

INX

Intelligent Network Transponder

General

The Gamewell-FCI, INX Intelligent Network Transponder serves as the point of distribution for the system's audio and fire fighter telephone risers. It is a component of the following systems.

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

The INX occupies a single node on the E3 Broadband network and it is connected by a single pair of unshielded, twisted wires, fiber-optic cable or any combination of the two. Each E3 Broadband node can be spaced on the network up to a maximum distance of 3,000 feet (914.4 m) or up to an 8 dB loss using a fiber-optic cable. Built-in isolation at each node permits Style 4, Style 6, and Style 7 network configurations.

The E3 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 Broadband employs proven technology and extends it to accomplish emergency voice evacuation, two-way fire fighter communications, and building control applications. It is unique in the industry since it requires only a single pair of wires or fiber-optic cable connections between nodes to convey all fire alarm, digital voice, fire fighter communications, paging, and building control signals. This system provides a 16 message capacity with up to a three minute duration per each INX. Messages are easily field-configurable with a laptop computer.

A typical INX assembly consists of the following:

- an Intelligent Network Interface-Voice Gateway (INI-VGX) module
- a PM-9/PM-9G power supply
- up to four AM-50 Series amplifiers including a minimum of one backup amplifier



INX

FEATURES & BENEFITS

- | | | | | |
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| <ul style="list-style-type: none"> • IBC Seismic Certified • Listed under UL® Standard 864, 9th Edition • Listed under UL Standard UL2572 for Mass Notification • Each AM-50 Series amplifier provides two individually activated speaker circuits supplying 50 watts total | <ul style="list-style-type: none"> • Integrates with INCC command centers and additional INX transponders to create a complete audio evacuation system with up to 122 nodes • Uses state-of-the-art digital signal processor (DSP) technology for efficient audio compression and filtering | <ul style="list-style-type: none"> • Distributed architecture, including Style 7 wiring configurations, allow system components to continue normal operation with NO loss of function during single line fault conditions • Software-programmable multi-channel digital audio applications | <ul style="list-style-type: none"> • One Style 4 signaling line circuit (SLC) supporting up to 32 addressable speaker circuits (AOM-2SF used for single channel circuits and 16 addressable phones circuits AOM-TELF) • Up to 150 watts of audio power provided by the AM-50 Series amplifiers with an 50 watts of standby amplifier enclosed in a | <ul style="list-style-type: none"> single, compact wall-mounted cabinet • Offers all communication signals and control-by-event sequences over two wires or fiber-optic cable including: audio evacuation, voice paging, fire fighter intercom, and building control signals |
|---|---|--|--|--|

General

The INX is enclosed in a compact 19" enclosure capable of accommodating up to 12 A/H size batteries. The modular approach of the E3 Broadband greatly simplifies the design and the installation and allows the complete flexibility in retrofit or add-on situations. This system is ideal to use for a wide range of complex system applications including high-rise or campus installations.

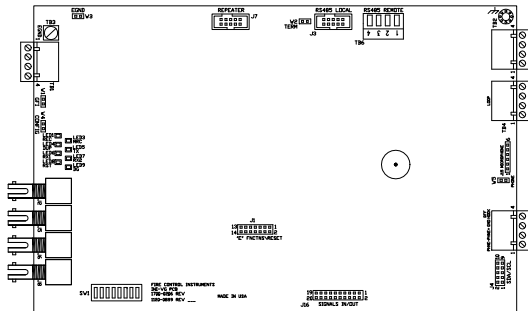


Figure 1 INI-VGX

INI-VGX

The INI-VGX is a multi-function module which incorporates the following:

- Network interface using twisted, unshielded wire or fiber-optic cable
- Fully digital message generator
- One signaling line circuit for local peripheral devices
- Local fire fighter phone riser

It occupies a single DIP switch selectable address on the network and provides termination points for the network connection using either a pair of twisted, non-shielded wire (12 AWG max.) or fiber-optic cable. The INI-VGX uses advanced Digital Signal Processing (DSP) technology for audio compression and filtering allowing E3 Broadband to produce the clearest audio possible. Background noise is automatically filtered during voice paging and fire fighter communications which increase audibility and eliminates the need for the Push-to-Talk devices.

The INI-VGX can accommodate up to 16 different messages with a total combined duration of three minutes. Each message can be field installed via a laptop computer and the messages can be in the form of a voice message or an evacuation tone. The INI-VGX provides a fire fighter phone riser that would connect to phone jacks or warden stations through AOM-TELF modules.

The INI-VGX provides one Signaling Line Circuit (SLC) to control and supervise Addressable Output Modules (AOM) serving as speaker circuits and fire fighter telephone circuits. The INI-VGX SLC can support up to 32 speaker circuits using the AOM-2SF for single channel applications. In addition, each INI-VGX SLC can support up to 16 fire fighter intercom circuits using the AOM-TELF.

