



GALaxy IV[®] Controller

featuring a secure built-in Wi-Fi link

the answers to all your
troubleshooting questions
can now be found right
inside the Machine Room



A **VANTAGE** Company

GALaxy IV Controller: built to provide maximum productivity and efficiency

The key to greater productivity on-site is efficiency. And we believe that anything that can save time in labor, and make your job easier, is an advantage you could use more of. That's basic idea behind our entire family of Controllers, and the core idea behind our latest generation of sophisticated, intelligent machine — **GALaxy IV**.

Through our use of advanced technology and innovative design, such as in placing a secure Wi-Fi link within the Controller itself, we have made it easier for installers, maintenance personnel and adjusters to do their job and get the answers they need to troubleshoot problems on-site fast. Couple this key benefit to, GALileo's simple to follow diagnostics, the system's simplified wiring, and the Controller capacity to learn and adjust its functions to handle car dispatch and traffic more efficiently, and you have a system that's crafted to deliver everything you have asked for — and much more



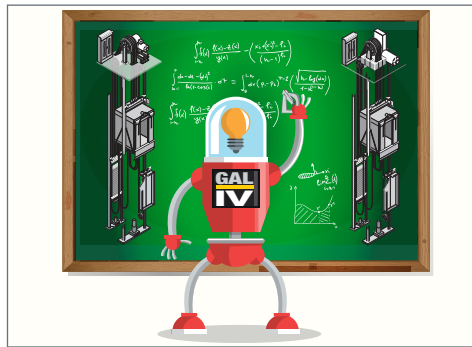
GALaxy IV's secure built-in Wi-Fi capability offers a smarter way to access a complete library inside, and the ability to upload a completed MCP and archive it within the Controller for future review.

A secure, built-in Wi-Fi link to answers for troubleshooting

When it comes to finding interesting questions and head-scratching situations there are few places that offer more opportunities than within an elevator hoistway. Particularly when you find yourself trying to troubleshoot an on-site problem. **Fortunately GALaxy IV's secure, built-in Wi-Fi connection helps you access the answers you need through your own smartphone, laptop or tablet. No Internet connection is required.**

With GALaxy IV you no longer have to heft around paper user manuals, carry specialized browser connections or master complex software. Now you don't have to waste valuable time tracking down vital data or hope you can figure out a problem on your own. **With this Controller every resource you need to review the health of your system, diagnosis a problem, and maintain its function, is already at your fingertips and waiting on the GALileo server inside of GALaxy IV.**

Here you'll find system schematics, connection diagrams, manuals, and all the reference you need to troubleshoot the problem. **And should you still find yourself stumped and need a little help, the Controller's local area network can be connected to the Internet. Then through the use of a secured VPN, technicians can remotely review the data from GAL's GALileo diagnostic interface and offer troubleshooting suggestions to workers on-site.**



GALaxy IV is in the vanguard of a new generation of intelligent Controllers that can, through the use of multiple algorithms within its basic program, learn to recognize traffic patterns and dynamically self-adjust to handle loads more efficiently.

Fast access to GALileo

With GALaxy IV you have immediate access to GALileo, GAL's own advanced, intuitive system diagnostic interface, and a standard feature on every Controller. With it you can play back trace screens, identify input and output faults, perform traffic analyses, review and adjust key system variables. **And all of this data can be obtained through GALaxy IV's built-in Wi-Fi link without the need for a dedicated hardware connection, cellular signal, or access to secondary device or laptop software.**

Best of all, GALileo's sophisticated interface was crafted by industry professionals who worked with engineers to be sure that the data provided by GALileo could be easily interpreted and utilized by those who really have to do the job. No more need for complicated software or complex reference manuals to make sense of data. After all, what good is information if it is too difficult to follow? Small wonder why professionals place GALileo in a class that's all by itself when it comes to delivering answers.

A system that's easy to use

With GALaxy IV you have a highly advanced, nonproprietary central control station that that's simple to learn, easy to upgrade, can work with any display you prefer, and offers hundreds of selectable features. Equally important, its wiring has been dramatically simplified, which reduces installation time and overall cost substantially. **GALaxy IV is so flexible that the same basic controlling system can be used in installations ranging from high-rise Gearless Traction to Hydraulic Simplex.** In fact you'd be hard-pressed to find to find an installation layout or situation where our Controller wouldn't be a cost-effective answer.

