

# Identifire™ Network System 2

## Features

- Second Generation Addressable Technology
- Default Alarm Mode (DAM) Allows Reporting During Microprocessor Failure
- Annunciation and Control of Alarm, Trouble, Supervisory Functions by Point or Zone
- NFPA Standard 72A Style 6 (Class A) or NFPA Standard 72A Style 4 (Class B) Network Communication Lines
- NFPA Standard 72A Style Z (Class A) or NFPA Standard 72A Style Y (Class B) Signal Circuits
- Power Limited
- Fully Field Programmable
- Interactive Digital Keypad with Guided Sequential Operation
- Password Access Protection
- Built in Panel Diagnostics
- Alarm Resound
- 24-Hour Trouble Reminder
- Alarm Event Buffer
- Trouble Status Buffers
- Point Identification Display
- Positive Alarm Sequence
- Signal Silence Inhibit
- Signal Time Limit Cut-out
- One Man Walk Test
- Alarm Verification
- UL Listed

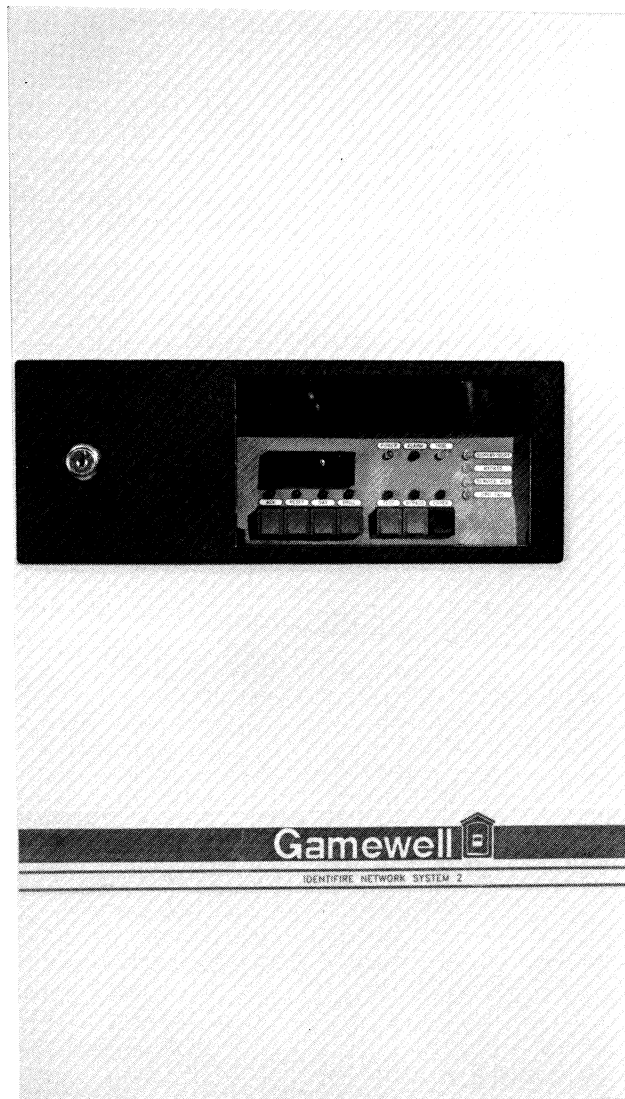
## Description

Gamewell's Identifire™ Network System 2 (INS 2™) Addressable Control Panel is part of a new family of life safety equipment. The INS 2 is power limited and utilizes second generation addressable technology which provides you with flexibility during installation which allows you to meet the most demanding appli-

cation requirements in today's sophisticated buildings.

The INS 2 is designed to monitor up to four Network Communication Lines which allow interaction between 256 addressable inputs (smoke detectors, manual pull stations, waterflow devices, etc.) and 128 addressable outputs (control relays). The

Network Communication Lines can support various annunciation devices (i.e. LED Annunciators, Alphanumeric Displays, Printers) in addition to the addressable inputs and outputs described above. The system architecture allows for T-tapping of the NFPA Standard 72A Style 4 (Class B) Network Communication Lines to further increase installation efficiencies. Th



use of the Collective Zone Interface (CZI) on the communication line further enhances the master/slave concept originally established with Gamewell's first addressable control panel (Flex). These Network Communication Lines can be configured for either NFPA Standard 72A Style 6 (Class A) or NFPA Standard 72A Style 4 (Class B) operation.

