fast, and flexible

EST3® offers robust life safety for a wide range of applications

GE
imagination at work

Zero to alarm
in under three seconds

With its lightning fast response time, our EST3 life safety system is trusted to protect some of the most prestigious buildings on the planet.

In Canada, EST3 clients include: financial centres like *Bankers Hall*, *TD Towers* and *Scotia Plaza*; retail mega-malls like *Square One* and *Metropolis at Metrotown*; industrial plants like *Ontario's Nuclear Facilities*, *Alouette Aluminum* and *Dupont*; and universities like *Waterloo*, *Toronto*, *McGill* and *New Brunswick*.

imagination at work

Excellence, for every application

Over a century ago, Robert Edwards installed the world's first electric alarm bell in a New York City church, and started a tradition of innovation that would chart the course of building safety and security for the next 130 years.

From pioneering work in multi-sensor technology, to patented "full-light" strobe technology and many other award-winning design breakthroughs, GE Security has established itself as the leader in life safety technology.

In brief

The EST3 Control Panel leads the life safety industry thanks to innovations like its lightning fast 3 second response time, exceptionally survivable peer-to-peer network, eight channel digital audio, and more. The EST3 is installer-friendly and demonstrates that high tech doesn't have to mean high price, cutting costs with its modular design, removable terminal blocks and integrated security.

Support for our powerful Signature Series line of detectors and modules is built into every EST3 system. Signature Series devices do not require shielded wiring, saving wire and termination costs on new and retrofit applications.

Robust
Fast, flexible, cost-efficient with eight channel digital audio.

See it all
Large eight-event display eliminates need for individual zone annunciation.

FireWorks
A graphical interface for EST3.

Installation friendly

EST3 installations are very efficient thanks to our factory rack and test program. We are the only manufacturer in Canada that completely builds and tests systems prior to shipping them to the job site. EST3 systems are designed and programmed to specification at our manufacturing facility in Owen Sound, Ontario, Canada. This ensures significantly reduced installation time, while minimizing disruption at your facility.
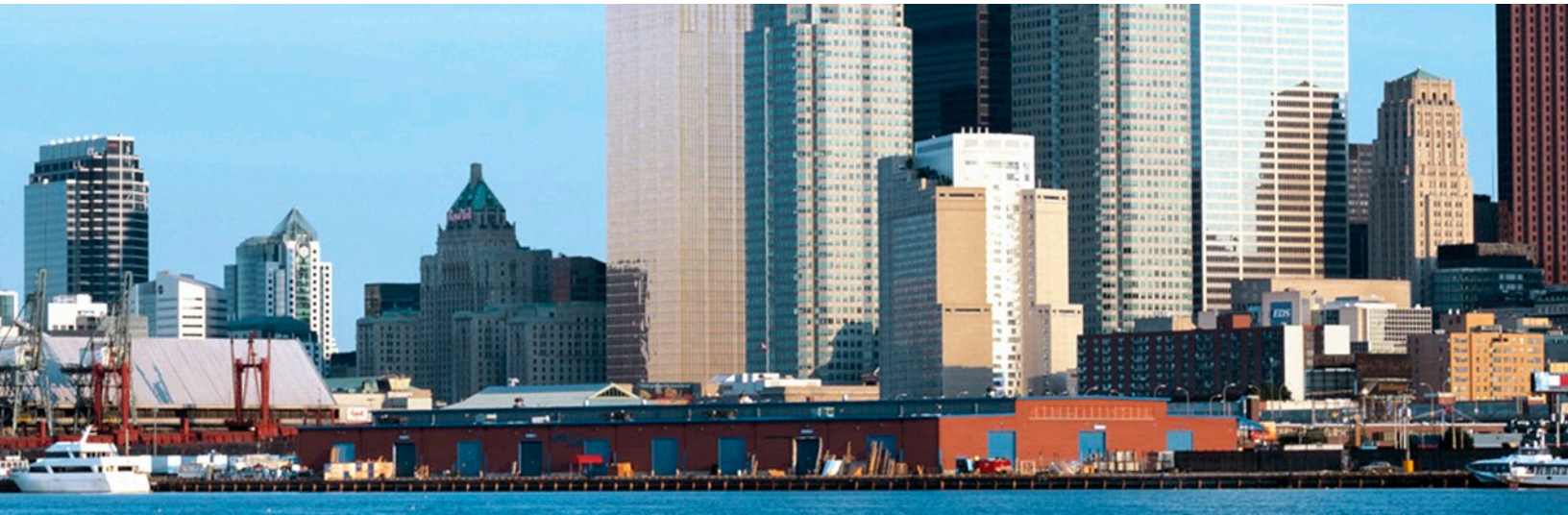
Intuitive

