

**GE/RT8000/TS5**  
**Rule Book**

# Tokenless block regulations

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## Regulations for train signalling on single lines by the tokenless block system.

You will need this module if you carry out the duties of a signaller in a tokenless block area.

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.	driver
A white <b>i</b> in a blue box indicates that there is information provided at the bottom of the page.	
<div style="border: 2px solid red; padding: 5px;">A rule printed inside a red box is considered to be critical and is therefore emphasised in this way.</div>	

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# 1

## Definitions

The following terms are used in these regulations and apply to signallers in tokenless block signalling areas.

### Block signals

A stop signal that controls the entrance to, or exit from, a block section. The following are block signals:

**Home signal:** the first stop signal controlled by a signal box that controls the exit from a single-line block section.

**Section signal:** a stop signal that controls the entrance to a single-line block section.

### Clearing point

The point beyond the home signal up to which the line must be clear before a train can be accepted as shown in regulation 3.4.

### Single-line block section

The line between the section signal controlled from one signal box, and the home signal controlled by the next signal box in the direction of travel.

A single-line block section will be referred to as a section within this document.



# 2 Principle

## 2.1 Principle of the tokenless block system

The principle of the tokenless block system is to prevent more than one train being in the same section at the same time.

## 2.2 Using the acceptance switch

Unless you need to prevent the approach of a train, you must place the acceptance switch in the **accept** position in anticipation of train movements.

all signallers

# 3

## Method of signalling

**Note:** For the purpose of this regulation, A, B and C represent three signal boxes on the same line of route. A train is to be signalled from signal box A to signal box B. The procedure shown must be repeated along the line of route if the train is to proceed further.

### 3.1 Normal method of signalling trains

#### 3.1.1 Actions of the signaller at signal box A

##### signaller box A

Before you start the procedure to allow a train to enter the section, you must make sure the acceptance switch and the block indicator for the section concerned are both in the **normal** position.

You must operate the **offer** button and, if necessary, tell the signaller at signal box B the description of the train.

If the acceptance switch at signal box B is at **accept**, the block indicators at both signal boxes will move to **train accepted**.

You may then clear the signals for the train to proceed.

If the block indicator does not move to **train accepted** after you have operated the **offer** button, you must contact the signaller at signal box B to find out why.

#### 3.1.2 Actions of the signaller at signal box B

##### signaller box B

If the block indicator does not move to **train accepted** after the signaller at signal box A has operated the **offer** button, that signaller will contact you to find out why. You must tell the signaller at signal box A why you cannot accept the train.

### 3.1.3 If the train is to continue to signal box C

When the block indicator from signal box A moves to **train in section**, if the train is to continue to signal box C, you must carry out the actions of the signaller at signal box A, as shown in regulation 3.1.1, to the signaller at signal box C.

signaller  
box B

## 3.2 When the train has arrived

When the train has occupied and cleared the track circuit beyond your home signal, you must:

signaller  
box B

- place the home signal to danger
- place the acceptance switch to **normal**.

When the train arrives, complete with tail lamp, you must operate the **train arrived** button and check that the block indicator is restored to **normal**.

If it is necessary to operate the **train arrived** button before the last vehicle of the train passes your signal box, you must make sure the train has arrived, complete with tail lamp, before doing so.

You must keep the acceptance switch at **normal** until the train has passed beyond the clearing point.

## 3.3 Train not proceeding

If the train is not going to proceed towards signal box B but the block indicator is at **train accepted**, you must:

signaller  
box A

- place the relevant signals to danger
- tell the signaller at signal box B that the train is no longer going to proceed.

If the signaller at signal box A tells you that the train is no longer going to proceed towards you and the block indicator is at **train accepted**, you must place the acceptance switch to **normal**.

signaller  
box B

## 3.4 Giving permission for a train to approach

**Note:** This part of the regulation describes the conditions under which the signaller at signal box B can accept a train from signal box A.

### 3.4.1 Before placing the acceptance switch to 'accept'

signaller  
box B

Before you place the acceptance switch to **accept**, you must make sure that all the following conditions apply.

