**LEGEND LIFTS INDIA PVT.LTD.**

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**ABOUT US**

Legend Lifts always implement the mission of “giving safer elevator safer to end user” Legend Lifts provide customers with more comfortable and safer elevator environment. Legend Lifts upholds the idea of “Installing comfortable lift for users” always keeps the spirit of “Pursuing better quality and better service”. Legend Lifts respects and treat every user as a prestigious customer, ensure them a smooth and peaceful travel all the time

**SAFETY**

Legend Lifts follow National Safety codes and standards, Ensuring every time End user, customer, equipment and environment safety. All our technicians are trained and aware of working safety and giving the lift in safe to be used by all.

**PERFORMANCE AND QUALITY**

* Legend Lifts provide you the best performance using the best products and proven installing and commissioning methods.
* Legend Lifts use **Torin Drive Machine** which is established in 2008 in China, having a largest factory ability to deliver one Lakh machines every year, CSA (Canadian Standards Association) and CE (European Conformity), Etc,. Certified.
* Legend Lifts use **Shenyang Blue Light** **Integrated Controller** which is established in 1989 in China having strong R&D and factory with ability to deliver fifty thousand units every year, HNTE (High and New Tech Enterprise China ), Etc,. Certified.
* Legend Lifts use **WECO Door Drives, Door Sensors** which is established in 2000 in Ireland and operating in more than 15 different countries, having strong R&D and factory with CE (European Conformity), ISO 9001, ISO 14001, etc,. Certified.
* Legend Lifts use **Shangai BST Door** **drives, Landing and Car Call Stations, Cables**  which is established in 1998 in china and operating in 79 different countries, having strong R&D and factory with CCC (Cloud computing Certification), UL Under writers Laboratories, CE (European Conformity), etc,. Certified.
* Legend Lifts use **Usha martin wire Ropes** with a history of more than Fifty Years having factories in India, UK, Dubai and Bangkok. ISO Certified, .etc.

**ERECTION AND SERVICE**

* Legend Lifts follow the successful erection and commissioning procedures developed by the well experienced seniors, such as Mounting machines in proper I beam and Machine Rubber pads, Mounting brackets in Concrete and Welding to support Guide rails, providing MS Pit Buffer Channel, Using High speed Shoes, Aligning and maintaining proper measurements, Always using cables with proper termination and ensuring proper connections through proper mediums.
* Legend lifts take promise to provide you an uninterrupted elevator service at all time through taking a good technical care of your elevator and providing the best response to the customers.

**Looking forward to your Greater support!...**

**FEATURES AND ADVANTAGES OF OUR LIFT**

* The system combines intellectual logic control and high-performance VVVF drive control.
* Adopts advanced vector control technology, demodulates motor with high precision, takes full advantage of motor capacity, improves elevator performance and comfort feel.
* Adopts advanced space vector PWM calculation method, compare with traditional sine/cosine PWM method, it improves elevator operation efficiency and saves more energy.
* Adopts full function of BL2000/3000 system, maximize the performance of elevator in different application.
* When using Blue light Synchronous machine, controller could pre-define the machine type with the most optimized model, save machine parameter input and auto-tuning process improves the commissioning efficiency and maximizes the machine performance.
* Fuzzy logic control with non-load-compensation start-up. Excellent comfort feels without lift weighing device.
* Rotating or stopping auto-tuning to get motor parameters and initial angle.
* Suitable for both gearless PM Synchronous traction machine and asynchronous induction machine.
* Brake units are built in for the whole BL3-B series to reduce external component cost.
* Internal encoder and frequency dividing interface to match different PG signal.
* Advanced double 32 bit CPU and FPGA for complete elevator control, with high reliability on elevator safety.
* Redundancy design and full software-hardware protection to achieve elevator safety and reliability.
* Passed professional EMC test, suitable for complicated job site.
* Monitor the cutting current from controller to main motor every time elevator stops.
* Generate optimized speed curve based on target floor to enable lift stop directly with high efficiency.
* Adopts wireless/LAN remote control interface, convenient for long distance commissioning, maintenance and elevator monitoring.
* Equips upper monitoring and software, convenient for parameter setting, commissioning and debugging.
* Data recorder to save integrated controller operation data, help for onsite maintenance /trouble shooting.
* Parameter upload, download and copy to help onsite maintenance.
* Support ARD function with only UPS unit.
* Match GB7588-2003 (equivalent to EN-81) safety standard.

