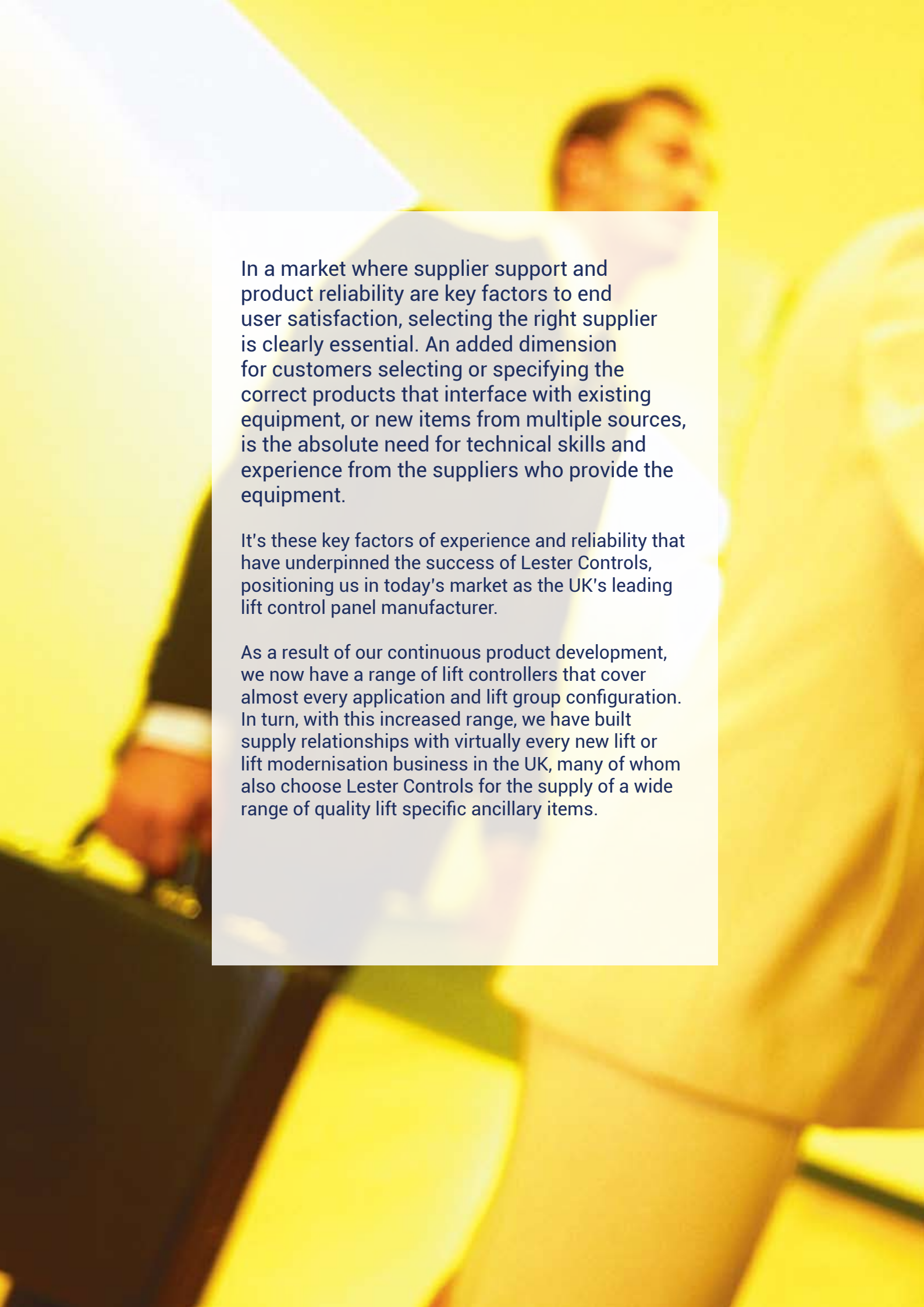
LIFT CONTROLLERS AND ANCILLARY EQUIPMENT

Product Brochure | 2013



In a market where supplier support and product reliability are key factors to end user satisfaction, selecting the right supplier is clearly essential. An added dimension for customers selecting or specifying the correct products that interface with existing equipment, or new items from multiple sources, is the absolute need for technical skills and experience from the suppliers who provide the equipment.

It's these key factors of experience and reliability that have underpinned the success of Lester Controls, positioning us in today's market as the UK's leading lift control panel manufacturer.

As a result of our continuous product development, we now have a range of lift controllers that cover almost every application and lift group configuration. In turn, with this increased range, we have built supply relationships with virtually every new lift or lift modernisation business in the UK, many of whom also choose Lester Controls for the supply of a wide range of quality lift specific ancillary items.

LATEST

Latest Products
Please take a look through our brochure in which you will find a wide selection of new and innovative products in almost every section.

Not Only Lifts
As a result of on-going customer requests, we are now manufacturing a compact escalator controller suitable for new and modernisation installations. As with all Lester Controls' controllers, prior to production we fully test and run the controller under various simulated conditions to ensure that, when delivered, our controllers fully match the chosen customer specification.

Green
Wherever possible our products are designed and manufactured to help your customers save energy costs after installation, whilst at the same time being both robust and long lasting.

FIND

4 **Controllers**
Going Green, Relay APB, Escalator Controllers, MP2G Elevator, MP2G ALMEGA Traction, ALMEGA II, MRL Hydraulic, VVVF, Internet

16 **Lift Shaft**
Half Way Box, Wire, Trailing Flex and Shaft Looms, Limits Unwired & Pre-wired, Shaft Vane Options Type 1/2/3/4

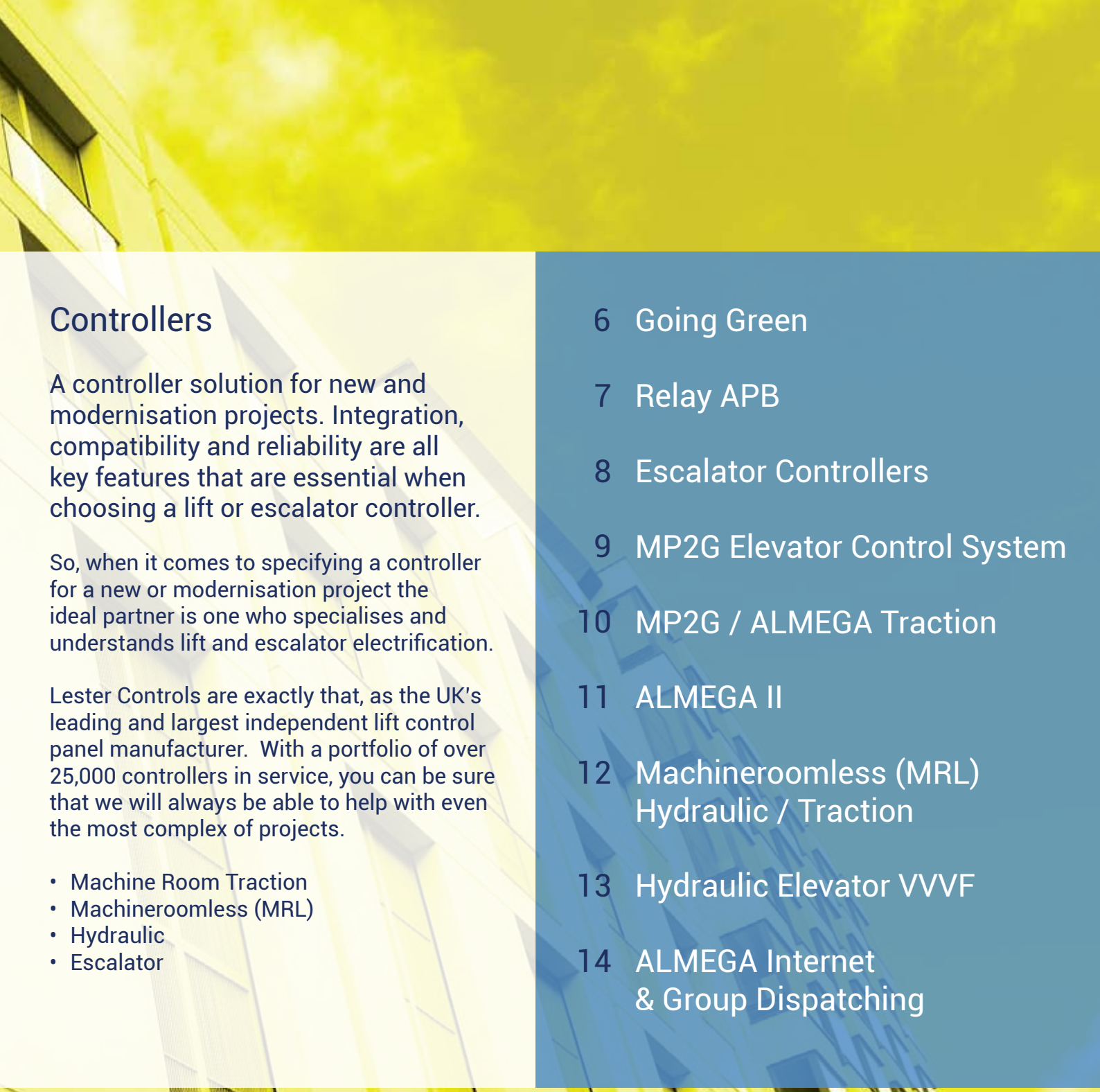
24 **External Car**
Safety Edge, Car Top Controls, Load Monitor, Floor Positioning, USP Shaft Positioning, Governor Absolute Positioning, Tape Heads/ Proximities

34 **Internal Car**
Call Zappers, Call Security, Voice Synthesizers, Car Operating Panels

40 **Car & Landing**
PB4 Compact Push Buttons, Keyswitches, Indicators, HDI 16/32, TFT, Position Indicator, Hall Lanterns, Indicator Face Plates, Landing Call and Position Face Plates

52 **Motor Room**
Encoders, Alarm Chargers, Hand Winding Units and True Position Hand Winding Units

56 **Repairs and Training**



Controllers

A controller solution for new and modernisation projects. Integration, compatibility and reliability are all key features that are essential when choosing a lift or escalator controller.

So, when it comes to specifying a controller for a new or modernisation project the ideal partner is one who specialises and understands lift and escalator electrification.

Lester Controls are exactly that, as the UK's leading and largest independent lift control panel manufacturer. With a portfolio of over 25,000 controllers in service, you can be sure that we will always be able to help with even the most complex of projects.

- Machine Room Traction
- Machineroomless (MRL)
- Hydraulic
- Escalator

6 Going Green

7 Relay APB

8 Escalator Controllers

9 MP2G Elevator Control System

10 MP2G / ALMEGA Traction

11 ALMEGA II

12 Machineroomless (MRL) Hydraulic / Traction

13 Hydraulic Elevator VVVF

14 ALMEGA Internet & Group Dispatching

ALMEGA / MP2G & ALMEGA II on route to be even more GREEN

With the ever growing demand for energy efficiency, Lester Controls are now developing a range of eco-friendly features designed to integrate with some of our established and highly successful controllers, including the ALMEGA / MP2G. To add to the range, we have had great success with our new DC Control System, utilising a Magnetek re-generative drive providing customers with energy savings of up to 45% against Motor Generator (MG) sets.

The specification we are working towards will provide:
- Savings of up to 95% of Standby Power
- Savings of up to 30% of Running Power (Drive Power)

Standby Power: How we get to 95% saving
Car illumination, auto turn off of car lights when lift is inactive Indicators, auto reduction of intensity output or turn off when lift is inactive, Fans and Drive / Motor / Lift Car auto reduction of power or turn off when lift is inactive.

Running Power: How we get to a 30% saving
Use of Lester Controls' Direct to Floor system optimises floor to floor runs, and, in some instances, can in itself save up to 30% of running costs.

A closed loop control provides better speed management therefore reducing peak current demands.

Use of the Magnetek re-generative drive, as selected for our new Quattro DC Drive, utilises kinetic energy to augment mains power supplies.

Like all of our customers, we at Lester Controls are always looking at energy efficiency and products that help towards the goal of lowering building energy costs. As a direct result of our ongoing product development, and to support this demand, Lester Controls have now increased the range of Lift Controllers to include energy efficient options, and we have expanded the range of ancillary equipment for the highly successful ALMEGA and MP2G Control System.

Direct to Floor Control for ALMEGA Control System

Working in conjunction with an absolute Position Device i.e. The Schmersal Ultrasonic Positioning Device 'USP', the Positioning system offers enhancements such as:
- Better Position Accuracy
- Optimum Ride Quality
- Reduced Floor to Floor Travel Time
- Reduced Energy Consumption
- Reduced Shaft and Control Equipment
- Reduced Installation / Setup Time
- Dynamic Speed Selection (distance related)
- Direct to Floor as Standard

As part of our development, we have been testing this system, which is designed to allow travel speeds of up to 8m/s. Testing has been undertaken at the National Test Tower in Northampton, and at the time of this publication we are achieving successful results at 4m/s. For further information or enquiries about trying out the system please contact one of our team who will be happy to help.

Regenerative Braking (Traction VVVF)
A "plug and play" system that can be easily installed in both new applications and retrofitted to existing installations, to regenerate energy back to the supply that has traditionally been wasted through braking resistors.

- Power Range 4kW-250kW
- Up to 4 units can be paralleled
- Self Synchronising
- Overload protection during feedback
- Supervision of mains voltage, phase sequence and temperature

Relay APB

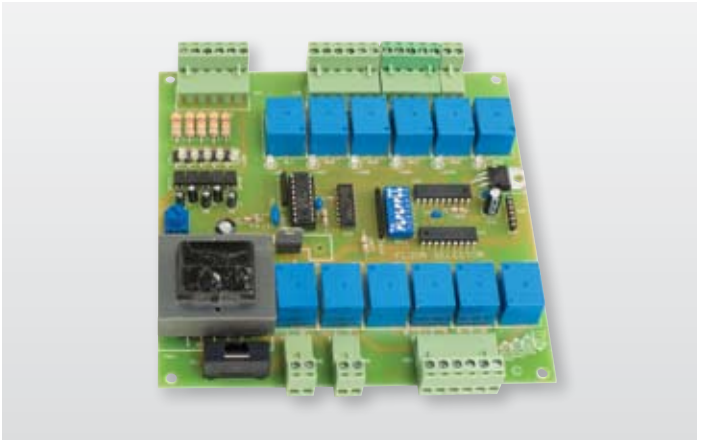
We still get asked to supply relay controllers for those “basic” installations. Service lift controllers, hoists and scissor lifts are often made using relay based technology. For controllers in excess of 2 floors, requiring a tape head or proximity set up for floor selection, we use our Electronic Selector which is capable of being used on sites of up to 12 floors. We also sell this selector on sites which just require a replacement selector and not a whole controller.

