

# Testing of Microprocessor Signals Equipment

ESI-11-12

## Applicability

ARTC Network Wide
SMS

## Publication Requirement

Internal / External
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## Main Points

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<ul style="list-style-type: none"> <li>Insulation Testing Precautions for Microprocessor equipment.</li> </ul>

## Document Status

Version #	Date Reviewed	Prepared by	Reviewed by	Endorsed	Approved
1.0	30 Jan 15	Standards	Stakeholders	GM Technical Standards	Operational Safety & Environment Review Committee 10/02/2015

## Amendment Record

Amendment Version #	Date Reviewed	Description of Amendment
1.0	30 Jan 15	New Instruction. Document rebranded following OSERC approval.

## 1 Scope

The Work Instruction covers the insulation testing of signalling circuits which include microprocessor based equipment. It is to be read in conjunction with ESM-11-01.

## 2 Background

Many Signalling installations include Computer Based Interlockings or microprocessor based equipment such as level crossing predictors, telemetry systems and level crossing monitors. The use of megger type equipment for insulation testing with voltages of 500 volt and higher will damage this equipment. Precautions are required to perform insulation testing in these situations.

## 3 Actions

The Signal Technicians when undertaking insulation testing of signalling circuits is to take the following precautions.

- a. All microprocessor based equipment shall be isolated and not insulation tested.
- b. Preferably this is done by the removal of terminal pins. Where this is not available wiring shall be disconnected, covered with an insulation sleeve and securely fastened so as not to move.

Output circuits from Computer Based Interlockings do not need to be tested as they include self-test functions. These circuits include:

- Signal lamp driver outputs,
- Point driver outputs.