

GE/RT8000 - T5  
Rule Book

Module T5

# Operating power-operated points by hand

Issue 1

June 2003

Comes into force 6 December 2003



Issue	Date	Comments	Comes into force
1	June 2003	Initial issue	6 December 2003



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

- signaller
- points operator
- agent.

## Contents

### Section

## 1 Competence of points operators and route setting agents

- 1.1 Points operator
- 1.2 Agent

## 2 Definitions and types of failure

- 2.1 Definitions
- 2.2 Types of failure
- 2.3 Failure within a possession

## 3 Immediate action and reporting a failure

- 3.1 Immediate action and reporting a failure
- 3.2 Staffing arrangements for a simple failure
- 3.3 Staffing arrangements for a complex failure
- 3.4 Handsignaller
- 3.5 Failure near to the signal box
- 3.6 When the signalling technician arrives

## 4 Site arrangements and protection

- 4.1 Site arrangements
- 4.2 Protection arrangements

## 5 Procedure for a simple failure

- 5.1 Actions by the points operator
- 5.2 Actions by the signaller
- 5.3 When detection cannot be obtained

Section

## 6 Procedure for a complex failure

- 6.1 Briefing safety arrangements
- 6.2 Procedure
- 6.3 When detection cannot be obtained

## 7 If the points have been run through

## 8 Leaving points secured and unattended

## 9 Change of agent or points operator

## 10 Returning the points to normal operation

# 1

## Competence of points operators and route setting agents

*The people responsible: **points operator, agent***

### 1.1 Points operator

#### Simple failure

**points operator**

You must be competent to operate the types of points concerned and be familiar with the signalling layout where the failure has happened. You must also be competent to:

- act as a controller of site safety (COSS), or
- act as an individual working alone (IWA).

#### Complex failure

When you are attending a complex failure, you must be competent to operate the types of points concerned and be familiar with the signalling layout where the failure has happened.

### 1.2 Agent

#### Complex failure

**agent**

You must be competent to operate the types of points concerned and be familiar with the signalling layout where the failure has happened. You must also be competent to:

- act as a controller of site safety (COSS), and
- act as an agent.



Within this module the route setting agent is referred to as the agent.

# 2

## Definitions and types of failure

*The people responsible: signaller, points operator, agent*

### 2.1 Definitions

The following definitions are used within this module:

**Failure** - Failure or disconnection of the points.

**Points** - All power-operated points including switch diamonds and swing-nose crossings.

**Point ends** - These are the individual ends of points. When points are being operated by hand, the point ends are operated separately.

**Point motor** - All power-operated point motors including hydraulic clamp lock and compressed-air equipment.

**Point end identification plate** - A plate which:

- is located on a sleeper at the points
- shows the point number, and
- indicates the normal position of the closed switch blade.

**Secure** - Points that have been clipped and scotched for the facing direction and scotched for the trailing direction.

## Operating power-operated points by hand

2  
section

## 2.2 Types of failure

### a) Simple failure

A failure that needs:

- a single point end, or
- a single point end and co-acting trap point, or
- both ends of a crossover

to be set or secured (or both).

### b) Complex failure

A failure which needs more point ends to be set or secured (or both) than a simple failure. It also includes **all** failures that affect:

- switch diamonds, or
- swing-nose crossings.

During a complex failure, the location affected may be split up into two or more areas. In this case:

- there must be an agent for each area, and
- the agents and the signaller must understand clearly which points each agent will be responsible for.

## 2.3 Failure within a possession

If the failed point ends are in a possession, the arrangements in this module do not apply until the possession is to be given up (see section 5.6 of module T1A *Failure, renewal and maintenance of signalling equipment*).

# 3

## Immediate action and reporting a failure

*The person responsible: signaller*

### 3.1 Immediate action and reporting a failure

If possible, you must divert trains away from the defective points.

signaller

When you become aware of a failure, you must report to Operations Control:

- the individual identity number of the points involved
- details of other equipment involved (for example, signals or track circuits)
- the line or lines affected
- whether it is a simple or complex failure.

### 3.2 Staffing arrangements for a simple failure

You must arrange for a points operator and also a handsignaller (if needed). The points operator and handsignaller must work only to your instructions.