Advantages

- Cost effective for low budget installations
- Relay based with Electronic Floor Selector
- Easy fault finding

Range Features

- LED Status Indicators for all inputs and outputs
- Electronic Floor Selector (6 Floors standard)

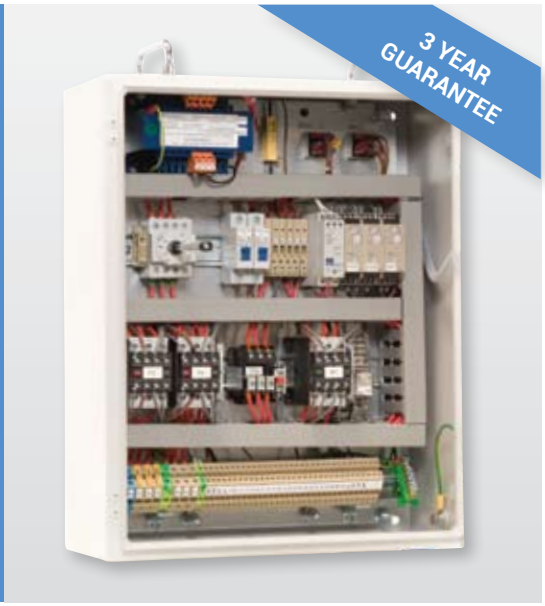


6 Floor Electronic Floor Selector

Electronic Selector
Up to 6 Floor Selector NICESELEC
6 Floor Extension Board NICEEXT

Escalator Controllers

Lester Controls offer a range of bespoke Escalator Controllers for common types of Escalators.



Type 1 (500h x 400w x 210d)

A basic relay controller for forward, reverse operation with mains isolator switch and fault diagnostic indicators on the door; lifting handles on top of the cabinet with a test socket and blanking plug fitted. Control voltage 110v AC.

Type 2 (600h x 600w x 210d)

A basic controller as above but has the addition of a fault logging system with remote fault display screen for mounting in the skirting. This system also incorporates under / over speed monitoring of the main drive motor, missing step feature, brake lifted and left and right handrail movement monitoring, as required by BS EN 115-2:2010 PART 2, rules for the improvement of safety of existing escalators and moving walkways, using the fault logger microprocessor board.

Type 3 (760h x 760w x 210d)

Again the same as above but with the addition of a VVVF drive for slowing and / or stopping the machine during quiet operational periods; this results in a good power saving, typically a 50% energy saving when run at half speed. Also included is non-use monitoring by using a photocell beam at the top and bottom entrances. The panel size reduces to 600h x 600w x 210d if the drive is to be mounted separately. Control voltage 110v AC; signalling of additional safety devices 24v DC.

Typical machines that have been refurbished are as follows:

- Otis 506
- ThyssenKrupp 72 and 722
- KONE 101
- O&K 401 and RTLS
- Schindler SWE30
- FIAM
- Shenyang

Type 1
Relay Escalator

Type 2
Escalator Controller with Fault Logging

Type 3
Fault Logging Controller complete with VVVF Inverter

3 YEAR GUARANTEE

MP2G Elevator Control System

MP2G Traction / Hydraulic

The MP2G microprocessor has been designed to replace the MP500 processor system, which has served Lester Controls for many years and is a second generation, hence 2G.

Using surface mount component technology, the hardware is small and compact. The main processor is of the latest technology that incorporates many features and peripherals required for operation i.e. RTC, EEPROM and flash / volatile memory. The system is limited to 8 floor duplex and featured to suit a large range of lifts within the UK, ensuring majority volume and competitive pricing. The system is also designed to be robust, compact and user friendly.

A 4 line x 20 character LCD display has been chosen to provide an adequate representation of the lift information (status, doors, position, IO etc.), as well as providing a simple and easy to use menu. A keypad switch panel has been included to allow the user to change parameters and settings to suit the lift installation.

The microprocessor will connect directly to Lester Controls' Serial Indicator and Speech Units, providing full programmability of positions up to 8 floors, and selected messages / features. Direct serial communication to motor drives (i.e. VVVF) provides better reliability and control, and a wealth of information can be accessed from the drive for diagnostics / monitoring purposes.

Windows application software is available to allow the user to change parameters and settings to suit the lift installation. Parameters such as homing floor, door dwell times, and speech / indicator etc. can be changed. The software also provides the user with diagnostic tools for viewing detailed information regarding the status of the lift and motor drive.

Features

- Designed using Surface Mount Technology
- 16bit DSP, 30MHz, Multi-Peripheral Processor, incorporating all memory requirements
- Windows application providing Upload / Download, “Lift Viewer” and “Drive Viewer”
- Fixed, compact IO system allowing up to 8 floors full collective
- Up to Duplex Control
- Direct serial connection to Lester Controls' Serial Indicator / Speech Unit
- Fault logging of the last 100 events with time / date stamp
- Onsite programmability via Keypad or Laptop / PC
- 4 line x 20 character LCD display
- Simple, user friendly menu system for changing parameters and fault interrogation
- LED indication for Input / Output, CPU status and Communications

Power Control Options
Hydraulic Control
Variable Frequency Control
Traction or Hydraulic
Polechanger / Two Speed Control
Single Speed Control

Hydraulic System Controls
Hydraulic Over Travel Sequencing
Hydraulic Homing
Hydraulic Relevelling Control
Hydraulic Vane Sequence Check (via software)
Hydraulic Oscillation Control
Hydraulic Star / Delta Pump Starting Control

Door Control Options
Manual Doors
Fully Automatic Doors
Swing Landing Doors & Power Car Doors
Park Open Control (software option)
Door Nudging
Differential Door Dwell Timings
Limited Landing Door Reopen

Indicators
Direction Arrows (collective controls only)
Lift Overload Indicator
Out of Service Indicator
Positions Indicators
Car Call and Landing Indicators
Fire Control Indicator
Arrival Gong Control

MP2G / ALMEGA Traction

The MP2G or ALMEGA has proved to be the right combination for new and refurbished installations.

The combination of using our MP2G or ALMEGA processor with the Magnetek HPV900 II drive has worked well on many installations, using serial coms communication (ALMEGA only) between the drive and our processor. The processor also connects directly to our serial indicator and speech module, providing full programmability of up to 48 floors. The direct serial communication to motor drives (VVVF) provides better reliability and control, and a wealth of information can be accessed from the drive for diagnosis / monitoring purposes. Windows application software is available to allow the user to change parameters and settings to suit the lift installation. The software also provides the user with diagnostic tools for viewing detailed information regarding the status of the lift and motor drive.

The HPV900 Series II AC Elevator Drive

The new range of Series II AC Drives are available to the elevator market for use with either MP2G or ALMEGA controllers. They are designed for both new installations and modernisation projects, and provide advanced closed-loop vector control for superior performance. The HPV900 II offers the fastest, easiest set-up adjustment, fewest call backs and the lowest total lifetime cost. This cost-effective AC drive gives you accurate acceleration and deceleration, resulting in a smooth ride quality for high and moderate-speed applications. Magnetek's proven technical expertise, plus our superior customer service, has placed us as the world's leading source of innovative, built-to-last elevator drives.

Features and Benefits

- Designed and rated for the elevator applications
- No oversizing needed
- Designed with high overload capacity (250%)
- An internal dynamic braking IGBT
- Cooling fans run only when drive is in operation

Elevator Application Software and Parameters

- Offering the ultimate performance features
- Unique elevator speed regulator
- Parameters are in elevator industry terminology

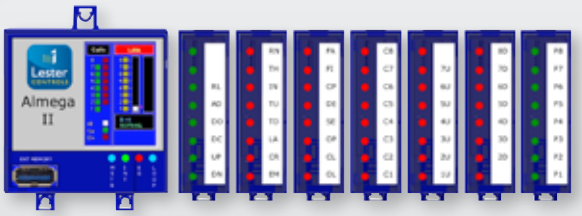
Ease of Set-Up

- No need for mechanical disconnect to tune critical motor parameters
- Parameter upload / download software
- Drive calculates elevator system inertia
- Configurable IO channels
- Easy parameter changes via digital operator

ALMEGA Traction
Technical Features Overview

- Designed using surface mount technology and housed in a custom made rack enclosure
- Top of the range, Infineon 16bit, 40Mhz, Multi-Peripheral Processor
- Windows application providing upload / download, lift viewer and drive viewer
- Despatcherless group systems
- Provision for modem, internet and intranet connectivity
- Direct serial connection to Lester Controls' Serial Indicator / Speech Unit
- Direct serial connection to selected motor / VVVF drives
- Fault logging of the last 100 events, with description
- Trace fault logging (for system debugging / interrogation)
- Full onsite programmability via keypad or laptop / PC
- Adjustment of slowing distances / floor levels via software
- Large, clear, bright, trans-reflective graphical (128x64 dot) LCD display
- Simple, user friendly menu system for changing parameters and fault interrogation
- Unique password set per system (floor parameter protection)
- Configurable, flexible and modular IO system (according to system type)
- 'Plug and Play' board identification (to assist with system configuration / setup)
- LED indication for input / output, CPU status, communications, PSU and associated fuses
- Multi-output power supply (regulated and unregulated)

3 YEAR GUARANTEE



ALMEGA II

The ALMEGA II has been designed as a successor to the ALMEGA. The product retains the proven technical ability of the ALMEGA, plus the addition of many new features and enhancements.

Utilising the latest technology, the ALMEGA II has adopted TFT LCD technology with touch screen for a user friendly and pictorial "App" interface. Also, a more powerful Dual Core microprocessor has been chosen to handle the enhanced display and allow more processing for lift functions.

Direct serial communication to selected Position Devices and motor drives (i.e. VVVF) provides "Direct to Floor Control" for time and energy efficiency, better reliability and control, and a wealth of information can be accessed for diagnostics / monitoring purposes. The microprocessor will also connect directly to Lester Controls' Serial Indicator and Speech Units, providing full programmability of up to 48 floors and many messages and features.

Windows application software is available to allow the user to change parameters and settings to suit the lift installation. All parameters, IO, serial speech / indicator are fully programmable. The software also provides the user with diagnostic tools for viewing detailed information regarding the status of the lift, motor drive and positioning system. The information is also available remotely via the Internet / Intranet connection with the Internet Monitoring add-on option.

Features

- Designed using Surface Mount Technology
- Enclosed in custom designed, DIN rail mounting modules
- Comfortably fits in shallow MRL cabinets
- Dual Core 100 / 50 MHz Processor with XGATE
- Graphical TFT LCD with touch screen
- Simple, user friendly "App Style" Menu system
- Memory Stick for Software and Parameter Transfer
- Uncontrolled Movement Detection (A3)
- Direct to Floor Control (DTF)
- Adjustment of slowing distances / floor levels via software
- Internet, Intranet and LAN Connectivity using Ethernet and Wi-Fi
- Despatcherless Group Systems
- Direct serial connection to selected motor / VVVF drives
- Direct serial connection to selected Position Devices
- Direct serial connection to Lester Controls' Serial Indicators / Speech Unit
- Direct serial connection to Lester Controls' Serial IO (Car and Landing pushes)
- Fault logging of the last 100 events, with description.
- Unique Password set per system (for parameter protection)
- "Plug and Play" board identification (to assist with system configuration / setup)
- LED indication for Input / Output, CPU status, Communications, PSU and associated fuses
- Fully regulated 24v and 5v Power Supplies
- Separate CAN Communications for Car, Landing, Per Lift, Drive and IO
- Windows application software for diagnostics and programming

3 YEAR GUARANTEE

Machineroomless (MRL) Hydraulic / Traction

With the advent of space-saving applications the MRL controller has featured strongly in our recent range of control systems.

Standard dimensions (mm)
2100h x 400w x 250d

Advantages

- ALMEGA or MP2G technology
- Hydraulic or Traction options
- Multiple floor options
- Standard or non-standard brake options
- Lockable cabinet doors
- Fully vented
- Fully EN81-Pt1 compliant
- Permanent UPS (Uninterruptible Power Supply) fitted as standard for emergency brake release
- Stainless steel cabinet as standard

Drive Options

- Standard Hydraulic or VVVF Hydraulic
- Magnetek Geared or Gearless
- Ziehl Drives Geared or Gearless
- Drives mounted internally or externally (size dependent)

Power Control Options
Hydraulic Control
Variable Frequency Control
Traction or Hydraulic
Polechanger / Two Speed Control
Single Speed Control

Hydraulic System Controls
Hydraulic Over Travel
Sequencing
Hydraulic Homing
Hydraulic Relevelling Control
Hydraulic Vane Sequence Check (via software)
Hydraulic Oscillation Control
Hydraulic Star / Delta Pump Starting Control

Door Control Options
Manual Doors
Fully Automatic Doors
Swing Landing Doors & Power Car Doors
Park Open Control (software option)
Door Nudging
Differential Door Dwell Timings
Limited Landing Door Reopen

Indicators
Direction Arrows (collective controls only)
Lift Overload Indicator
Out of Service Indicator
Positions Indicators
Car Call and Landing Indicators
Fire Control Indicator
Arrival Gong Control

3 YEAR GUARANTEE

Hydraulic Elevator VVVF

Hydraulic suppliers have now developed their valve blocks to take advantage of VF technology, and hence utilise the elevator valves with an integral flow measuring system used in frequency-controlled hydraulic drives. Based on the original valve blocks, and combining a frequency convertor acting directly on the motor / pump unit, manufacturers can offer the highest travel comfort, optimum heat dissipation and reduced noise emissions.

