Fire Alarm System Limitations

An automatic fire alarm system—typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control with remote notification capability—can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire. The Manufacturer recommends that smoke and/or heat detectors be located throughout a protected premise following the recommendations of the current edition of the National Fire Protection Association Standard 72 (NFPA 72), manufacturer’s recommendations, State and local codes, and the recommendations contained in the Guide for Proper Use of System Smoke Detectors, which is made available at no charge to all installing dealers. A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not go off in as many as 35% of all fires. While fire alarm systems are designed to provide early warning against fire, they do not guarantee warning or protection against fire. A fire alarm system may not provide timely or adequate warning, or simply may not function, for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in or behind walls, on roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level or floor of a building. A second-floor detector, for example, may not sense a first-floor or basement fire.

Particles of combustion or "smoke" from a developing fire may not reach the sensing chambers of smoke detectors because:

- Barriers such as closed or partially closed doors, walls, or chimneys may inhibit particle or smoke flow.
- Smoke particles may become "cold," stratify, and not reach the ceiling or upper walls where detectors are located.
- Smoke particles may be blown away from detectors by air outlets.
- Smoke detectors may be drawn into air returns before reaching the detector.

The amount of "smoke" present may be insufficient to alarm smoke detectors. Smoke detectors are designed to alarm at various levels of smoke density. If such density levels are not created by a developing fire at the location of detectors, the detectors will not go into alarm.

Smoke detectors, even when working properly, have sensing limitations. Detectors that have photoelectric sensing chambers tend to detect smoldering fires better than flaming fires, which have little visible smoke. Detectors that have ionizing-type sensing chambers tend to detect fast-flaming fires better than smoldering fires. Because fires develop in different ways and are often unpredictable in their growth, neither type of detector is necessarily best and a given type of detector may not provide adequate warning of a fire.

Smoke detectors cannot be expected to provide adequate warning of fires caused by arson, children playing with matches (especially in bedrooms), smoking in bed, and violent explosions (caused by escaping gas, improper storage of flammable materials, etc.).

While a fire alarm system may lower insurance rates, it is not a substitute for fire insurance!

Heat detectors do not sense particles of combustion and alarm only when heat on their sensors increases at a predetermined rate or reaches a predetermined level. Rate-of-rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-of-rise feature of each detector should be tested at least once per year by a qualified fire protection specialist. Heat detectors are designed to protect property, not life.

IMPORTANT! Smoke detectors must be installed in the same room as the control panel and in rooms used by the system for the connection of alarm transmission wiring, communications, signaling, and/or power. If detectors are not so located, a developing fire may damage the alarm system, crippling its ability to report a fire.

Audible warning devices such as bells may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building. Any warning device may fail to alert people with a disability or those who have recently consumed drugs, alcohol or medication. Please note that:

- Strobes can, under certain circumstances, cause seizures in people with conditions such as epilepsy.
- Studies have shown that certain people, even when they hear a fire alarm signal, do not respond or comprehend the meaning of the signal. It is the property owner's responsibility to conduct fire drills and other training exercise to make people aware of fire alarm signals and instruct them on the proper reaction to alarm signals.
- In rare instances, the sounding of a warning device can cause temporary or permanent hearing loss.

A fire alarm system will not operate without any electrical power. If AC power fails, the system will operate from standby batteries only for a specified time and only if the batteries have been properly maintained and replaced regularly.

Equipment used in the system may not be technically compatible with the control. It is essential to use only equipment listed for service with your control panel.

Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled. For added protection against telephone line failure, backup radio transmission systems are recommended.

The most common cause of fire alarm malfunction is inadequate maintenance. To keep the entire fire alarm system in excellent working order, ongoing maintenance is required per the manufacturer's recommendations, and UL and NFPA standards. At a minimum, the requirements of Chapter 7 of NFPA 72 shall be followed. Environments with large amounts of dust, dirt or high air velocity require more frequent maintenance. A maintenance agreement should be arranged through the local manufacturer's representative. Maintenance should be scheduled monthly or as required by National and/or local fire codes and should be performed by authorized professional fire alarm installers only. Adequate written records of all inspections should be kept.
Installation Precautions

**WARNING** - Several different sources of power can be connected to the fire alarm control panel. Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until this manual is read and understood.

**CAUTION** - System Reacceptance Test after Software Changes. To ensure proper system operation, this product must be tested in accordance with NFPA 72 Chapter 7 after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

**This system** meets NFPA requirements for operation at 0-49\(^\circ\) C/32-120\(^\circ\) F and at a relative humidity of 85% RH (non-condensing) at 30\(^\circ\) C/86\(^\circ\) 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 all peripherals be installed in an environment with a nominal room temperature of 15-27\(^\circ\) C/60-80\(^\circ\) F.

**Verify that wire sizes are adequate** for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.

Adherence to the following will aid in problem-free installation with long-term reliability:

**Like all solid state electronic devices**, this system may operate erratically or can be damaged when subjected to lightning-induced transients. Although no system is completely immune from lightning transients and interferences, proper grounding will reduce susceptibility. **Overhead or outside aerial wiring is not recommended**, due to an increased susceptibility to nearby lightning strikes. Consult with the Technical Services Department if any problems are anticipated or encountered.

**Disconnect AC power and batteries** prior to removing or inserting circuit boards. Failure to do so can damage circuits.

**Remove all electronic assemblies** prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, and printed circuit board location.

**Do not tighten screw terminals** more than 9 in-lbs. Over-tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

**Though designed to last many years**, system components can fail at any time. This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static-suppressive packaging to protect electronic assemblies removed from the unit.

**Follow the instructions** in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. FACP operation and reliability depend upon proper installation by authorized personnel.

---

**FCC Warning**

**WARNING:** This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for class A computing device pursuant to Subpart B of Part 15 of FCC Rules, which is designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his own expense.

---

**Canadian Requirements**

This digital apparatus does not exceed the Class A limits for radiation noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n’emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la classe A prescrites dans le Reglement sur le brouillage radioelectrique edite par le ministere des Communications du Canada.
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INA

INTELLIGENT NETWORK ANNUNCIATOR

CHAPTER ONE

INSTALLATION
SECTION 1  INA FEATURES

1.1  PRODUCT FEATURES

The following features are available with the INA:

- Optically isolated EIA-232 printer interface
- Optically isolated EIA-232 CRT interface
- Optically isolated EIA-485 ACS annunciator interface
- Status LEDs indicate:
  - Power
  - Fire Alarm
  - Security Alarm
  - Supervisory
  - System Trouble
  - Signals Silenced
  - CPU Failure
- Piezo electric sounder
- Alphanumeric keypad with tactile and audible feedback
- 40-character, 2-line Liquid Crystal Display (LCD) with backlight
- Accepts NOTI•FIRE•NET™ Media Interface Boards (MIB)
- Nonvolatile Real-Time Clock (RTC)
- Requires 24 VDC only
- Optional power supply supervision (in-cabinet supply)
- Acknowledge (Network Wide and Local to INA)
- Silence (Network Wide)
- Reset (Network Wide)
- Lamp Test (Local to INA)
- Read Status (Network Wide)--AM2020, AFP1010, AFP-300, AFP-400 systems only
- Alter Status (Network Wide)--AM2020, AFP1010, AFP-300, AFP-400 systems only
- Split History Buffer (20% alarms, 80% events)
  - 500 Events
1.2 RELATED DOCUMENTATION

To obtain a complete understanding of specific features in the INA or to become familiar with functions in general, make use of the documentation noted in Table 1.2-1. The NOTIFIER document (DOC-NOT) chart provides the current document revision. A copy of this document is included with every Notifier shipment.

