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1. PURPOSE

The purpose of this rule is to detail the protocols for the use of Half Pilot Keys which are provided at each end of a single line Section and work in conjunction with the Departure Signals at the end of the Section where they are located in the Public Transport Authority (PTA) Network.

Half Pilot Keys are used to assist in providing safe separation of Rail Traffic during Signalling failures, Rail Traffic failures and some Work on Track activities.

2. GENERAL

At each end of a single line automatic signalling section, a Half Pilot Key is located adjacent to the Departure Signals.

Half Pilot Keys are engraved with the names of the stations at each end of the Section; the first station shown is the station at which the key belongs.

A Half Pilot Key must not be removed without permission of the Train Controller.

2.1. HALF PILOT KEYS

A Half Pilot Key is housed in a switch. To remove a Half Pilot Key it is turned to "out", then withdrawn.

The Half Pilot Key works in conjunction with the Departure Signals at the end of the Section where it is located. When the Half Pilot Key is withdrawn or not turned to "in" the Departure Signals at that end will remain at Stop.
2.2. LOST OR DAMAGED HALF PILOT KEYS

In the event of a Half Pilot Key becoming lost or damaged in such a way that it cannot be inserted in the Pilot Key switch:

- the Worker discovering the loss or damage must advise the Train Controller, who will advise the Transperth Train Operations Manager;
- the Transperth Train Operations Manager must make Altered Working arrangements for Rail Traffic until such time as a new Half Pilot Key is obtained, in accordance with Rule 1001 Scope of the Network Rules, Section 2.4; and
- if a lengthy delay is likely to occur before a replacement is obtained, the Transperth Train Operations Manager may Authorise the Maintenance Representative to cut the Half Pilot Key contact out of circuit, to enable working under proper Signal indication.

3. PILOT KEY WORKING

In the event of failure of the Departure Signal controlling the entrance to a single line automatic signalling section, Pilot Key Working is introduced as required.

3.1. PILOT KEY

A Pilot Key consists of two Half Pilot Keys taken from the Pilot Key switches located Adjacent to the Departure Signals at each end of the Section concerned. It is assembled by screwing the two Half Pilot Keys together.

![Figure 3.1. Full Pilot Key assembled](image)

Half Pilot Keys are arranged in such a manner that it is not possible to screw them together unless they are from each end of the affected Section.

After screwing the two Half Pilot Keys together, the Competent Worker must:

- examine the Pilot Key to ensure it correctly shows the names of the stations at each end of the affected Section; and
- advise the Train Controller when Pilot Key Working is instituted.

Rail Traffic Crew must not accept a Pilot Key that is not properly screwed together or does not display the Location names applicable to the affected Section.
3.2. COMPETENT WORKER AVAILABLE

The Competent Worker, if available, may attend the Location and work as directed by the Train Controller to assist with Pilot Key Working.

3.3. ADVISING RAIL TRAFFIC CREW

Rail Traffic Crew approaching a Section where Pilot Key Working has been instituted must be given prior notification by:

- the issue of a Special Notice; or
- verbal advice from the Train Controller.

4. INTRODUCING PILOT KEY WORKING

4.1. DEPARTURE SIGNAL FAILURE

Where the Departure Signal fails, the Train Controller must arrange issue of an Alternative Proceed Authority (APA) for the first Rail Traffic to pass the Departure Signal at Stop, in accordance with Rule 5019 Alternative Proceed Authority.

The Rail Traffic Crew must remove the Half Pilot Key and take it to the other end of the Section.

4.2. DEPARTURE SIGNAL SHOWING A PROCEED INDICATION

Where the Departure Signal shows a Proceed indication, the Rail Traffic must pass the Departure Signal at Proceed, and when passed, the Rail Traffic Crew must remove the Half Pilot Key and take it to the other end of the Section.

4.3. RAIL TRAFFIC ARRIVAL AT THE OTHER END OF THE SECTION

On arrival at the other end of the section the Rail Traffic Crew must:

- remove the Half Pilot Key from that end;
- screw the Half Pilot Keys together;
- advise the Train Controller that Pilot Key Working has been instituted; and
- leave the Pilot Key where instructed by the Train Controller.