The Blain EV4

Advantages

- ALMEGA or MP2G technology
- Highest travel comfort up to 1m/s
- 120 travels per hour without cooling
- Low energy consumption (no cooler needed)
- Savings in machine-room ventilation
- Low oil temperature resulting in less wear and tear of the hydraulics
- Shorter and unvarying travel times
- Up to 10 dBA noise reduction

Our controllers have used the following systems marketed by hydraulic manufacturers including:

- Bucher VF-LRV
- ALGI Eco-Spin
- Blain EV4
- GMV (NGV Electronic Valve)
- Wittur HI

Power Control Options
Hydraulic Control
Variable Frequency Control
Traction or Hydraulic
Polechanger / Two Speed Control
Single Speed Control

Hydraulic System Controls
Hydraulic Over Travel Sequencing
Hydraulic Homing
Hydraulic Relevelling Control
Hydraulic Vane Sequence Check (via software)
Hydraulic Oscillation Control
Hydraulic Star / Delta Pump Starting Control

Door Control Options
Manual Doors
Fully Automatic Doors
Swing Landing Doors & Power Car Doors
Park Open Control (software option)
Door Nudging
Differential Door Dwell Timings
Limited Landing Door Reopen

Indicators
Direction Arrows (collective controls only)
Lift Overload Indicator
Out of Service Indicator
Positions Indicators
Car Call and Landing Indicators
Fire Control Indicator
Arrival Gong Control

ALMEGA Internet & Group Dispatching

The Internet system has been designed to provide a complete solution for lift monitoring, whether onsite (i.e. building management) or from a remote location. It utilises the Internet to make use of the latest technology, but also to make use of the Internet protocols, which allow multi user connections, i.e. many people are able to connect to one lift site, all at the same time.

The user can connect via Broadband (for speed), telephone, mobile phone (GSM) or local network (Intranet). In the event of failure, the system can also revert back to using normal telephone connections. The system has features to allow Monitoring, System Interrogation and Programming. Monitoring can be of the lifts themselves, of the inverter drive connected to the lift or of the lift IO system.

System Interrogation involves transferring information such as the lift setup, and also the transfer of the Event History (lift and drive) to diagnose problems that have occurred, even before going to site. This has the advantage of not only arming the user with as much information as possible, but also the ability to predict future failures. The Internet Board (IP Board) itself pays special attention to fault logging, since connection problems and the complexity of the Internet require detailed logging to trace connection / setup problems.

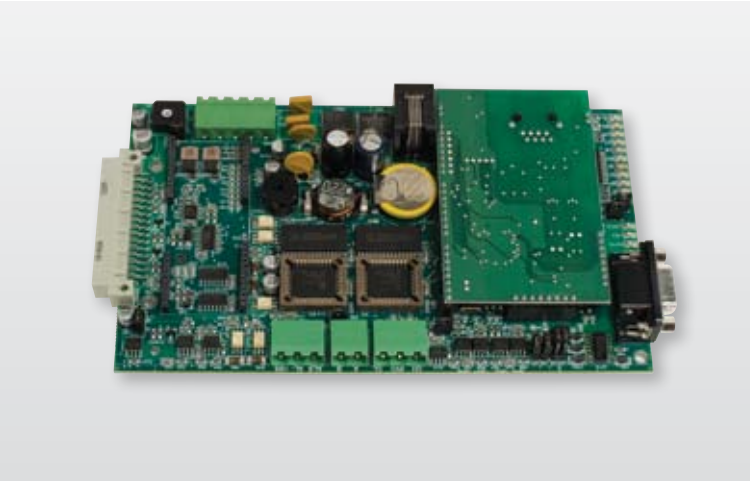
Features

- Connect to the lift motor room using the most popular network in the world
- Connect via Broadband (for speed), Modem Dial-up, Mobile phone (GSM) or local Network
- Utilises the standardised protocols of the Internet
- Internet allows multi users (i.e. many people connected at the same time)
- Interrogation of the lift system
- Interrogation of the VF drive
- View the lifts graphically
- Change settings (if desired)
- Upgrade the software (if desired)
- Lift connects to you! (future development)
- Diagnose faults before going to site
- Analyse lift behaviour
- Site visits saved, which will pay for the lifetime privilege of remote connectivity

Technical Features Overview

- Designed using surface mount technology and housed in a custom made rack enclosure
- Top of the range, Infineon 16bit, 40Mhz, Multi-peripheral processor
- Windows application providing upload / download, lift viewer and drive viewer
- Despatcherless group systems
- Provision for modem, internet and intranet connectivity
- Direct serial connection to Lester Controls' Serial Indicator / Speech Unit
- Direct serial connection to selected motor / VVVF drives
- Fault logging of the last 100 events, with description
- Trace fault logging (for system debugging / interrogation)
- Full onsite programmability via keypad or laptop / PC
- Adjustment of slowing distances / floor levels via software
- Large, clear, bright, trans-reflective graphical (128 x 64 dot) LCD display
- Simple, user friendly menu system for changing parameters and fault interrogation
- Unique password set per system (floor parameter protection)
- Configurable, flexible and modular IO system (according to system type)
- 'Plug and Play' board identification (to assist with system configuration / setup)
- LED indication for input/output, CPU status, communications, PSU and associated fuses
- Multi-output power supply (regulated and unregulated)

System programming can also be achieved remotely, as and when required. This feature is password protected to safeguard against nuisance / accidental system overwriting or corruption. However, changing system parameters, adding to or removing from the system, and setting up the drive (speed profiles etc.) are achievable. System software upgrade is also available, yet this is restricted to Lester Controls' personnel only. This can be used to upgrade the system for the addition of new features or changing system software. The upgrade has also been carefully designed to ensure that the corruption of transferred software shall not affect the upgrade. The existing software is always retained and not overwritten, despite the upgrade.



Internet PCB

The Internet Board microprocessor has been designed using surface mount component technology to be small and compact. The hardware will fit into an ALMEGA rack as standard, but may be mounted externally to suit other Lester Controls' controllers.

Hardware Requirements

The Windows application software is necessary for Internet / remote connectivity. The software will work on any IBM compatible PC or laptop (250MHz or higher) with Windows XP.

Lift Shaft

Efficiently controlling and managing upward and downward lift movement is essential for passenger safety; this is one of the primary factors in limiting user dissatisfaction of lift car travel.

Lester Controls offer a range of high quality ancillary shaft equipment to enhance lift safety and performance. Our products are designed to interface with almost every lift type and manufacturer origin.

18 Half Way Box

19 Wire, Trailing Flex and Shaft Looms

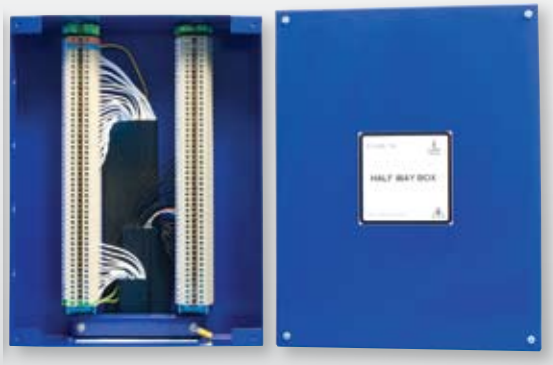
20 Shaft Limits Unwired

21 Shaft Limits Pre-wired

22 Shaft Vane Options
Type 1 / Type 2 / Type 3 / Type 4

Half Way Box

A full range of Half Way Boxes is available from 60 up to 100 way. A rectangular entry window is used which allows our flat flexes to be clamped by the bar at point of entry.



Product Codes
60Way HWB60
80Way HWB80
100Way HWB100

Dimensions
Height 365mm
Width 280mm
Depth 70mm

Wire, Trailing Flex & Shaft Looms

We stock a large range of shaft wire from standard flat flexes to shielded twisted pair wire for indicators. The introduction of pre-wired shaft looms offers customers the option to use if desired, and hence assists in cutting down installation time.

Advantages

- All stocked products
- Competitive prices

Range Features

- Cables available for all lift installations

Serial push loom cables

Flat Trailing Flex
0.75mm 8 way TF0.758w
0.75mm 12 way TF0.7512w
0.75mm 24 way TF0.7524w
0.75mm 20 way complete with 2x Twisted Pair TFO.75 20WSCREEN
Trailing Flex Clamp TFCL

Tri-rated Cable
0.75mm TRIC0.75
1.0mm TRIC1
4.0mm TRIC4
6.0mm TRIC6
10.0mm TRIC10
16.0mm TRIC16
25.0mm TRIC25
35.0mm TRIC35

Flat Trailing Flex
YY 3 Core 0.75mm YY3C
YY 5 Core 0.75mm YY5C
YY 7 Core 0.75mm YY7C
YY 12 Core 0.75mm YY12C

Screened Cable
4 Core 4mm SY4C
4 Core 6mm SY6C
4 Core 10mm SY10C
4 Core 16mm SY16C
5 Core 10mm SY5C10
Cleat 6 (4-6mm) Cleat 6
Cleat 8 (10mm) Cleat 8
Cleat 11 (16mm) Cleat 11

Glands M25 (4-6mm) 927-740
Glands M32 (10mm) 927-752
Glands M40 (16mm) 317-7233

Encoder / Indicator Cable
2 Twisted/4 Core 2TWPAIR
3 Twisted/4 Core 3TWPAIR

Shaft Limits Unwired

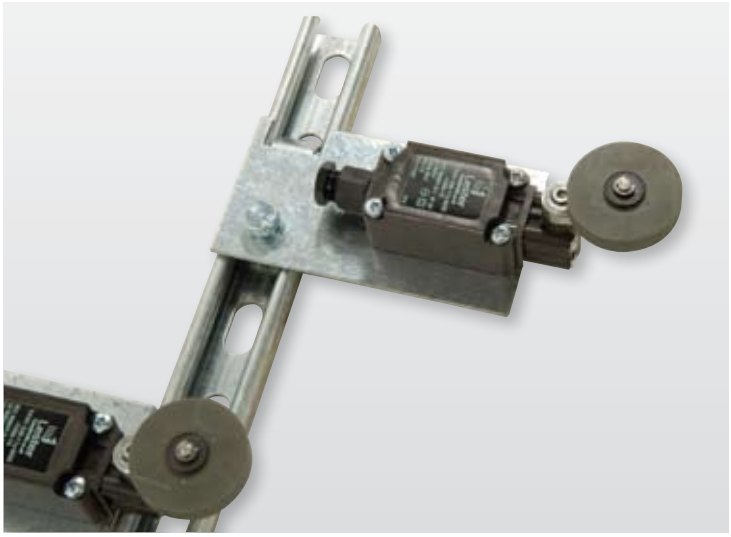
Each limit is available in whatever format required. Each switch is bolted to its fixing plate which is clamped to the halfen channel. A set of guide clips to mount onto the guide rail completes the kit for this unit.

Advantages

- Versatile options useable on obscure installations

Range Features

- Single kits, up to 7 sets available
- Metal Clad Limits available on request



Limit Switch and Mounting Plate

Product Codes

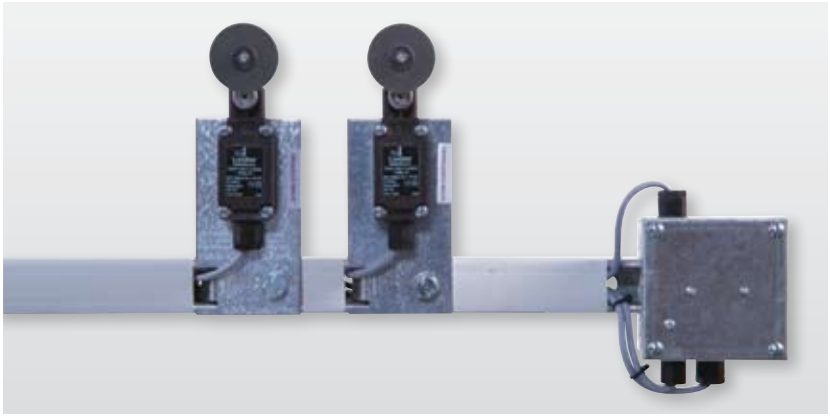
1 U / W Limit Kit UWLK1
5 U / W Limit Kit UWLK5
7 U / W Limit Kit UWLK7

Limit Switch (Single) LSW
Limit Plate LC015B
Adjustable Ramp LC011

They are all available with an adjustable ramp if required.

Shaft Limits Pre-wired

Since their introduction many years ago, most customers choose Lester Controls to supply a Pre-wired Limit Kit complete. The ease of installation means little site adjustment, which saves valuable time on any installation.



Typical arrangement

Advantages

- Set completely ready for immediate installation
- Terminal compatibility to the Lester Controls' Controller

Range Features

- 750mm, 1.2m & 3m lengths available for varying speeds

Product Codes

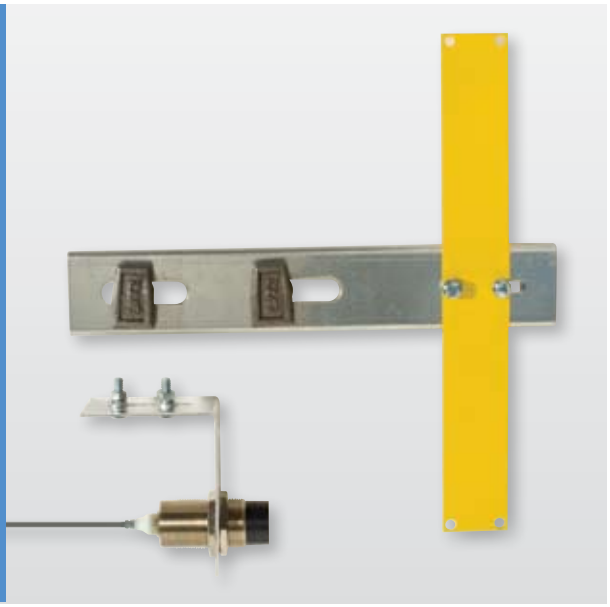
5 P / W Limit Kit PWLK5
7 P / W Limit Kit PWLK7
Limit Switch (Single) LSW

Limit Plate LC015B
Adjustable Ramp LC011

They are all available with an adjustable ramp if required.