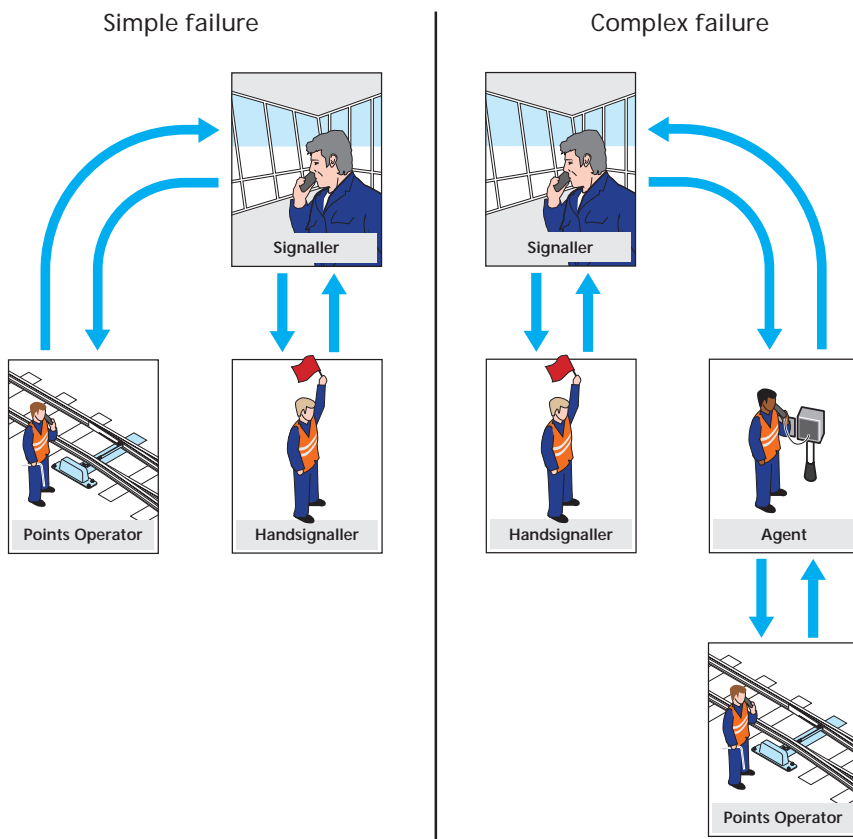
signaller

# Operating power-operated points by hand

## 3 section

### 3.3 Staffing arrangements for a complex failure

**signaller** You must arrange for an agent to go to the failure, and also a points operator and handsignaller (if needed).



### 3.4 Handsignaller

If a handsignaller is appointed, the handsignaller must work only to your instructions.

signaller

### 3.5 Failure near to the signal box

You can deal with a simple or complex failure yourself before the points operator or agent arrives to allow trains to move.

signaller

You must make sure you have protected yourself from train movements before dealing with the failure.

### 3.6 When the signalling technician arrives

You can tell the signalling technician to operate and secure the points (or both) by hand before the points operator or agent arrives, so that trains can begin running as soon as possible.

signaller

# 4

## Site arrangements and protection

*The people responsible: **signaller, agent, points operator***

The following instructions apply to both simple and complex failures.

### 4.1 Site arrangements

#### a) Actions by the signaller

##### signaller

If possible, you must try to reduce the number of times the point ends need to be operated by hand.

When the points operator or agent arrives on site, you must write in the Train Register the name and employer of the points operator or agent and the time they arrived.

You must then tell the points operator or agent:

- which points have failed
- the type of failure (simple or complex)
- when trains have been stopped on the line or lines involved
- if any other lines remain open.

You must then:

- reach a clear understanding with the points operator or agent about what is to be done
- place reminder appliances on the relevant signal controls
- make a suitable entry in the Train Register.

You must tell the points operator or agent to check the points, and tell you whether:

signaller

- the points are in the normal or reverse position
- the points are damaged or obstructed
- the point motor is still running.

If the point motor is still running, you must return the points to their previous position and tell the points operator not to insert the point handle.

#### b) Actions of the points operator or agent

When you arrive on site you must immediately contact the signaller to:

agent,  
points  
operator

- give the signaller your name and employer's name
- find out which points have failed
- find out the type of failure (simple or complex) and what is needed.

You must not go on or near the line until you have:

- made sure trains have been stopped on the line involved
- found out whether any other lines remain open
- reached a clear understanding with the signaller about what is to be done.