While other manufacturers implement Controllers featuring increasingly involved and more complicated user interfaces that are a challenge to master, GALaxy IV offers a system that one could easily become familiar with and feel more comfortable to use.

Real intelligence in a box

GALaxy IV is in the vanguard of a new generation of truly intelligent machines. **Through the use of multiple algorithms within the Controller's basic program, the system can learn to recognize recurring passenger traffic patterns and then dynamically self-adjust its functions to handle loads more efficiently.** It uses real time values, including flight times, door times and a host of other criteria, to calculate the ETA for each car in the system and every car in the group. This permits the system to automatically anticipate upcoming calls and park the elevator cars in readiness to speed dispatch.

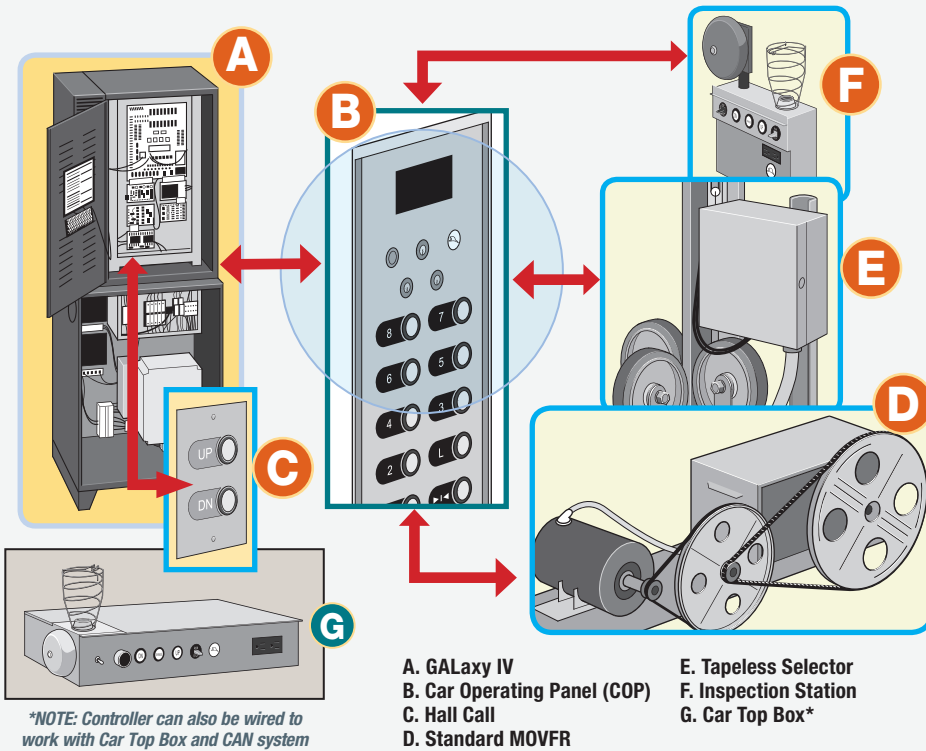
To further refine the Controller's dispatch and traffic handling capabilities, GAL engineers utilize data collected from Elevate 8 to create our own simulations. With these results GALaxy IV's basic programming algorithms and various other parameters may be adjusted to obtain greater system efficiency.

Utilizing an intelligent Controller, such as GALaxy IV, can greatly optimize passenger routing strategies such as Group and Destination Dispatch, Lobby Express, and Destination Express, and help create greater owner and tenant satisfaction. GALaxy IV's advanced design gives it the capability to perform automated calibrations, intuitively self-learn the hoistway and determine limit velocities.

The solution to performing MCPs

Elevator professionals have come to find that it can take a great deal of time and effort to correctly perform a MCP. This is especially true for those still using interactive PDFs or entering critical data on old-fashioned check charts. Cumbersome MCP formats, and the sheer volume of data involved, can even lead to critical details being overlooked or

GALaxy IV System Wiring Overview: Designed for real efficiency.