Shaft Vane Options

Type 1 / Type 2 / Type 3 / Type 4



Type 1 Shaft Vane

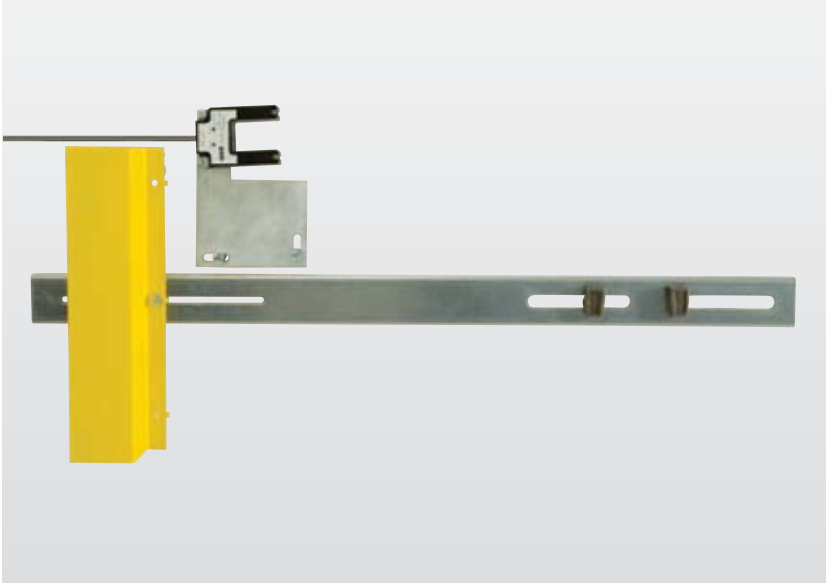
Type 1

1 x OMRON C1 SENSOR
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)
1 x C1 SENSOR BRACKET LPB1
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)

1 x LARGE PROXIMTY LPV
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)
1 x SHORT VANE BRACKET SVB1
(Complete with 2 x Guide Clips, 2 x Washers, 2 x Nuts)

Type 2

1 x BST SENSOR
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)
1 x SENSOR BRACKET SB1
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)
1 x DOOR ZONE VANE DZ1
(Complete with 6mm 1 x Nut, 1 x Bolt, 2 x Washers, 1 x Spring Washer)
1 x LONG VANE BRACKET LVB1
(Complete with 2 x Guide Clips, 2 x Washers, 2 x Nuts)

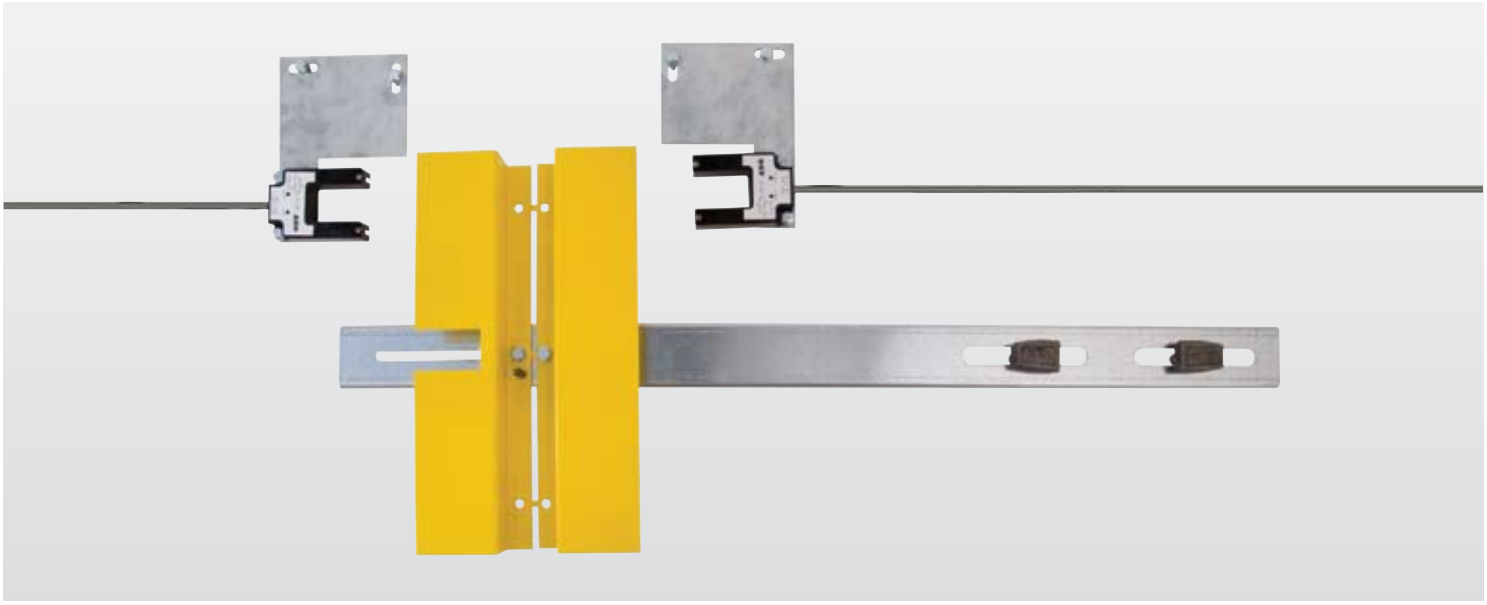


Type 2 Shaft Vane

Product Codes

Type 1
Omron C1 Sensor
C1 Sensor Bracket LPB1
Large Proximity LPV
Short Vane Bracket SVB1

Type 2
BST Sensor
Sensor Bracket SB1
Door Zone Vane DZ1
Long Vane Bracket LVB1



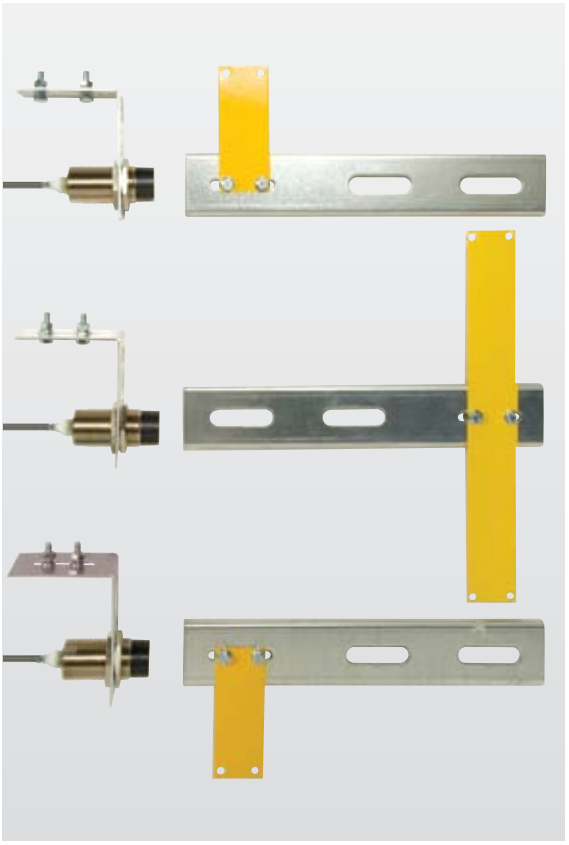
Type 3 Shaft Vane

Type 3

2 x BST SENSOR
(Complete with 6mm 4 x Nuts, 4 x Bolts, 8 x Washers, 4 x Spring Washers)
2 x SENSOR BRACKET SB1
(Complete with 6mm 4 x Nuts, 4 x Bolts, 8 x Washers, 4 x Spring Washers)
1 x DOOR ZONE VANE DZ1
(Complete with 6mm 1 x Nut, 1 x Bolt, 2 x Washers, 1 x Spring Washer)
1 x RE-LEVELING VANE RL1
(Complete with 6mm 1 x Nut, 1 x Bolt, 2 x Washers, 1 x Spring Washer)
1 x LONG VANE BRACKET LVB1
(Complete with 2 x Guide Clips, 2 x Washers, 2 x Nuts)

Type 4

3 x OMRON C1 SENSOR
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)
3 x C1 SENSOR BRACKET LPB1
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)
1 x LARGE PROXIMTY VANE LPV
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)
2 x SHORT PROXIMITY VANE SPV
(Complete with 6mm 2 x Nuts, 2 x Bolts, 4 x Washers, 2 x Spring Washers)
3 x SHORT VANE BRACKET SVB1
(Complete with 6 x Guide Clips, 6 x Washers, 6 x Nuts)



Type 4 Shaft Vane

Product Codes

Type 3
BST Sensor
Sensor Bracket SB1
Door Zone Vane DZ1
Relevelling Vane RL1
Long Vane Bracket LVB1

Type 4
Omron C1 Sensor
C1 Sensor Bracket LPB1
Large Proximity Vane LPV
Short Proximity Vane SPV
Short Vane Bracket SVB1

External Car

Invariably only ever seen by installers, testers and engineers, the equipment that is used on the car top, or the safety equipment needed to ensure car positioning and safe passenger travel, have to be reliable and robust.

Designed to interface with almost every lift type and manufacturer origin, Lester Controls' external car ancillary equipment receives the same detailed pre-dispatch check process as found across our product range.

26 Safety Edge

27 External Car Top Controls

28 Load Weigher / Monitor

29 LCSL, DTF Floor Positioning and Ride Performance System

30 USP Shaft Positioning System

31 Governor Absolute Positioning System

32 Tape Heads / Proximities

Safety Edge
917A

The Weco Infrared Door Detector WEC0917A is a very robust, compact and reliable Safety Edge. The edge uses 44 crossover beams between a height of 20mm to 1841mm.

Advantages

- Slim construction (10mm)
- Internal Power Supply
- Crossover Beams
- Easy to Install

Features

- The edge is fully sealed and dust resistant to IP65. No specific cables are required and all are tested to meet all CE requirements
- 44 infrared beams

Product Codes
Car Safety Edge 917A
24v Power Supply PSU24

Dimensions
Height 2000mm
Width 38mm
Depth 10mm

External Car Top Controls

CTC600/10

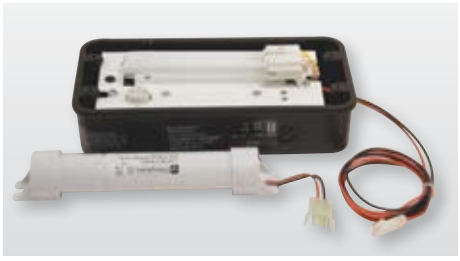
The Car Top Control allows the lift car to be moved under manual control by an engineer positioned on top of the lift car. The CTC600/10 disables all car and landing calls, and disables automatic door functions except under manual control.

Car Top Controls: CTC600/10

A simple robust unit, which is fully compliant to BS7255. The basic unit comes complete with an engineer's alarm as standard. Options are available complete with an 8W fluorescent lamp. Emergency lighting using a fluorescent tube is also available. As an optional extra, terminals or extra button contacts can be supplied as requested.

Light Options

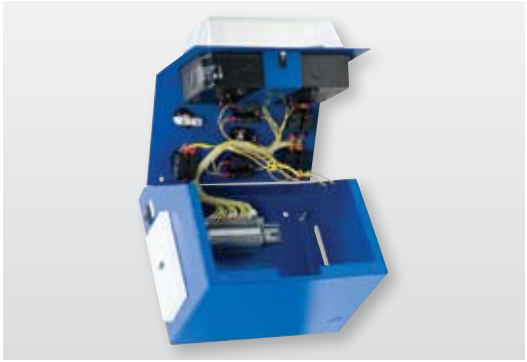
Energy saving with two fluorescent tubes



Emergency lighting with energy saving fluorescent tube

Advantages

- Easily seen illuminated controls
- Pre-wired
- Colour-coded fascia
- Robust steel enclosure
- Vibration proof
- Complies to BS7255: 2012 and EN81
- Easy and quick maintenance



Technical Specification
Model: CTC600
- Pre-wired
- Proud emergency 50mm stop button with test flag
- Shrouded geometric control
- Bi-stable inspection/normal switch
- Colour coded fascia
- RCCD socket
- Steel enclosure
- Standard illumination
- Trailing flex entry complete with clamp

Optional Features
- Illuminated engineers alarm
- Fluorescent inspection complete with 9w energy saving light
- Emergency back-up supply
- Half way box facility (40 Term), (50 Term), (60 Term)

Dimensions (mm)
CTC: 400h x 130w x 136d
CTC600: 260h x 290w x 260d

Product Codes
Car top control CTCPW
Car top control no doors CTCPWND
Pre-wired car top controls
Car top control (standard) CTC600 / 10
With e/light CTC600EL
With 40 way CTC600 / 40
With 50 way CTC600 / 50
With 60 way CTC600 / 60
Car top control (no doors) CTC600ND
Lighting Lumo (12V 8W) LUMO

Load Weigher / Monitor

LW20/13

The LW20/13 is the simple, easy to use Load Monitor System employed by Lester Controls. The advent of high gain integrated amplifiers with increased stability and advanced strain gauge bonding has resulted in a highly reliable and stable load monitor.

Calibration is straight forward once the lift car has been zero loaded. 90% by pass and 110% overloaded can then be calibrated accurately. A stable 24v DC power supply is required.

Specification

- 24v DC: min 20v DC max 30v DC
- Power consumption: max 250 mA
- Protection: IP54
- Output: NO/NC (max 24v IA) Threshold turning with pot meter

Features / Advantages

A stabilised power supply of 24v DC is required which can also be supplied if necessary. Again an Overload Indicator Box complete with indicator & buzzer can be supplied if required. The compact size of the unit, only 197mm x 110mm x 57mm, allows easy installation on top of the car.

LW20/13

Product Codes
Load Monitor and Sensor LW20/13
Sensor LW20/13 SENSOR
Overload Indicator Box OLIND

LCSL, DTF Floor Positioning and Ride Performance System

To comply with the many demanding requirements of today regarding ride quality, passenger comfort and energy efficiency, LCSL have developed our DTF (direct to floor) positioning and ride quality system.

Utilising the Schmersal USP absolute position system, communicating with Lester Controls' ALMEGA processor, we have produced a system that is both simple to install, set up, and has the ability to cope with the performance required.

The system calculates the optimum ride profile for each journey, with a minimum high speed of 1m/s (adjustable) so varying floor heights and very short floors are not an issue.

The position system allow for a DTF approach, i.e no levelling speed / time as the system targets a specific floor level position, predetermined in the shaft learn, therefore reducing flight times.

USP Shaft Positioning System
USP 30/100

Since its introduction in 2003, Lester Controls have sold in excess of 1,000 units, making them the 2nd largest consumer of this product outside of Germany (the place of manufacture).

The system works by the transmitter on the lift car inducing an ultrasonic pulse into the wire, which is hung the length of the shaft. A receiver then deciphers the information and then via the "USP" interface located within our control panel converts the data into analogue signals to suit the processor.

The simple installation method, fine tuning, and ease of integration with Lester Controls' systems all add up to a "user friendly" positioning system. With over 1,000 successful installations, the USP is a proven product backed by Lester Controls & Schmersal's full weight of technical "know-how". The principal behind the USP is a very simple one. A specially developed wire is suspended from shaft head to pit. A transmitter is fitted onto the lift cabin which the wire passes through. A receiver is then installed on the lift at a closed location to the motor room.