<table>
<thead>
<tr>
<th>TITLE</th>
<th>NUMBER</th>
<th>TITLE</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM2020/AFP1010 FIRE ALARM CONTROL PANEL</td>
<td>15088</td>
<td>ANNUNCIATOR CONTROL SYSTEM</td>
<td>15842</td>
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<tr>
<td>LIQUID CRYSTAL DISPLAY (LCD-80)</td>
<td>15037</td>
<td>LAMP DRIVER MODULES (LDM)</td>
<td>15885</td>
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<tr>
<td>NETWORK CONTROL STATION (NCS)</td>
<td>51095</td>
<td>VOICE ALARM MULTIPLEX</td>
<td>15889</td>
</tr>
<tr>
<td>INTELLIGENT NETWORK ANNUNCIATOR (INA)</td>
<td>15092</td>
<td>THE XP SERIES TRANSPONDER SYSTEM</td>
<td>15888</td>
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<tr>
<td>UNIVERSAL ZONE CODE INSTALLATION (UZC-256)</td>
<td>15216</td>
<td>NETWORK ADAPTOR MODULE (NAM-232)</td>
<td>50038</td>
</tr>
<tr>
<td>PRODUCT INSTALLATION DOCUMENT (CCM-1)</td>
<td>15328</td>
<td>THE UDACT UNIVERSAL DIGITAL ALARM COMMUNICATOR/TRANSMITTER</td>
<td>50050</td>
</tr>
<tr>
<td>PRODUCT INSTALLATION DOCUMENT (MPS-TR)</td>
<td>15331</td>
<td>FCPS-24/FCPS-24E FIELD CHARGER/POWER SUPPLY INSTALLATION, OPERATION AND APPLICATION MANUAL</td>
<td>50059</td>
</tr>
<tr>
<td>AM2020/AFP1010 OPERATOR INSTRUCTIONS</td>
<td>15337</td>
<td>VIDEO GRAPHICS ANNUNCIATOR SYSTEM (VGAS) INSTALLATION MANUAL</td>
<td>50251</td>
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<tr>
<td>NOTIFIER DEVICE COMPATIBILITY DOCUMENT</td>
<td>15378</td>
<td>MEDIA INTERFACE BOARD (MIB)</td>
<td>50255</td>
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<tr>
<td>ANALOG FIRE PANEL (AFP-200)</td>
<td>15511</td>
<td>REPEATER (RPT)</td>
<td>50256</td>
</tr>
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<td>CANADIAN REQUIREMENTS FOR THE AM2020/AFP1010</td>
<td>15631</td>
<td>NOTI-FIRE-NET™</td>
<td>50257</td>
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<td>NETWORK INTERFACE BOARD (NIB-96)</td>
<td>15666</td>
<td>TELEPHONE/PANEL INTERFACE (TPI-232)</td>
<td>50372</td>
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<td>SMOKE CONTROL MANUAL</td>
<td>15712</td>
<td>AUTOMATIC FIRE ALARM WARNER STATION SERIES PRODUCT INSTALLATION DRAWING</td>
<td>50705</td>
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<tr>
<td>ANALOG FIRE PANEL (AFP-300/AFP-400)</td>
<td>50253/50259/50260</td>
<td>FZM INSTALLATION INSTRUCTIONS</td>
<td>1172-02</td>
</tr>
<tr>
<td>ACT-2 AUDIO COUPLING TRANSFORMER</td>
<td>51118</td>
<td>CHG-120 BATTERY CHARGER</td>
<td>50641</td>
</tr>
<tr>
<td>APS-6R AUXILIARY POWER SUPPLY</td>
<td>50702</td>
<td>XP5 SERIES TRANSPONDERS</td>
<td>50786</td>
</tr>
<tr>
<td>RM-1 REMOTE MICROPHONE</td>
<td>51138</td>
<td>VEC 25/50 VOICE EVACUATION CONTROL PANEL</td>
<td>50686</td>
</tr>
<tr>
<td>NBG-12LX FULL STATION</td>
<td>51093</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.2-1 Related Documentation
1.3 Diagnostic Indicators and Controls

The INA has diagnostic LED indicators (refer to Figure 1.3-1) which aid in troubleshooting and assist the installer in connecting the system. Refer to Table 1.3-1 for a list of diagnostic LED indicators and their descriptions. The function keys of the INA, as displayed in Figure 1.3-1, are detailed in Chapter Two of this document.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Green</td>
<td>The indicator illuminates while power is on.</td>
</tr>
<tr>
<td>FIRE ALARM</td>
<td>Red</td>
<td>Illuminates during a fire alarm signal.</td>
</tr>
<tr>
<td>SECURITY ALARM</td>
<td>Yellow</td>
<td>Illuminates during a security alarm signal.</td>
</tr>
<tr>
<td>SUPERVISORY</td>
<td>Yellow</td>
<td>Illuminates during a supervisory signal (i.e. sprinkler valve off normal, low pressure, fire pump running, guards tour, etc.)</td>
</tr>
<tr>
<td>SYSTEM TROUBLE</td>
<td>Yellow</td>
<td>Illuminates during a trouble signal or noncritical process signal.</td>
</tr>
<tr>
<td>SIGNALS SILENCED</td>
<td>Yellow</td>
<td>Illuminates to indicate that notification appliances have been silenced.</td>
</tr>
<tr>
<td>CPU FAILURE</td>
<td>Yellow</td>
<td>Illuminates to indicate microprocessor failure (LCD/LED display information is invalid).</td>
</tr>
</tbody>
</table>

Table 1.3-1 Identifying LED Indicators

![Intelligent Network Annunciator Diagram](image)
SECTION 2 INA MOUNTING CONNECTIONS

2.1 INA CONTROL/DISPLAY PANEL

The INA consists of a board which is factory-mounted to the back of the INA Control/Display Panel (refer to Figure 2.1-1) using six screws. The ribbon cable from the display is connected to J6 on the INA board. The entire assembly must then be mounted in an enclosure.

![INA Control/Display Panel Diagram](image)

**Figure 2.1-1 INA Control/Display Panel**

2.2 INA MOUNTING

The enclosures required to mount the INA are listed below and detailed in the following paragraphs.

- Cabinet (ABS-4D or ABS-4DR)
- Trim Ring (TRABS-4D or TRABS-4DR)
- Cabinet (ABF-4)
- Cabinet (CAB-3)
- 19 inch (48.26 cm) Rack Mount - The INA can be mounted to a listed, 19-inch rack. When used with the ADP-4RM rack mount dress plate, the INA may be connected to a 19-inch (48.26 cm) rack mount cabinet, such as the NOTIFIER RACK-51 or RACK-67.

  Note: Effective September 2000, rack-mounting options have been discontinued.

2.2.1 ABS-4D Cabinet

This cabinet (refer to Figure 2.2.1-1) is available in two colors; the ABS-4D is gray and the ABS-4DR is red. Color is the only difference, everything else is identical. The cabinet has a hinged door with a key lock (to diminish unauthorized use) and a transparent LEXAN® window (LEXAN is a registered trademark of GE Plastics, a subsidiary of General Electric Company). The mounting panel and door are both hinged at the bottom for easy access. Power must be supplied externally if the cabinet is surface mounted. Knockouts are provided for use with a 1/2-inch (12.7mm) conduit. The height of the cabinet is 12 inches (30.48 cm), the width is 19-7/8 inches (50.483 cm), and the depth is 3-1/2 inches (8.9 mm). If the cabinet is a surface mount, the door adds an additional 1-1/4 inches (31.75) to the depth. A trim ring will be required if the cabinet is a semi-flush mount. The trim ring is available in red (TRABS-4DR) and gray (TRABS-4D) to coordinate with the cabinets.
2.2.2 ABF-4 Cabinet

The ABF-4 Cabinet (refer to Figure 2.2.2-1) is a flush mounting annunciator box. Power must be supplied externally. Knockouts are provided for use with a 1/2-inch (12.7 mm) conduit. The height of the cabinet is 9-15/16 inches (50.643 cm), the width is 17-3/8 inches (44.133 cm), and the depth is 2-1/2 inches (63.5 mm). The dimensions of the trim plate (included with the cabinet) are 11 inches (27.94 cm) high and 19-3/8 inches (49.213 cm) wide.
Annunciator Key Switch (AKS-1) or Shunt Plug
The AKS-1 provides access security for the control switches on the INA. The AKS-1 kit includes a key and hardware for mounting to the ABF-4. Unless intended for use as the network point of acknowledgment, the AKS-1 or the shunt plug (part number 08125) must be employed (refer to Figure 2.2.2-2). When employing the AKS-1, the switch must be mounted to the ABF-4 trim plate. Plug the switch leads from the AKS-1 into Connector J3 on the INA. To disable the keypad, install the shunt plug across both terminals of Connector J3 on the INA. Install the shunt on only one terminal of Connector J3 to enable the keypad. The INA keypad must be disabled via the AKS-1 or shunt plug when not in use.

