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**Discipline**  
**Engineering Standard – NSW**

**Category**  
**Signalling**

**Title**  
**Points Detection Test: Separate Electrical**

**Reference Number**  
**SMP 28 – (RIC Standard: SC 00 52 00 28 SI)**

**Document Control**

<b>Status</b>	<b>Date</b>	<b>Prepared</b>	<b>Reviewed</b>	<b>Endorsed</b>	<b>Approved</b>
Issue 1 Revision 2	Mar 05	Standards and Systems	Standards Engineer	GM Infrastructure Strategy & Performance	Safety Committee
		Refer to Reference Number	H Olsen	M Owens	Refer to minutes of meeting 12/08/04

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## About This Standard

This Standard defines the procedures and tests to be followed when carrying out maintenance on a separate electrical points detector.

Superseded by ESM-06-01

## Document History

**Primary Source** – RIC Standard SC 00 52 00 28 SI Version 2.0

### List of Amendments –

ISSUE	DATE	CLAUSE	DESCRIPTION
1.1	01/09/2004		▪ Reformatting to ARTC Standard
1.2	14/03/2005	Disclaimer	▪ Minor editorial change ▪ Footer reformatted
	13/08/2010	ALL	Superseded by ESM-06-01

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Superseded by ESM-06-01

## 1. General Procedure (For other than Point Clamp Locks)

Where the detection contacts cannot be observed to be made or broken during tests, such as in the case of sealed detector contacts, connect a voltmeter across the circuit wires from the detector to monitor the test.

The aim is to adjust detection to be just made at 3.2mm switch opening and broken at 4.8mm switch opening.

Detection shall be broken and detector contacts visibly open with a switch opening of 4.8mm. Note that where sealed contacts are used (eg. ML Detectors) detection shall be verified electrically open and contacts changed over with a switch opening of 4.8 mm. For other types of detector contacts that are not visible the detection shall be verified to be electrically open at 4.8mm switch opening. Refer to SMP 30.

Backdrive detectors, where fitted should be adjusted to be broken at 6.4 mm switch opening (at the backdrive detector) and be made with a switch opening of 4.8 mm (at the back drive detector).

For combined detection of switches and mechanical facing point locks ensure that detection does not make until the FPL plunger engages the locking rod by at least 35mm. On electropneumatic points observe the contacts in the detector, plunger lock and indication box to check they are in correct adjustment.

With trailing points it is permissible to increase the detection 4.8mm limit up to 6.4 mm under certain circumstances as follows:

- This increased limit is necessary to avoid failures and delays to traffic.
- There is no signalled move through the trailing points in the facing direction.
- There is no reversing move where part of the train would set back through the points in a facing direction.
- The condition causing the inability to obtain reliable detection at lower limits is to receive attention to correct the problem.
- The approval of the ARTC General Manager ISP or nominated Signalling representative is obtained.
- A record is kept of such arrangements in the Signal Maintenance Engineers office and monitored by the Signal Maintenance Engineer.

On single blade catchpoints, detection of the open switch position, usually the normal position, may be coarsely adjusted to make at about 13mm, measured from the switch stop, ie; with the points open at least 100mm.

In routine testing of point detection, the signalling maintainer carrying out the tests shall liaise with the signaller so that the testing is conducted without detriment to safety or train working. The signaller is to place affected controlled signals at stop before the testing is allowed to commence.

Where electric or electropneumatic point machines are involved, the signalling maintainer carrying out the tests shall either use the ESML or EOL or Plug

Connector and Key arrangements, where available, or arrange for the signals protecting the points concerned to be otherwise securely maintained at stop during testing.

Where Plug Connector and Key arrangements for Style D or E electropneumatic points are used, or where ESML or EOL arrangements are used, the signals protecting the points concerned must first be placed at stop and approaching trains brought to a stand before the Plug Connector is disconnected or the ESML or EOL keys are taken.

Where the ESML, EOL or Plug Connector and Key arrangements are not being used and adjustment is required, the signals protecting the points are to be booked out of use for traffic movements in accordance with Network Rule NWT 312 and Procedure NPR 704 before commencing adjustment.

Superseded by ESM-06-01