- The line, or at a facing junction the line for which the facing points are set, is clear up to and including the clearing point.
- All points within the clearing point have been set for the safety of the approaching train.
- No conflicting movement has been authorised that will cross or foul the line within the clearing point.
- No train has been accepted from another direction that requires a portion of the same line within the clearing point for acceptance.

### 3.4.2 Maintaining the clearing point

After you have placed the acceptance switch to **accept** for a train from signal box A, you must not allow the line to be obstructed within the clearing point for that train, unless one of the following applies.

- The train has been stopped at the home signal.
- The train has passed beyond any points or crossings that you need to use within the clearing point.
- The signaller at signal box A has told you that the train is no longer proceeding.
- The train has failed.

### 3.4.3 Acceptance - location of the clearing point

If the distant signal is a colour light, the clearing point is 183 metres (200 yards) beyond the home signal.

all  
signalers

If the distant signal is a semaphore, the clearing point is 400 metres (440 yards) beyond the home signal.

At a crossing place where the distance to the loop exit signal is less than that shown in this regulation, the clearing point is at the loop exit signal.

### 3.5 Not used

### 3.6 Not used

## 3.7 Occupying the single line for shunting purposes

**Note:** For the purpose of this regulation, a shunting movement is to enter the section at signal box A.

### 3.7.1 Occupying the single line

When it is necessary for a shunting movement to enter the section, you must:

- tell the signaller at signal box B what is to happen
- deal with the shunting movement as a departing train.

signaller  
box A

You must make sure the whole of the shunting movement goes outside the home signal.

You must then clear the home signal for the return shunting movement.

### 3.7.2 When shunting is completed

signaller  
box A

After the return shunting movement has occupied and cleared the track circuit inside the home signal, and you are sure the section is clear, you must operate the **train arrived** button.

## 3.8 Train requiring to stop in section

### 3.8.1 When a train is required to stop in section

signaller  
box A

When a train is required to stop in the section, you must tell the signaller at signal box B:

- the type of train
- where the train is to stop and why
- the approximate time the train will occupy the section.

### 3.8.2 If the train returns to signal box A

When the train returns to your signal box and has occupied and cleared the track circuit inside the home signal, and you are sure the section is clear, you must operate the **train arrived** button.

# 4

## Obstruction of the line

**Note:** For the purpose of this regulation, A and B represent two signal boxes on the same line of route. The signaller at signal box B becomes aware or suspects there is an obstruction between signal box A and signal box B.

### 4.1 Actions of the signaller at signal box B

If you need to stop trains because of an obstruction or other emergency within the section or the clearing point, you must immediately:

- place or keep signals at danger to protect the obstruction or other emergency
- place or keep the acceptance switch at **normal**
- if necessary, arrange for train radio messages to be sent
- take any other possible action to stop any approaching train
- if necessary, carry out the relevant instructions in regulation 5
- tell the signaller at signal box A what has happened.

signaller  
box B

### 4.2 Actions of the signaller at signal box A

If the signaller at signal box B tells you that the line is, or may be obstructed or there is an emergency that requires trains to be stopped, you must immediately:

- place or keep signals at danger to protect the obstruction or other emergency
- place or keep the acceptance switch at **normal**
- if necessary, arrange for train radio messages to be sent
- take any other possible action to stop any approaching train
- if necessary, carry out the relevant instructions in regulation 5.

signaller  
box A

**signaller  
box A**

Except if it is necessary to examine the line, you must not allow any train to proceed on the obstructed line towards signal box B until you have been told that the obstruction has been removed.

**4.3 When the obstruction has been removed****signaller  
box A and B**

When the obstruction has been removed, or a train can pass clear of the obstruction, you must tell the other signaller. You may then both resume normal working.



# 5

## **Train or vehicles proceeding without authority (including a SPAD) or train divided**

### **Part A: Train or vehicles proceeding without authority**

**Note:** For the purpose of this part of the regulation, A, B and C represent three signal boxes on the same line of route. A train or vehicle proceeds without authority from signal box A towards signal box B.

#### **5.1 Immediate actions at signal box A**

If a train or vehicle proceeds without authority, or has entered the section without authority, you must:

**signaller  
box A**

- place or keep the signals at danger on the line affected
- place or keep the acceptance switch at **normal**
- tell the signaller at signal box B what has happened
- if necessary, arrange for train radio messages to be sent
- if possible, alter the position of points to divert trains and prevent collisions
- if possible, arrange for the line on which the train or vehicle is proceeding without authority to be cleared
- take the necessary action for any level crossings
- take any other possible action to reduce the risk of a collision.

