3188)
- complete the rest of the form
- report the incident and send the form electronically, or dictate it, to Operations Control.

You may allow the train to proceed to a more convenient place so that you can get the driver's answers to the questions.

You may allow the train involved to continue its journey when all the necessary information has been obtained and the driver is fit to continue.

If you have any doubt about the correct working of any TPWS on track equipment involved in a TPWS activation, you must treat it as defective and tell Operations Control.

7

Reporting signalling failures and irregularities

The people responsible: driver, shunter, signaller

7.1 Signalling equipment

You must tell the signaller immediately, stopping the train specially if necessary, if you become aware of a signalling failure or irregularity on any line. This may include:

- the failure in the working of a signal
- an irregularity in the working of a signal
- an irregular aspect sequence
- a missing block marker or no signal shown when there should be one
- the aspect of a colour light signal not being distinct or obvious
- a semaphore signal not showing correctly
- a white light showing instead of a red, yellow or green
- a failure or irregularity in the working of the on-board ERTMS equipment
- an MA beyond a signal at danger
- a signal showing a proceed aspect indication but no MA received
- a signal or associated indicator difficult to see because of sunlight, streetlights or reflections
- a signal difficult to see because of trees, foliage or other obstructions.

However, you must tell the signaller at the first opportunity without causing delay if you see any failures or irregularities of the following signals which apply to another line.

- A position-light signal.
- A subsidiary signal.
- A shunting signal.

driver

driver

You do not need to stop the train specially to do this.

If you become aware of an error message on your ERTMS DMI which has not caused a brake application, you do not have to tell the signaller immediately but must do so at the first convenient opportunity.

7.2 Boards and indicators

driver

You must tell the signaller at the first opportunity if any of the following is missing, difficult to see, or unlit when it should be lit.

- A limit of shunt signal or indicator.
- A shunt entry board.
- A 'start of cab signalling' board.
- An 'end of cab signalling' board.
- A stop board.
- Any other lineside board or sign.

You do not need to stop the train specially to do this.

signaller

You must tell Operations Control. If possible you must tell the driver about the defective limit of shunt signal or indicator, or stop board before allowing a movement towards it.

7.3 Signals difficult to see because of sunlight, streetlights or reflections

signaller

If a driver reports that a signal is difficult to see because of sunlight, streetlights or reflections, you must:

- tell Operations Control
- tell the driver of the next approaching train what has happened
- instruct that driver to report the state of the signal
- signal the train normally.

If the driver you have instructed to check the signal reports to you that the signal is not difficult to see, you may signal the following trains normally.

signaller

However, if that driver reports that the signal is difficult to see because of sunlight, streetlights or reflections, you must treat the signal as defective.

7.4 Signals, lineside boards or signs becoming difficult to see because of trees, foliage or other obstructions

If a signal, lineside board or sign is becoming difficult to see because of trees, foliage or other obstructions, you must tell the signaller at the first convenient opportunity. You do not need to stop the train specially to do this.

driver

You must tell Operations Control but you do not need to treat the signal, board or sign as being defective.

signaller

7.5 Shunting movements

If you become aware of signalling failures or irregularities when you are shunting, you must immediately tell the driver. You do not need to tell the signaller.

shunter

7.6 ERTMS failures or irregularities

If a driver reports an ERTMS failure or irregularity, you must:

signaller

- tell Operations Control
- tell the driver of the next train on which ERTMS is in operation what has happened
- instruct that driver to report whether the expected ERTMS indications are received
- signal the train normally.

signaller

If the driver reports back that the ERTMS signalling is working normally, you may signal following trains normally.

If the driver reports that the expected ERTMS indications were not received, you must treat the signalling equipment concerned as defective.

7.7 Reporting a signal/AWS/ERTMS/TPWS failure or irregularity

a) Completing form RT3185

driver,
signaller

When a signal, AWS, ERTMS or TPWS failure or irregularity is reported, you must both complete form RT3185 with all the required details.

Completed RT3185 forms must be handed in as shown in your company instructions.

b) Reporting to Operations Control

signaller

You must tell Operations Control and make a suitable entry in the Train Register.

c) Exceptions

signaller

You do not need to complete form RT3185 if:

- the fault is clearly a right-side failure, or
- you can explain the failure or irregularity to be a right-side failure and you are fully aware of the circumstances of the failure.

You must still tell Operations Control and make a suitable entry in the Train Register.

You do not need to immediately complete form RT3185 if the signaller:

driver

- can tell you the fault or irregularity is clearly a right-side failure, or
- can explain why it is a right-side failure and can confirm the circumstances of the failure.

You must then complete RT3185 at the first convenient opportunity.

d) Reporting AWS faults

You must immediately tell the signaller, stopping the train specially if necessary, if:

driver

- you receive an AWS clear indication when a warning indication should have been received (fault code 5)
- you do not receive any AWS indication when a warning indication should have been received (fault code 7).

Other AWS faults where the failure is to give a clear indication must be reported to the signaller at the first convenient opportunity.

8 | ERTMS failures or irregularities

The people responsible: driver, signaller

8.1 If the train fails to transition when entering an ERTMS area

a) On a line where lineside signals are not provided

driver

If the train fails to transition automatically after the train has passed the 'start of cab signalling' board, you must:

- make sure the train comes to a stand
- tell the signaller.

driver,
signaller

You must then carry out the instructions shown in module TW5 *Preparation and movement of trains Defective or isolated vehicles and on-train equipment*.

driver

b) On a line where lineside signals are provided

If the train fails to transition automatically after the train has passed the 'start of cab signalling' board, you must check that the train is operating at a ERTMS level compatible with lineside signals and continue to obey signals.

You must tell the signaller at the first convenient opportunity that the train did not transition unless you had been advised of a reason why the train might not transition.

If the train is not operating at a ERTMS level compatible with lineside signals, you must:

- make sure the train comes to a stand
- tell the signaller.

driver,
signaller

You must then carry out the instructions shown in module TW5 *Preparation and movement of trains Defective or isolated vehicles and on-train equipment*.

8.2 If the train fails to transition when leaving an ERTMS area

If the train fails to transition, you must:

- make sure the train comes to a stand
- tell the signaller.

You must then carry out the instructions shown in module TW5 *Preparation and movement of trains Defective or isolated vehicles and on-train equipment*.

driver

driver,
signaller

8.3 Train receiving a trip

If the train is tripped and has been brought to a stand, you must:

- acknowledge the trip
- not move the train
- tell the signaller what has happened
- carry out the instruction you are given by the signaller.

You must establish the reason for the trip and carry out the appropriate rules and or instructions before authorising the train to proceed.

driver

signaller

8.4 Resuming normal working

If, following a failure of ERTMS, it is again possible to return to normal working, you must inform the driver.

signaller

Notes



Email enquirydesk@rssb.co.uk
Tel +44 (0) 20 3142 5300
Twitter [@RSSB_rail](https://twitter.com/RSSB_rail)
Web www.rssb.co.uk

Rail Safety Standards Board
Limited
The Helicon
One South Place
London
EC2M 2RB