## Operating power-operated points by hand

4  
section

agent,  
points  
operator

When instructed by the signaller, you must inspect the points and tell the signaller:

- the position of the points (normal or reverse)
- if the points are damaged or obstructed
- if the point motor is running continuously.

You must not insert the point handle if the point motor is running.

If the point motor is running continuously, the signaller will return the points to their previous position.

## 4.2 Protection arrangements

agent,  
points  
operator

If you need trains to be stopped on any line that is not affected by the failure, you must carry out the instructions in module T2 *Protecting engineering work or a hand trolley on a line not under possession*.

You need not do this for the affected line.

Train movements on the affected lines may restart only when:

- the points have been set and secured
- you have moved to a position of safety
- you have told the signaller.

# 5

## Procedure for a simple failure

*The people responsible: points operator, signaller*

If you need to operate the points by hand, you must follow this procedure in the order set out below **on each occasion**, no matter how many times that might be.

points  
operator,  
signaller

You must not take instructions from a handsignaller about operating or securing the points by hand. You must take instructions only from the signaller.

points  
operator

### 5.1 Actions by the points operator

You must:

- reach a clear understanding with the signaller about what is to be done
- carry out the signaller's instructions
- make sure the power to the points has been cut off
- operate the points by hand to the required position.

points  
operator

Unless the signaller tells you otherwise, you must also secure:

- facing points with a clip and scotch
- trailing points with a scotch.

When you are satisfied that the points have been set correctly, you must move to a position of safety and tell the signaller:

- the route has been set
- you are in a position of safety.

## Operating power-operated points by hand

5  
section

## 5.2 Actions by the signaller

## signaller

You must:

- reach a clear understanding with the points operator about what is to be done
- make use of the Route List (if provided)
- tell the points operator which point ends need to be set or secured (or both) and in what position (normal or reverse as indicated by the point end identification plate)
- tell the points operator which route is to be set or secured (or both), for example Down Fast to Down Slow
- tell the points operator to operate the points by hand.

When the points operator has confirmed the route has been set correctly and that person has moved to a position of safety, you must:

- if you can, operate the lever to match the position the points have been set in, and
- if you have detection, clear the protecting signal.

Before you allow a train movement at the location of the failure that involves passing a signal at danger, you must stop any train on a line which could be fouled by the movement if the points have not been set correctly. This will reduce the risk of conflicting movements.

If a signal is to be passed at danger, you must carry out the instructions in module S5 *Passing a signal at danger*. You must give instructions to the driver either directly or through the handsignaller (if appointed).

You must **not** give instructions to the driver through the points operator.

When one train has passed safely over the affected points, you can allow trains to run without restriction over other lines only if you have not changed the position of the points in the affected route.

signaller

### 5.3 When detection cannot be obtained

When you have followed the instructions in section 5 of this module and you cannot get detection on one or more sets of points, you must instruct the points operator to:

signaller

- secure only these facing points with a clip and scotch
- secure only these trailing points with a scotch
- tell you when this has been done.

# 6

## Procedure for a complex failure

*The people responsible: agent, signaller, points operator*

### 6.1 Briefing safety arrangements

agent

Before work starts you must brief points operators on the arrangements to apply for their personal safety including:

- which line or lines remain open to trains
- the fact that trains will be allowed to pass over an affected route each time the route has been set or secured (or both).

### 6.2 Procedure

agent,  
signaller

If points need to be operated by hand, you must follow this procedure in the order shown below **on each occasion**, no matter how many times that might be.

agent

You must not take instructions from a handsignaller about operating points by hand. You must only take instructions from the signaller.

#### a) Actions by the signaller

signaller

You must fill in a RT3182 Signaller's Point Setting Form (see example on page 27) with all the details you need to dictate to the agent, **using the Route List** (if provided).

You must reach a clear understanding with the agent about what is to be done and then dictate to the agent:

- the identification number of the points that need to be set
- which point ends are involved, if there is more than one
- the position they need to be set in (normal or reverse)
- the route that is to be set, for example Up Fast to Up Slow.

**b) Actions by the agent**

You must fill in a RT3183 Agent's Point Setting Form (see example on page 28) using the details dictated by the signaller.

agent

You must then read the details back to the signaller.

It is important you do this to confirm the details are correct.

**c) Actions by the signaller**

When you are sure that the agent has filled in the form correctly you must:

signaller

- tell the agent to operate the points by hand
- keep the points in the required position
- get the agent's assurance this has been done.

