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Comparison of Qameleon QarVision™ and OEM Monitoring Systems

Most elevator and control manufacturers offer a proprietary remote monitoring system for their equipment. The QarVision™ Elevator Performance Analyzer is a different kind of system that offers many advantages over OEM monitoring.

Elevators are a combination of electrical and mechanical systems. They consist of a controller of some sort, and a lot of mechanical components (motors, brakes, doors, switches, etc.) The controller is like the computer in a car (newer ones are based on microcomputers; older ones have relays, mechanical switches, cams and levers). It tells the car's mechanical systems (engine, fuel, brakes, etc.) what to do. Just like in a car, the mechanical systems don't always work the way they are supposed to (like the controller tells them to). This is why a mechanic will test drive a car (or an elevator) as well as use an analyzer on the controller.

Here are some differences between OEM systems and QarVision™;

Design Philosophy	OEM systems	QarVision™
Controller monitoring vs. Performance monitoring	The system is built into the controller, and monitors the signals and states inside the control system. It analyzes these signals and determines if there is a problem with the controller.	QarVision™ monitors elevator's actual performance. It tells what the elevator is actually DOING, not what the controller is telling it to do. It is like an automatic "test ride" of the elevator.
Built-in vs. independent	The system consists of hardware and software that is part of the controller.	QarVision™ has no electrical or mechanical connection to the elevator or its controller.
Proprietary vs. general	The system works only with a particular manufacturer's elevator or controller.	QarVision™ works with ALL elevators.
Permanent vs. portable	The system is built into the controller.	QarVision™ is a portable system that can be easily moved from one elevator to another.
Monitoring vs. diagnostics	The system is designed to notify someone when it detects a potential problem with the elevator, and can even initiate a trouble call.	QarVision™ is a diagnostic instrument that records the parameters of every trip, and can tell exactly what happened when something goes wrong. It is used as a test instrument for finding problems and making real-time adjustments to the elevator. It also tests limits and can notify of a problem.
User	Call center personnel and dispatchers	Mechanics and technicians
Owner	The system is tied to the elevator company's call center	QarVision™ is owned by whoever purchases it. This can be the building owner, the

		elevator maintenance company, a third party building service (Honeywell or Yamatake), etc.
Trouble log vs. "black box" recording	The system keeps a historical record of the problems that were detected.	QarVision™ records the actual performance measurements from every trip.
Location of the data	At the elevator company's call center	In the QarVision™ unit at the elevator. Data is also retrieved remotely and stored in a database at the owner's site.
Mechanic access to data	Phone or email to call center to get current status of elevator. Customer can access maintenance history over the Internet.	Watches the elevator in real-time at the work site (using a hand-held computer or laptop), or remotely over the Internet. Graphical display of the real-time and historical data at the work site. Operates and looks exactly the same at the work site or the office.
Old elevators vs. new elevators.	Built into the controller of newer elevators. Works only with controllers that are computer-based.	Designed to support older elevators as well as new ones. Works with all controllers (computer-based, relay logic, mechanical cams, etc.)
Remote communications	Usually telephone based, in conjunction with the ADA phone line.	Multiple communications mechanisms can be used, including WiFi, Ethernet, cellular, DSL, and municipal WiFi.
Cost structure	Equipment part of elevator. Monthly fee for call center monitoring. Often included in price of a monthly service contract.	One-time purchase of the equipment. Monthly fee only if communications are provided by a separate company (cell carrier, etc.) Arranged by the owner.

The basic difference is OEM monitoring systems are designed to aid the dispatcher in sending service personnel to the work site when a problem is detected. QarVision™ is a tool for the mechanic and technician to locate the problem, and verify that the elevator is working efficiently and safely. With the appropriate communications, this analysis can be performed anywhere.

Most mechanics will tell you that they don't use the company's built-in monitoring system because it does not give them enough information to diagnose problems. QarVision™ tells them what the elevator is currently doing, and what it did on every trip prior to the service call. QarVision™ was designed with input from elevator technicians, as well as maintenance managers.