One of the major benefits of the INS 2 System is that it is fully field programmable. Utilizing a laptop-type computer and the Interactive Digital Keypad, the INS 2 can be customized to meet your specific installation requirements. The IBM PC compatible laptop of your choice plugs into a serial RS232 port which has been provided for easy connection to the Control Panel. This feature is designed to make installation, service, reconfiguration and maintenance easy for the user as the building and system requirements change. Field programming capabilities include modification of zone priorities, alarm verification by point, coded signaling (marchtime, zone, temporal), masterbox/line reversal circuit, and control by event to mention a few.

The INS 2 System provides immediate identification of alarm locations via a four digit, seven segment LED display. This display indicates the type of signal and address of the signal's origin. An optional Interactive Alphanumeric Display Unit is available to provide English language annunciation of the system status (Alarm, Supervisory and Fault). The addition of an optional printer provides a hard copy of system activity.

The Interactive Digital Keypad allows you to perform basic system operations in both the normal and program modes. You are guided through the system operation by LEDs that light in order to indicate available operations. The INS 2 also offers password access protection for those environments which require this security feature.

### Event Annunciation

The annunciation of alarm, trouble and supervisory functions is indicated by point or group with the four digit, seven segment LED display. This display indicates the type of signal (i.e. "A" for Alarm, "S" for Supervisory, "F" for Fault/Trouble) and the address of the signal's point of origin. The Status LEDs indicate to the user whether the system is in an Alarm, Supervisory or Fault condition. Additional status LEDs include

power on, service required, CPU failure, Bypass and operation in Day or Night mode.

You can also provide annunciation by point or zone of Alarm and Trouble status by utilizing the optional LED Annunciators and the alpha/numeric display. These Annunciators can be located either at the control panel or remotely on the Network Communication Line depending upon the application.

### Supervised Class A/B Network Communication Lines

INS 2 has two/four supervised NFPA Standard 72A Style 6 (Class A) or Style 4 (Class B) Network Communication Lines. Each line is capable of supporting 96 addressable points (64 initiating, 32 control). The communication line provides communication capability and operating power to all addressable elements connected to it. The Network Communication Line also supports the alphanumeric annunciators, printers and LED annunciators.

### Dual Mode Battery Charger

The system is supplied with a Dual Mode Battery Charger to insure maximum battery life. The Constant Current and the Float Voltage (trickle charge) modes are controlled by the system microprocessor which monitors battery voltage. The Constant Current is the fastest method in which to recharge a battery, while the Float Voltage (trickle) extends the battery life up to 50% because it prevents the battery from being overcharged. The Battery Charger will support either a sealed or vented, lead acid or nickel cadmium type battery set (or pack) up to 40AH. Consult manufacturer for proper mounting/installation instructions.

### Alarm Verification

The Identifire Network System 2 is provided with Alarm Verification capabilities. With the INS 2, you can program individual detectors requiring alarm verification at the site. The Alarm verification feature reduces false or nuisance alarms by requiring two alarm signals to be transmitted within a time period prescribed by Underwriters Laboratories, before commencing with a general alarm condition. Alarm verification has been designed to reduce nuisance alarms created by short term phenomena which affect smoke detectors.

### Virtual Zoning

The Identifire Network System 2 can be

programmed to provide Virtual Zoning of addressable points. Virtual zoning allows for software grouping of particular points into a "zone." These virtual zones can be used to simplify annunciation and control-by-event programming. This feature allows the user the advantage of added status information made available by the INS 2 System, while at the same time, maintaining the annunciation of this information as simple as possible to avoid confusion in an emergency situation.

### Positive Alarm Sequence

Positive Alarm Sequence Interaction allows the user to set the INS 2 operating sequence into the Day (occupied) or Night (unoccupied) modes of operation.

In the Day, or occupied, mode of operation, the INS 2 will begin the control-by-event sequences programmed to activate upon receipt of a first alarm condition. If the panel is acknowledged within a specified period of time (T1) (Field Programmable) all outputs programmed to be active until acknowledged will be deactivated and a second timer (T2) will begin to time out. If the panel is reset before expiration of T2, the panel will issue to all initiating and control points a reset command and return to normal operation. If either timer expires before physical interaction, the INS 2 will initiate general alarm sequences. Devices such as manual stations and waterflow alarms may be programmed to initiate general alarm sequences without being delayed by the timers. In the Night, or unoccupied mode of operation, the alarm will bypass all timers and place the panel in a general alarm condition.

The purpose of the timer sequences in the Day (occupied) mode is to allow for investigation in order to confirm the emergency situation. This feature has become integral to Gamewell's strategy against false alarms.