Streamlined functionality within a simple modular design

GALaxy IV includes prewired harnesses for the GAL MOVFR Door Operator, GAL Selector Positioning Systems (Tape, Tapeless or APS Selector Tape), and also provides pre-labeled hoistway and traveler bundles as well.

The system's use of serial communications to the car reduces traveler wire counts and greatly simplifies field connection. **The Controller's cabinet (custom sizes are available) is split into three robust yet portable segments (Control, Dynamic Braking, Power), which are keyed for quick assembly.**

Modernization efforts today place a premium on finding ways to use floor space more efficiently. This has led to the reduction of a system's footprint through the miniaturization or elimination of certain familiar components. **With GALaxy IV a Car Top Interface is no longer required.** Instead the COP (Car Operating Panel) serves as the central hub for gathering data from the Door Opener (MOVFR) or CAN (Controller Area Network), Absolute Tape Selector or Tapeless Selector, and Inspection Station, which is then relayed back to GALaxy IV and stored. **However should your COP not be physically able to accommodate the necessary boards, or you would simply prefer to use a Car Top box instead, the Controller can easily be wired to work this way as well.**

Upgrades easily

This Controller allows for fast and easy software updates in the field. Instead disassembling boards or manipulating chips **to update programming, all system upgrades can be transferred via SD flash card.** GALaxy IV automatically stores job parameters and set-up data. Up to 600 logs faults can be retained in a permanent long-term fault log. **In the case of a problem, fault logs can be downloaded to removable medium and then e-mailed to our free tech support for further review.** A single 32 Bit Dual Core CPU runs both the Car and Groups, and LCD User Interfaces within the Controller make it easy to review key data.

Providing greater passenger safety

GALaxy IV is fully ASME A.17.1 and CSA B44.1 Code Compliant. It offers built in redundancies with multiple processors and logic arrays. **The Controller also provides both GAL FM1 and FMG1 fault monitors, which have become of critical importance to all NYC elevator professionals as they work to comply with NYC Building Code, Appendix K, Rule 3.10.12 (providing for the detection of jumped or faulty door circuits) by the January 1, 2020 implementation deadline.** FM1 is designed to detect jumped or faulty door circuits, then provide an alarm and prevent door closure and car movement until repairs have been

omitted accidentally. Today Code requirements also demand that a copy of the MCP be readily accessible for review on-site (ASME 17.1-2013/CSA B44-13, 8.6.1.2.1 Maintenance Control Program). Which means that in addition to all the cost and hassle involved in performing a MCP, simply finding a good place to archive bulky paper documents can create problems. Fortunately we offer professionals an easy solution when you combine GALaxy IV's Wi-Fi functionality with the Helios App.

GALaxy IV and Helios

GALaxy IV is the only Controller licensed and designed to take full advantage of the advanced Helios App. With this smart device-based dynamic field program you can document a Plain Jane or super custom MCP without a cellular connection. Final results can then be uploaded via the Controller's Wi-Fi link where a PDF copy of the MCP is stored.

Once you have reacquired a cellular signal simply click "SYNC HOME" to forward all your data (including images and comments) back to the home office. There it can be integrated into the Helios Desktop Program. With this information you can then track and review the progress of repairs, manage device inventory, create reports, and even schedule future worksite activity.

Maximum user flexibility

GALaxy IV is specially designed to meet the needs of **Geared installations demanding speeds up to 450 fpm (2.29 m/s), and Gearless up to 1200 fpm (6.09 m/s).** The system can handle groups of up to eight elevator cars, low through high-rise front and rear installations, and **offers full support for AC Vector, DC SCR, Quattro® AC Cube and Quattro® DC Drives.** Line regenerative (New Gen) digital drive capability is also available as an option.

GALaxy IV's Wi-Fi provides immediate access to our GALileo Diagnostic Interface via smart phone or tablet. GALileo is a standard feature on GALaxy IV.



affected. FMG1 detects instances of unintended car movement, and monitors for ascending and descending over-speed conditions. Should FMG1 identify a system failure, it can trigger the Hollister-Whitney Rope Gripper™ automatically and arrest car movement. **When combined together FMG1 and the Rope Gripper™ permit a system to be in compliance with NYC Building Code 3.8.4.1, Appendix K, (providing for the detection of unintended ascending and descending over-speed, and unintended car movement conditions) by the mandatory 2027 deadline.**



FM1 and FMG1 Fault Monitors are key elements in GALaxy IV and offer professionals a proven way to meet demanding 2020 and 2027 NYC DOB Code compliance demands.

