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**Engineering Standard – NSW**

**Category**  
**Signalling**

**Title**  
**Route Holding**

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**Document Control**

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		Refer to Reference Number	H Olsen	M Owens	Refer to minutes of meeting 12/08/04

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## About This Standard

This Principle addresses the requirements for the provision of route holding as a means of maintaining locking by the occupation of track circuits once a train has entered a route and the signal has been replaced to stop and the route normalised. Route holding is also referred to as route locking.

SUPERSEDED

## Document History

**Primary Source** – RIC Standard SC 00 13 01 12 SP Version 3.0

### List of Amendments –

ISSUE	DATE	CLAUSE	DESCRIPTION
1.1	01/09/2004		<ul style="list-style-type: none"><li>Reformatting to ARTC Standard</li></ul>
1.2	14/03/2005	Disclaimer	<ul style="list-style-type: none"><li>Minor editorial change</li><li>Footer reformatted</li></ul>
	13/08/2010	ALL	Superseded ESD-05-01

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SUPERSEDED

## 12 Route Holding

### 12.1 Principle No. 12.1-Route Holding (Route Locking)

#### 12.1.1 Introduction

This Principle addresses the requirements for the provision of route holding as a means of maintaining locking by the occupation of track circuits once a train has entered a route and the signal has been replaced to stop and the route normalised. Route holding is also referred to as route locking.

#### 12.1.2 Purpose

Route holding is provided to maintain the effect of route to route or route to points or similar locking by the occupation of track circuits between the functions concerned.

The route holding becomes effective once a train has entered the route and the initiating signal replaced to stop and the route normalised.

In some circumstances a time release is required to free route holding.

#### 12.1.3 Requirements - Holding of Locking Between Opposing Routes

If opposing routes are situated such that the occupation of an intervening track circuit is in itself insufficient to maintain the aspects of opposing signals at stop, then this shall be enforced by the provision of route holding between the signals concerned.

This will be required between main and main signals and between main and shunt signals. Route holding between opposing main and shunt routes may be necessary even where there is no direct locking between the signals, (this being achieved via points – see figure 3).

Generally no route holding is applied between shunt and shunt signals, however, in special circumstances, such as where the shunt signals are widely spaced, the route holding may be applied.

#### 12.1.4 Requirements - Holding of Route to Point Locking

If a set of points is located within the route section or overlap of a signal then the points shall be route held by the occupation of any one of the intervening track circuits within the signal route section between the signal and the set of points concerned (except for points in the overlap of home signals entering single line crossing loops without outer homes - see Principle 4.10).

Releasing of route holding of points within the route is not permitted, except for points locally operated via a releasing switch.

Generally no route holding is applied between shunt signals and points operated by ground frames however, in special circumstances, such as where the shunt signal and

the ground frame points are widely spaced apart, the route holding may be applied.

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### 12.1.5 Requirements - Releasing of Route Holding

If permitted route holding shall be released after the expiry of a time release.

Instances where a time release may be permissible are:

- i) if a train has come to a stand and it is required that an opposing signal be cleared
- ii) if a train has come to a stand at a signal and it is required that a set of points in the overlap be moved to the opposite position to facilitate the same or some other train movement.
- iii) if a train has come to a stand and it is required to operate a releasing switch which is in the route.

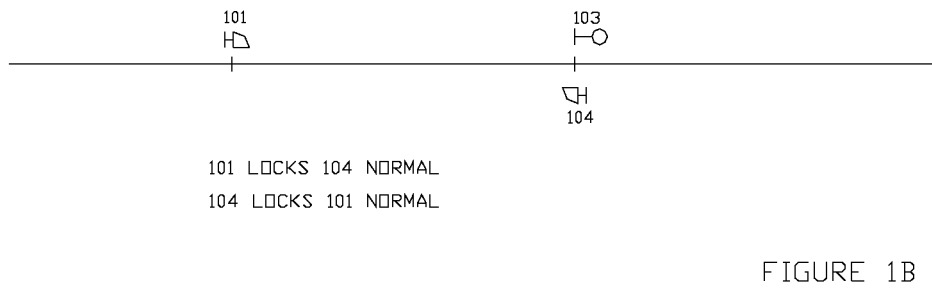
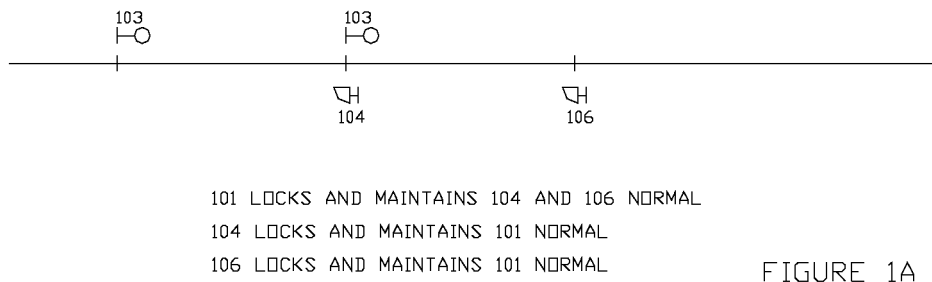
The period of time release expiry shall be determined by the length of the controlling track circuit or circuits and the average speed of the approaching train over the controlling track circuit or circuits.

Releasing arrangements are to take into account the method of operation of the interlocking and shunting arrangements. For main line movements timing shall require berth track occupancy, however, for locations where ground frames are provided, the timing track should be local to the ground frame and extend approximately 100m either side.

Long timing over a number of track circuits (e.g. in a loop) may be necessary to meet operational needs.

Direct release of route holding by track occupancy is to be avoided.





