



Stannah Lifts Technical Bulletin

Issue No:E 4

Date: 24.2.97

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LIFT TYPE

System 21 Passenger Lifts with Full Powered Doors

PECULIARITIES OF THE LIFT

The lift in question is installed in a home for mentally handicapped children. These children are not capable of understanding push buttons and are restricted to certain floors by supervision.

The lift car control station is standard push button control with access to the lift by landing keyswitches instead of normal push buttons. The keys to the landing switches are only held by supervisory staff.

The lift has a low usage rate and is parked (doors closed), for considerable periods of time.

PROBLEM

It was reported that the lift doors sometimes open and close after the lift had been parked for a period of time. If a child entered the lift during this door operation the supervisory staff would not know, which could be potentially dangerous should the child suffer an epileptic fit.

DIAGNOSIS

After many visits to site, checking door circuits etc, it was diagnosed that the fault was linked to the anti-creep operation. If the right circumstances are present, this fault could potentially arise on any first or second generation microprocessor.

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DESCRIPTION OF FAULT

Note that the fault does not happen continually, it is possible for the lift to operate normally for days or weeks without the fault appearing.

The lift is parked at floor level and gradually sinks very slowly because the low usage rate results in high viscosity oil and low leakage at the hydraulic piston seals.

When the lift reaches the point of running out of UPR opto switch beam it can “flicker” the UPR opto switch output to the lift microprocessor. This results in the microprocessor trying to re-level back to floor level every time the UPR input is lost.

The “flicker” on the UPR opto switch can operate many times a second, resulting in relays and contactors chattering which in turn gives spurious inputs to the microprocessor. These very fast spurious inputs cause the microprocessor to lose CDR output which opens and closes the doors. As soon as the lift re-levels or a call is placed the fault disappears.

ACTION

The purpose of this bulletin is for information only. No breach of safety occurs. Where it may become an issue is on installations where high security is required. In this instance, two options are available to cure the problem.

1. Change UPR opto-switch and check if this cures fault.
2. If option 1 fails to cure the fault, refer to Lifts Electrical Drawing Office for details of custom UPR lagging circuit. The key diagram which has this custom circuit is 9395/91.

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