**BASIC FUNCTION LIST**

* **Automatic Run** 
  + Door auto open at stop;
  + Door auto close in delay time;
  + Door close at close button pushed;
  + Car call register, auto cancel wrong call;
  + Landing call stop car in same direction
  + Car service opposite direction landing call at top/bottom floor
* **Attendant Run** 
  + Door auto open at stop;
  + Door close at close button pushed;
  + Car call auto register/cancel wrong call;
  + Landing call stop car in same direction;
* **Inspection Run**
  + When push up/down button in inspection mode, car runs up/down at inspection speed. Car stops once button released. Speed. Car stops once button released.
* **Auto door open at power on**
  + If car at leveling zone at power on, door open automatically.
* **Auto door close in delay time**
  + After door complete opened, it keep open and will auto close after delay time.
* **Door open at current floor landing call** 
  + If landing call on the same floor at door closing or door closed but car not running, door will open automatically.
* **Safety Plate/light curtain**
  + If safety plate touched/light curtain covered, door will open and close again.
* **Overload door keep open**
  + Door open at overload, with overload light on, buzzer sounds, CZ display on COP. Car not running.
* **Full-load drive by pass**
  + At full load, car only respond to car call, not to landing call.
* **Attendant control by pass**
  + At attendant run, press pass over button, elevator only responds to car call.
* **Operation mode display**
  + Elevator Running mode, direction, floor, door mode, load and fault information display on integrated controller LCD.
* **Auto control light**
  + Car box light turned off if elevator is not used for 15minutes. Turned on after receiving any call.
* **Fire Service Mode**
  + System enters **fire service mode** when fire switch is closed:
  + Clears up all landing/car call;
  + Auto return to fire floor
  + Door keep opens
  + Output fire linkage signal after return to fire floor.
  + If elevator runs in opposite direction, stop at nearest floor, do not open door, run directly to fire floor, door keep opens.
* **Auto stop at elevator fault**
  + When car stop outside landing zone at elevator fault, it will auto crawl to leveling zone in middle floor direction and open door.
* **Parking**
  + Elevator enters parking mode at electric lock closed.
  + Elevator does not respond to landing call, service all car call and return to parking floor (adjustable);
  + If no car call, elevator directly return to parking floor;
  + After return to parking floor:
  + LOP and COP display parking sign
  + Do not respond to car/landing call;
  + After 10s, door close, car box light and HOP/COP display turn off.
  + Press any COP/Open, close door button, car box light turn on;
  + Press Open/Close door button, car door close again and cut car box light after 10s.
* **Duplex Control**
  + At landing call, both elevator answers based on their running state and location, and only one elevator respond to increase the running frequency.
  + When both elevators at waiting state, one return to waiting floor (normally G floor), and the other one stays at current location.
* **Group Control**
  + Multi-Elevator Control up to 8 elevators together

