

Category I Standard

S1096

Control of Lift and Escalator Controller Software

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1 Purpose

London Underground's fleet of lifts and escalators are controlled by programmable logic controllers (PLC) or micro-processors/micro-controllers, or both. This standard outlines the requirements for the control of software, software changes and associated issues relating to the control and storage of passwords and controller parameters.

2 Scope

- 2.1 This standard applies to lift and escalator logic controllers and variable speed drives. Logic controllers could be programmable logic controllers (PLC) or micro-processors/micro-controllers. The variable speed drives are sometimes referred to as "inverters".
In reference to the controller software and parameters, this standard applies to passwords, parameters and software code.
- 2.2 The requirements of this Standard are in addition to the requirements of LU Standard S1210: Safety related software.

3 Requirements

3.1 Controlling Party

- 3.1.1 It is recognised that having more than one party with access to the passwords of a lift or escalator controller and thus being able to change the code inside the controller presents an unsafe condition. It is thus necessary to ensure that for each lift or escalator controller there is one, and only one, Controlling Party. The Controlling Party is the only authorised party able to access and change the software within the controller, change passwords and change the values of the parameters, with exception of identified engineer adjustable parameters.
- 3.1.2 LU agreement in writing shall be obtained in the event of changes being required. Documentation provided for LU review shall include description of the reason for the proposed change as well as the assurance processes and off and on-site testing requirements.
- 3.1.3 The Controlling Party does not necessarily have to be the maintenance contractor for the lift or escalator. In cases where the Controlling Party is different to the maintenance contractor, then the maintenance contractor shall liaise with the Controlling Party for site attendance, troubleshooting and changes in software, passwords or the values of parameters with exception of the adjustable parameters available to the maintenance contractor. In some cases, the OEM could remain as the Controlling Party for the software even where the maintenance of the controller has been transferred to a third party.
- 3.1.4 The Controlling Party shall keep regular safe backups of the installed code/software, on-site (of the Controlling Party premises) and off-site.