**d) Actions by the agent**

You must reach a clear understanding with the signaller and then:

agent

- carry out the signaller's instructions
- make sure the power to the points has been cut off
- operate the points to the required position by hand.

Unless the signaller tells you otherwise, you must also secure:

- facing points with a clip and scotch, and
- trailing points with a scotch.

If a points operator has been appointed, you must make sure that person fully understands which points need to be operated or secured (or both) and in what position.

## Operating power-operated points by hand

6  
section**agent**

You must then tell the points operator to:

- operate the points by hand, and
- confirm when this has been done.

**e) Actions by the points operator****points  
operator**

You must make sure the power to the points has been cut off before operating the points.

You must only take instructions from the agent about operating the points or securing the points (or both).

**f) Actions by the agent****agent**

When the route has been set you must walk through the route to:

- inspect each point end to make sure it is in the correct position, as shown on the route setting form
- check the points are secured.

When you are sure that the route has been set up correctly, you must:

- tell the points operator to move to a position of safety
- move to a position of safety yourself
- sign the point setting form
- tell the signaller that the route has been set and everyone is clear of the line.

### g) Actions by the signaller

When the agent has told you the route has been set and everyone has moved to a position of safety, you must:

signaller

- if you can, operate the lever, button or switch to match the position the points have been set in, and
- if you have detection, clear the protecting signal.

Before you allow a train movement at the location of the failure, which involves passing a signal at danger, you must stop any train on a line which could be fouled by the movement if the points have not been set correctly. This will reduce the risk of conflicting movements.

When one train has passed safely over the affected points, you can allow trains to run without restriction over other lines only if you have not changed the position of the points in the affected route.

If a signal is to be passed at danger, you must carry out the instructions in module S5 *Passing a signal at danger*. You must give instructions to the driver either directly or through the handsignaller (if appointed).

You must **not** give instructions to the driver through the agent or points operator.

### 6.3 When detection cannot be obtained

When you have followed the instructions in section 6 of this module and you cannot get detection on one or more set of points, you must instruct the agent to:

signaller

- secure only these facing points with a clip and scotch
- secure only these trailing points with a scotch
- tell you when this has been done.

## Operating power-operated points by hand

7  
section

# 7

## If the points have been run through

*The people responsible: **signaller, agent, points operator***

The following instructions apply to simple and complex failures.

**signaller**

If you suspect the points have been run through, you must not allow any movement to pass over the points in a facing direction until a signalling technician has examined the points and confirmed they are in working order.

If the signalling technician finds the points are damaged, you must not allow any movement to pass over the points in the facing direction until:

- the points have been secured, and
- the movement can be made safely.

You must carry out this instruction even if you have got the correct detection.

**agent,  
points  
operator**

If you suspect the points have been run through you must immediately:

- tell the signaller, and
- carry out the signaller's instructions.

# 8

## Leaving points secured and unattended

*The people responsible: **signaller, agent, points operator***

The following instructions apply to simple and complex failures.

When the train service can continue to operate with some or all of the defective points set and left unattended in one position, you must instruct the points operator, or agent in the case of a complex failure to:

**signaller**

- clip, padlock and scotch **both** facing and trailing points in the required position
- leave the point controls set for manual operation
- tell you when this has been done.

You must record in the Train Register:

- the details of the points to be secured
- the name of the points operator if it is a simple failure
- the name of the agent if it is a complex failure.

If all the points affected are to be left secured and unattended, you must also:

- tell the points operator or agent (whichever is appropriate) that they may leave the site
- find out from the points operator or agent where the padlock keys will be left, and then record this in the Train Register.

## Operating power-operated points by hand



### agent, points operator

When defective points are to be secured and left unattended you must:

- clip, scotch and padlock **both** facing and trailing points, and
- leave the point controls set for operation by hand.

If all of the points affected are to be left unattended, you must:

- not leave the site until the signaller tells you to do so
- tell the signaller where the padlock keys will be left.

