INCC, E3-LOC, INCC CAB-B
Intelligent Network Command Center

General
The Gamewell-FCI, INCC Intelligent Network Command Center serves as the point of interface between an operator and the system's audio evacuation, fire fighter intercom, and building control circuits. It is a component of the following systems:

- E3 Series® Expandable Emergency Evacuation
- E3 Series Combined Fire and Mass Notification System
- E3 Series Broadband Audio Evacuation System

The INCC occupies a single node along the E3 Series Broadband network and is connected by a single, pair of twisted, unshielded wire, fiber-optic cable or any combination of the two. Each E3 Series Broadband node can be spaced along the network at a maximum distance of 3,000 feet (914.4 m) or up to an 8dB loss using fiber-optic cable. For Class A only, the maximum distance between nodes is 4,500 ft. Built-in isolation at each node permits Style 4, Style 6, and Style 7 network configurations.

The E3 Series Broadband Audio Evacuation System is a peer-to-peer, self-regenerating, token ring network comprised of up to 64 individual nodes. In addition, the Addressable Node Expander (ANX) board expands the network to 122 nodes. The E3 Series Broadband employs proven technology and extends it to accomplish emergency voice evacuation, 2-way fire fighter communications, and building control applications. It is unique in the industry, because it requires only a single, pair of wires or a fiber-optic cable connection between nodes to convey all fire alarm, digital voice, fire fighter communications, paging, and building control signals.

The typical INCC and E3 LOC, INCC-CAB-B sub-assemblies consist of the following:

- an Intelligent Network Interface-Voice Gateway (INI-VGC Module)
- one or more Addressable Switch Modules (ASM-16)
- one Network Graphic Touchscreen Annunciator (NGA)

FEATURES & BENEFITS

- Listed under UL® Standard 864, 9th Edition
- Listed under UL Standard UL2572 for Mass Notification
- INI-VGC connects to a Voice Page Microphone and Fire Fighter’s Handset
- Each INI-VGC supports up to 16 ASM-16 switch modules for a total of 256 switches
- Distributed architecture, including Style 7 wiring configurations, allow system components to continue normal operation with NO loss of function during single line fault conditions
- Uses network data transfer rate at 625K baud
- All communication signals and control-by-event sequences over twisted, unshielded pair of wires or fiber-optic cable including:
  - Audio Evacuation
  - Voice Paging
  - Fire Fighter Intercom
  - Elevator Control
  - Door Closures
  - Fan Control and Damper Shutdown
  - Fire Alarm and Control Devices
  - Horn/Strove Circuit Activation
- Integrates with INX transponders and additional INCC command centers to create a complete audio evacuation system with up to 122 nodes
- Redundant Command Centers with Microphone and Fire Fighter’s Handset can be easily configured by adding the additional INCCs
- Advance Boolean logic-based programming such as AND, OR, NOT, NOR, time delay, and calendar functions configurable through computer programming
- Advanced digital signal processor (DSP) technology for efficient audio compression and filtering
General

The INCC Command Center’s INI-VGC module also provides connections for an optional emergency Voice Page Microphone as well as a Fire Fighter Telephone Handset. The INI-VGC is a fully digital voice/tone generator using state-of-the-art Digital Signal Processing (DSP) technology to produce the clearest, most audible signal possible. The INI-VGC transmits an output to a local speaker for message verification and testing. It can be used with a wide range of complex System Applications including high-rise or campus installations.

Each Addressable Switch Module (ASM-16) has 16 pushbutton switches that can be programmed to serve any function the application demands. An ASM-16 switch can be programmed as any of the following:

- Speaker Circuit switch
- Fire Fighter Phone switch
- Auxiliary Control switch using a bank of three switches (one switch can be used for each On-Off-Auto function)
- Switches with the following custom-defined functions:
  - System Reset
  - System Silence
  - System Acknowledge
  - Alarm Tone On
  - All-Call
  - Phone Patch
  - Lamp Test
  - Manual Select

Each ASM-16 switch also has 3 fully programmable status-indicating LEDs in red, yellow, and green. The NGA LCD Graphic Annunciator is a powerful, yet attractive component of the Gamewell-FCI Emergency Voice Evacuation System. The bright, back-lit 1/4” VGA display is supplemented with an intuitive, easy-to-use touch-screen interface that provides the following features:

- Up to 512 user-defined messages may be configured
- Messages may be up to 77 characters in length
- Display font and color may be selected for each message

The INCC assembly is enclosed in one or more compact 19" wall-mounted enclosures. Its modular construction provides complete flexibility in system design. Each cabinet can contain the INI-VGC and up to six ASM-16 modules. If more ASM-16 modules are required, they may be mounted in additional INCC cabinets. As many as six ASM-16 modules can fit in the INCC cabinet. If a Microphone module is required, it would take the place of one ASM-16 position. A Fire Fighter Handset would take the place of two ASM-16 positions. An INI-VGC can support as many as sixteen ASM-16s for a total of 256 completely programmable switches.

The INCC operates on 24 VDC that can be sourced from the non-resettable auxiliary output of its associated power supply such as the PM-9 or PM-9G.

A complete E3 Series Audio Evacuation System can be assembled from the following different components:

- One or more E3 Series fire alarm control panels
- One or more INCC Audio Evacuation Command Centers
- One or more INX Transponders
- One ACU (Autonomous Control Unit)
- One LOC (remote Local Operating Console)

This modular approach greatly simplifies the design and installation process and can be configured to meet the exact needs of the project.

Figure 1 shows the three ASM-16s, MIC and Handset installed in the INCC.
Figure 2 shows the six ASM-16s installed in the INCC.

Figure 3 illustrates the INCC and E3 LOC, INCC-CAB-B module installation configuration.
INCC, E3-LOC, INCC CAB-B Technical Specifications

SPECIFICATIONS

INI-VGC
Operating Voltage: 24 VDC (nominal)
Operating Current: 0.150 amp. supervisory and alarm
Operating Temperature: 32° to 120° F (0° to 49° C)
Relative Humidity: 0 to 93% (non-condensing)
Protocol: Asynchronous with half-duplex data flow
Speed: RS-232 up to 64 Kbps
RS-485 up to 128 Kbps
St connectors: Up to 200 microns (multi-mode), optimized for 62.5/125 microns.

ASM-16
Operating Voltage: 24 VDC (nominal)
Operating Current: 0.005 amp supervisory
0.005 amp alarm plus 0.003 amp per LED activated (0.195 amp max.)
Operating Temperature: 32° to 120° F (0° to 49° C)
Relative Humidity: 0 to 93% (non-condensing)

TEMPERATURE AND HUMIDITY RANGES

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system’s standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

STANDARDS

The INCC and E3 LOC, INCC CAB-B are designed to comply with the following standards:
UL Standards: 864 9th Edition
2572 for Mass Notification

AGENCY LISTINGS AND APPROVALS

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult the factory for the latest listing status.
UL Listed: S1869
FM Approved: 3025415
MEA Approved FDNY: COA# 6077
CSFM: 7165-1703.125
City of Chicago Approved: Class 1, Class 2, High Rise
City of Denver Approved
ISO 9001 Certification

For more information

Learn more about Gamewell-FCI's INCC, E3-LOC, INCC CAB-B and other products available by visiting www.Gamewell-FCI.com

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For a complete listing of all compliance approvals and certifications, please visit: http://www.gamewell-fci.com/en-US/documentation/Pages/Listings.aspx

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