Figure 2.2.2-2 AKS-1 Mounted on an ABF-4 Cabinet
2.2.3 CAB-3 Cabinets

The INA can be mounted in a CAB-3 cabinet utilizing the Annunciator Dress Panel (ADP-4) (refer to Figure 2.2.3-1). This CAB-3 cabinet comes in four styles; CAB-A3, CAB-B3, CAB-C3, and CAB-D3 and is suitable for use with internal power supply.

ADP-4
The ADP-4 provides the cabinet mounting of the INA. The INA Control/Display Panel assembly is positioned on six studs on the ADP-4 and secured by screws. The ADP-4 then hinge-mounts to a CAB-A3, B3, C3, or D3 cabinet by securing the hinge assembly to the cabinet with two screws.

![Figure 2.2.3-1 ADP-4 Annunciator Dress Panel](image1)

Vented Dress Panel (VP-2)
Use the VP-2 when the ADP-4 is installed in the top row of a NOTIFIER CAB-A3, B3, C3, or D3 cabinet. The VP-2 covers the gap between the ADP-4 and the top of the cabinet and secures to the cabinet with two screws.

![Figure 2.2.3-2 VP-2 Vented Dress Panel](image2)

2.3 EIA-232 COMMUNICATIONS CONNECTIONS

CRTs and printers may be utilized with the INA. CRT and printer connections are made to terminal TB2 (refer to Figure 2.3-1). TPI-232 modems may be employed for remote location of a CRT or printer. The CRT must remain within the protected premises and the keyboard must be removed or locked when not in use. CRT and printer connections are power limited. Installation of the printer cable is detected, however some printer cable conductors are not supervised. In this manual, the term PRN is used in reference to PRN-4 and PRN-5 printers.

Installing an Ancillary Device on the EIA-232 Communications Circuit
An ITE listed supplemental signaling device such as a printer or the PageNet-1 can be connected to the EIA-232 serial printer port connection on the fire alarm system to provide a supplemental signaling capability. Additionally, some devices such as PageNet-1 can be actuated by means of dry contacts from the fire alarm system. For more detailed instructions pertaining to the installation of an ancillary device, refer to the specific device manual. (See Figure 2.3-5.)
Printer outputs are power limited and are not supervised. Where a printer is required, make connections in conduit (20 feet (6.096 m) maximum) with an overall foil/braided-shield twisted-paired cable suitable for EIA-232E applications (refer to Figure 2.3-4). The Keltron printer DIP switches should be set as shown in Table 2.3-1.

### Table 2.3-1 DIP Switch Settings

<table>
<thead>
<tr>
<th>Switch</th>
<th>Setting</th>
<th>Switch</th>
<th>Setting</th>
<th>Switch</th>
<th>Setting</th>
<th>Switch</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP1-1</td>
<td>OFF</td>
<td>SP1-5</td>
<td>OFF</td>
<td>SP2-1</td>
<td>OFF</td>
<td>SP2-5</td>
<td>OFF</td>
</tr>
<tr>
<td>SP1-2</td>
<td>ON</td>
<td>SP1-6</td>
<td>ON</td>
<td>SP2-2</td>
<td>OFF</td>
<td>SP2-6</td>
<td>OFF</td>
</tr>
<tr>
<td>SP1-3</td>
<td>OFF</td>
<td>SP1-7</td>
<td>OFF</td>
<td>SP2-3</td>
<td>OFF</td>
<td>SP2-7</td>
<td>ON</td>
</tr>
<tr>
<td>SP1-4</td>
<td>ON</td>
<td>SP1-8</td>
<td>ON</td>
<td>SP2-4</td>
<td>OFF</td>
<td>SP2-8</td>
<td>OFF</td>
</tr>
</tbody>
</table>

---

**Figure 2.3-1 INA Connections**

**Figure 2.3-2 EIA-232 Communications Connection**
<table>
<thead>
<tr>
<th>Printer Display</th>
<th>Recommended Setting</th>
<th>Printer Display</th>
<th>Recommended Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>L/R ADJUST:</td>
<td>0</td>
<td>CPI:</td>
<td>10CPI</td>
</tr>
<tr>
<td>FONT:</td>
<td>HS DRAFT</td>
<td>SKIP:</td>
<td>0.5 INCHES</td>
</tr>
<tr>
<td>LPI:</td>
<td>6CPI</td>
<td>EMULATE:</td>
<td>EPSON</td>
</tr>
<tr>
<td>ESC CHARACTER:</td>
<td>ESC</td>
<td>I/O:</td>
<td></td>
</tr>
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<td>BUFFER:</td>
<td>36K FOR PRN-4 40K FOR PRN-5</td>
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<td>GRAPHIC</td>
<td>BAUD:</td>
<td>2400</td>
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<td>E-USA ASCII</td>
<td>FORMAT:</td>
<td>7 BIT, EVEN, 1 STOP</td>
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<td>OFF</td>
<td>PROTOCOL:</td>
<td>XON/XOFF</td>
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<td>ENGLISH</td>
<td>CHARACTER SET:</td>
<td>STANDARD</td>
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<td>1S</td>
<td>S1.ZERO:</td>
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<td>ALL</td>
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<td>12/72 INCHES</td>
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<td>EXECUTIVE 10.5 INCHES</td>
<td>BIN 2:</td>
<td>12/72 INCHES</td>
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<td></td>
<td>PUSH TRA:</td>
<td>12/72 INCHES</td>
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<td></td>
<td>PULL TRA:</td>
<td>12/72 INCHES</td>
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<tr>
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<td></td>
<td>PAP ROLL:</td>
<td>12/72 INCHES</td>
</tr>
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<td>PAPOPT:</td>
<td>NO</td>
</tr>
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</table>

**Table 2.3-2 Recommended PRN Printer Option Settings**
Keltron Printer
Model No. VS4095/5

50Feet (15.24 m) Max
(Typical)
Wiring Distance Limited by Cable Capacitance. Refer to the EIA-232 Standard.

INA Connector TB2

Twisted-Pair
TB2-6  EIA-232 Reference
TB2-5  Transmit to Printer
nc
TB2-6  EIA-232 Reference
Twisted-Pair
TB2-4  Ready/Busy from Printer

Plug this DB-25 Connector into the EIA-232 Port of the PRN Printer.

Main Power Supply
MPS-24A/
MPS-24AE

TB3-3 (+)
and
TB3-4 (-)

DC IN -
Keltron Printer
Model No. VS4095/5

Figure 2.3-4 Keltron Printer Connections

Figure 2.3-5 Ancillary Connections
2.4 THE CRT TERMINAL

The CRT Terminal, including keyboard, features an 80 column, 25-line display. Function keys allow you to execute INA commands from the keyboard.

Primary and Secondary Power
The CRT requires 120 to 240 VAC, 50/60Hz primary power. A secondary power source (battery backup) is not provided; the use of a separate Uninterruptable Power Supply (UPS), UL listed for Fire Protective Signaling, is recommended (refer to Figure 2.5-1).

Electrical Specification
The electrical specifications for the CRT are as follows:

- **Voltage**: 90 – 264 VAC
- **Frequency**: 47 – 63 Hz
- **Current**: 0.5 – 0.2 A

Installation
Connection between the INA and the CRT is provided through an EIA-232 interface on the INA. Assemble a custom cable for connection to the EIA port on the CRT. The Parallel (PAR), Auxiliary (SER2-AUX), and EIA (SER1-EIA) ports are located on the back of the CRT-2 Monitor as shown below.

![Diagram of PAR, SER2-AUX, SER1-EIA ports](image)

2.5 PRINTERS

A PRN printer may be connected to the INA to supply a hard-copy printout, documented with the time and date, of all status changes within the system, local history buffer, and local programming. The PRN may provide up to 80 columns of data on standard 9 inch by 11 inch tractor-feed paper. Outputs are power limited, but not supervised. Connections must be made with overall foil/braided-shield twisted pair cable within 20 feet (6.096 m) in conduit. Near Letter Quality (NLQ) mode cannot be employed on the PRN printer.

Installation
The PRN printer requires 120 VAC and 50/60Hz of primary power. A singular Uninterruptable Power Supply (UPS) 50 W minimum is recommended and therefore a secondary power source (battery backup) is not provided (refer to Figure 2.5-1).

