



## INFORMATION NOTE

### Delmatic Lighting Controller Modules

Number: IN 07/09

Property Directorate Sponsor: Tony Whitehead

Date of issue: 10<sup>th</sup> July 2009

Contact if different from Property Directorate Sponsor:

Hom Limbu  
Construction Support Team  
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Who Should Read this: CEstOs, Top Level Budget Holders, Defence Estates Advisors, Estate Managers, Facilities Managers and Property Managers/Site Estate Representatives Property Management Works Services (including the legacy work of EWCs/WSMs), DE Health and Safety teams; and any other person who is responsible for the maintenance of MOD Electrical Installations.

When it takes effect: Immediately

When it is due to expire: 10<sup>th</sup> July 2010

**Document Aim:** The aim of this Information Note (IN) is to alert all stakeholders of failures occurring in the Delmatic Metro One Ten Lighting Controller Modules as a result of their improper installation and advise them of remedial course of action to prevent similar occurrence.

### Background

1. A Site has experienced burning out of quantity 3 Delmatic Metro One Ten lighting controller modules from an installed total of 150 identical modules. Photographs of the damaged modules are attached along with the manufacturer's report.
2. On investigating the incident the manufacturer observed that some of the connector pins inside the mains power connector had blackened. The blackening was caused by electrical arcing which occurred due to loose fitting of the counter connector part. This black deposit acts as high resistance thus inducing failures in the affected modules.
3. The manufacturer has concluded that the situation arose as a result of improper installation of the mains power connector.

## Remedial Action

4. To prevent the problem from occurring the manufacturer has recommended the following course of action:
  - 4.1 The connectors must be fitted firmly to their counter connector parts.
  - 4.2 The supply cable must have enough slack prior to securing them to the frame of the module with the cable ties. This ensures that the connectors are not under tension and prevents skewing and partial withdrawing of the connectors from their counter connector parts, thus eliminating the chance of arcing to occur.
5. Sites with these controllers should carry out an inspection of all the units using thermal imaging camera or by visual inspection. Maintenance Management Organisations are to ensure that action is taken to identify any such equipment in use in their areas of responsibilities and remedial action taken as advised by the manufacturer.
6. Any action required by this IN is to be taken at the earliest possible opportunity.
  - 6.1 The earliest possible opportunity should be established commensurate with operational requirements and the risk to personnel and property; with the highest priority given to heavily used/urgent operational facilities and the lowest to unoccupied or rarely occupied or non essential facilities.
  - 6.2 Where defective units are found the matter is to be reported to the Authorising Engineer (Electrical).

## MANUFACTURER'S REPORT

*delmatic* managing light + 44 (0) 20 8987 5900 + 44 (0) 20 8987 5957 [www.delmatic.com](http://www.delmatic.com) The

Powerhouse 6 Power Road Chiswick London, W4 5PY, UK T F **ENGINEERING REPORT**

**Site:** Inspire Salisbury

**Site contacts:** Simon Hayes, 07980 99 6827

**Fault reported:** (x3) Metro One Ten module

**Defective modules (without plug-in capsules) received from:** Simon Hayes

Visual inspection was carried out on supplied defective module.

During the inspection, it was noticed that some of the connector pins inside the mains power connector had blackened, whereas other pins within the same connector were seen to be clean. It has been established that the blackening was caused by the electrical arc due to loose fitting of the counter connector part, too much of this black deposit on the connector pin acts as a high resistance making the module fail to operate. This is due to an installation fault.

To obviate the occurrence of the above problem, the following is recommended:

- All the connectors must be fitted firmly to their counter connector parts on the modules.
- The cable at the module end must have enough slack prior to securing them to the frame of the module with the cable ties, this to ensure that the connectors are not under any tension. This will stop skewing and partial withdrawing of the connectors from their counter connector parts on the module, eliminating any chance of arcing to occur.

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Compiled by: B Shah (QAM)

Date: 26/05/09

File: Engineering Report, Failures at Inspire Salisbury