ROUTE HOLDING  
PRINCIPLE N° 12.1

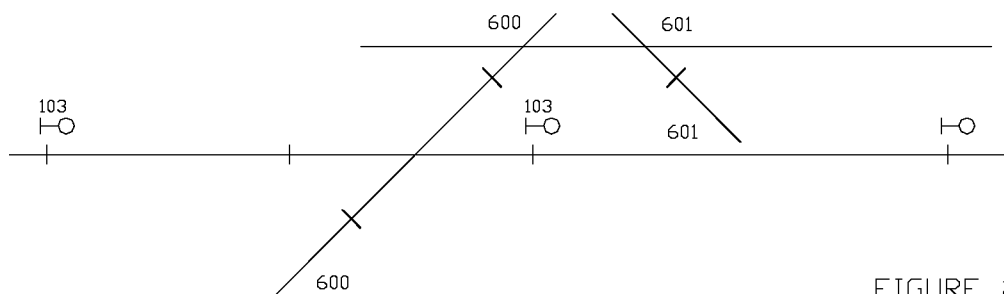


FIGURE 2

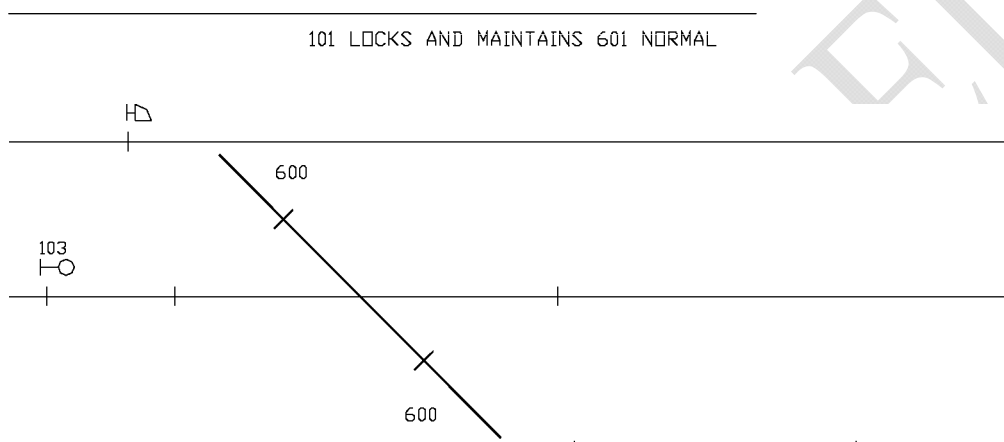


FIGURE 2B

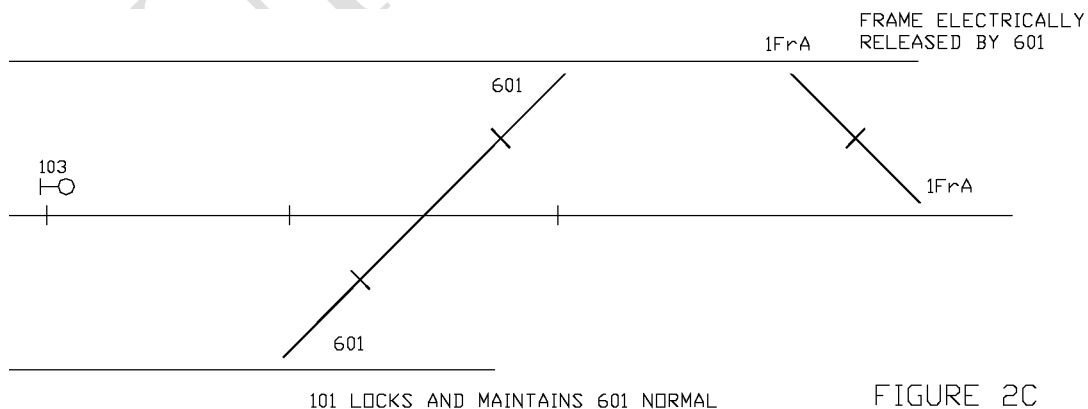
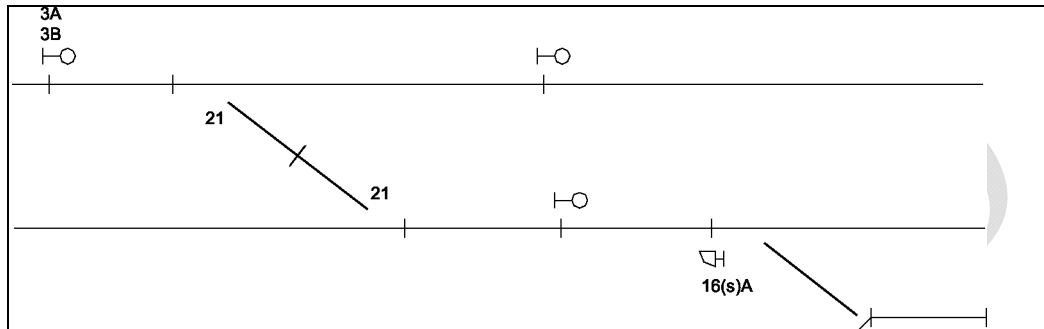


FIGURE 2C

ROUTE HOLDING  
 PRINCIPLE N° 12.1



16(s)A sets locks and detects 21 NORMAL  
3B sets locks and detects 21 REVERSE

3B to route hold and prevent 16(s)A from clearing as  
16(s)A could set lock and detect 21 points normal  
after train on 3B route has cleared 21 points

FIGURE 3

ROUTE HOLDING

PRINCIPLE N° 12.1