# 9

## Change of agent or points operator

*The people responsible: agent, points operator, signaller*

When someone takes over from you, you must:

- make sure your relief understands the arrangements in place
- hand over any padlock keys
- hand over RT3183 Agent's Point Setting Form (complex failure only)
- tell the signaller that someone has taken over from you and the name and employer of that person.

agent,  
points  
operator

During a complex failure, you must tell any points operator when a new agent takes over from you and the name of that person.

agent

You must write in the Train Register:

- the name and employer of the new points operator or agent
- the time the new points operator or agent took over.

signaller

## Operating power-operated points by hand

10  
section

# 10

## Returning the points to normal operation

*The people responsible: signaller, agent, points operator*

The following instructions apply to simple and complex failures.

### signaller

When the signalling technician tells you the points are now in working order, you must, as soon as trains have passed clear, tell the points operator or agent to:

- make sure the padlocks, clips and scotches are removed
- make sure the point machines are returned to power operation
- make sure this has been done and tell you when everyone is clear of the points.

If the points have been secured and left unattended, you must tell the signalling technician to make sure:

- the padlocks, clips and scotches are removed
- the point machines are returned to power operation
- you are told when this has been done.

When you have received confirmation that this has been done, you must:

- operate the points from the signal box, and
- ask the points operator, agent or signalling technician to check the points are working correctly.

If the points are working correctly, you must then tell the points operator, agent or signalling technician that they are no longer needed on site.

signaller

The points operator, agent or signalling technician will tell you when the points key and handle have been returned to the correct location and everyone is in a position of safety. You must make an entry in the Train Register showing the time that normal operation has resumed.

You must also dispose of the used point setting form as you are told to in local instructions.

You must not restore the points to power operation until you are told to do so by the signaller. When instructed by the signaller that the set of points are again in working order, you must make sure:

agent,  
points  
operator

- the padlocks, clips and scotches are removed
- the point machines are returned to power operation
- you tell the signaller when you have done this and everyone is clear of the points.

The signaller will then:

- operate the points from the signal box
- ask you to check the points are working correctly.

If the points are working correctly, you must, when instructed by the signaller:

- return the points key and handle to the correct location
- get everyone to a position of safety
- tell the signaller that you have done this
- dispose of used point setting forms as you are told to in local instructions.

## Operating power-operated points by hand

# 10

section

### points operator

During a complex failure you must only take instructions from the agent about removing clips and scotches and returning power to the points. You must not return power to any points until you have been told to do so.

You must not leave the site until the agent gives you permission.

During a simple failure, you must not leave the site until the signaller tells you that you are no longer needed on site.

### agent

You must not leave the site until the signaller tells you that you are no longer needed on site.



Operating power-operated points by hand

10 section

Example of RT3183 Agent's Point Setting Form

**RT3183**  
*December 2003 (Side 1 of 1)*

**AGENT'S POINT SETTING FORM**  
*(Form referred to in Rule Book module T5)*

**Record of instructions dictated to the Agent in connection with  
Manual Operation of Power Operated Points**

Point No.	End No.	Position	Point No.	End No.	Position

Route from \_\_\_\_\_  
to \_\_\_\_\_

I confirm that all the above point ends have been operated/secured as necessary, as dictated by the Signaller at \_\_\_\_\_ signal box.

I have subsequently walked the route and am satisfied the route is correctly set. Signaller advised at \_\_\_\_\_ (time) \_\_\_\_\_ (date).

**SIGNED** \_\_\_\_\_ (Agent)

## Glossary of terms and abbreviations

<b>The term</b>	<b>Includes or means:</b>
<b>Detection</b>	An electrical or mechanical indication that points are set in the correct position.
<b>Facing points</b>	Points where two routes diverge. Includes switch diamonds and swing-nose crossings.
<b>Lever</b>	Includes a switch, button or workstation control.
<b>Operations Control</b>	The general term used for Network Rail Operations Control offices.
<b>Power-operated points</b>	Points that are operated by means other than mechanically.
<b>Protection</b>	Ways of making sure that a line is protected. This includes keeping signals at danger, placing detonators on the line, using a track circuit operating clip and showing a hand danger signal.
<b>Reminder appliance</b>	A device or control used to remind the signaller that a particular lever, button or switch must not be operated at all, or used only under certain conditions.
<b>Run through (of points)</b>	An incident where a movement runs through a trailing set of points that are not set in the correct position for the movement.
<b>Trailing points</b>	Points where two routes converge.
<b>Train</b>	Light locomotive, self-propelled rail vehicle or road-rail vehicle in rail mode.