### Signal Circuits

The INS 2 System is provided with two NFPA Standard 72A Style Z (Class A) or Style Y (Class B) signal circuits. The signal circuits are rated at 2 amps 24 Vdc. The circuits are individually field programmable to remain active until acknowledged or reset and to provide steady, coded and/or marchtime signalling.

## Operation

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Identifire Network System 2 is designed to monitor, report and control addressable points connected to the control panel via the Network Communication Line. Utilizing addressable technology over a four wire Network Communication Line provides the user with the proven stability of multiplex technology along with the installation savings inherent in addressable type systems.

Devices are addressed by the INS 2 Control Panel. In the program mode, the INS 2 outputs addresses from a list entered via the laptop unit. Each address is sequentially placed on the Network Communication Line and waits to be programmed into the devices with the help of the installer. Once the device is programmed, the next address is transmitted.

Initial programming of the INS 2 is accomplished through the use of a laptop computer. A menu driven program walks you through the initial programming requirements, whereby, the project specific information is entered. This can be done off line from the INS 2 and later loaded when the project is ready to be brought online.

The INS 2 responds to alarm and trouble conditions by providing address/zone annunciation. The INS 2 also guides the user through the steps required to respond to the event by flashing LEDs to indicate the next step required at the control panel. As an example, if an alarm from initiating device 20 were reported, the system would be placed in an alarm condition. The Common Alarm LED would light and device number 20 preceded by an A would be displayed on the integral four digit, seven segment LED display. The LED above the Acknowledge Switch would also flash indicating the need to depress this button next. The Alarm Acknowledge LED would continue to flash at a noticeably slower rate until all alarms had been acknowledged. Once the alarm(s) are acknowledged, the Reset LED would then flash indicating the need to reset the INS 2 and return the system to normal operation.

Under quiescent conditions, the Power On LED will be the only LED active.

The keys provided for normal operation of the system (acknowledge, reset, drill, day) are also used as function keys for programming of the INS 2 in the programming and test modes.

The INS 2 also monitors the onboard MPU to ensure that the microprocessor is operating. If there should be a failure of the microprocessor, the CPU Fail LED will flash. In this situation, the Default Alarm Mode takes over control of the system. The INS 2 will function as a Conventional General Alarm System in the Default mode. The system is also equipped with a Default Relay (Form C) which is activated under an alarm condition via the Default Alarm Mode.

Detailed operation instructions are available in the INS 2 Operators Guide. Detailed programming instructions are available in the INS 2 Programmers Guide.

### INS 2 Addressable Capacities

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- Two NFPA Standard 72A Style 6 (Class A) or Style 4 (Class B) Network Communication Lines
- Up to 128 Addressable Initiating Devices
- Up to 64 Addressable Control Elements
- Up to 8 Optional Alphanumeric Display/Printer Interfaces
- Up to 12 Eight Zone Remote Annunciators

### INS 2E Addressable Capacities (with Expansion Module)

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- Four NFPA Standard 72A Style 6 (Class A) or Style 4 (Class B) Network Communication Lines
- Up to 256 Addressable Initiating Devices
- Up to 128 Addressable Control Elements
- Up to 16 Optional Alphanumeric Display/Printer Interfaces
- Up to 24 Eight Zone Remote Annunciators

## Mechanical and Environmental

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Input Power:	120 Vac @ 3 Amps Max. 50/60 Hz
Operating Power:	24 Vdc @ 6 Amps
Battery Requirements:	24 Vdc, 5–40 Ampere Hours
Alarm Output Power:	4 Amps 24 Vdc nominal (unregulated)
Operating Temperature:	0° C to 49° C
Humidity:	85%, non-condensing
Addressable Peripheral Power:	2 Amps Max. @ 24 Vdc (regulated)

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## Optional Displays

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The INS 2 has the capability of adding optional display units.

Each Alphanumeric Display/Printer interface is fully field programmable to display any of the status information available. Each optional alphanumeric display or printer is fully supervised, providing system status and English text read-out of alarm and trouble location(s).

