



# Engineering Standard

## Signalling

### CRN SD 009

# SIGNALLING DESIGN PRINCIPLES – TIME RELEASES

Version 1.1

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## Document control

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1.0	May 2011	Conversion to CRN Signalling Standard CRN SD 009
1.1	April 2016	Review

## Summary of changes from previous version

Section	Summary of change
	No Changes from V1.0

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## 9 Time Releases

### 9.1 Time Releases: Principle 9.1

#### 9.1.1 Introduction

This Principle addresses the requirements for the provision of time releases for various signalling functions and discusses the methods of determining time release expiry periods. It is intended to be read in conjunction with other Principles which specifically reference time releases.

#### 9.1.2 Time Releasing of Approach Locking

The standard time releases for approach locking are 120 seconds for running and subsidiary signals and 60 seconds for ground shunt signals. Where the subsidiary signal has a separate approach lock to the main signal than the time release for the approach locking on the subsidiary signal may be 60 seconds.

In nominated freight yards, ground shunt signals may have time releases of 30 seconds.

Other times may apply at specific locations and consideration shall be given to the distance between signals when determining the time release period. As this distance increases it is necessary to increase the approach locking time release period to reasonably ensure the train has come to a stand.

#### 9.1.3 Time Releasing of Route Holding

This shall be determined by calculating the time taken for a train running at a consistent speed to pass over the timing track circuit. If the timing track circuit is 200m or less then this speed shall be taken as 15 kph. If the length of the timing track circuit is greater than 200m then this speed shall be taken as 25 kph. The time calculated by this method shall then be rounded up to the next 15 seconds.

Where the stop signal ahead is situated some longer distance back from the potential fouling point then consideration may be given to a commensurate increase in the average speed used for calculating the time release period.

This calculated time shall be shown in the Control Tables.

#### 9.1.4 Time Releasing of Conditional Aspects

If the overlap is limited to 100m then this shall be determined by calculating the time taken for a train running at a consistent train speed to pass over the timing track circuit. This speed shall be taken as 35 kph

For zero overlaps a timing speed of 15 kph is to be applied.

For other lengths the timing speed shall be that speed for which the overlap is trip braking distance.

This calculated time shall be shown in the Control Tables.

#### 9.1.5 Time Releasing of Intermediate Trainstops

The timing speed approaching the intermediate trainstop shall be that speed for which the overlap is trip braking distance.

For zero overlaps a timing speed of 15 kph is to be applied.

Where a series of intermediate trainstops are provided leading up to an obstruction such as the end of a tunnel then progressively reduced timing speeds are to be applied.

The time determined shall be shown in the Control Tables.

In tunnel areas, acceleration from the timing points to the train stop shall be considered in determining the overlap distance.