

ANPR 739

Operating Mechanical Interlocking Machines

Applicability

NSW

SMS

Publication Requirement

External Only

Document Status

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3.0	11 October 2015

Introduction

Mechanical *interlocking machines* in signal boxes have large levers directly connected by:

- rods to the *points* that they control, and
- cables (wires) to the signals that they control.

Interlocking is mechanical or electrical.

At some *locations* the levers are connected to power-operated signals and points. On a *track indicator diagram*, or behind the interlocking machine, there may be lights to show:

- whether signals display PROCEED (signal repeaters)
- the position of points.

To show the correct levers to use for setting intended *routes*, some interlocking machines have *pulling lists*. A lever may be identified by a plate showing its function.

Controls

Levers are colour coded:

Lever colour	Function
Blue	Operates <i>facing point locking</i> Operates <i>releases</i> <i>Closing lever for switching in or out</i>
Black	Sets points
Red	Operates signals

Indicators

Point indicators and transit lights

If present, point indicator lights show that points have operated correctly.

Indicator colour	Means that points are
White and letter N	In NORMAL position
White and letter R	In REVERSE position
Green or white	FREE, and can be moved

A flashing point transit indicator light shows that the relevant points do not have *detection*, because:

- the points are not in position, or
- the points are changing position, or
- facing point locking is not engaged.


Signal repeater lights

If present, signal repeater lights show that signals have operated correctly.

Light colour	Means that signal is
Red	At STOP
Green	Not at STOP
White	Not at STOP

Operating points and signals

Qualified Worker




WARNING

The lever of a signal protecting points with mechanical interlocking only must not be returned to **NORMAL** before:

- *rail traffic* has passed completely beyond the points, or
- rail traffic has been brought to a stand before the points.

1. If there is a pulling list, use it to find the correct order of levers to set the intended route.



NOTE

Do not force a lever. Too much force may damage the interlocking machine.

2. If necessary, use blue levers to remove facing point locking.
3. Use black levers to set points.
4. If necessary, use blue levers to re-apply facing point locking.
5. Use red levers to set signals.
6. Check that points and signals are set correctly for the route.

Failure of intended route to set

Qualified Worker

1. If points or signals do not move to the intended position, check that you are using the correct levers in the correct order.
2. If you are qualified, adjust the connecting wire tension.
3. Check that linkages move freely.
4. Return the levers to their previous positions.
5. Check that there is no obstruction in the points.
6. If the route cannot be set, tell:
 - a *Signals Maintenance Representative*, and
 - the *Train Controller*.

Related ARTC Network Procedures

ANPR 707	Clipping points
ANPR 719	Operating groundframes
ANPR 738	Operating powered interlocking machines

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