## 5.2 Immediate actions at signal box B

### signaller box B

If you are told by the signaller at signal box A that a train or vehicle is proceeding without authority from signal box A, you must:

- stop any train proceeding towards signal box A
- place or keep the acceptance switch at **normal**
- if necessary, arrange for train radio messages to be sent
- if possible, alter the position of points to divert trains and prevent collisions
- place or keep signals at danger against the train or vehicle and any other trains that could be put in danger
- if possible, arrange for the line on which the train or vehicle is proceeding without authority to be cleared
- if necessary, tell the signaller at signal box C, unless you can divert the train or vehicle from the running line
- take the necessary action for any level crossings
- take any other possible action to reduce the risk of a collision.

## 5.3 If there is already a train in the section

### signaller box B

If the train or vehicle proceeding without authority enters the section behind a train already in the section, you must:

- if you can, allow the first train to pass, and then
- immediately replace the signals to danger against the train which is proceeding without authority.

You must not operate the **train arrived** button for the section between your signal box and signal box A until both trains have cleared the section.

If you cannot stop or divert the train or vehicle that is proceeding without authority, you must tell the signaller at signal box C what has happened.

signaller  
box B

You must not place the acceptance switch to **normal** until both trains have occupied and cleared the track circuit beyond your home signal.

When the next train is ready to enter the section, you must signal the train normally. If you are the signaller sending the train, you must:

signaller  
box A and B

- tell the driver what has happened
- instruct the driver to proceed through the section at caution.

#### 5.4 If there is no train in the section

If the train or vehicle proceeding without authority enters the section when there is no other train in that section, and arrives complete, you must operate the **train arrived** button as shown in regulation 3.2.

signaller  
box B

The next train must be signalled normally.

signaller  
box A and B

## Part B: Train divided

**Note:** For the purpose of this part of the regulation, A, B and C represent three signal boxes on the same line of route. A train that has been signalled from signal box B to signal box C has become divided before entering the section.

### 5.5 Immediate actions at signal box B

#### signaller box B

If you are aware or suspect that a train has become divided, you must place or keep the signals at danger against the divided train.

If necessary, you must arrange for train radio messages to be sent.

### 5.6 If the divided train enters the forward section

#### signaller box B

If the front portion of the divided train enters the forward section, you must tell the signaller at signal box C.

#### signaller box C

If you are told that the front portion of a divided train has entered the section, you must carry out the instructions shown in regulation 6.

#### signaller box B

If the rear portion also enters the forward section, you must immediately tell the signaller at signal box C and carry out the instructions in part A of this regulation 5 shown for the signaller at signal box A.

#### signaller box C

If you are told by the signaller at signal box B that the rear portion of the divided train has also entered the section, you must carry out the instructions in part A of this regulation 5 shown for the signaller at signal box B.

## 5.7 Making sure the line is clear

You must not allow another train to enter any affected section until:

- both you and the signaller at the other end of the section are sure that the section is not obstructed, or
- the line is to be examined.

**signaller  
box A and B**

# 6

## Train passed without tail lamp

**Note:** For the purpose of this regulation, A, B and C represent three signal boxes on the same line of route. A train is passing signal box B going towards signal box C.

### 6.1 Actions of the signaller at signal box B

#### 6.1.1 If a train passes without a tail lamp

signaller  
box B

If a train passes without a tail lamp, or you are not sure that it has a tail lamp, you must not operate the **train arrived** button but instead tell the signaller at signal box A.

#### 6.1.2 If you can deal with the train yourself

You must deal with the train yourself, before it enters the section, if you can do so without bringing it to a sudden stop.

If the train is complete, operate the **train arrived** button and tell the signaller at signal box A that the train is complete.

If the train is not complete, you must tell the signaller at signal box A and come to a clear understanding of the actions to be taken depending on the circumstances.

#### 6.1.3 If you cannot deal with the train yourself

If you cannot deal with the train before it enters the forward section, or to do so would mean bringing the train to a sudden stop, you must immediately tell the signaller at signal box C.