This powerful system puts control at your fingertips and provides the information you need in any situation. The extra large LCD displays the big picture, providing intuitive feedback on everything from routine maintenance to crisis events. The LCD is 24 lines with 40 characters per line, and displays 8 events for additional user information.

All system events are automatically categorized into one of four message queues. Alarm messages are never intermixed with trouble or supervisory signals, eliminating confusion. Menus are intuitive, and the operator can toggle between two pre-defined languages at the touch of a switch. Annunciation of events can be expanded across local or wide area networks, and also sent as email notification.

Digital Audio

The EST3 features a distributed digitized audio system, which supports eight channels of digital audio over a single pair of wires for emergency communications. Any of the eight audio channels can be programmed to any or all areas of the building,

with manual override as required. Eight channel capability assures that one message is never interrupted in order to process another, a common fault with two channel systems. This eliminates any chance of confusion due to conflicting messages.

In addition to being fully supervised, if any part of the audio source unit fails, a back-up tone built into each amplifier automatically sounds during alarm. In the event of amplifier failure, a back-up amplifier can be configured to automatically "switch in" for the failed amplifier for added survivability.

Survivor

The EST3 uses distributed technology to survive expected and unexpected events. Intelligent Signature detectors make their own alarm decisions independent of other system components. In the event of a CPU failure, the intelligent device controllers can still receive alarms and distribute a default alarm message to all other network components.

The network offers long distance communication between panels using copper, fiber and modems. The network can be configured Class B or Class A - Style R. With Style R, the network will still function 100% with a fault. Should multiple wiring faults occur, the network reconfigures into sub-networks, still providing detection and signaling for the area the sub-network serves. Multiple failures such as this are highly unlikely, but building owners enjoy peace of mind knowing EST3 is protecting their building and tenants. It's like having a backup fire watch built into every panel!

Flexible

EST3 control panels are assembled in layers that swing out for easy access. Key components feature removable terminal blocks and simple plug-in connectors. EST3's modular design means every system is simple to maintain and can easily keep pace with even the most radical building modification – efficiently and cost-effectively.

A single control panel can support 2500 addressable devices, access control for 124 doors, and provide up to 28 amps @24Vdc of power. Sixty-four EST3 control panels can be networked together using copper or fiber to expand the system capability to 160,000 addressable devices, and over 4,000 doors. If an application exceeds this capacity, we can seamlessly connect multiple networks together using a FireWorks computer head end.

At a glance

FireWorks adds a graphical interface to EST3 control with its unique four quadrant display, providing interactive site maps, user defined event instructions, and even CCTV capabilities. The FireWorks operator has full control of the building, instantly accessing important details concerning any system event, such as a graphic showing the location of an active device. Events can be acknowledged with the click of a mouse, and system commands issued with split-second timing.

The true power of FireWorks becomes apparent when it's used to combine multiple building functions into a single point of monitoring and control. Without leaving the workstation, the operator can concurrently monitor the status of smoke

& heat detectors, security devices, door access and more. Using the CCTV camera interface, they can quickly and safely get a first glimpse of the fire, security or other monitored application, gaining valuable information that can be passed along to the emergency response team.