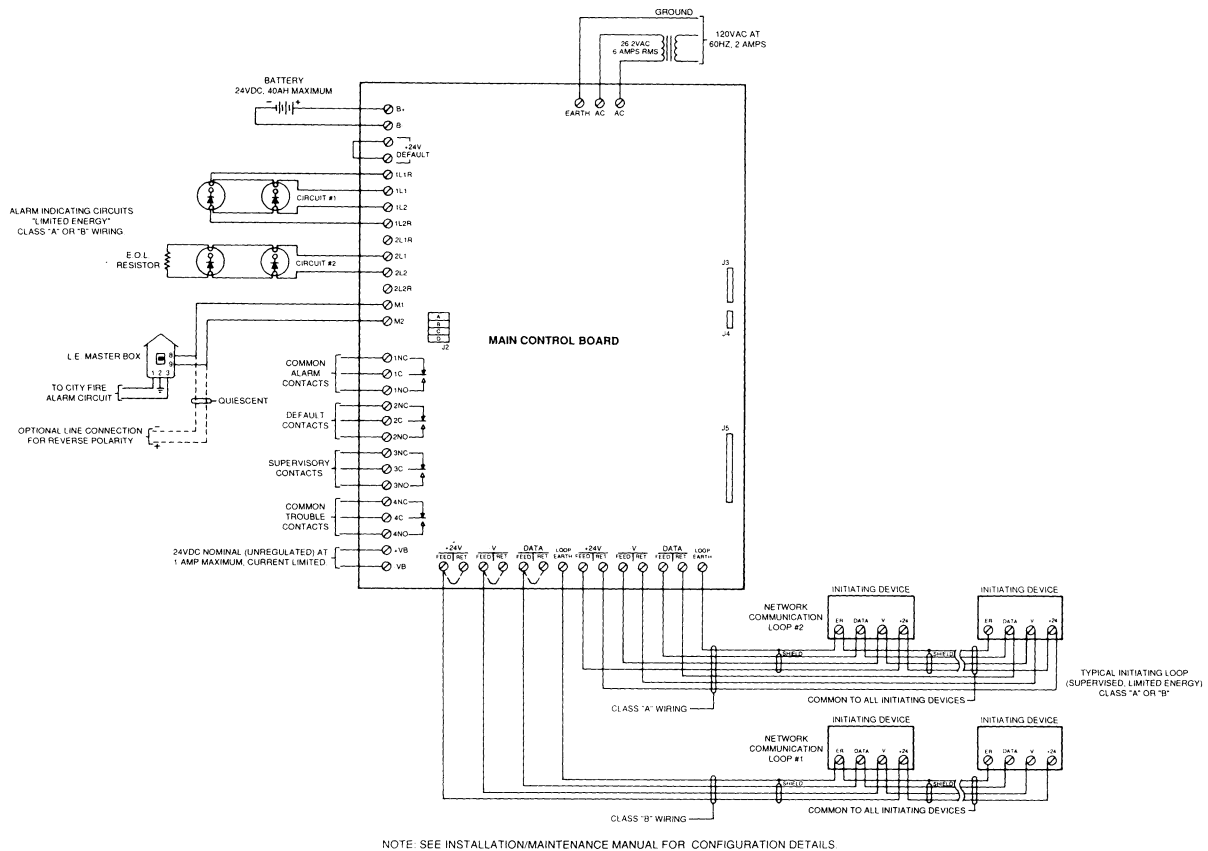
Eight Zone Remote Annunciators are also available which provide LED status annunciation of points or "zones" on the system. As with the alphanumerics and printer driver, these units are also fully field programmable to display any necessary information.

The Alphanumeric Displays, Printers and Eight Zone Remote Annunciators are interfaced to the INS 2 via the Network Communication Line. These devices can be added over and above the 128/256 and 64/128 point capacities for addressable devices described earlier. You may have up to four INS 2 Alphanumeric or Printer Interfaces per line (8/16 per system) and up to six eight point Annunciator Modules per line (12/24 per system). Please refer to the Alphanumeric and Annunciator Module data sheets for additional detailed information.

## Ordering Information

Supplied	Quantity	Part Number	Description
<input type="checkbox"/>	_____	30785	INS 2 Basic System Unit (model INS 2, includes standard modules)
<input type="checkbox"/>	_____	30786	INS 2AP Basic INS 2 with Alphanumeric Display/Printer Interface included
<input type="checkbox"/>	_____	30787	INS 2P Basic INS 2 with Printer Interface included
<input type="checkbox"/>	_____	30788	INS 2E Expanded INS 2 (256 initiating points/128 control points)
<input type="checkbox"/>	_____	30789	INS 2EAP Expanded INS 2 with Alphanumeric Display/Printer Interface included
<input type="checkbox"/>	_____	30790	INS 2EP Expanded INS 2 with Printer Interface included
<input type="checkbox"/>	_____	30801	INS 2 Programming Tool

## Wiring Diagram



Specifications and wiring information are provided for information only and are believed to be accurate. However, Gamewell assumes no responsibility for their use. Specifications are subject to change without notice; installation and wiring instructions shipped with the product should always be used for actual installation.

60 Pleasant Street  
 Ashland, Massachusetts 01721  
 TEL (508) 824-0000

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