## Glossary of terms and abbreviations

### The term

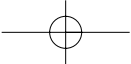
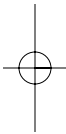
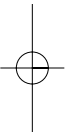
### Includes or means:

#### Train Register

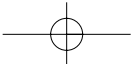
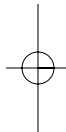
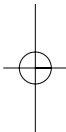
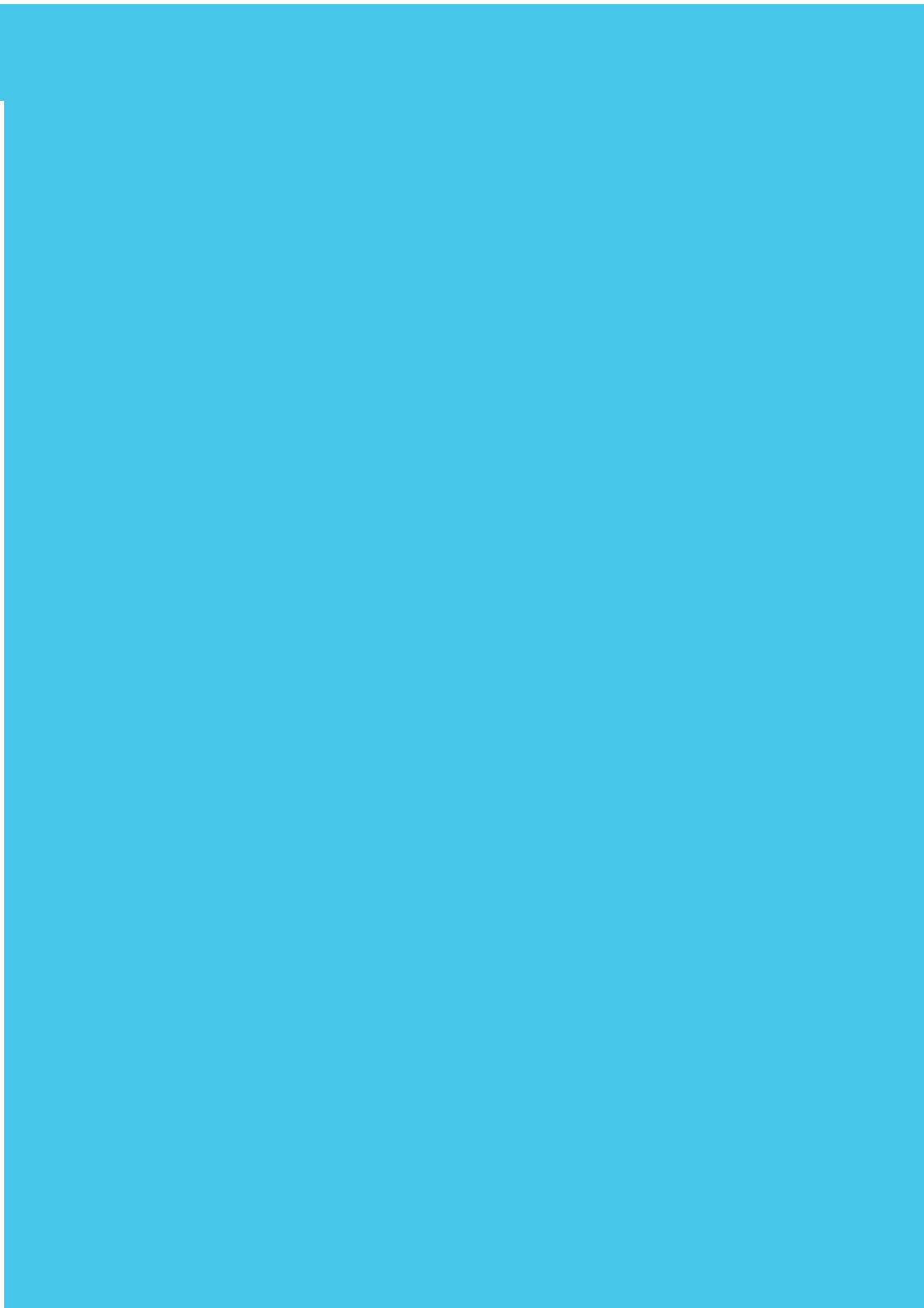
The record that signallers keep of:

- train times
- other information required by the rules and train signalling regulations to be recorded.

It includes an occurrence book or other authorised method.



Notes





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172