FireWorks may be connected directly to an EST3 system or cities away using a LAN/WAN connection. This means FireWorks can act as a conduit, annunciating several buildings together at a single point. And thanks to its ability to communicate with an SMTP email server, event details can be automatically emailed to anyone on the distribution list.

Integrated Security and Access Control

EST3's powerful and sophisticated platform can be extended to include security and access control functions, an industry benchmark. Sharing resources creates a simpler, more efficient system, one that is easier to learn, service, and more flexible to program than several separate systems. EST3's event-driven architecture orchestrates all fire alarm functions with extreme efficiency. When security and access control functions are added, the possibilities are endless. Access-controlled doors can be unlocked during a fire alarm, and security messages issued with integrated audio. With security devices sharing the same wiring as fire alarm, you can use software to automatically turn on a CCTV camera in the area of an event, with no extra relays or wiring.

The EST3 was the first fire alarm control panel to coexist with security and access control and achieve ULC listing. Specifying

engineers and building owners enjoy peace of mind knowing that the system has been agency tested to ensure that life safety events are executed in the highest priority. Furthermore, Security and access control systems benefit from the level of survivability and reliability that are mandated by fire codes and life safety standards.

Only GE Security can deliver the cost and performance advantages derived from sharing the same wiring, power supplies, programming, and operator training, and back it up with coast-to-coast service.

Reliability

New or retrofit, EST3 is the system to depend on, now and for many years to come. Decision makers the world over trust the power and performance of EST3 to protect their staff, visitors, and property.

Thinking inside the box

1. Plug-in rail modules.

2. Communication and power bus rail.

3. User Control/Display interface plugs into any rail module.

4. Easy-to-change labels.

5. Ribbon cable interconnects chassis.

6. Hinged displays provide access to terminations.

7. Removable terminal blocks.

8. Two 3.5 amp auxiliary outputs per power supply.

9. **Paging Microphone**

   Provides specific voice instructions to all or selected parts of the building.

10. **Firefighter's Telephone**

    Large LCD displays incoming and connected calls simultaneously. Easy-to-understand switches along with text messages make phone operation easy and efficient.

11. One 24 volt battery backs up as many as four power supplies.

The EST3 delivers best-in-class property protection, cost effectiveness, survivability, ease of installation and maintenance, and flexibility for future expansion.

You can count on GE for quality and reliability.

Sense, and react

EST3's modular design supports addressable and conventional input devices, and our award-winning Genesis signals.

Signature - Detection Solutions

Signature Series is an entire family of intelligent fire alarm and security devices, including detectors, multi-function input and output modules, pull stations, fire suppression control and user-friendly maintenance tools.

Signature devices use an on-board microprocessor to make alarm decisions at the device, reserving precious processing power at the control panel for other functions. This strategy, known as Distributed Intelligence, means the data is already processed when the information reaches the control panel. As a result of this technology, wiring restrictions are reduced and therefore the need for expensive shielded cable is eliminated, ultimately reducing the cost of new and retrofit installations.

For retrofit, nothing is more flexible! Signature Series devices can be phased in as budgets and renovation schedules permit. EST3's support for both addressable and conventional devices allows cost-effective upgrades from an existing system. Thanks to Signature's unique ability to use existing wire, costly rewiring is not required in most cases. As long as the wiring is trouble free and meets the Canadian Electrical Code Section 32 guidelines, it is ready for Signature Series, and that saves installation time and money!

Signature's exclusive device mapping feature provides an exact layout of how the circuit is wired and where the devices are located on the circuit, including T-Taps. This feature provides valuable diagnostic information, and helps you keep accurate records of how the system was installed and any modifications that have been made.

Signature devices deliver lightning fast alarm response regardless of the number of devices on a circuit. Signature Series devices are not only the most reliable devices of their kind, they're also simple to install, thanks to features like electronic addressing, automatic device mapping, multi-sensor technology and environmental compensation. That's why millions of Signature detectors can be found protecting large and small buildings across Canada and around the world.