Printer Configuration
Refer to the documentation supplied with the PRN printer for menu control instructions. Table 2.5-1 contains recommended printer option settings.
Figure 2.5-1 120 VAC UPS Supervision for Printer/CRT
Use cable P/N 71033 from MPS-24A connector P5 to UPS. Cut and strip wires as needed. Make all connections in conduit.

Figure 2.5-2 Wiring Diagram for UPS Supervision for Printer/CRT
2.6 EIA-485 ACS Annunciator Interface

ACM-16AT
The Annunciator Control Module-16AT contains 16 red alarm and 16 yellow trouble LEDs, 16 momentary keypad switches for controlling each point, a system trouble LED, an ON LINE/POWER LED, and a local piezoounder with a silence/acknowledge switch for audible indication of alarm and trouble conditions at each annunciator.

AEM-16AT
The Annunciator Expander Module 16AT expands the ACM-16AT by 16 annunciator points. Up to three of these expander modules can be supported by an ACM-16AT, to a maximum of 64 annunciator points.

The ACM-32A
The Annunciator Control Module-32A contains 32 red alarm LEDs, a system trouble LED, an ON LINE/POWER LED, and a local piezoounder with a silence/acknowledge switch for audible indication of alarm and trouble conditions at each annunciator.

AEM-32A
The Annunciator Expander Module-32A expands the ACM-32A by 32 annunciator points. One expander module can be supported by an ACM-32A, providing a maximum of 64 points.

For more details on the Annunciator Control System, refer to the ACS Manual.

The LDM-32
The LDM-32 Lamp Driver Annunciator Module provides 32 alarm or 16 alarm and 16 trouble lamp driver outputs, corresponding to 32 annunciator points which can be connected to external devices such as a custom graphic annunciator. When configured to provide 16 alarm and 16 trouble outputs, 16 switch inputs are available for control of system functions such as signal silence, system reset, and control module activation.

The LDM-E32
The Lamp Driver Annunciator Expander Module LDM-E32 expands the LDM-32 by 32 annunciator points (maximum of 64 points).

The LDM-R32
The LDM-R32 Relay Expander Module LDM-R32 provides the LDM-32 or LDM-E32 with 32 dry Form-A (normally open) contacts. The relay module replaces the lamp driver outputs with relay outputs; one LDM-R32 for each LDM-32 or LDM-E32.

For more details on the LDM-32 Series Lamp Drivers, refer to the LDM Manual.

SCS-8*
The Smoke Control Station (SCS-8) module uses eight groups of four annunciator points for fan shutdown control or other heating, ventilation or air conditioning functions.

SCE-8*
The Smoke Control Expander (SCE-8) is used to expand the SCS-8 by an additional eight groups of four annunciator points. Only one expander can be used per SCS-8.

SCS-8L
The Smoke Control Lamp Driver Station (SCS-8L) module uses eight groups of four annunciator points for fan shutdown control or other heating, ventilation or air conditioning functions. Must be mounted in custom graphic annunciator panel.

SCE-8L
The Smoke Control Expander (SCE-8L) is used to expand the SCS-8L by an additional eight groups of four annunciator points. Only one expander can be used per SCS-8L. Must be mounted in custom graphic annunciator panel. Use of the Smoke Control System is limited to HVAC mode when used with the INA.

An SCS annunciator can physically connect to the INA or fire panel, but not both.

For more details on the SCS Smoke Control System, refer to the SCS Manual.

The UDACT
The UDACT is capable of transmitting the status of software zones (Alarm and Trouble), System Trouble, Panel Off-Normal, Supervisory, Bell Trouble, Low Battery, and AC Fail. The UDACT communicates vital system status including: Independent zone fire alarm, Independent zone non-fire alarm, Independent zone trouble, Independent zone supervisory, AC (mains) Power Loss (programmable), Low Battery and Earth Fault, System Off-Normal, 12 or 24 hour test signal, Abnormal Test Signal per new UL requirements and EIA-485 Communication Bus Failure.

*NOTES: 1. In the current release, smoke control annunciators (SCS-8/SCS-8L) are only supported in HVAC manual mode. 2. The SCS-8 and SCS-8L firmware has been updated in conjunction with Software Release 2.8. Software Part Numbers 73631 and 73845 are not compatible with INA combinations after M2.7. Part #SCV2.8 is not compatible with FACP/INA combinations prior to M2.8.
EIA-485 circuit characteristic impedance of twisted pair wiring should be approximately 120 ohms.

Figure 2.6-1 EIA-485 to INA Connections

Slide Switch 1 to the left when the INA is at one end of the EIA-485 circuit.

Figure 2.6-2 INA/EIA-485 Circuit Terminating Diagram

Slide Switch 1 to the right (away from the connector) when the INA is not at the beginning or end of the EIA-485 circuit.
The EIA-485 Reference (TB1-1) on the INA must be connected to any ACS device that is not within the same cabinet or is not powered by the INA power supply. Connect TB1-1 of the INA to: ACM-16AT/LDM-32 at TB1-4, AMG-1/E power supply (MPS-24A/MPS-24AE) at TB2-2, SCS-8L at TB1-4, LCD-80 at P1-4, RPT485W Ref. A at TB1-5, RPT-485W Ref. B at TB2-5, or RPT-485WF Ref. A at TB1-5.

![Diagram of INA/AMG Configuration]

**Figure 2.6-3 EIA-485 Circuit Maximum INA/AMG Configuration**

An AMG-1 cannot be installed in another network node if one or more AMGs has been installed in an INA. More than one INA may contain AMGs if the INAs are not located in the same group (see Chapter Three, *Groups and Linking*). Up to four AMGs may be installed in one INA (see Figure 2.6-3).

The Remote Page function cannot be used when an AMG and FFT have been installed in an INA. An ACM-16AT annunciator (set to address 1) is required to operate the AMG(s) and speaker circuits in the INA. Points on the ACM-16AT may act as shadow points (see *About Annunciator Operation with the INA* in Chapter Two). This annunciator may be programmed into another node but does not physically need to be installed at any other node. When there is no AMG installed in any INA, the use of AMGs and ACM-16AT annunciators at the local panel is permitted in the usual fashion. See the Voice Multiplex System Manual.

### 2.7 POWERING THE INA

The INA may be powered from one of three different sources, a Main Power Supply MPS-24A/MPS-24AE mounted in the same cabinet, a MPS-24B/MPS-24BE in the same cabinet, or an externally mounted power supply.
2.7.1 The Main Power Supply (MPS-24A or MPS-24AE)

The MPS-24A/MPS-24AE may be mounted externally or in the same cabinet (CAB-3) as the INA. When powered from an MPS-24A/MPS-24AE mounted in the same cabinet, power is supplied to the INA through the main power harness (from P2 or P4 on the MPS-24A/MPS-24AE to J4 on the INA). For calculation of the primary and secondary power requirements refer to Appendix A of this document.

**Primary Power**
120 VAC, 50/60 HZ, 1.8 amps max. (MPS-24A)
220/240, 50/60 HZ, 0.9 amps max. (MPS-24AE)

**Earth Ground**
Connect to chassis via a Grounding Cable Assembly.

**Secondary Power**
27.6 VDC, supervised and power-limited.
Fast charge = 2 amps, trickle charge = 20 mA.

**Four-Wire Smoke Detector Power**
24 VDC (200 mV ripple), 1 amp max. Filtered and resettable.
Power-limited but must be supervised via a Power Supervision Relay.

**Notification Appliance/Annunciator Power**
Power-limited, filtered, non-resettable, 3 amps (in alarm) max. JP5 may be cut to convert this notification appliance power (TB3 Terminals 3 and 4) to a resettable, 2-amp maximum circuit. This output can also be used to power ACS series annunciators (do not cut JP5).

**Power Supervision Ribbon Cable Connector**
Connect to J9 on the INA.

**Power Harnesses (P2, P4)**
Connect to J4 on the INA (3 amps max, P2 and P4 combined) or any other module or board requiring internal power.

**Cut R27 to disable Earth Fault Detection. Earth Fault Detection is required in Canada.**

**LED Indicators**
- Earth Ground Fault
- Battery Failure
- AC Power Failure
- NiCad High Charge Rate (not supported by INA)
- JP5: Cut to make Notification appliance power on TB3 Terminals 3 and 4 a resettable 2-amp max circuit.