Standard Features

- Automatic Hoistway and Limit Velocity Learning
- Load Weighing Bypass Set-up
- Car and Counterweight Buffer Testing
- Normal and Emergency Terminal Slowdown and Brake Testing
- Lift Brake on Inspection
- Reset Gripper/Emergency Brake
- Open/Close Door upon Inspection
- GALileo Diagnostic Interface

Optional Controller Features

- Attendant Operation
- Building Monitoring (GALileo, IDS Liftnet System)
- Car Call Security
- Card Reader
- Cross Alignment
- Cross Cancellation
- Distance Feedback
- Earthquake/Counterweight derailment service
- Emergency Power
- Floor Lockout Security
- GALileo Machine Room Display (with Keyboard Interface)
- Hospital Emergency Service/Code Blue

- Load Weighing
- Magnetic Limit Switches
- Manual and Automatic Freight Door
- Medical Emergency Service (Massachusetts requirement)
- Motor Pre-Torque
- Rear Doors (Staggered/Walk Through /Non-Simultaneous)
- Serial Hall Calls
- Swing Car Operation

Free Technical Support

GAL provides both free technical phone support and on-campus training sessions to elevator professionals at no cost. For details go to www.gal.com to make plans to attend one of regularly scheduled educational classes, or contact us to arrange a specialized session at our Bronx, NY educational facility.

With GALaxy IV it is possible for GAL technicians to remotely troubleshoot problems in real time with on-site staff via the Internet through the use of a secure VPN (Virtual Private Network) and GALileo. Troubleshooting services are offered to customers for free. Additionally, fault logs may be e-mailed to our technical specialists for review and analysis at no cost.

Benefits

- Non-Proprietary design
- Built-in secure Wi-Fi link
- Same Controller from High-Rise Gearless Traction to Hydraulic Simplex
- Low, mid and hi-rise applications; Front and Rear openings
- Absolute position/distance feedback capability
- Geared up to 450 fpm (2.29 m/s) Gearless to 1200 fpm (6.09 m/s)
- Capable of serving up to 60 floors
- Drives: AC Vector, DC SCR, Quattro® AC Cube, Quattro® DC
- Password protected at several levels
- Simple installation, set-up and maintenance
- Greatly reduced traveler and hoistway cable wire counts
- Universal input/output connections with built-in protection

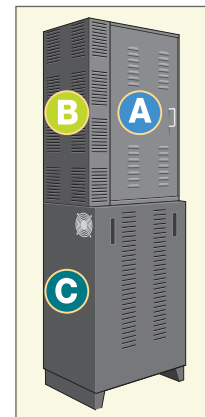
- Fixture LED color and intensity Controller adjustable with GAL Spectral-Lite lamps
- Intuitive built-in diagnostic interface (GALileo)
- Works with any display or fixture
- Optional Regenerative Drive Capability
- Group and Destination Dispatch, Lobby Express, and Destination Express capability
- Direct COP wiring capability eliminates need for Car Top Box (but can work with one if desired)
- Splits into three cabinets for easy portability (Power, Logic DBR resistors)
- Job parameters on SD card
- Free tech support and training

The answer you've been seeking

With this Controller you have an intelligent system that configures itself for standard commissioning tests and can learn from the data it collects how to make car dispatch and passenger transport even more efficient. Featuring a built-in Wi-Fi link that makes any smart device a key to troubleshooting answers, and a highly intuitive diagnostic interface, GALaxy IV only seems as if it is built for the elevator of the future. In fact, it's the answer you need today in order to be truly efficient and productive.

Compliance

- ASME A17.1/CSA B44
- CSA approved-Cert.# LR 112009-1
- Meets TSSA requirements
- California Certification
- EN-12016 Noise Immunity



GALaxy IV's cabinet is segmented into three easily portable segments which are keyed for quick on-site assembly.

A. Control
B. Dynamic Braking
C. Power

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