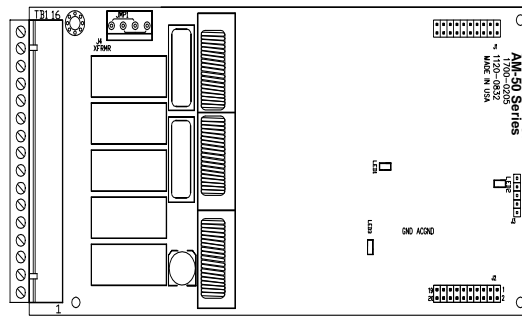


Figure 2 AM-50 Series Amplifiers

AM-50 Series Amplifiers

The AM-50 Series amplifiers offer 2 types of AM-50 Series amplifiers:

- AM-50-25 amplifier produces a 25V_{RMS} audio output
- AM-50-70 amplifier produces a 70V_{RMS} audio output

The AM-50 Series amplifiers are a component of the following systems.

- E3 Series, Expandable Emergency Evacuation System
- E3 Series Combined Fire and Mass Notification System

E3 Broadband Audio Evacuation System

Both AM-50 Series amplifiers produce 50 watt, digital, switching power. As many as four AM-50 Series amplifier modules can be installed in each INX CAB-B cabinet and are supervised and controlled by an INI-VGX Voice Gateway.

Each AM-50 Series amplifier provides two speaker circuits that can be wired Style Y (Class "B") or Style Z (Class "A"). The terminal connections can accommodate up to 12 AWG, twisted-pair, shielded wire. Both speaker circuits can produce a combined 50 watt power that can be divided between the two integral Class A/B speaker circuits. The two speaker circuits may be individually activated and supervised by an INI-VGX Voice Gateway.

The AM-50 Series amplifiers may be installed in an INX CAB-B cabinet or an INCC command center using the expander plates whenever the E3 control panel is used in conjunction with the E3 Series®, Expandable Emergency Evacuation System.

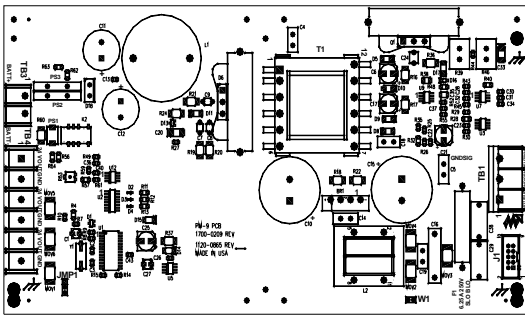


Figure 3 PM-9

PM-9

The PM-9 is a switching power supply that provides 9 amps of filtered and regulated 24 VDC (nominal) to power the INX transponder. It has an internal battery charging circuit capable of accommodating up to 55 A/H batteries as well as an auxiliary continuous duty 24 VDC output @ 5 amps max.

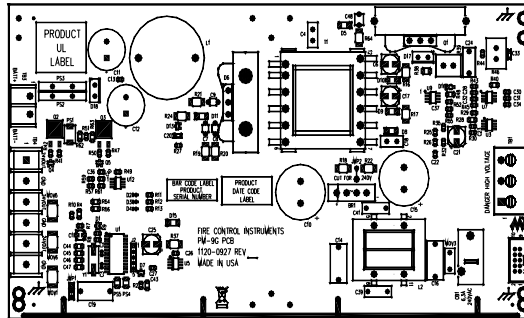


Figure 4 PM-9G

PM-9G

The PM-9G is a switching power supply that provides 9 amps of filtered and regulated 24 VDC (nominal) to power the INX transponder. It has an internal battery charging circuit capable of accommodating up to 55 A/H batteries as well as an auxiliary continuous duty 24 VDC output @ 5 amps max.

Figure 5 illustrates the dimensions for the INX cabinet configuration.