**JP2: Must be cut, otherwise a short on the Notification appliance power circuit (Terminals 3 and 4) would register incorrectly as a loss of primary (AC) power.**

**Figure 2.7.1-1 Field Wiring the MPS-24A/MPS-24AE**
2.7.2 The Main Power Supply (MPS-24B or MPS-24BE)

The MPS-24B/MPS-24BE may be mounted externally or in the same cabinet (CAB-3) as the INA. When powered from a MPS-24B/MPS-24BE mounted in the same cabinet, power is supplied to the INA through the main power harness (from P2 on the MPS-24B/MPS-24BE to J4 or TB3 on the INA). For calculation of the primary and secondary power requirements, refer to Appendix A.

**Four-Wire Smoke Detector/Annunciator Power**
24 VDC (200 mV ripple), 200 mA max. Filtered and resettable*. Power-limited but when used for four-wire detectors, must be supervised by a UL listed Power Supervision Relay. Power run to ACS Annunciators is inherently supervised.

**Primary Power**
120 VAC, 50/60 HZ, 1.8 amps max. (MPS-24B)
220/240 VAC, 50/60, 0.9 amps max (MPS-24BE)

**Earth Ground**
Connect to chassis with a Grounding Cable Assembly (Cable # 71073).

**Power Harness**
Connect to J4 on the INA
Cut R55 to Disable Earth Fault Detection.

**Secondary Power**
27.6 VDC, 6.5 to 17 AH. Supervised and power-limited. Fast charge =750mA max., trickle charge = 20 mA (typ).

**Battery +**
**Battery -**

**Power Ribbon Connector**
Connect to J9 on the INA

**LED Indicators**
Earth Ground Fault
Battery Fail
AC Power Fail
Not used on the INA

**JP3**
JP3 must be cut for use with the INA.

* Cut JP1 to make Four-Wire Smoke Detector Power on TB2 Terminals 1 and 2 a non-resettable circuit.

**Figure 2.7.2-1 Field Wiring the MPS-24B/MPS-24BE**
2.7.3 REMOTE SUPPLY

When the INA is powered from a source external to the INA cabinet, it must be connected as illustrated in Figure 2.7.3-1. An optional connection is illustrated, and is normally used only when the INA is being powered from an external source. For calculation of the primary and secondary power requirements, refer to Appendix A of this document.

![Figure 2.7.3-1 INA 24 VDC External Power Connection](image.png)

### Warning

When powering ACS Series Annunciators or other EIA-485 devices from these terminals use separate wires. Do not "T-Tap" or damage may result during abnormal conditions.

2.8 APPLYING/REMOVING POWER TO THE INA

After completing the proper installation of all cables and components, apply power in the following manner:

- Apply AC power
- Connect the battery/secondary power terminals as described in Section 2.7.3 of this manual

When servicing the INA, perform the following steps before removing or connecting any power or supervisory cables:

- Remove all EIA-485 connections
- Remove battery/secondary power
- Remove AC power
- Wait 60 seconds

**WARNING:** Never remove or install boards, internal cables or components with power applied. Failure to follow the procedure outlined above can result in irreparable damage to the system components. This damage may adversely affect the operation of this control unit but its effect may not be readily apparent.
INA

INTELLIGENT NETWORK ANNUNCIATOR

CHAPTER TWO
OPERATION
INTELLIGENT NETWORK ANNUNCIATOR

CHAPTER TWO OPERATION

ABOUT NVRAMS
Improper power down or up of the INA causes the NVRAMS to set their internal partitions disabling write capability. The INA software verifies the state of the partitions on the nonvolatile static RAMs on initial power on. If a NVRAM problem has been detected on the power up cycle, the INA will display the error message, TROUBL CATASTROPHIC INA NON VOLATILE RAM FAILURE. If this condition occurs, call the factory for immediate assistance.

ABOUT THIS CHAPTER
This chapter covers the operation of the INA and the control features available to the operator presented through the perspective of the keypad and the 80 character LCD.

ABOUT THE PASSWORDS
The INA functions in one of three levels: Operational Level, Level One, and Level Two. In Operational mode, the operator can perform the following keypad or menu-displayed functions:

- Acknowledge alarms, troubles, and restorations (clears).
- View acknowledged alarms and troubles.
- Silence the sounding of fire alarm notification appliances.
- Simultaneously reset all panels which are associated through programming.
- Point Read Status for network devices and local INA annunciator points
- Test the INA LED indicators, Liquid Crystal Display (LCD), terminal, and printer.
- View or print the event history stored in nonvolatile memory.

Access to keypad or menu levels one and two require entry of specific passwords. These levels allow an authorized programmer to initialize or alter the programming of the INA. Entry requirements are defined as follows:

- A Level One password is required for Alter Status.
- A Level Two password is required for Programming.

If the main operator of the system requires access to a function which is password protected, contact the NOTIFIER Distributor who installed the system for the required password(s). For more information on programming or altering the status of the INA, refer to Chapter 3 (Programming) of this document.

Whenever the operator selects a menu, the INA begins a one-minute timer. If no key is pressed during this minute, the function selected will be aborted and control will return to the INA state prior to selection of that menu.

An AKS-1 Annunciator Keyswitch is required for each INA unless it is installed in a lockable cabinet such as a CAB-3 series. The AKS-1 is used to enable and disable the INA keypad. Only one INA can have the keypad enabled; all other INA keypads must be disabled using the AKS-1 or the shorting plug shipped with the INA on J3. If an NCS is installed on the network, all the INA keypads must be disabled.

ABOUT THE SOFTWARE
Depending on the particular release of software in your system, some menu functions and system features may not be operable. If you attempt to execute a function that is not operable, the panel will respond with the message "FUNCTION IS NOT ENABLED".

Contact your NOTIFIER Distributor for information on the latest software features available for the INA.
ABOUT GROUPS AND LINKING

The INA may be programmed to link to a user defined group of network nodes or to all nodes on the network (autoprogramming). If the operator programs the INA for a defined group of nodes, the INA will only respond to that group and will ignore messages received from any other nodes, including alarm and trouble indications, off-line indications, etc. The INA will only transmit commands (acknowledge, signal silence, reset, read/alter status, etc.) to the group of nodes linked to the INA. The group and linking feature does not affect time synchronicity with the INA, and therefore, if the INA is the master time keeper of the network, it will transmit the time-synch message to all nodes on the network whether or not they are linked to the INA.

Autoprogramming

Autoprogramming the INA links the INA to all nodes on the network. If autoprogramming is selected, all nodes communicating on the network will be programmed into the INA's network map. Any nodes previously linked to the INA that are no longer communicating on the network will be removed from the INA's network map during autoprogramming.

Overlapping Groups

Network nodes may exist in two separate INA groups. If INAs overlap in a group, they must be programmed into each other's group. Refer to the example in Figure 2.0-1 below.

![Diagram](image-url)

**Figure 2.0-1: Overlapping Nodes with the INA Groups and Linking Feature**

In the figure above, Node 3 has been programmed to include Nodes 4,5,6,7,8, and the NCS in its group. Because the INA at Node 3 includes the INA at Node 4 in its group, Node 4 must include Node 3 in its group. This allows reporting nodes on the network to transmit signals to each other. The NCS communicates with all nodes on the network and therefore must be programmed into every INA group. For more information on the NCS, refer to the NCS Manual mentioned in the Related Documentation Chart at the beginning of this manual.
ABOUT ANNUNCIATOR OPERATION WITH THE INA

The INA's Annunciator Control System (ACS) has the ability to display status on any network fire alarm control panel (FACP). The ACS may be used for simple zone annunciation or may be used to control the state of control devices mapped to a FACP's local annunciator point. The INA ACS displays point information for AM2020/AFP1010 FACPs and zone information for AFP-200s. **NOTES:** 1. In the current release, smoke control annunciators (SCS-8/SCS-8L) are only supported in HVAC mode. 2. The SCS-8 and SCS-8L firmware has been updated in conjunction with Software Release 2.8. The new SCS firmware is not backward compatible with older revisions of software.