The car transmitter induces an ultrasonic pulse into the wire under the instructions of the receiver, via the parallel interface fitted with the Control Panel. These pulses are then interpreted by the receiver and converted into the distance between the transmitter and receiver. The Parallel Interface gives an analogue shaft profile that Lester Controls interprets at 24v DC output.

A full installation fixing kit and instructions are supplied, as well as a Lester Controls' specific "Dummies Guide" set up and adjustment procedure. As a "stand alone" shaft position system, the USP could prove an effective replacement for Tape Heads, Inductors and Vanes etc. on most control systems.

An installation presentation can be viewed on either ours or the Schmersal website: www.schmersal.de. Development now shows that the Parallel Interface has become redundant and the USP interface connects via Serial Coms directly to the ALMEGA Control Processor using can open protocol.

Advantages

- The USP comes complete with an easily understandable installation and setup manual, which is complemented with a Lester Controls' setup sheet as well
- Once installation is complete the USP is then relatively maintenance free
- Computer software is available which expands the shaft profile into a diagrammatic format easily readable on any laptop computer

Features

- The USP is available in two kit forms, namely the USP 30 & USP 100. The USP 30 can be used on installations where the travel does not exceed 30m. All other applications should use the USP 100
- Developments are underway to interface the USP directly into our processor. Contact us for more details

Product Codes

USP 30m Shaft Encoder
USP Kit 30m complete
USPKIT 30COMP
Position System 30m
USP30M 24BS
Parallel Interface
USPPI SUBD
Connector Cable 10m SUBD10
USP M12 Connector TRANS5

USPWire 20m USPWIRE20
USPWire 25m USPWIRE25
USPWire 30m USPWIRE30
USPWire 35m USPWIRE35
Teaching Button USPTB

USP 100m Shaft Encoder
USP Kit 100m complete
USPKIT100

Position System 100m
USP100M24BS
Parallel Interface
USPPI
SUBD Connector Cables
10m SUBD10
15m SUBD15
20m SUBD20
USP M12 Connector TRANS5

USP Wire 35m USPWIRE35
USP Wire 65m USPWIRE65
USP Wire 75m USPWIRE75
Teaching Button USPTB

24v Power Supply
24v Omron Power Supply
S8VS-06024

Governor Absolute Positioning System

The Positioning System is available for the products ALMEGA and ALMEGA II, Traction and Hydraulic Lifts. When a Position Device is installed the embedded software driver within the ALMEGA / ALMEGA II provides the control system with an absolute position, which is unaffected by power loss. Thus position resets can be initiated automatically.

For Direct to Floor Control (DTF) when used with traction lifts, a position accuracy of ±1mm is achieved by altering the speed with distance, and hence controlling the speed profile of the VF inverter drive.

The system is much easier to install and setup than conventional “tape head” / shaft switching systems. Vanes for stepping and stopping are eliminated since the system automatically steps and stops using the absolute position information. A physical shaft vane mounted at floor level is used for automatic learning of the lift shaft positions, and as a floor level backup. Additional vanes may be added for safety relevelling functions.

Features

- Absolute Position for Immediate Selector Reset (unaffected by power loss)
- CANopen Serial Interface, hence contactless Position Update
- For use with Schmersal USP and Rotary Position Encoders
- Available for Traction and Hydraulic Lifts
- Direct to Floor Control (DTF), when used with Traction Lifts
- Improved Ride Quality (DTF)
- Reduced Travel Times, typically 33% per single floor run (DTF)
- Reduced Energy Consumption, typically 7% for a single floor run (DTF)
- Adjustment of slowing distances / floor levels via software
- Windows application software for diagnostics and programming
- ±1mm floor level accuracy with USP position device
- ±2mm floor level accuracy with Rotary Encoder position device

Product Code

Absolute Positioning Encoder ENC AC58

Tape Heads / Proximities

The traditional 110v or 240v AC system is available with the option of a 7th channel (for Hand Winding) if required, if all other 6 channels are being used. The Silent Tape Head, which utilises solid state output controls instead of relay outputs, is an option that prevents the clicking of the Tape Head relays, which can be a nuisance on a new installation.

Advantages

- Easy to install
- Cost effective
- Reliable
- NO or NC outputs

Features

- The choice of car or shaft mounted fixing kits are now available at no extra charge
- Floating Head
- Strong Hall Effect Sensors

Proximities

Proximities

- Alternative if shaft space is tight
- Ideal on low rise lifts, manual doors
- Ideal for goods, service or platform lifts

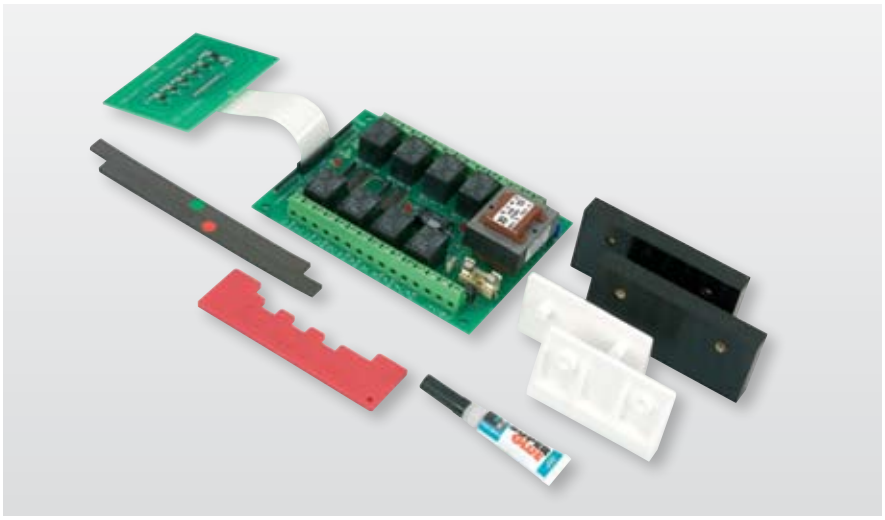
Product Codes

Tape Head Unit (110V) TH110V
Tape Head Unit (240V) TH240V
Proximity Switch PROX
3" Magnet 3MAGSTRIP
6" Magnet 6MAGSTRIP
Fixing Bracket PROXBRAC

Wall Mounted Fixing Kit

Guide Mounting Fixing Kit

Spring Tension Kit



Spares

Product Codes

Fixing Kit THFKIT
Fixing Kit Wall Type THFKITWALL*
Fixing Kit Spring Type THFKITSPRING*
6"Magnets 6MAG
12"Magnets 12MAG
Stainless Steel 3" (76mm) SS3
Floating Tape Head Shoes FLOAT
Fixed Tape Head Shoes FIXED
Glue 87-0240
Magnet Comb COMB

*The choice of car or shaft mounted fixing kits are now available at no extra charge


16
17
18
19
12
13
14
15
8
9
10
11
4
5
6
7
S
1
2
3

Internal Car

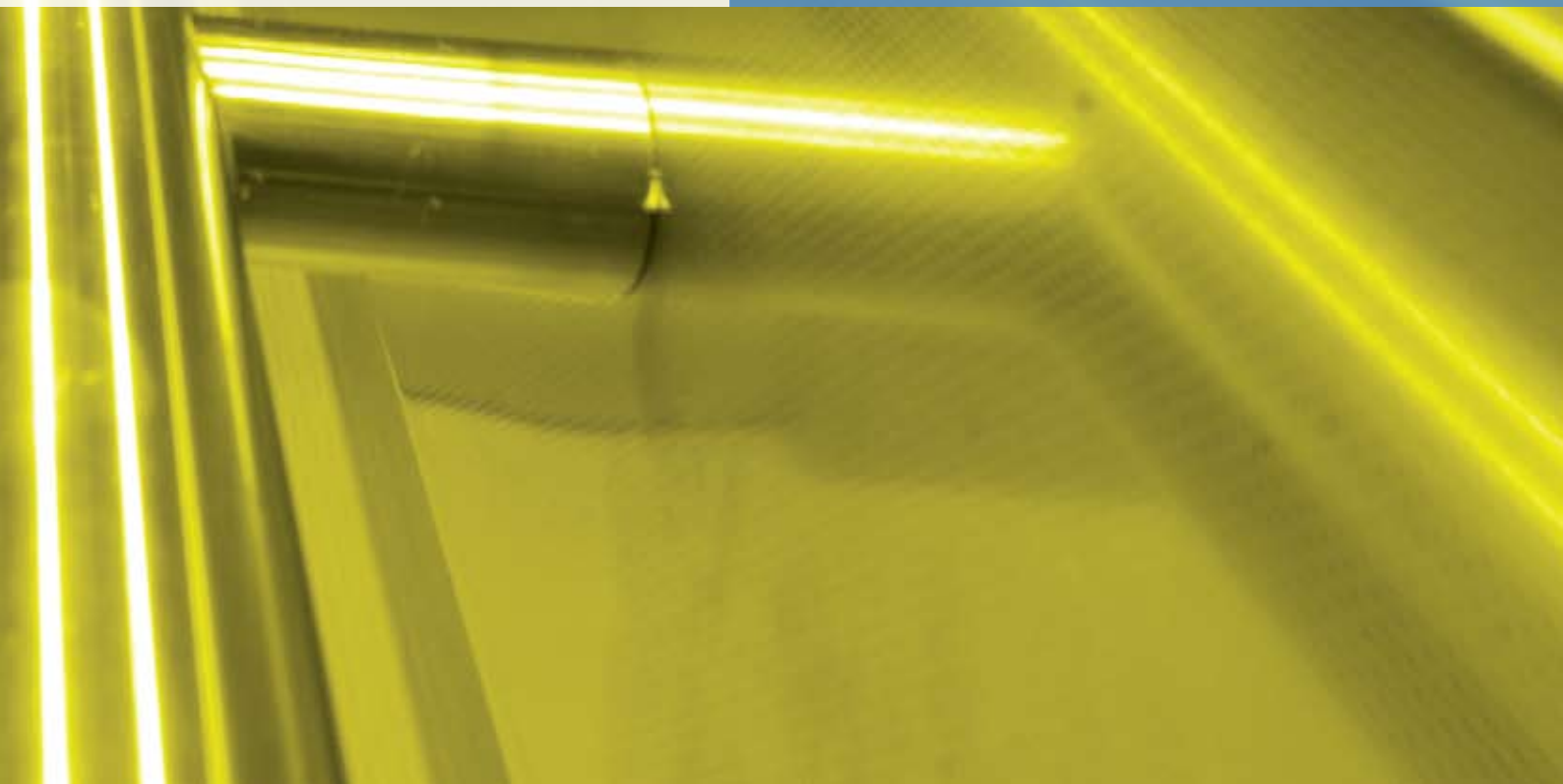
Car operating panels not only have to look good, but they also have to be robust and reliable. Lester Controls manufacture a range of model car operating panels to interface with almost any car interior design.

Additionally, we manufacture lift car ancillary equipment designed to enhance safety, security and passenger convenience.

36 Call Zappers & Lift Car Security

37 Voice Synthesisers

38 Car Operating Panels Flush / Surface Mount / Surface Mount (Eco style) / Full Height / Handrail



Call Zappers
Lift Car Security

Remote Call Zappers
Our easy to use call zappers and receivers are available for those sites whereby remote lift operation is required. Using 433 Mhz frequency up to a distance of 30m, the units are very versatile for many site conditions.

The small compact keyfob (65 x 37 x 15mm) is used to call or send any lift and can easily fit onto any key arrangement. The receiver can be located within any call station and is then wired into the landing call to accept pushes. Any number of transmitters are available with the same entry code.

Advantages

- Radio frequencies used
- Security options without having to re-punch car COP

8 Code Lock, Keypad, 1 Code Lock

Eight Code Lock (Up to 8 floors - via Keypad)
This simple and clever PCB board intercepts all car pushes and will only energise a car call being entered via a 3 digit code. This code can either be placed onto the car buttons to release the call to the restricted floor or alternatively by entering the same code into the keypad. The keypad is neater for integration into your COP.

One Code Lock (1 Floor only - via Keypad)
This lock board is a simple code recognition device for restricting access to authorised people only in a low security environment. An unlock code is entered via multiple entries on a single push button; this activates a relay permitting access to an operating button or similar. The lock code is set via the keypad.

One Floor Security - via Floor Button (Quick Push Lock)
This security board operates in the same way as the One Code Lock board, but its' security code is factory set. Any code changes will need to be reset at source.

Technical Overview and Product Codes

Receiver & Zappers
Remote Receiver
RCVER433
Remote Zapper 433 Mhz
ZAPP433

Technical Data
PCB Size : 50 x 80 x 25mm

Lift Car Security
8 Floor Security - 8 Code Lock
1 Floor Security (via keypad) - 1 Code Lock
1 Floor Security (via Floor Button) - Quick Push Lock
Keypad - Keypad

Voice Synthesisers

We currently offer two voice synthesisers to meet your client's needs. One interfaces with our TC3 and new HDI indicator (VU2); the other is a stand-alone model (VSSA).

Type VSSA
This is a stand-alone unit designed to give voice announcements concerning lift position, direction, door operation and lift status. Inputs are opto isolated for 24v DC operation. Six inputs are available for floor announcements on a discrete input basis. For more floors they can be binary encoded. The audio output is via an 8 Ohm speaker at 1 watt.

Speaker and VS2

Type VS2
This unit is an interface module that rests in the COP and is to be used when TC3 indicators are purchased. The board uses the same 4 wire CAN communication line wire for the indicators to reduce site wiring and increase ease of installation.

The PCB uses surface mount technology and can be housed neatly away in any COP. A volume control is still present giving the customer full flexibility with its installation.

Advantages

- VU2 (Onboard power supply)
- VS1 Serial supply from TC3 Indicators
- Onboard volume control

Range Features

- Binary or Decimal Messages
- Large message library

VSSA

Technical Overview

VSSA
Stand Alone Unit
24v DC opto isolate inputs
6 Decimal inputs as standard or Binary Option

VS2
4 Wire CAN communication
Used in conjunction with TC3 indicators
Small single board using surface mount technology

Speaker
102 x 102 x 39mm
4 x M4 x 10mm studs
@ 82mm hole centres

Car Operating Panels

Flush / Surface Mount / Surface Mount (Eco style) / Full Height / Handrail

We can offer your clients a choice of flush fitting and surface mounted car vv panels (COPs) depending on the needs of the installation.