If you are then told by the signaller at signal box C that the train is complete, you must tell the signaller at signal box A and operate the **train arrived** button for the section from signal box A.

## 6.2 Actions of the signaller at signal box C

If the signaller at signal box B tells you that the train proceeding towards you has no tail lamp or the signaller there is not sure, you must stop the approaching train and find out if it is complete.

signaller  
box C

If the train is complete and the line is clear as shown in regulation 3.2, you must:

- tell the signaller at signal box B
- operate the **train arrived** button for the section from signal box B.

If the train is not complete, you must tell the signaller at signal box B and come to a clear understanding of the actions to be taken depending on the circumstances.

## 6.3 If a train passes with a portable tail lamp out

If a train passes with a portable tail lamp on the rear, but it is out and you cannot deal with the train yourself, or to do so would mean bringing the train to a sudden stop, you must:

signaller  
box B

- operate the **train arrived** button for the section from signal box A
- tell the signaller at signal box C that the tail lamp is out.

## 7

## Allowing an assisting train into an occupied section

**Note:** For the purpose of this regulation, A and B represent two signal boxes on the same line of route. A train or vehicle is to be assisted out of the section between signal box A and signal box B.

### 7.1 Before allowing an assisting train into the occupied section

#### signaller box A and B

You may allow an assisting train to enter an occupied section in either direction to:

- proceed to, and assist, a failed train
- evacuate passengers from a failed train
- remove a portion of a divided train
- remove vehicles that have proceeded without authority.

Before you allow an assisting train to enter the occupied section, you must both:

- have a clear understanding of the location of the failed train or vehicles
- agree which end of the section the failed train will be assisted to.



## 7.2 Occupying or obstructing the line within the clearing point

If you are told that the train has failed in the section and will not be moved, you may allow the line within the clearing point to be occupied, fouled or obstructed.

signaller  
box A and B

You may continue to do this until:

- the failed train is ready to proceed towards your signal box, or
- the assisting train has entered the occupied section and the failed train is to be assisted towards your signal box.

## 7.3 If the assisting train is to enter the occupied section at signal box A

**Note:** Regulations 7.3 and 7.4 apply to a train entering the section at signal box A, although the same procedure must be followed if the assisting train were to enter the section from signal box B.

Before you authorise the driver of the assisting train to enter the occupied section, you must:

signaller  
box A

- tell the signaller at signal box B the description of the assisting train
- get permission from the signaller at signal box B for the assisting train to enter the occupied section
- record the details in the Train Register.

When the assisting train enters the occupied section, you must tell the signaller at signal box B.

You must record the details in the Train Register when you give permission for the assisting train to enter the occupied section and when you are told that it has entered the section.

signaller  
box B

## 7.4 If the train or vehicles are withdrawn from the section at signal box A

### signaller box A

If the failed train or vehicles and the assisting train return to your signal box, you must, when they have occupied and cleared the track circuit beyond the home signal:

- make sure the section is clear
- tell the signaller at signal box B what has happened
- operate the **train arrived** button.

### signaller box A and B

The next train must be signalled normally.

## 7.5 If the train or vehicles are removed from the section at signal box B

### signaller box B

You must not operate the **train arrived** button to signal box A until both the failed train and the assisting train have arrived complete and the section is clear, as shown in regulation 3.2.

### signaller box A and B

The next train must be signalled normally.

## 7.6 If the combined trains are to proceed from signal box B to signal box C

### signaller box B

If the combined trains are to proceed through the next section, you must tell the signaller at signal box C that the train is being assisted and how it is being assisted, before the combined trains enter the section.

### signaller box C

You must record the details in the Train Register and not operate the **train arrived** button until the combined train has arrived complete with tail lamp.

## 7.7 When the failed train or vehicles are within the clearing point

**Note:** For this part of the regulation the line is clear to the home signal at signal box B but a train, proceeding from signal box A to signal box B, has failed within the clearing point beyond the home signal. The assisting train is to enter the block section at signal box A and proceed to the home signal to assist the failed train from the rear.