Annunciator Points

INA annunciator points can map to any network zone or mimic an AM2020/AFP1010 FACP local annunciator point. When an INA annunciator point mimics or follows the state of a predetermined and programmed remote node annunciator point, the point is referred to as a shadow annunciator point. Information displayed on the INA shadow annunciator point is identical to what is displayed on the FACP's annunciator. Programming to determine whether the ACS point is an input or output point is performed on the FACP. **SCS annunciator points and AMGs may be mimicked by an INA shadow annunciator point, but SCS annunciators and AMGs cannot physically be located at both the INA and a fire panel in the same INA group.**

INA ACS points may be mapped to AFP-200 zones. In the AFP-200 the individual ACS points are the zones. When the AFP-200 zone becomes activated, the INA ACS point mapped to that zone becomes activated. **Note:** If an FACP's local annunciator point or zone is mimicked by an existing INA shadow ACS point that corresponds to a network node not included in the INA's group, that ACS point will not function.

Audio Message Generators as Annunciator Panels

Each INA in the network can communicate with 1 to 32 annunciator panels. Each annunciator panel can have up to 64 points. The ACS can also communicate with devices that emulate annunciator panels such as Audio Message Generators. When using an AMG for networked voice evacuation, pressing the All Call button on the AMG which is connected to the INA, will cause a network All Call message to be sent to all FACPs in that INA's group. This message will cause the FACPs in the group to activate all installed SPKR circuits. Subsequently, depressing the AMG All Call button will cause all installed SPKR circuits to deactivate. If a shadow INA ACS point for networked voice evacuation is mimicking an ACS point at an FACP, the annunciator should be programmed into the FACP but does not need to be physically installed. If an AMG is installed at the INA, it cannot physically be installed at any other node in the INA's group.

IMPORTANT!

All Call on the INA will only work for the nodes programmed into the INA. If multiple INAs employing AMGs exist on the network, the group of nodes programmed into the INAs must not overlap. If the groups overlap, the possibility exists of one INA initiating All Call and another INA turning it off. To avoid this possibility, each INA/AMG must only affect a specific group of network nodes that no other INA/AMG can affect.

Annunciator Mapping

A network zone can be mapped to any annunciator point on the INA. There are no restrictions to node or zone mappings. The annunciator point will then display the current state of the network zone. Restrictions exist regarding the use of some ACS devices with the INA. These restrictions are described in detail in the Installation and Programming chapters.

Manual Mode

If manual mode operation is used for an annunciator or SCS then all annunciator control points must be mapped/shadowed to the same FACP mode for each annunciator address.

ABOUT THE DISPLAY TIME

The INA has a time field in the text displayed for each event that occurs in the system.

**All Systems Normal:** During periods of no activity, the time field reflects the current time.

**Single, Unacknowledged Event:** When an event has occurred but has not been acknowledged, and no other event has occurred, the CRT terminal and the INA will display the time that the event occurred.

**Multiple, Unacknowledged Events:** The display will show the actual time that the first unacknowledged event occurred. After all unacknowledged events have been acknowledged with the Acknowledge command, the INA will display the highest priority acknowledged event on the network with the INA's internal current time. This time does not represent the time the event occurred. Only the history buffer retains the date and time an event occurred.

**Single/Multiple Previously Acknowledged Events:** The time shown for an acknowledged event is the time at which that event was last placed in the display by activation of the ACK STEP key (not the time at which the event occurred). Only the history buffer retains the date and time an event occurred.
ABOUT THE BACKSPACE KEY

The Backspace key serves two purposes:

1. At a menu prompt, pressing the Backspace key "aborts" the selection of that menu.
2. When entering data or making a selection from a menu, pressing the Backspace key erases the last character, or menu choice entered.

ABOUT THE PRINT TIME

Output from the printer for a particular event (alarm, trouble, acknowledgment, etc.), includes the time the event was sent to the printer, which in most cases is identical to the time the event occurred. In extreme cases, when many events have occurred within a few seconds, the time printed for a particular event may differ from the actual event time by up to one minute. After events have been acknowledged, only the event history buffer (which may be printed) and the system printer will provide a record of the time at which events occurred.

ABOUT PRIORITIES

Every AM2020/AFP1010, AFP-300/400 and AFP-200 event the INA displays is prioritized. Security alarms will increment the trouble counter on the terminal status line of the CRT. The INA processes and displays AM2020/AFP1010, AFP-300/400 and AFP-200 events under the following priorities (the highest priority is displayed first and the lowest priority is displayed last).

1) Fire Alarms
2) Security Alarms
3) Supervisory Signals
4) Device Troubles
5) Disabled Zones
6) System Troubles
7) Annunciator Troubles
8) Local INA Troubles and Remote INA and NRT Troubles
9) Cleared Fire Alarms
10) Cleared Security Alarms
11) Cleared Supervisory Signals
12) Cleared Device Troubles
13) Cleared Disabled Zones
14) Cleared System Troubles
15) Cleared Annunciator Troubles
16) Cleared Local INA Troubles and Remote INA and NCS Troubles

In addition, detectors have a higher priority than modules within each detector/module category; the lower the address, the higher the priority (see list below). The display of certain events can be preempted by others at the time they are acknowledged. Pay careful attention to the display when acknowledging events. The Node Address will determine priority only if the same event on the same point occurs on multiple nodes. In that case, the event on the node with the lower node address has the highest priority.

Node 1, Loop 1 Detector 1, Loop 1 Detector 2, Loop 1 Detector 3 .... Loop 10 Detector 99 (followed in priority by)
Node 1, Loop 1 Module 1, Loop 1 Module 2, Loop 1 Module 3 .... Loop 10 Module 99 (followed in priority by)
Node 1, Zone 1, Zone 2, Zone 3 .... Zone 240 (followed in priority by)
Node 1, System Trouble Indication (in Hex) T00, T01, T02 .... TFF (followed in priority by)
Node 1, Annunciator Trouble Indication (in Hex) N00, N01, N02 .... NFF

ABOUT ADDRESSES

For certain functions such as READ STATUS, the operator must enter a device, software zone, or annunciator point address. Leading zeroes are not required. The address assumes the following format:

\[ \text{LXX (D/M) YY, ZXXX or AXXPYY} \]

**SLC Loop**
Enter "L" followed by 1 to 10 for AM2020.
Enter "L" followed by 1 to 4 for AFP1010.

**Software Zone**
Enter "Z" followed by 1 to 240.

**Annunciator Point**
Enter "A" followed by 1 to 32 for the annunciator module address, then "P" followed by the module point 1 to 64.
SECTION 1 THE KEYPAD AND LIQUID CRYSTAL DISPLAY (LCD)

1.1 NORMAL OPERATION

In a normal operating condition, when no alarms or troubles exist, the system will display the following:

Custom 40-Character User Label

ANY CUSTOM MESSAGE
ALL SYSTEMS NORMAL 04:32P 03/01/00

Current Time and Date
Hour:Minute Month/Day/Year

The operator can perform the functions associated with the following keys without having to enter a password:
The READ STATUS and the SPL FUNCT keys are described in the following pages.

A
READ STATUS

ACK
STEP

SIGNAL
SILENCE

SYSTEM
RESET

ACTIVATE
SIGNALS

LAMP
TEST

(a description of the READ STATUS key follows)

History Buffer and Print Functions

Not Enabled at this Time
1.2 **Read Status**

The Read Status feature provides local INA and network device status information. If a new event, such as an alarm or trouble message, is received by the INA during Read Status, the Read Status function will be aborted and the event will be displayed. To execute Read Status:

Press ![READ STATUS](image) and the display will show:

```
PRESS 1=PSYS, 2=PTREAD, 3=NETPTREAD : 
```

Enter 1 for Display System Configuration. This selection provides information on any of the system parameters programmed into the INA, such as NFN node address, MIB-W communication thresholds, keyswitch enabled, annunciator modules installed, etc.

Enter 2 for Point Read. This selection provides information on the status of any annunciator point programmed into the INA.

Enter 3 for Network Point Read. This selection provides information on the status of any device or zone on the network. Only devices and zones on nodes that have been programmed into the INA can be accessed under the Read Status command.

Note: Read Status is not supported on the AFP-200.

**Display System Configuration Menu Option 1**

Selecting 1 from the Read Status Menu allows the operator to review the various system parameters entered into the INA from the following System Configuration Menu:

```
PRESS 1=NFN, 2=KEY, 3=CABLE, 4=ANN, 5=UDACT, 6=EXTEQ, 7=LOCP : 
```
Once a menu choice is entered, the status for that menu choice will be displayed.