Flush COP
We currently manufacture many COPs of all shapes and sizes. We have a standard sized flush COP which has a 50mm depth to house standard components. We tend to make COPs 70mm deep if a Windcrest unit is being fitted. We custom fit if required and are able to use a full array of other manufacturing buttons or indicators. All steelwork is finished to a high standard along with high quality engraving.

Surface Mount COP
This option is quite popular to adopt if no extra work is being carried out on the existing lift car. Our standard format follows our landing stations with chamfered edges. They are of a robust construction and high quality finish. All engraving is by hand and completed by experienced engravers.

Flush

Advantages

- All in-house manufacture
- Normally delivered with controller
- Controller compatible
- Utilise PB4/5/6 pushes as standard
- Compatability with Lester Controls' Controllers

Options

Flush Brushed Stainless
Surface Mount
Full Height
Autodiallers, Windcrest or Memco

Buttons:
Lester PB Range
Dewhurst US91
Dewhurst Jumbo Series

Surface Mounted (Chamferred)

Surface Mounted (Eco)

Handrail

Full Height Surface Mounted

Options

Flush Brushed Stainless
Surface Mount
Full Height
Autodiallers, Windcrest or Memco

Buttons:
Lester PB Range
Dewhurst US91
Dewhurst Jumbo Series


3
1
5
8

Car and Landing

Bespoke or model, when it comes to modernising or installing a new lift, high quality car and landing controls, signalisation and the ancillary equipment that provide the interface between the user and the lift have to be both robust and long-lasting.

It's why customers choose Lester Controls for their car and landing equipment, when quality and competitiveness both feature in their purchasing decision.

42 PB4 Compact Push Buttons

44 Keyswitch
Type A / Type B / Type C

45 Indicators

46 HDI 16 & HDI 32

47 TFT

48 Position Indicator
DU2 DU2H / DU2V

49 Hall Lanterns, Blade & Bulb

50 Indicator Face Plates

51 Landing Call
& Position Face Plates

PB4 Compact Push Buttons

A robust and elegant range of push buttons in a number of finishes to complement your elevator decor.

Surface graphics
Numerals from -3 to 19
Characters: A, B, C, D, E, M, P, R, S, SL, LG, UG, U1, B, SB, EH, UM, LM
Symbols: Door close, door open, alarm, up and down
Other options are available upon request.

PB4GG


PB6WUP

PB5B3


PB3Y

Buzzer Boards


8 way Buzzer Board


2/4 way Buzzer Board

PB4: White half illumination / Red full illumination Braille, black finish (standard)
PB5: White half illumination / Blue full illumination non Braille black finish (standard)
PB6: White half illumination / Red full illumination stainless steel finish (standard)

PB4 Advantages

- LED standard current 20mA (13-27mA / min-max)
- 1 N/O contact as standard
- Low profile 20mm
- Plug & Play connectors complete with terminal blocks
- 24v DC standard voltage
- Tactile and Braille standard finish
- Fully DDA compliant
- 10m mechanical life-span operations
- Meets EN81-70 standards

Range Features

Full common range of numbers in stock and supporting functions available in a number of attractive finishes. There is a matching range of keyswitches, rocker switches and indicators.

Product Codes

PB4R_ -3, -2, -1, 0, 1-19, A, B....., DO, DC, Call, Up, Down
PB4Y Alarm
PB4_ 0, 1, B, G, C, 2, 3 (Main Floor)

PB5B_ -2, -1, 0, 1-10, B, G, L, M, DO, DC, Call, Up, Down
PB5Y Alarm
PB5_ -1, 0, B, G (Main Floor)

PB6W_ G, 1-9, DO, DC, Call, Up, Down
PB6Y Alarm

2 Buzz (2 Floor Buzzer)
4 Buzz (3-4 Floor Buzzer)
8 Buzz (5-8 Floor Buzzer)
PB4 Alarm PCB

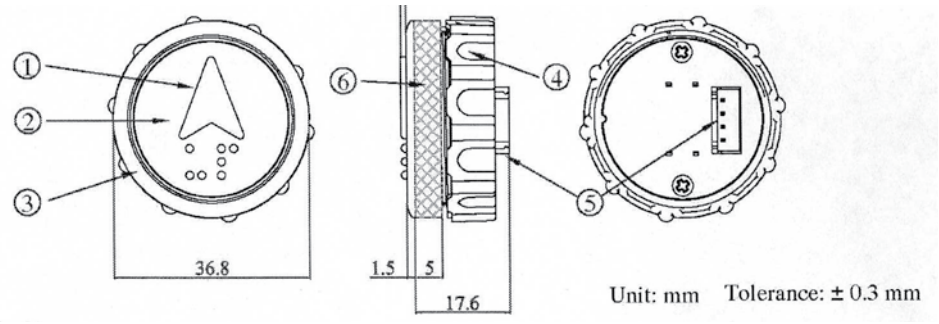
General

a) Installation location: On the car operation panel or hall station
b) Function: For elevator calling for hall position or car position

Operation

a) Fix the units on the car operation panel or hall station
b) Follow the wiring diagram to connect the wires
c) Check the short circuit between the wires multi-meter
d) Power on and press the button to confirm it works normally
e) The installation is finished after the above procedure

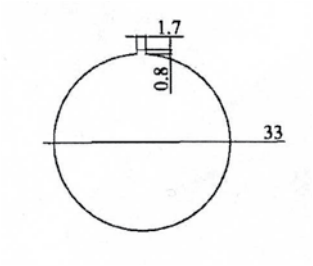
Dimension Diagram



Technical Specification

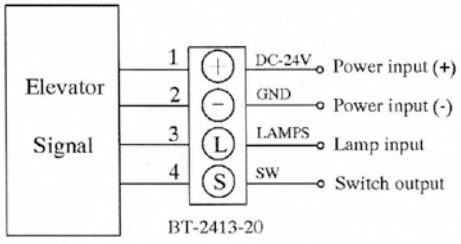
Standard Voltage	DC24v
Voltage Range	DC18v ~ DC30v
Standby Consumption	Power 1.8mA
	Current 1.8mA
In Operation Consumption	Standard voltage 20mA
	Lowest voltage 13mA
	Highest voltage 27mA
Push Strength	400g ± 50g
Life-Span	10million
Display Type	LED
Colour	In standby white
	In operation red
Weight	15.5g

Stud Opening Diagram



1. Plastic symbol slice (Transparent brown PP)
2. 1T Hairline stainless steel
3. Hairline stainless steel board
4. Fixed cover (ABS)
5. Connector
6. Bushing (raised 5mm) for exit floor

Wiring Diagram



3 Wire

CAC/LAC	Red
LPF/CPF	Black
LP1/CP1etc	Yellow & Green

4 Wire

CAC/LAC	Red
LPF/CPF	Black
Push return	Yellow
Lamp return	Green

Product Codes

PB4R_ -3, -2, -1, 0, 1-19, A, B....., DO, DC, Call, Up, Down
PB4Y Alarm
PB4_ 0, 1, B, G, C, 2, 3 (Main Floor)

2 Buzz (2 Floor Buzzer)
4 Buzz (3-4 Floor Buzzer)
8 Buzz (5-8 Floor Buzzer)
PB4 Alarm PCB

PB5B_ -2, -1, 0, 1-10, B, G, L, M, DO, DC, Call, Up, Down
PB5Y Alarm
PB5_ -1, 0, B, G (Main Floor)

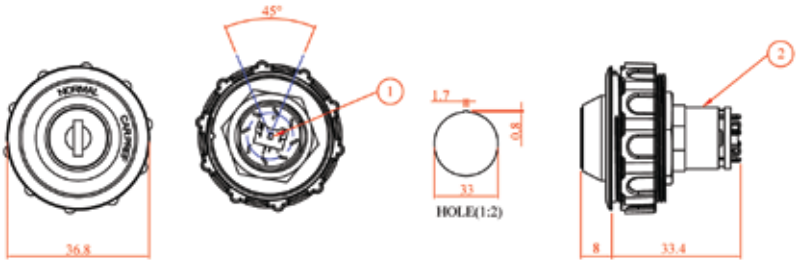
PB6W_ G, 1-9, DO, DC, Call, Up, Down
PB6Y Alarm

Keyswitch

Type A / Type B / Type C

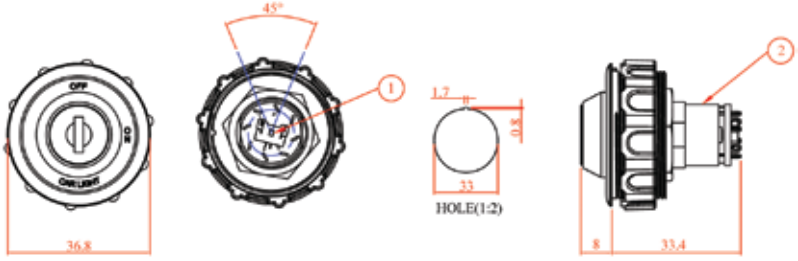
Type A

1. Model: SW-0001-P (TYPE A)
2. Product: Keyswitch
3. General: (A) Installation Location: On the car operation panel. (B) Function: Use the keyswitch to control the elevator.
4. Operation: (TYPE A) Removable in OFF Only, not in the ON Position.



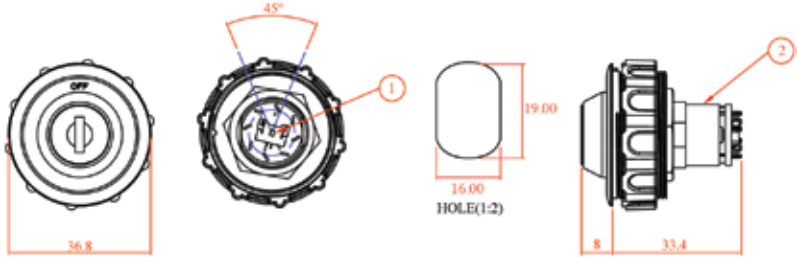
Type B

1. Model: SW-0001-P (TYPE B)
2. Product: Keyswitch
3. General: (A) Installation Location: On the car operation panel. (B) Function: Use the keyswitch to control the elevator.
4. Operation: (TYPE B) Removable in OFF & ON.



Type C

1. Model: SW-0001-P (TYPE C)
2. Product: Keyswitch
3. General: (A) Installation Location: On the car operation panel. (B) Function: Use the keyswitch to control the elevator.
4. Operation: (TYPE C) Removable in OFF Position & Spring Return.



Specification

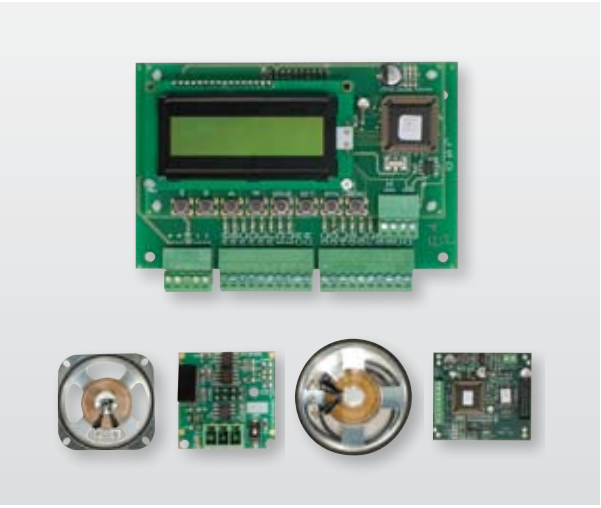
Max duration voltage	DC 28v	AC 125v	AC 250v
Max duration current	4 A	4 A	2 A

Product Codes

PB Key Type A	-	a1 Normal/Car Pref a2 Off/On a3 Off/On/Door Hold
PB Key Type B	-	b1 Off/On/Light b2 Off/On b3 Off/On/Fan
PB Key Type C	-	c1 Off

Indicators

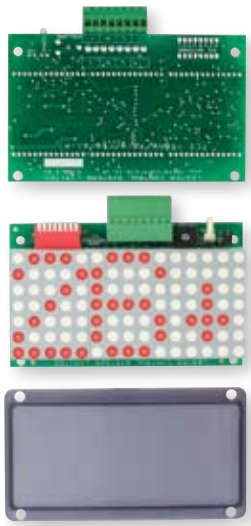
The highly successful TC3 (Tri-colour 3 digit) range of indicators comprises a Controller Interface Module (fitted in the lift controller) and a digital indicator fitted in the lift car and / or on the landings.



With the advent of our new processor (ALMEGA and ALMEGA II) the interface module is not required, and hence makes the indicator more versatile and cheaper to use.

The indicator comes in three sizes. The only shortfall with the 2 digit display (TC3 50 2D) is that it can only display a maximum of 2 digits at any one time. Whether it be the floor display and direction arrows or just the floor display (if it is more than 1 digit) then the direction arrows have to be dropped. To compensate this, the display can scroll upwards in green and downwards in red showing the direction of travel without actually showing an arrow. The Hall Lantern facility is not compromised however.

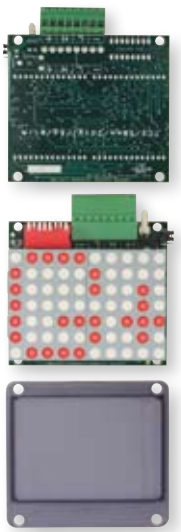
TC3
30mm



TC3 50mm 3 Digit

All message displays are shown in red and alternate between the message and the lift position during operation. A binary encoder can be supplied should the lift exceed the 6 standard discrete inputs available. The interface is fully user programmable and can display all floor denominations.

The voice unit (VS1) will follow the display as long as the floor being displayed is in the Voice Library. Check with Lester Controls first if you have any queries.



