

Procedures

NPR 742 Manually operating cranked electric points

Description

This document describes the procedure for manually operating cranked electric points.

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Introduction

If the Signaller has given authority, cranked electric points machines may be operated manually with a crankhandle.

An Emergency Switch Machine Lock (ESML) cabinet for the points contains a crankhandle. The crankhandle is welded to its own Annett key, which locks it in place in the ESML cabinet.

Westinghouse points machines have a crankhole either on the top or the side of the machine.

Nippon points machines have a crankhole on the top of the machine.

GEC points machines have a crankhole at the end of the machine.

Switching to trackside control

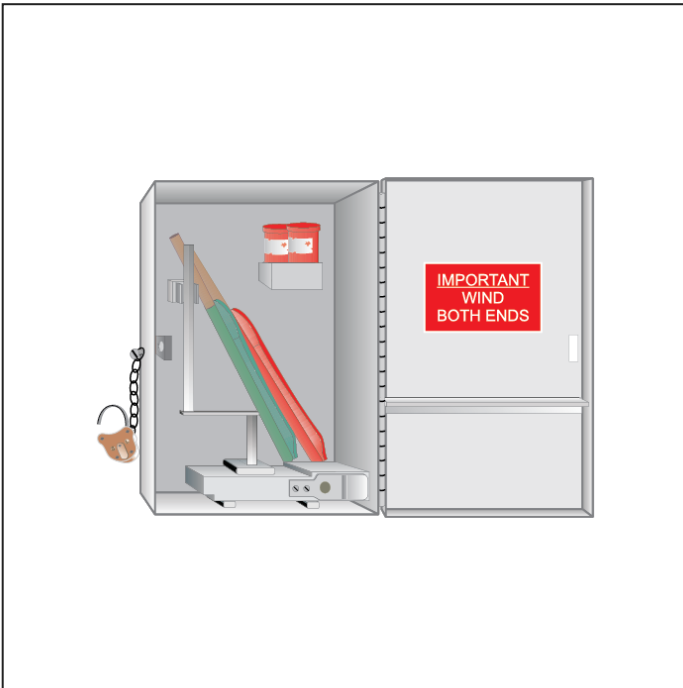
Qualified Worker

- 1 Find the correct ESML cabinet for the points.
- 2 Unlock the cabinet with an SL or ESML key. You may have to get an ESML key from the signal box, or from a designated location.

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FIGURE 1: Emergency Switch Machine Lock (ESML) cabinet with crankhandle.



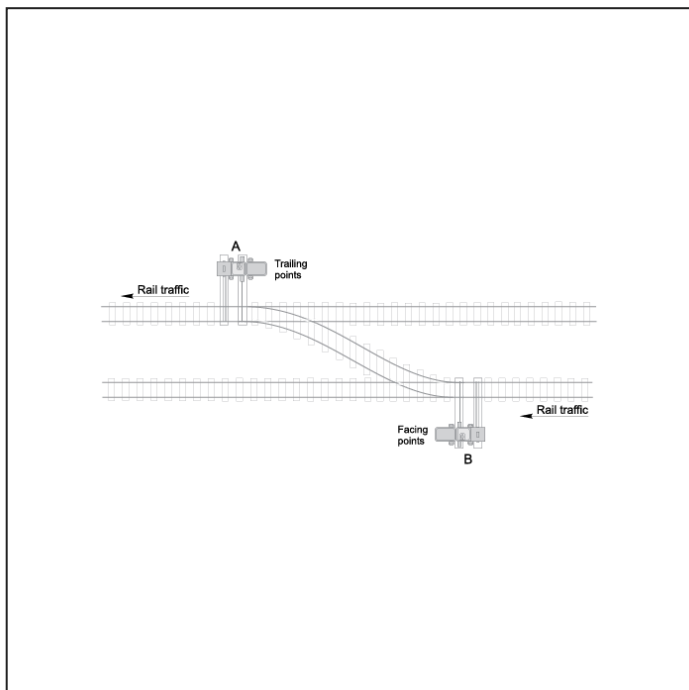
- 3 If there are instructions in the cabinet to help you to operate the points correctly, read and follow them.
- 4 Turn the crankhandle to release its attached key from the Annett lock.
- 5 Take the crankhandle from the cabinet. Removing it:
 - switches the points machines to trackside control, and
 - sets the protecting signals at **STOP**.
- 6 Check the crankhandle label to make sure that you have the correct one.
- 7 Make sure that protecting signals are at **STOP**.

Winding the points

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FIGURE 2: Crossover operated by two electric points machines.



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- 1 Check the position of the points at each switch machine. Make sure that your changes set the correct route.

i Note

Operate switch machines at crossovers in order from the trailing end to the facing end.

- 2 Undo the SL lock on the cover of the crankhandle hole. Uncover the hole.
- 3 For Nippon machines, move aside the metal collar in the crankhandle hole.
- 4 Insert the crankhandle. You may have to 'feel' the crankhandle back and forth to engage it correctly.
- 5 For Westinghouse machines, push firmly on the crankhandle to engage the gearing fully.
- 6 Wind the crankhandle to move the points to the correct setting.

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- 7 Continue winding after the switch rail first touches the stock rail. Wind until you cannot wind any further.
- 8 Make sure that the switch rail is hard against the stock rail.
- 9 Take the crankhandle from the points machine.

Warning

A crankhandle left in a machine may damage passing rail traffic or the equipment.

- 10 Get instructions from the Signaller.

Returning to signal box control

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- 1 Replace the crankhandle hole cover. For Nippon machines, return the metal collar in the hole to the central position before closing the cover.
- 2 Secure the crankhandle hole cover with the SL lock.
- 3 Replace the crankhandle in the ESML cabinet. Turn the crankhandle to secure it in the Annett lock.
- 4 Lock the cabinet.
- 5 Ask the Signaller to test the points.
- 6 Confirm with the Signaller that the points operate correctly.
- 7 If the points do not operate correctly, get instructions from the Signaller.

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