NOTE

Where the Pilot Key would be at the wrong end of the Section after Pilot Key Working has been introduced, the Train Controller may delay the introduction of Pilot Key Working by continuing to issue APAs.
4.4. **INTRODUCTION BY ROAD VEHICLE**

Where approved by the Transperth Train Operations Manager, *Pilot Key Working* may be introduced by a road vehicle, provided:

- the state of the *Section* is known;
- no *Rail Traffic* is in the affected *Section*; and
- *Rail Traffic* at or *Closely Approaching* the *Location* has been issued a *Restraint Authority*.

4.5. **TRANSFER OF PILOT KEY**

After *Pilot Key Working* has been introduced the *Pilot Key* can be transferred from one end of the *Section* to the other by whatever means available.

The *Train Controller* will direct the *Competent Worker* where to take the *Pilot Key* and where it is to be left.

5. **WORKING OF RAIL TRAFFIC**

When *Pilot Key Working* has been introduced and *Rail Traffic is Authorised* to pass a *Departure Signal* at Stop by the *Train Controller*, this *Authority* applies to the *Departure Signal* only and if any *Intermediate Signals* are at Stop they can only be passed as provided in *Rule 6013 Passing Fixed Signals at Stop*.

5.1. **ASSURANCES**

Before being *Authorised* to enter the *Section* and where *Pilot Key Working* has been introduced, *Rail Traffic Crew* must be in possession of the *Pilot Key*, or Pilot Key Caution Authority form after seeing the *Pilot Key*.

5.2. **FOLLOWING RAIL TRAFFIC**

When it is necessary to start two or more *Rail Traffic* movements from one end of the *Section*, before *Rail Traffic* has to be started from the opposite end, the *Train Controller* must issue the *Rail Traffic Crew* a Pilot Key Caution Authority form.

*Rail Traffic* must not be permitted to enter a *Section* under *Pilot Key Working* unless the preceding *Rail Traffic* has passed completely out of:

- the *Section*; or
- where *Permissive Working* is permitted, the first *Block*. 
The Rail Traffic Crew must not accept a Pilot Key Caution Authority form unless they first sight the Pilot Key.

**NOTE**
A Pilot Key Caution Authority form applies to a single journey only, to the other end of the Section.

The Pilot Key Caution Authority form must be cancelled when the Rail Traffic has arrived Complete at the end of the Section.

The last Rail Traffic Crew which is to pass over the Section before a Rail Traffic movement has to be started from the other end, must carry the Pilot Key.

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6. **PILOT KEY LOST**

Where a Pilot Key is lost, the Train Controller must advise the Transperth Train Operations Manager, who must make special arrangements for working of Rail Traffic.

If the lost Pilot Key is found, the Train Controller must be advised, and the Train Controller will advise the Transperth Train Operations Manager.

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7. **REPORTING**

The Rail Traffic Crew must advise the Train Controller when the Rail Traffic:

- enters the affected Section; and
- arrives Complete at the Location at the end of the affected Section.
8. RESUMPTION OF NORMAL WORKING

**WARNING**
Where normal working is to be resumed, *Rail Traffic* must not be permitted to depart until the *Departure Signal* is displaying a *Proceed* indication.

When normal working is to be resumed, the *Train Controller* must instruct the *Rail Traffic Crew* or *Competent Worker* at the *Location* where *Pilot Key Working* is to be cancelled, to:

- unscrew the *Pilot Key*;
- replace the appropriate *Half Pilot Key* in the *Pilot Key* switch; and
- then take the other *Half Pilot Key* to the opposite end of the *Section*.

After replacing each *Half Pilot Key* and turning them to "in", the *Rail Traffic Crew* or *Competent Worker* must advise the *Train Controller*.

The *Train Controller* must test affected *Departure Signals* when each *Half Pilot Key* is replaced.

9. KEEPING RECORDS

*Train Controllers* must keep a *Permanent Record* of the details of *Pilot Key Working*.

10. REFERENCE

Rule 1001 Scope of the Network Rules
Rule 5019 Alternative Proceed Authority
Rule 6013 Passing Signals at Stop

11. EFFECTIVE DATE

1 November 2015