TC3 50mm
2 Digit

Advantages

- Slim 20mm design
- 4 Wire supply
- DDA Compliant
- Tri-colour

Features

- 30 or 50mm
- Dot matrix display
- Tri-colour display & blue
- 24v DC 4 wire supply signalling
- 140 viewing angle
- Large dual colour hall lantern display
- Up to 3 scrolling messages
- Optional A / gong facility
- Optional speech unit attachment

Key Options

All indicators available with 30mm or 50mm high digits. A 2 digit version of the TC3 50 is also available with similar general features as described for the TC3. This Indicator can be supplied to display one of the following display arrangements:

- Single position digit plus arrow
- Two position digits in amber with no arrow information
- Two position digits which illuminate green for up direction, red for down direction, and amber for no direction

Product Codes:

TC3 30mm Indicator
TC330-Lens (30mm)
TC3LEN-S30

TC30 50mm 3 Digit indicator
TC3503D-Lens 50mm (3 Digit)
TC3LENS-503DIG

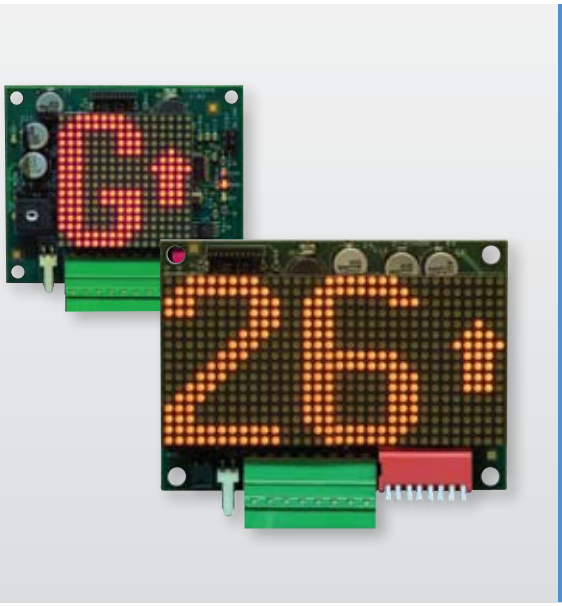
TC3 50mm 2 Digit Indicator
TC3502D-Lens (50mm 2 Digit)
TC3LENS-502DIG

Gong Speaker 66 dia x 20d (mm)
GONG

TC3 Interface
TC3I / FACE

Binary Encoder (1-8 Floors)
BIN8

Binary Encoder (1-16 Floors)
BIN16



HDI 16 & HDI 32

Our new range of High Definition small and compact indicators are available to complement the 2 and 3 Digit Tricolour indicators. A single segment, the HDI 16 is available for single character display, whilst the double segment indicator of the HDI 32 is best suited for double digit and scrolling messages. Red, Blue and White displays are available.

HDI 16 Features / Advantages

- 16 x 16 dot matrix display
- High density monochrome display
- High definition character font
- 40mm high characters
- Small unit size 40mm x 40mm display area
- CAN high speed communication network
- Up to 15 floors
- Single character display plus direction arrows
- Large hall lantern arrow
- Dual tone arrival gong
- Slimline 14mm deep
- Horizontal scrolling messages
- Vertical directional scrolling lift position
- Interfaces directly to the Lester Controls' range of lift controllers

HDI 32 Features / Advantages

- 16 x 32 dot matrix display
- High density monochrome display
- High definition character font
- 40mm high characters
- Small unit size 40mm x 80mm display area
- CAN high speed communication network
- Up to 31 floors
- Two character display plus direction arrows
- Large hall lantern arrow
- Dual tone arrival gong
- Slimline 14mm deep
- Horizontal scrolling messages
- Vertical directional scrolling lift position
- Interfaces directly to the Lester Controls' range of lift controllers

Product Codes:

Single Digit High Resolution HDI 16	HDI 16 40 x 40mm
Double Digit High Resolution HDI 32	HDI 32 40 x 80mm
Viewing Window Arrival Gong GONG	

TFT

Our new full colour TFT indicator has been designed using up to date technology, coupled with an easy to change onsite menu structure. Both TFT indicator types are mutually driven by a clock driver card. The smaller indicator (TFT 55) is adjustable via the driver card, whereas the TFT 90 has onboard adjustments.

Advantages

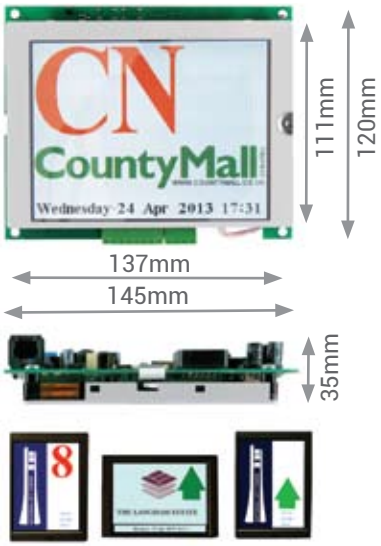
- Onsite programmable
- 256 Colours
- High Resolution
- Slim Construction
- Large Viewing Angle

Features

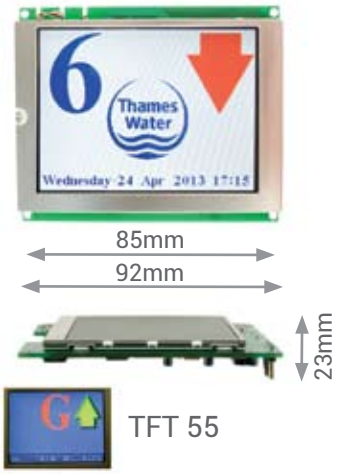
- 12 / 24v DC supply
- 256 Colour option
- Fixed or Scrolling Direction Arrows
- Date & Real Time function
- Background Logos available
- Automatic Daylight saving up to 9 binary
- Separate fault message displays
- Resolution 320 x 240 pixels

TFT Clock / Drive card

The TFT 55 has a full 256 colour TFT display, with a viewing area of 54mm x 72mm (3.5" diagonal display screen) and a viewing angle in excess of 140 degrees. Facilities include dil switch control for lantern and gong setup, power save and binary mode. A driver / clock end is required when not used with Lester Controls' ALMEGA or MP2G Controllers.



TFT 90



TFT 55

The TFT 90 has a full 256 colour TFT display, with a viewing area of 90mm x 119mm (6" diagonal display screen) and a viewing angle in excess of 140 degrees. Facilities include dil switch control for lantern and gong setup, power save and binary mode. A driver / clock end is required when not used with Lester Controls' ALMEGA or MP2G Controllers.

TFT 55

- 8-30v DC Power Supply
- 130mA @ 12v Supply (usage)
- 65mA @ 24v Supply (usage)
- 3 Wire Signal Input
- Fixed or Scrolling Direction Arrows
- 3D Arrow Options
- Adjustable Power Save
- 256 Colours / 8bit per pixel
- 31 Floor Positions (maximum)
- Emergency Car Light Feature
- Up to 15 Separate Warning messages
- Gong and Lantern Facility
- Real Date & Time Clock
- Vertical Orientation & Self Programmable
- Compliant to EN81-28 / EN81-70 / EN81-73
- 4mm x 3mm x 15mm Studs
- Adjustable Gong Output 8ohms up to 0.5w

Dimensions 72mm X 54mm

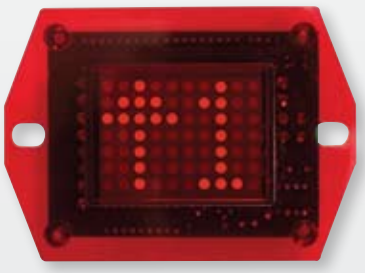
TFT 90

- 8-30v DC Power Supply
- 500mA @ 12v Supply (usage)
- 250mA @ 24v Supply (usage)
- 3 Wire Signal Input
- Fixed or Scrolling Direction Arrows
- 3D Arrow Options
- Adjustable Power Save
- 256 Colours / 8bit per pixel
- 31 Floor Positions (maximum)
- Emergency Car Light Feature
- Up to 15 Separate Warning messages
- Gong and Lantern Facility
- Real Date & Time Clock
- Vertical Orientation (option) & self programmable
- EN81-28 / EN81-70 / EN81-73 compliant
- 4mm x 3mm x 30mm Studs
- Adjustable Gong Output 8ohms up to 0.5w
- 320 x 240 Pixel Resolution
- Corporate Logos available in jpeg format
- Window cutout 119W x 90H

Dimensions 119mm X 90mm

Position Indicator DU2

DU2H / DU2V



DU2H
Cut Out: 54mm (w) x 40mm (h)
Studs: 2 x M4 x 10mm studs @ 85mm hole centres

DU2V
Cut Out: 40mm (w) x 54mm (h)
Studs: 2 x M4 x 10mm studs @ 85mm hole centres

The indicator comes in vertical and horizontal formats. The 54mm x 40mm window can be used in the horizontal or vertical mode.

Although the single character height is increased in the vertical mode, the permanent direction arrow is now not displayed. To compensate this we “flash” the direction indication every 2 seconds.

In horizontal mode, up to 2 digits are displayed but at the expense of the direction arrow. The indicator is not switchable so stud setup is important. The indicator can run either in discrete or binary mode or, with using a 2 wire driver board to help reduce shaft wiring.

Advantages

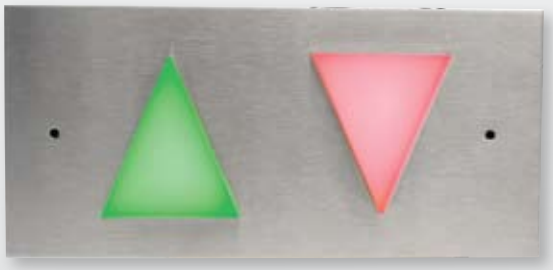
- Competitive
- 12 - 24v AC or DC Supply
- No Driver Card Required

Features

- Single or Double Digit

Product Codes:
DU2 Indicator - Horizontal DU2H
DU2 Indicator - Vertical -DU2V
DU2 Lens - DU2LENS

Binary Encoder (1-8 Floors) BIN8
Binary Encoder (1-16 Floors) BIN16
Binary Encoder (1-8 Floors) BIN8
Binary Encoder (1-16 Floors) BIN16



Satin finish

Hall Lanterns, Blade & Bulb

We have added a range of landing Hall Lanterns to supplement our landing fixture and fittings range.

The "Blade" Type are versatile and easy to install. With a large viewing position they are easily seen perpendicular to the landing entrances.
Dimensions: 190 x 189 x 50mm

The more traditional type are available with brightly coloured Perspex arrows. These are available in either flush or surface mount face plates. These are also available in the mirror finish.
Dimensions: 235 x 110 x 53mm

Features

- 16 - 30v DC Supply
- 0.144w Standby Consumption
- Standard Standby Consumption 6mA
- Operation Standby Consumption 145mA
- 'Up' Green
- 'Down' Red
- 190mm h x 189mm w x 50mm d

Outward facing Hall Lantern with mirror finish (PTL-2401-1)

Product Codes:
Standard Lantern STD LANTERN
Blade Lantern PTL-2401-1

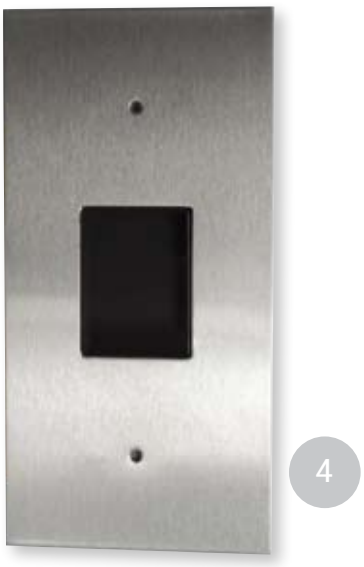
Indicator Face Plates

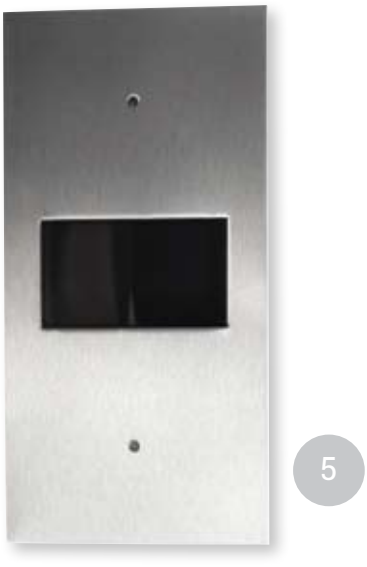
We stock a large range of indicator face plates to house our range of displays. Our face plates can either be flush or surface mounted. Where necessary they meet DDA requirements. All indicator face plates come complete with gongs for DDA compliance.

Bespoke Indicator Faceplates
Face plates of any size and various different finishes can be manufactured on request to your specification. Please contact us for details of how we can best meet your client's needs.

Features

- Fitted with optional TFT Displays





Product Codes - Standard sizes available in brushed stainless steel (mm)

1.Flush TC3 50mm 3 Digit Face Plate with Gong and Back Box / or TFT 55 - 118h x 215w x 70d
TC350F/PSS

2. Angled Surface Mounted TC3 50mm 3 Digit Box with Gong / or TFT 55 - 115h x 165w
TC350F/PDDA

3. Flush TC3 50 2 Digit Face Plate with Gong and Back Box / or TFT 55 - 275h x 115w x 70d
TC3502DF/PSS

4. Flush DU2 Face Plate with Back Box - 100h x 200w x 70d or 200h x 100h x 70d
SSDU2BB1

5. Flush TC3 30mm Face Plate with Back Box
200h x 100w x 70d
SSTC3BB1

6. Flush Vandal Resistant TC3503D Face Plate
120L x 180w
TC350F/PDDAVR(F)

7. Angled Vandal Resistant TC3503D with Gong & Back Box
118h x 215w x 70d
TC350F/PDDAVR(A)

8. Surface Mount TFT90 with Gong and Back Box
180h x 240w x 45d

Landing Call
& Position Face Plates

We are able to supply all shapes and sizes to suit your particular application. Our stock surface mount landing stations are either 100mm or 127mm wide. The mount is only 34mm deep, which houses the button and EN buzzer unit. We can supply this unit engraved if required and housing for other push button makes.

Indicator Face Plates
Standard Range

1

2

3

Indicator Face Plates
Economy Range

4

5

6

Bespoke Indicator Face Plates

Face plates of any size and various different finishes manufactured on request to your specification. Please contact us for details of how we can meet your client's needs.