**SPECIAL FUNCTION LIST**

* **Hoistway Learning** 
  + In **inspection** mode, from **bottom terminal switch** to **top terminal switch**, measure and store the **landing zone** and **hoistway switch** position.
* **Double press Cancellation** 
  + Press car call button again could cancel such call. (Button answer light off)
* **Anti-mischief**
  + When elevator reaches terminal switch, clear all car call.
  + For elevator with weighing device, only last 3 car calls are registered at light load.
* **Landing call button stuck diagnose** 
  + If one landing call button is pressed for more than 20s, it is considered stuck (cannot reset), such call is not registered, button answer light flashes.
* **Repeat close door** 
  + At close door command, if door interlock circuit not connected in set time, door open and close again.
  + If repeat 5 times and door interlock circuit still not close, elevator stops for service, display error code accordingly.
* **Machine room floor selection** 
  + Use hand operator to input car call
* **Machine room floor open/close door**
  + Use hand operator to input open/close door command
* **Non-Stop Floor** 
  + User can set any floor not to stop
* **Homing floor set**
  + In auto mode, with no landing/car call for certain time, car goes to homing floor.
* **Display character set** 
  + Display character on any floor can be set through hand operator. (Character or figure)
* **Attendant Direction Set**
  + Choose elevator direction through up/down button before running
* **Auto Start/Stop Elevator Service**
  + User may set elevator on/off time by practical requirement.
* **Special Running**
  + Landing call is invalid, elevator controlled by attendant. Door control mode is attendant mode.
* **Door open time delay set** 
  + Press this button before car door fully closed, door open time will be delayed to set time.
* **Rear door control** 
  + Control rear door operation on each floor
* **Trouble Shooting**
  + When fault happens, system diagnoses fault condition and display error code on LCD.
  + System record the last 30 fault data (fault time/class/floor) in error report menu for further reference.
* **Interference evaluation** 
  + Evaluate the site shielding condition, including control cabinet/hoistway connection to ground, help to increase resistance to interference.
* **Encoder Evaluation** 
  + Analyze the evaluate encoder output signal, help service team on site maintenance to eliminate elevator shock and leveling issue.
* **Input port evaluation**
  + System evaluates and displays the input signal quality, help service team to increase the hoistway cable resistance to interference and eliminate elevator COP/HOP display fault information and leveling issue.
* **Emergency Auto Leveling** 
  + **After power cut,** elevator powered by emergency leveling device and level to the closest landing zone to free the passenger. Such function must satisfy certain conditions:
  + After power cut, elevator powered by emergency leveling device. (integrated controller I/O board terminal X18 enable);
  + Elevator NOT in inspection mode;
  + Elevator NOT at landing zone;
  + Elevator can run normally;
  + Safety/Door inter-lock circuit close;

**Elevator emergency leveling procedures when not at landing zone:**

* + Determine run direction based on load condition (need weighing device);
  + 2. After leveling to the closest floor, door keep open, emergency leveling device cut power after certain time.
  + 3. After power recovery, if system record a history of emergency leveling action, elevator return to bottom floor to re-calibrate hoistway data.

**When at landing zone**,

* + Emergency leveling device supply power, elevator door open (integrated controller I/O board terminal X18 must enable).
* **Elevator for handicapped** 
  + Start elevator for handicapped function through parameter setting;
  + COP: Car call function & door open/close button.
  + HOP: Recognize for handicapped calling through different floor;
  + Principle: When leveling, opening time will keep longer if handicapped is on this floor (the opening time can be changed); when press cop opening button, opening time will keep longer.
* **Door open in advance**

Elevator reduce speed when approaching target landing zone, if elevator meets the condition below, door open in advance:

* + Elevator run normally, reaching target landing zone;
  + Two leveling sensors enable;
  + Car speed lower than the set protection speed;
  + Controller low speed output enable;
  + Safety board output enable;
* **Re-leveling Function**

Elevator stops at one floor, when passengers move in/out, steel rope will have elastic deformation, and car may move out of landing zone. This function enables elevator move in low speed back to leveling zone with door open.

**Condition of re-leveling:**

* + Elevator stops and leave landing zone;
  + Two leveling sensors enable;
  + Elevator speed slower than set value;
  + Controller low speed output enable;
  + Safety electric board output enable;

**Note:** Some features May need additional devises to work

**Looking forward to your Greater support!...**

**Thanks And Regards**

**P.Praveenkumar**

**LEGEND LIFTS INDIA PVT LTD**

**SOME OF OUR VALUABLE CUSTOMERS**

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