<table>
<thead>
<tr>
<th>MENUCHOICE</th>
<th>STATUS DISPLAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1=SYSTEM, 2=NETMAP</td>
</tr>
<tr>
<td></td>
<td>1=SYSTEM: Option 1 under the Read Status NFN option, displays system parameters as illustrated in the next display screen.</td>
</tr>
</tbody>
</table>
|            | ADDR = Network Node Address  
|            | MIBA = Channel A MIB Threshold Setting  
|            | MIBB = Channel B MIB Threshold Setting  
|            | PORTS = Single or Dual Port Monitoring  
|            | ADDR=211, MIBA=H, MIBB=L, PORTS=1 |
| 2          | 2=NETMAP: Option 2 under the Read Status NFN option, displays all the nodes programmed into the INA as illustrated in the next two display screens. The user may have to press ENTER to scroll through all nodes. |
|            | THE FOLLOWING NODES ARE PROGRAMMED IN  
|            | (PRESS ENTER TO CONTINUE UNTIL DONE)  
|            | 001, 002, 045, 078, 009, 078, 240  
|            | Key = Is the key switch enabled?  
| 3          | Cable = Is local power supply monitoring enabled? |
| 3          | CABLE=N |
Due to its size, the Annunciator Read Status display is separated into two screens, as illustrated below. Pressing ENTER invokes the next display.

**NOTE:** The INA is programmed for Block Acknowledge or Receive Mode. If programmed for Receive Mode, Block Acknowledge is disabled.
POINT READ

Selecting 2 from the Read Status Menu allows the operator to review annunciator point parameters entered into the INA. The INA prompts the operator for the address of the point to be read.

Upon entering the address, the INA will display a distinct screen format as illustrated below:

Annunciator Points

Status: Disable, Alarm/On, Trouble, Alarm/
On/Trouble, Normal or Blank

20-Character Custom Label

NORMAL
NETWORK ANNUN POINT

ANNUNCIATOR ONE
N001

Software Type ID

Node Mapping

Point Address

SELECT READ STATUS
MENU OPTION 2

NETWORK POINT READ

Selecting 3 from the Read Status Menu allows the operator to view the status of any device, annunciator panel, annunciator point, or zone on the network for all AM2020/AFP1010 nodes linked to the INA. The INA prompts the operator for the address of the network point to be read:

Upon entering the address, the INA will display a distinct screen format as illustrated below:

Only nodes programmed into the INA can be accessed with this feature. If the operator attempts to use the Network Point Read function on a node that is not present on the network system or not programmed into the INA, the following error message will occur:

After the operator enters the desired point, the display will indicate that a Read Status is in progress until the point information is received. If the INA does not receive a message from the network node within 20 seconds, the INA will display the error message above followed by an "All Systems Normal" message or system event (if present). Once the information is received, it will be displayed for one minute or until the operator presses ENTER, at which time the CBE information for that point will be displayed for one minute. If the point is a reverse zone, the CCBE information will be displayed for one minute.
The information received by the INA from the network node during a Network Point Read Status, will be displayed in a distinct screen format, depending on the particular type of device being read, as illustrated below and on the following pages.

If the operator presses the Backspace key at any time during the Read Status, the Read Status will abort and all messages received from the network node will be ignored by the INA. The INA will then display the information that was displayed prior to the Read Status operation.

**Detectors**

Status: DISABL, ALARM, TROUBLE, NORMAL

- **D =** Disabled
- **A =** Alarm
- **T =** Trouble
- **K =** Tracking

**Control Modules**

Status: DISABL, ON, TROUBL, OFF, OFHOOK, NORMAL

- **D CF A T W**
- **S L02M36**

Device Disabled

Device Activated

Participates in Walk Test

Device in Trouble

Signal Silence Enabled
Monitor Modules

Fire Status: DISABL, ALARM, TROUBL, NORMAL
Non-fire and Security Status: DISABL, ON, TROUBL, OFF

Software Zones

Status: DISABL, ALARM, TROUBL, NORMAL

Annunciator Points

Status: ON, TROUBL, OFF, REQUEST or blank
SECTION 2  FIRE ALARMS

The following example illustrates the system format used to display fire alarm conditions received from an AM2020/AFP1010, AFP-300/400 or AFP-200 system. For more information refer to the AM2020/AFP1010 Manual and for type ID definitions see the Software Type ID section of the AM2020/AFP1010 Programming Chapter. Messages on the AFP-200 or AFP-300/400 fire alarm panels are different than those displayed on the INA or NCS (see Table 2.0-1).

**NOTE**: The piezo sounder will pulse for fire alarm conditions.
<table>
<thead>
<tr>
<th>AFP-200</th>
<th>AFP-200</th>
<th>INA LCD</th>
<th>NCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I.D.</td>
<td>Message</td>
<td>Message</td>
<td>Message</td>
</tr>
<tr>
<td>Supervisory</td>
<td>activated: ACTIVE SUPERVISORY custom point label zone label 01:40P 3/06/00 M04</td>
<td>activated: SUPERV N012 SPSU custom point label zone label 2004 SPRKLR TROUBLE: 01:40P 3/06/00 104</td>
<td>activated: Supervisory Spvsry Mntr custom point label zone label N12L1M4 13:40:00 3/06/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL SUPERVISORY custom point label zone label OPEN CIRCUIT 02:07P 3/06/00 M04</td>
<td>trouble: TROUBL N012 SPSU custom point label zone label 2004 OPEN CIRCUIT 02:07P 3/06/00 104</td>
<td>trouble: Trouble Supervisory Spvsry Mntr custom point label zone label Open Circuit N12L1M4 14:07:00 3/06/00</td>
</tr>
<tr>
<td>Tamper</td>
<td>activated: ACTIVE TAMPER custom point label zone label 02:20P 3/06/00 M05</td>
<td>activated: SUPERV N012 SPSU custom point label zone label 2004 SPRKLR TROUBLE: 02:20P 3/06/00 105</td>
<td>activated: Supervisory Spvsry Mntr custom point label zone label N12L1M5 14:20:00 3/06/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL TAMPER custom point label zone label OPEN CIRCUIT 02:43P 3/06/00 M05</td>
<td>trouble: TROUBL N012 SPSU custom point label zone label 2004 OPEN CIRCUIT 02:43P 3/06/00 105</td>
<td>trouble: Trouble Supervisory Spvsry Mntr custom point label zone label Open Circuit N12L1M5 14:43:00 3/06/00</td>
</tr>
<tr>
<td>Non-Fire</td>
<td>activated: ACTIVE NONFIRE custom point label zone label 02:07P 3/06/00 M06</td>
<td>activated: ACTIVE N012 NOA custom point label zone label 04 02:07P 3/06/00 106</td>
<td>activated: *Active Non Alarm custom point label zone label N12L1M6 14:07:00 3/06/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL NON FIRE custom point label zone label OPEN CIRCUIT 02:21P 3/06/00 M06</td>
<td>trouble: TROUBL N012 NOA custom point label zone label 2004 OPEN CIRCUIT 02:21P 3/06/00 106</td>
<td>trouble: Trouble Non Alarm custom point label zone label Open Circuit N12L1M6 14:21:00 3/06/00</td>
</tr>
<tr>
<td>Hazard Alert</td>
<td>activated: ACTIVE HAZARD ALERT custom point label zone label 02:33P 3/06/00 M07</td>
<td>activated: TROUBL N012 SPSU custom point label zone label 2004 SPRKLR TROUBLE: 02:33P 3/06/00107</td>
<td>activated: Supervisory Hazard Alert custom point label zone label N12L1M7 14:33:00 3/06/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL HAZARD ALERT custom point label zone label OPEN CIRCUIT 02:47P 3/06/00 M07</td>
<td>trouble: TROUBL N012 SPSU custom point label zone label 2004 OPEN CIRCUIT 02:47P 3/06/00 107</td>
<td>trouble: Trouble Supervisory Hazard Alert custom point label zone label Open Circuit N12L1M7 14:47:00 3/06/00</td>
</tr>
<tr>
<td>Fire Control</td>
<td>activated: ACTIVE FIRE CONTROL custom point label zone label 03:21P 3/06/00 M08</td>
<td>activated: ACTIVE N012 NOA custom point label zone label 04 03:21P 3/06/00 108</td>
<td>activated: *Active Non Alm Mon custom point label zone label N12L1M8 15:21:00 3/06/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL FIRE CONTROL custom point label zone label OPEN CIRCUIT 03:35P 3/06/00M08</td>
<td>trouble: TROUBL N012 NOA custom point label zone label 2004 OPEN CIRCUIT 03:35P 3/06/00 108</td>
<td>trouble: Trouble Non Alm Mon custom point label zone label Open Circuit N12L1M8 15:35:00 3/06/00</td>
</tr>
<tr>
<td>Abort Switch</td>
<td>activated: ACTIVE ABORT SWITCH custom point label zone label 03:07P 3/06/00 M09</td>
<td>activated: TROUBL N012 SPSU custom point label zone label 2004 OPEN CIRCUIT 04:17P 3/06/00 M09</td>
<td>activated: *Active Abort Switch custom point label zone label N12L1M9 15:07:00 3/06/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL ABORT SWITCH custom point label zone label OPEN CIRCUIT 04:17P 3/06/00 M09</td>
<td>trouble: TROUBL N012 SPSU custom point label zone label 2091 OPEN CIRCUIT 04:17P 3/06/00109</td>
<td>trouble: Trouble Supervisory Hazard Alert custom point label zone label Open Circuit N12L1M9 16:17:00 3/06/00</td>
</tr>
<tr>
<td>Man. Release</td>
<td>activated: ALARM: MAN. RELEASE custom point label zone label 04:34P 3/06/00 M10</td>
<td>activated: ALARM: N012 MON custom point label zone label 91 04:34P 3/06/00110</td>
<td>activated: Alarm: Man Release custom point label zone label N12L1M10 16:34:00 3/06/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL MAN. RELEASE custom point label zone label OPEN CIRCUIT 04:58P 3/06/00 M10</td>
<td>trouble: TROUBL N012 MON custom point label zone label 2091 OPEN CIRCUIT 04:58P 3/06/00 110</td>
<td>trouble: Trouble Man Release custom point label zone label Open Circuit N12L1M10 16:58:00 3/06/00</td>
</tr>
<tr>
<td>Trouble Mon</td>
<td>activated: TROUBL TROUBLE MON custom point label zone label SHORT CIRCUIT 08:24A 3/06/00 M12</td>
<td>activated: TROUBL N012 MTRB custom point label zone label 2004 SHORT CIRCUIT 08:24A 3/06/00 112</td>
<td>activated: Trouble Tri Monitor custom point label zone label N12L1M12 08:24:00 3/06/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL TROUBLE MON custom point label zone label OPEN CIRCUIT 08:36A 3/06/00 M12</td>
<td>trouble: TROUBL N012 MTRB custom point label zone label 2004 OPEN CIRCUIT 08:36A 3/06/00 112</td>
<td>trouble: Trouble Tri Monitor custom point label zone label N12L1M12 08:36:00 3/06/00</td>
</tr>
</tbody>
</table>