Genesis - Signaling Solutions

EST3 features modular power supplies and amplifiers to support GE's award-winning line of Genesis low-profile horns, strobes and speakers. Our Genesis family of signals are among the smallest and most compact ULC listed audible-visual emergency signaling devices in the industry. And because Genesis signals actually outperform the old-fashioned bulky alternative for the same price, these devices have set the new standard in life safety signaling.

Genesis' sound and light output can be configured on-site. All horns have a high and low dB setting, and speaker wattage selection can easily be changed without disconnecting wires. All Genesis strobes have a candela switch, allowing the installer to optimize light output during installation. And Genesis' patented "full-light" technology ensures more area is filled with light than from traditional strobes.

Genesis products mount easily on standard electrical boxes, with plenty of room inside the box for wiring. For ease of verification, the selected candela and wattage settings remain visible through a small window on the device after the cover is closed. All mounting screws are captive so they won't go missing, and after installation they are concealed which provides a clean architecturally-pleasing appearance.

Signature Series 4D
Multisensor Detector

Signature Series
270 Pull Station

Genesis GC Series
Speaker/Strobe

Genesis G4 Series
Speaker/Strobe

Genesis G1 Series
Horn/Strobe

GE Security

Canadian Head Office and Manufacturing

Owen Sound, Ontario, Canada
Phone: **519-376-2430**
Fax: **519-372-2705**

US Sales
Bradenton, FL, USA
Phone: **888-378-2329**
Fax: **866-503-3996**

Www.gesecurity.com

EST3 advantages

Benefit	Description
Modular Design • *Flexible, expandable* • *ULC Listed for fire, security and access control*	EST3's modular design means every system is simple to maintain and can easily keep pace with even the most radical building modification – **efficiently and cost-effectively**. Engineered for the seamless integration of fire alarm, security and access control.
Large LCD Display • *More information to the emergency user*	EST3's large LCD display automatically displays the first and last alarm which makes alarm analysis more efficient. The LCD can display eight events, eliminating the need for individual zone annunciation.
Fail-safe Technology • *Added survivability* • *Peace of mind*	Fail-safe technology provides **redundant** levels of survivability. Wiring methods allow for Class B or Class A - Style R network, utilizing copper or fiber medium. Style R provides **100%** network communication even with an open, short or ground on the network wire. Notification by event type can be annunciated off site via LAN or WAN networks, Blackberry, pocket pager or email.
8 Channel Digital Audio • *Digital quality sound* • *Noise immunity* • *Signals sound in 3 seconds*	Seamless addition of 8 channels of digital audio, multiplexed on a single pair of wires. Emergency communications and operator controls are **virtually instant**. Building signals sound in less than 3 seconds regardless of system size.
Conventional Device Support • *Cost effective upgrades* • *Reuse existing wire*	Cost-effective upgrades from an existing system are easy with EST3's support for both addressable and conventional devices. Retrofit installations can be **phased-in** as budgets and renovation schedules permit. Signature's ability to reuse existing device wiring reduces retrofit costs.
Service Groups • *Simplify maintenance* • *Annunciate active bypassed devices*	Bypass devices **by location**, not by system wiring. Disable only the devices needed and not entire floors or wings. Program alert signal for devices that go active while in the bypassed state.
Maintenance • *Scheduled maintenance* • *Reduce service needs* • *Compare program*	Scheduled maintenance **improves** system reliability, and EST3 is designed to make system maintenance **easy**. Signature Series detectors send a message when they need cleaning. Detailed trouble codes quickly identify problems, including ground faults. An integrated compare program identifies all changes from the previous program for fast accurate verification of system changes.
Comprehensive solution • *factory testing* • *coast to coast service* • *retrofit experts*	GE Security offers the most professional and comprehensive Life Safety solution across Canada. Our team of retrofit experts are fully experienced with phasing-in new products while maintaining fire protection and minimizing disruption within your facility.

imagination at work