If a failed train has stopped within the clearing point but the section is clear up to the home signal, you must:

- make sure the failed train is complete with tail lamp
- tell the signaller at signal box A what has happened and that assistance is required from signal box A
- not operate the **train arrived** button
- give permission for the assisting train to enter the section
- record the details in the Train Register.

signaller  
box B

Before you allow the assisting train into the section, you must:

- get permission from the signaller at signal box B
- tell the signaller at signal box B the description of the assisting train
- record the details in the Train Register.

signaller  
box A

After getting permission from the signaller at signal box B for the assisting train to enter the occupied section, you must:

- tell the driver of the assisting train that the line beyond the home signal is occupied by the failed train
- instruct the driver to pass the section signal at danger and to proceed at caution to, and stop at, the home signal and to then immediately contact the signaller at signal box B.

## Tokenless block regulations

**signaller  
box A**

You must tell the signaller at signal box B when the assisting train enters the single line block section and record this in the Train Register.

**signaller  
box B**

When the signaller at signal box A tells you the train has entered the single line block section, you must record this in the Train Register.

When the assisting train arrives at the home signal, as long as you have carried out the instructions in module M2 *Train stopped by train failure*, you must instruct the driver to pass the home signal at danger and proceed towards the failed train.

When the combined train has passed clear of the single line block section and the line is clear as shown in regulation 3.2, you must operate the **train arrived** button.

**signaller  
box A and B**

Where the block controls allow you to do so, you must signal the next train normally.

## 7.8 Train or portion of a train left on the single line

**Note:** For this part of the regulation, the rear portion of a train heading towards signal box B will be left in the single line block section between signal box A and signal box B.

**signaller  
box B**

The driver will tell you when the train, or a portion of the train, has been left in the single line block section. You must tell the signaller at signal box A.

**signaller  
box A and B**

You must both record the details in the Train Register.

When the traction unit returns, or another traction unit is to enter the single line block section, to clear the portion of train that has been left, you must deal with the movement as shown in regulation 7.1 or regulation 7.3.

# 8

## Working by pilotman and modified working

**Note:** For the purpose of this regulation, A and B represent two signal boxes on the same line of route. It is necessary to introduce working by pilotman between signal box A and signal box B.

### 8.1 Failure or disconnection of block signalling equipment

If there is a failure or disconnection of the block indicators, or it has not been possible to clear the section signal for a train that has been accepted, working by pilotman, or modified working arrangements as shown in module P2 *Working single and bi-directional lines by pilotman*, must be introduced.

signaller  
box A and B

### 8.2 Working to and from the point of obstruction

If it is necessary to work to and from the point of obstruction, working by pilotman as shown in module P2 *Working single and bi-directional lines by pilotman*, must be introduced. Modified working arrangements are not allowed.

signaller  
box A and B

If necessary, working by pilotman may be introduced on both sides of the obstruction.

### 8.3 Keeping the acceptance switch at normal

After you have been dictated the working by pilotman form or after you have been given authority to use modified working, you must place or keep the acceptance switch at **normal**.

signaller  
box A and B

## 8.4 Keeping the distant signal at caution

signaller  
box A and B

During the time that working by pilotman or modified working arrangements are in operation, you must keep the distant signal in the affected section at caution.

## 8.5 During working by pilotman

### 8.5.1 When communication is available between signal box A and signal box B

signaller  
box A

When direct communication is available, you must:

- get the permission of the signaller at signal box B, before allowing a train to enter the single line block section
- tell the signaller at signal box B when the train enters the section.

signaller  
box B

You must tell the signaller at signal box A when the train arrives, complete with tail lamp, within the home signal.

### 8.5.2 When all communication is lost between signal box A and signal box B

signaller  
box A and B

You must not allow the line within the clearing point to be obstructed unless the pilotman is present.

# 9 **Not used**

# 10

## Opening and closing signal boxes

### 10.1 Opening the signal box

#### signaller box B

Before opening the signal box, you must attempt to speak to the signallers at signal box A and signal box C and tell them you are opening the signal box.

### 10.2 Closing the signal box

#### signaller box B

You may only close the signal box when the acceptance switch and the block indicators are in the **normal** position after the last train has passed.

You must tell the signallers at signal box A and signal box C that you are closing the signal box.









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