

TECHNICAL BULLETIN

For the Attention of : Testers, Trade Customers, Operations Support - Lifts Services

Date : 06/02/08

Product : System 21 – Nexus Controller CPU PCB

Subject : Nexus 'Lock-Up' and Random Reset Faults

Status : Installation/Service Issue

Pages : 2

Originator : Stannah Lifts Ltd, Anton Mill, Andover, Hants SP10 2NX 01264 339090

Detail

A Nexus Unit was returned from site with the fault description that it was intermittently either freezing / locking-up (allowing no further operation), or resetting of its own accord.

An investigation determined that the cause of the fault was a defective solder joint on the 8 pin header 'LK4', located on the Nexus CPU PCB (9300/10).

The location of 'LK4' and an example of the defective solder joint can be found on Page 2.

These links are used to determine the mode that the processor operates in.

One link is for the reset signal and if this link is broken causes the Nexus to reset.

The other link controls the mode of the processor, should this change state and put the processor in a different mode then the processor will expect to see its memory in a different area thus the processor would be trying to access memory that does not exist and hence the unit would freeze.

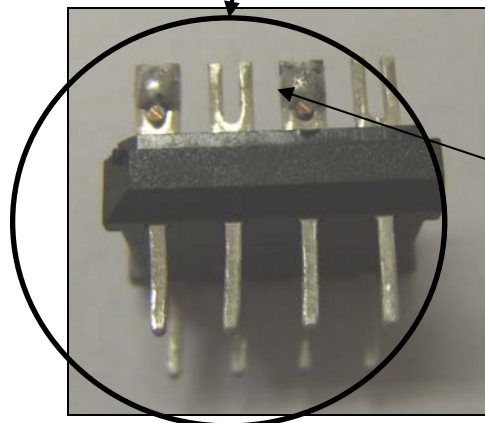
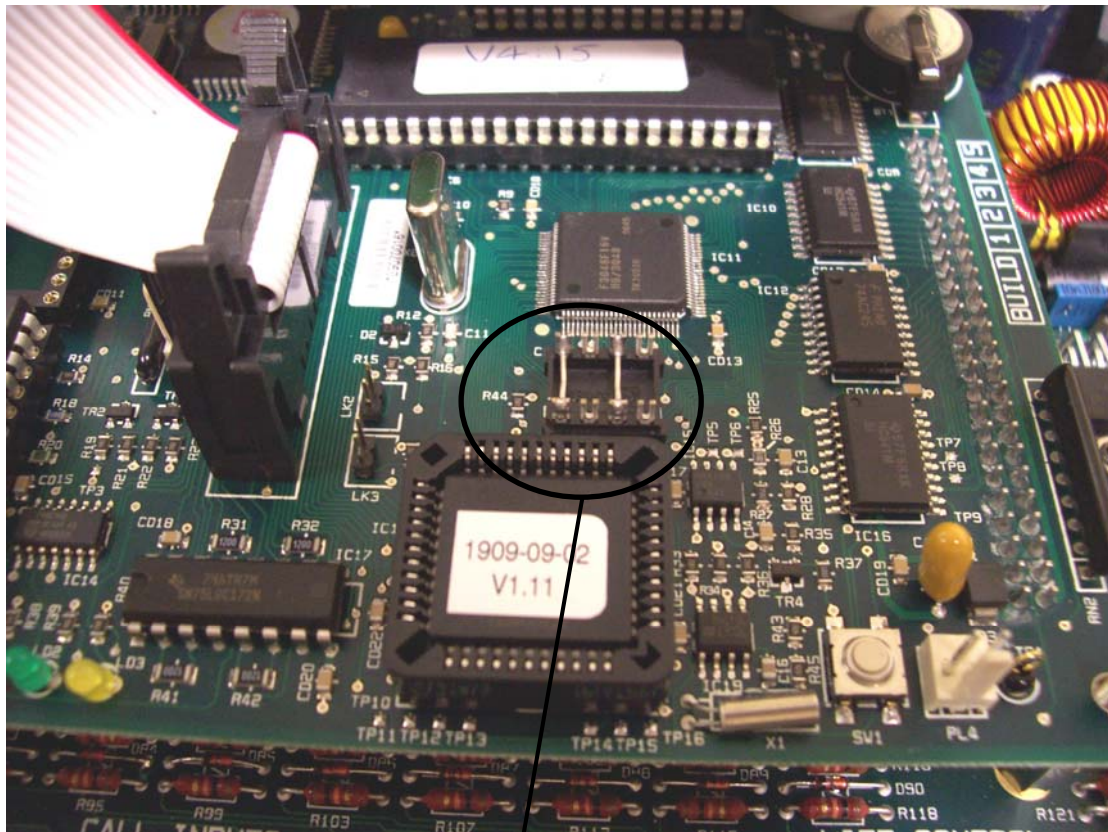
The fact that the Nexus would sometimes work may be due to the temperature of the unit. Dry joints on a PCB will often work until it warms up and expansion forces the dry joints to go open circuit or high resistance and cause the circuit to malfunction.

The fault has been addressed with the manufacturer and 'LK4' will now be fully tested & inspected to ensure that this fault does not occur on future Nexus CPU PCBs.

There may be further Nexus CPU PCBs in storage/the field that also have this fault, if one or both of these symptoms are experienced then the complete Nexus should be replaced.

Summary

A manufacturing quality issue has been discovered that can result in the Nexus freezing / locking-up (allowing no further operation) or resetting of its own accord. If a Nexus is found with this fault then it should be replaced with a new unit.



Dry solder joints

