

## All Systems Go For Nexus

**When is a product considered launched?** We have now manufactured our 100<sup>th</sup> Nexus and many have been successfully installed in the field.

**Why develop a new product?**

As the electronics industry moves along at a rapid pace, so our microprocessor needs updating to cope with the modern expectations of the lift market. Our existing lift microprocessors, although still reliable, are becoming increasingly more difficult to source components for. The need for a modern, state of the art controller is paramount.



*Kevin with the Nexus Microprocessor*

**What is Nexus?**

NEXUS is the new microprocessor control unit for the System 21 range of lifts. It is the 'brain' of the system that does all the decision making. NEXUS is the result of 3 years of design, testing and build – controlled by Stannah's senior electronics designer Kevin Cantillon. In its infancy, outside consultants were used to select and design a modern state of the art microprocessor control system to cope with very complex lift specifications. From their prototypes, Stannah's electronics department took the design and made it work effectively within the electrically noisy environment of the motor room. With extensive in-house testing and reliability checking, NEXUS



was born. To oversee its introduction to production, Andy Cuthbertson was appointed product champion, liaising with all departments, he had to ensure a smooth introduction of the product. Martin Buckley and his electrical team have made changes to introduce the product to a standard control panel and Pete Warmington is tasked with ensuring that each NEXUS is of a high build quality and fully tested before leaving for site. As confidence with the units in the field grows, so a programme to cease production of the 1<sup>st</sup> and 2<sup>nd</sup> Generation controllers takes place.

**What are the Nexus features?** The NEXUS controller has been developed to incorporate the best features of the previous generations of

lift controllers and to comply with the latest lift directives EN81/2 and EMC EN 12015/16, as well as specific customer requirements such as short floor travel, double doors etc.... The unit has clear labelling of inputs and outputs, front panel LED indication and a built in programmer with fault logging in plain English displayed on a back lit LCD. Set-up security is assured by the use of an electronic key that has to be fitted for lift parameters to be changed. NEXUS also includes 2 RS485 communication ports to enable future products such as remote monitoring, serial communications and including the support of multi-car group systems.

**A personal view on the Nexus microprocessor by one of our service engineers –**  
*“I have worked in the lift industry for 20 years and installed various types of controllers. These range from TVL, Mavercourt, Otis MS300, capital Controls and Lester Controls, Lesters being the most popular for reliability and ease of use. During the past 12 months with Stannah Lift Services, I have attended two courses at Anton Mill with Kevin Cantillon, to be trained on the Nexus Processor. I have recently met Kevin on site in London where the Nexus is now in operation in a busy restaurant. To my knowledge the lift has not broken down and is proving to be reliable. In comparison to the Lester Processor the Nexus is simpler to understand and operate. Fault finding and programming are in English, no more plugging in hand held and decoding!. Overall I am generally impressed with the Nexus!! Superb!!”*

## **NEXUS Microprocessor Standard Features**

### ◇ **General**

- Designed using state of the art Microprocessor Technology.
- Incorporates the best of generation 1 and 2 Lift controllers.
- Complies with the latest lift directive EN81/2. (1998).
- Clear labelling of inputs and outputs.
- Input and output LED status indication.
- Connection to unit via plug and sockets.
- Built in programming and fault logging.
- Messages displayed in Plain English.
- Front Panel LED lift status indication.
- Program security by the use of a plug in electronic key.
- Communication ports RS232 and two RS485 ports.
- Self-test and CPU status indication.
- Stuck button detection and indication.

### ◇ **Call Handling**

- 8 Floor operation for Single Button Collective.
- 6 Floor operation for Fully Directional Collective.
- Expandable up to 15 Floors.
- Call acceptance illumination outputs for all call inputs.

### ◇ **Door Controls**

- Programmable for automatic or manual doors.
- Door open pushbutton.
- Extended Door open pushbutton.
- Programmable park open per floor.
- Door close pushbutton.
- Door nudge ( low torque close) option.
- Door protection sensitive edge input.
- Double door operation.
- Door control speech trigger outputs.
- Door alarm output for manual doors.

### ◇ **Lift Control Outputs**

- Automatic re-levelling.
- Programmable options for re-levelling.
- Floor position output options.
- One per floor.
- Binary code.
- Gray code.
- Direction arrow outputs.
- Hall lantern outputs.
- Directional arrival gong outputs.
- Lift in service output.
- Overload warning output.

### ◇ **Control Options**

- Goods control. ( Landing call buttons disabled).
- Test control.
- Firecontrol compliant to EN81/2.
- Two shutdown inputs.
- Two overload condition inputs.
- Alarm input.
- Motor over temperature shutdown to EN81/2
- Short floor travel inputs.
- Built in over journey timer.
- Built in latching of dangerous fault conditions, such as Ultimate limit and over journey time out.

### ◇ **Future Options**

- Multi car group operation.
- Remote monitoring.
- Serial communications.