1. Flush 1 or 2 Button Landing
Face Plates with Back Box
200h x 100w x 50d
SS1BB1 & SS2BB1

2. Surface Mount 1 or 2 Button
Landing Face Plate
complete with Buzzer
600h x 100w x 25d
1 BUTTF/PDDA
& 2 BUTTF/PDDA

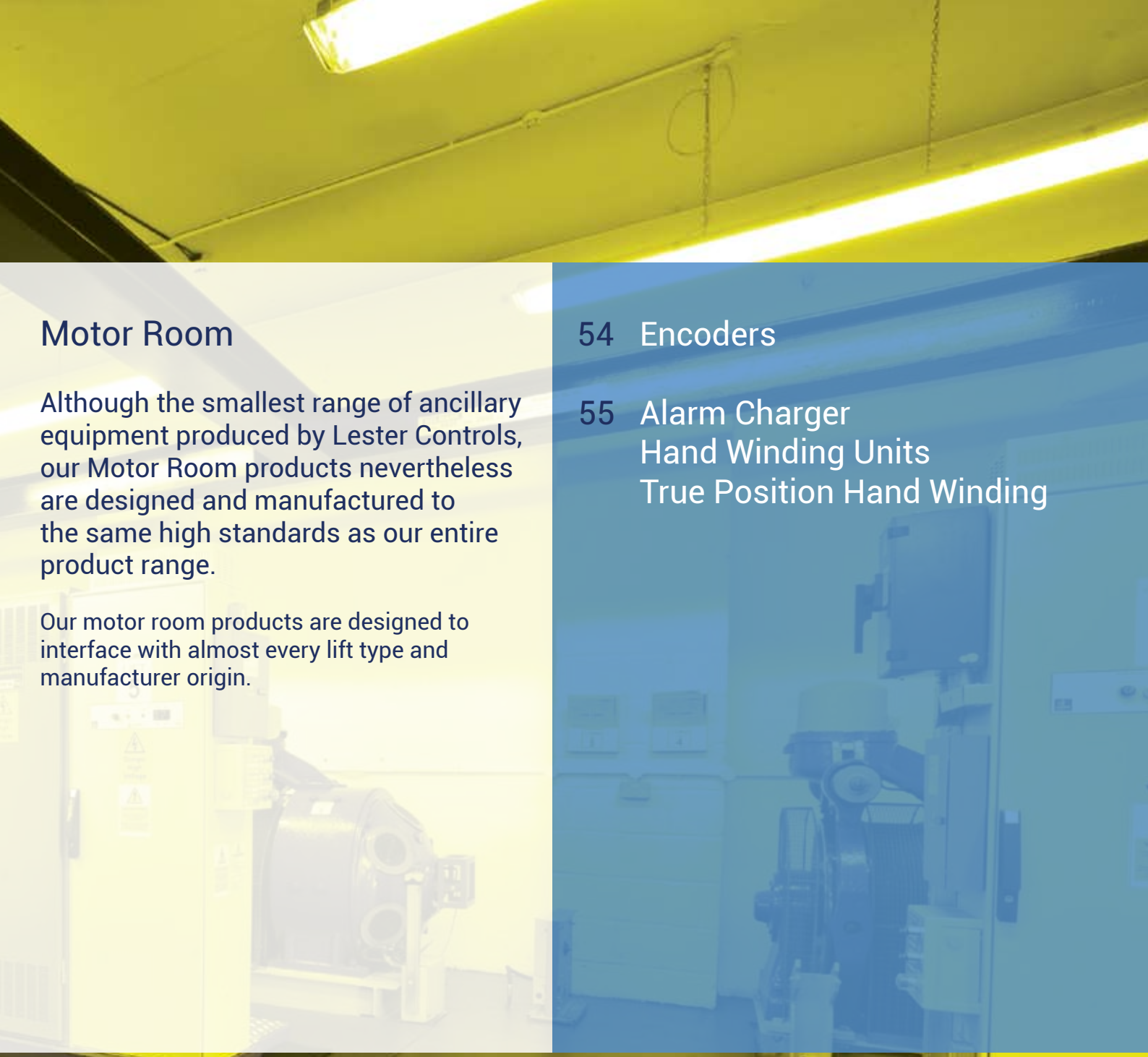
3. Surface Mounted 1 or 2 Button
Landing Face Plate
complete with TC3502D / TFT55 Indicator,
Gong & Buzzer
600h x 130w x 34d
1 BUTTF/PDDATC3502D
& 2 BUTTF/PDDATC3502D

4. Surface Mount 1 or 2 Button
Landing Face Plates
250h x 100w x 27d
ECO 1 BUTT 250
& ECO 2 BUTT 250

5. Surface Mount 1 or 2 Button
Landing Face Plate
complete with Buzzer
600h x 100w x 27d
ECO 1 BUTT 600
& ECO 2 BUTT 600

6. Surface Mounted 1 or 2 Button
Landing Face Plate
complete with TC3502D / TFT55 Indicator,
Gong & Buzzer
600h x 135w x 30d
ECO 1 BUTT 600 TC350 2D
& ECO 2 BUTT 600 TC350 2D


VG 050 FITTED
SWL 150



Motor Room

Although the smallest range of ancillary equipment produced by Lester Controls, our Motor Room products nevertheless are designed and manufactured to the same high standards as our entire product range.

Our motor room products are designed to interface with almost every lift type and manufacturer origin.

54 Encoders

55 Alarm Charger
Hand Winding Units
True Position Hand Winding

1. Shafted Encoder Flanges and Couplings
2. Hollow Encoder
3. Shaft Adaptors

Encoders

To supplement the drives integration into Lester Controls' systems we can offer a comprehensive range of suitable Encoders to give the required "feedback".

10mm Shafted Encoders can be supplied with a comprehensive range of fixing alternatives (Flange, Fixing Kits & Brackets) and Couplings. 10mm "Hollow through" Encoders can be an alternative. This can be supplied with "stubb shaft" bosses. Lester Controls stock 8mm,10mm,12mm and 16mm bosses to suit. These types of encoders will suit most needs, but others are available upon request.

The standard Encoder is supplied with a 10m length of Screened Cable. Full connecting instructions are included.

Product Codes:

Threaded Shaft Adaptor
8mm TSAB
10mm TSA10
12mm TSA12
16mm TSA16

Shafted Pulse Encoders
1024 PPR 10-30v 10mm
ENC1024S
Coupling (10mm) PULSEC
'L' Bracket PULSEL
Flange PULSEF

Endat Encoders
4,096 PPR and 10,000 PPR
Encoders of various sizes and voltages available on request.

Alarm Charger
Hand Winding Units
True Position Hand Winding

Hand Winding Unit -
HW1 True Position Hand Winding Unit

Sold as shown here but with full lift position status using a binary setup indicator. This can be done with independent proximity switches, spare tape head channels or via spare fields on the USP positioning system.

Charger box units are available 110v or 240v AC complete with 3.3 ah rechargeable batteries.

12v Alarm Charger Unit
110v Boxed AC12BX-D110V
240v Boxed AC12BX-D240V

12v Alarm Charger Unit
(with Emergency Lighting)
110v Boxed AC12BXD-110VEL
240v Boxed AC12BXD-240VEL

Product Codes
True Position Hand Winding TPHW1
Proximity PROX
Bracket LCO27
Magnet 6MAGSTRIP

Technical Data
Primary Voltage 240v or 110v AC
Output 3.3AH (3.3amps@1 hour cont')
Power Consumption 60mA

Dimensions
Depth 100mm
Width 200mm
Height 175mm

Repairs

For those customers who choose a Lester Controls Solution, we provide an Omron drive repair service. Additionally, we also repair the German manufactured drives that are supplied with our controllers. Dependant on the nature of the fault, we will either repair at our premises in the UK or dispatch the drive to Germany for repair.

Should you have a problem with a Lester Controls' Controller after delivery, please contact our Customer Help Desk at Croydon.

Training

Customer service is key to Lester Controls and we understand that installing a new Lift Controller is often demanding. For those companies who choose Lester Controls as their controller supplier, we provide a free controller familiarisation and fault-finding training course, managed and run by highly experienced training officers.

All training is based on a structured programme and undertaken at our Croydon premises.

Details of training sessions and engineer tutorials can be obtained from our Croydon Office.

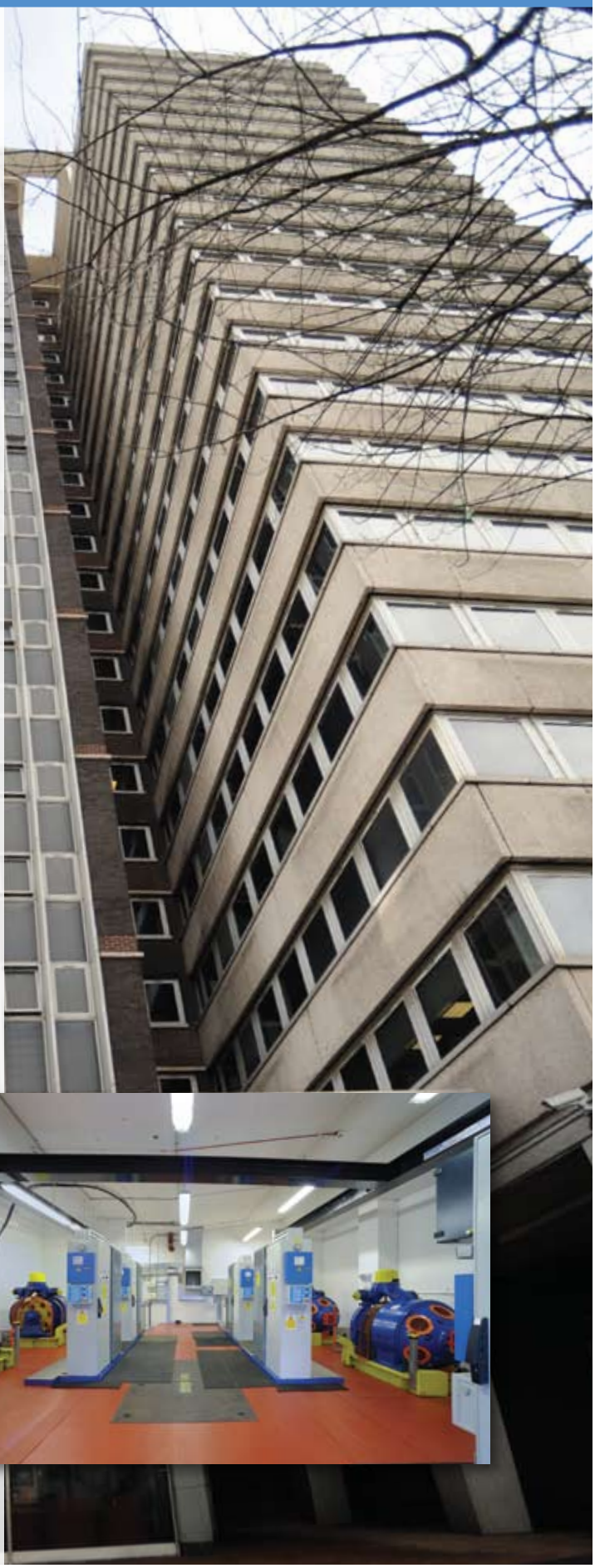
Modernisation with Lester Controls DC Energy Saving Regenerative Quattro Controllers

As part of a major lift modernisation of a 6 Car Group, situated in a 22 storey high rise office, Lester Controls provided 6 Quattro DC Controllers (utilising Magnetek's PWM-DC drives).

The PWM-DC drive takes advantage of regenerative kinetic energy to augment mains power supplies, hence one of the energy efficient features of the Lester Controls' Quattro DC Controllers. An additional energy efficient feature supplied by Lester Controls was the company's serial Direct to Floor controller software, which significantly reduces floor-to-floor travel. Another benefit of this software is the smoother acceleration and de-acceleration of the lift car, resulting in improved ride quality.

Working closely with our customer Liftec Lifts Ltd, the company responsible for the modernisation and maintenance, the ride improvements and energy efficiency requirements were achieved.

Lester Controls also assisted with the supply and manufacture of car and landing operating panels and a range of shaft equipment.



Apollo House
Motor Room

Location: Lutterworth

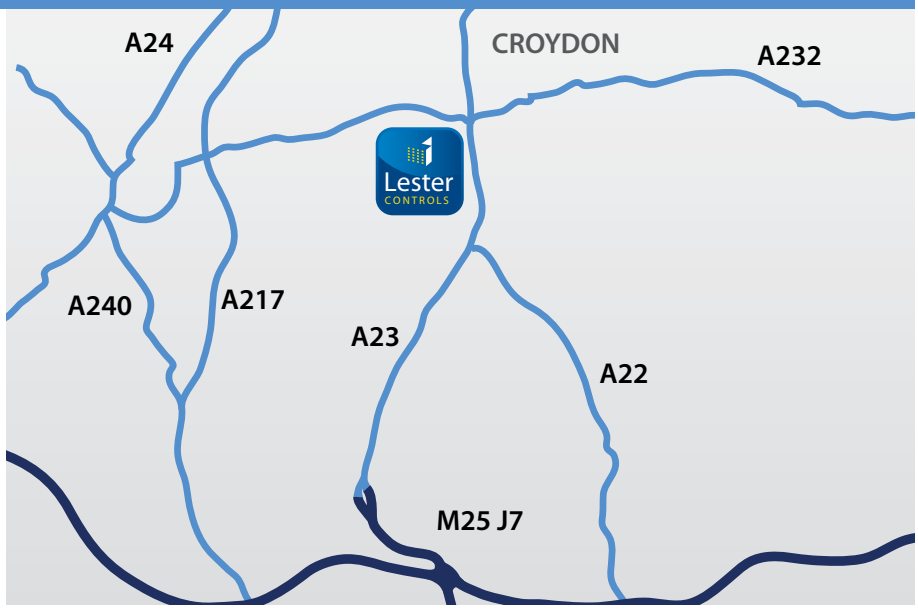
Lester Control Systems Ltd
Units 3 & 4
Wycliffe Industrial Estate
Leicester Road
Lutterworth
Leicestershire
LE17 4HG

Tel: 01455 204983
Fax: 01455 557780

Location: Croydon

Lester Control Systems Ltd
Unit D
18 Imperial Way
Croydon
Surrey
CRO 4RR

Tel: 020 8288 0668
Fax: 020 8288 0667
Email: info@lestercontrols.co.uk
www.lestercontrols.co.uk



Whatever the installation, be it traditional Traction, Hydraulic, MRL or Escalator, Lester Controls can help with competitively priced innovative solutions based on solid experience to deliver reliability time after time after time.

engineers and installers
need supplies on the button

When you choose Lester Controls
we supply what you need when you need it,
helping to keep your customers happy

info@lestercontrols.co.uk
www.lestercontrols.co.uk

Head Office
Lester Control Systems Limited
Unit D 18 Imperial Way Croydon Surrey CR0 4RR
T: +44(0)20 8288 0668 | F: +44(0)20 8288 0667

Branch Office
Lester Control Systems Limited
Units 3 & 4 Wycliffe Industrial Park Leicester Road Lutterworth
Leicestershire LE17 4HG
T: +44(0)1455 204983 | F: +44(0)1455 557780