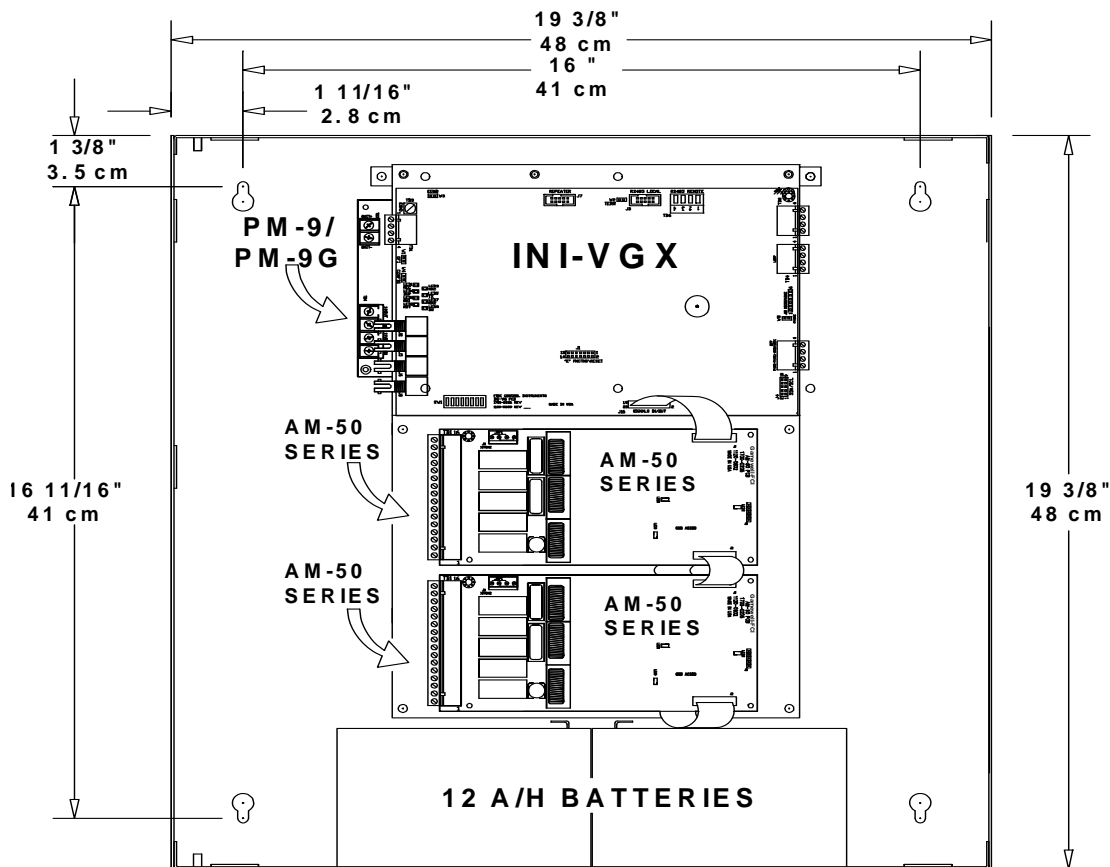


Figure 5 INX Cabinet Dimensions

INX Technical Specifications

SPECIFICATIONS

PM-9G

Input Voltage:	240 VAC @ 50/60 Hz
Input Current:	2.4 amps max. @ 240 VAC, 50/60 Hz
Output Voltage:	24 VDC FWR
Output Current:	9 amperes Alarm max. continuous
Output Current:	5 amperes max. continuous Standby (when the PM-9G is used with the ILI-E3 or the ILI95-E3 Series, see Note 1).
Output Current:	4 amperes max. continuous Standby (when the PM-9G is used with any AM-50 Series amplifier, see Note 2).
Operating Temperature:	32° to 120° F (0° to 49° C)
Relative Humidity:	0 to 93%, non-condensing at 90° F (32° C)
Supervised	

Non Power-Limited

Continuous standby loads in excess of .560 Amps up to 5 Amps may require a Generator Backup or load shedding during an AC power failure. Continuous standby loads in excess of .560 Amps up to 4 Amps may require a Generator Backup or load shedding during an AC power failure.

PM-9

Input Voltage:	120 VAC, 60 Hz
Input Current:	4.6 amps max. @ 120 VAC 60 Hz
Output Voltage:	24 VDC FWR
Output Current:	9 amperes Alarm max. continuous
Output Current:	5 amperes max. continuous Standby (when the PM-9 is used with the ILI-E3 or the ILI95-E3 Series, see Note 1).

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.

Ordering Information

Part Number	Description
INX	Intelligent Network Transponder, (Distributed Voice Network Sub-Assembly Enclosure)
INI-VGX	Transponder Voice Gateway PM-9
PM-9	INX 9 ampere Power Supply
PM-9G	INX 9 ampere Power Supply
AM-50 Series:	
1100-0456	AM-50-25, INX 50 watt 25 V _{RMS} audio amplifier
AM-50-70	INX 50 watt 70.7 V _{RMS} audio amplifier
Cabinets:	
INX-CAB	Backbox with Black Door
Dimensions:	INX 19" W x 19" H x 4" D, (48 x 48 x 10 cm)
INX-CABR	Backbox with Red Door
Dimensions:	INX 19" W x 19" H x 4" DM (48 x 48 x 10 cm)
INX-CAB-B	Backbox/ louvered door & INX-CAB-B Mounting Plate
Dimensions:	19 3/8" W x 19 3/8" H x 4.5" D, (49 x 49 x 11 cm)

Seismic Battery Bracket Kits

Part Number	Description
90518	NetSOLO NS-INX 7 A/H Seismic Battery Bracket Kit NetSOLO 7100 7 A/H Seismic Battery Bracket Kit
90519	NetSOLO NS-INX 12 A/H Seismic Battery Bracket Kit

Note: For information on the types of Seismic Battery Bracket Kits available and the Seismic Battery Bracket Kit Part Numbers, refer to the following documents:

Seismic Battery Bracket Installation Guide, P/N: 53839

E3 Series Cabinets Data Sheet, P/N: 9020-0649

STANDARDS

The INX is designed to comply with the following standard:

UL Standard: UL 864 9th Edition

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

2572 for Mass Notification

FM Approved: 3017416

MEA Approved FDNY: COA #-217-03-E

CSFM: 6911-1703:0118

City of Chicago: Class 1, Class 2, High Rise

City of Denver Approved

VMC Reference of Certification: VMA-45894-02C

ISO 9001 Certification

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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For more information

Learn more about Gamewell-FCI's INX and other products available by visiting www.Gamewell-FCI.com

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