*Will be displayed only in History Manager, Current Event window and NonFire Event window in the NCS

Table 2.0-1: AFP-200 Messages As They Appear on the INA and NCS (page 1 of 2)
<table>
<thead>
<tr>
<th>AFP-200 Type I.D.</th>
<th>AFP-200 Message</th>
<th>INA LCD Message</th>
<th>NCS Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burglar Alarms</td>
<td>activated: ACTIVE BURGLAR ALA custom point label zone label 08:52A 3/06/00 M13 trouble: ACTIVE BURGLAR ALA custom point label zone label 09:33A 3/06/00 M13</td>
<td>activated: TROUBL N012 SARM custom point label Z004 SECURITY TAMPER 08:52A 3/06/00 113 trouble: TROUBL N012 SARM custom point label Z004 SECURITY TAMPER 09:33A 3/06/00 113</td>
<td>activated: Security Area Monitor custom point label zone label N12L1M13 08:52:00 3/06/00 trouble: Trouble Security Area Monitor custom point label zone label Security Tamper N12L1M13 09:33:00 3/06/00</td>
</tr>
<tr>
<td>Silence</td>
<td>activated: ACTIVE SILENCE custom point label zone label 11:34A 3/06/00 M14 trouble: TROUBL SILENCE custom point label zone label OPEN CIRCUIT 11:45A 3/06/00 M14</td>
<td>activated: ACTIVE N012 NONA custom point label ZONE 04 11:34A 3/06/00 114 trouble: TROUBL N012 NONA custom point label Z004 OPEN CIRCUIT 11:45A 3/06/00 114</td>
<td>activated: *Active Silence custom point label zone label N12L1M14 11:34:00 3/06/00 trouble: Trouble Silence custom point label zone label Open Circuit N12L1M14 11:45:00 3/06/00</td>
</tr>
<tr>
<td>Pas Inhibit</td>
<td>activated: ACTIVE PASS INHIBIT custom point label zone label 12:04P 3/06/00 M15 trouble: TROUBL PAS INHIBIT custom point label zone label OPEN CIRCUIT 12:10P 3/06/00 M15</td>
<td>activated: ACTIVE N012 NONA custom point label ZONE 04 12:04A 3/06/00 115 trouble: TROUBL N012 NONA custom point label Z004 OPEN CIRCUIT 12:10A 3/06/00 115</td>
<td>activated: *Active Pass Inhibit custom point label zone label N12L1M15 12:04:00 3/06/00 trouble: Trouble Pas Inhibit custom point label zone label Open Circuit N12L1M15 12:10:00 3/06/00</td>
</tr>
<tr>
<td>Smoke Detect</td>
<td>activated: ALARM: SMOKE DETECT custom point label zone label 12:46P 3/06/00 M17 trouble: TROUBL SMOKE DETECT custom point label zone label OPEN CIRCUIT 02:06P 3/06/00 M17</td>
<td>activated: ALARM: N012 MON custom point label ZONE 04 12:46A 3/06/00 117 trouble: TROUBL N012 MON custom point label Z004 OPEN CIRCUIT 02:06P 3/06/00 117</td>
<td>activated: : Alarm: Smoke Detect custom point label zone label N12L1M17 12:46:00 3/06/00 trouble: Trouble Smoke Detect custom point label zone label Open Circuit N12L1M17 14:06:00 3/06/00</td>
</tr>
<tr>
<td>Heat Detect</td>
<td>activated: ALARM: HEAT DETECT custom point label zone label 02:16P 3/06/00 M18 trouble: TROUBL HEAT DETECT custom point label zone label OPEN CIRCUIT 02:26P 3/06/00 M18</td>
<td>activated: ALARM: N012 MON custom point label ZONE 04 02:16P 3/06/00 118 trouble: TROUBL N012 MON custom point label Z004 OPEN CIRCUIT 02:26P 3/06/00 118</td>
<td>activated: : Alarm: Heat Detect custom point label zone label N12L1M18 14:16:00 3/06/00 trouble: Trouble Heat Detect custom point label zone label Open Circuit N12L1M18 14:26:00 3/06/00</td>
</tr>
<tr>
<td>Water Flow</td>
<td>activated: ALARM: WATERFLOW custom point label zone label 03:18P 3/06/00 M19 trouble: TROUBL WATERFLOW custom point label zone label OPEN CIRCUIT 03:28P 3/06/00 M19</td>
<td>activated: ALARM: N012 WAT custom point label ZONE 04 03:18P 3/06/00 119 trouble: TROUBL N012 WAT custom point label Z004 OPEN CIRCUIT 03:28P 3/06/00 119</td>
<td>activated: : Alarm: Water Flow custom point label zone label N12L1M19 15:18:00 3/06/00 trouble: Trouble Water Flow custom point label zone label Open Circuit N12L1M19 15:28:00 3/06/00</td>
</tr>
<tr>
<td>Pre-Alarm</td>
<td>activated: PREALARM SMOKE (PHOTO) custom point label ALERT: 1.31/1.50% 05:21P 3/06/00 D01 trouble: (not applicable)</td>
<td>activated: TROUBL N012 PHOT AFP200 PREALARM ALERT Z091 MAINTENANCE REQ 05:21P 3/06/00 101 trouble: (not applicable)</td>
<td>activated: Pre Alarm Smoke (Photo) AFP200 PREALARM Alert N12L1D1 17:21:00 3/06/00 trouble: (not applicable)</td>
</tr>
</tbody>
</table>

*Will be displayed only in History Manager, Current Event window and NonFire Event window in the NCS.

Table 2.0-1: AFP-200 Messages As They Appear on the INA and NCS (page 2 of 2)

See Section 3.1 of this Chapter for a description of the format used to display troubles received from an AM2020/AFP1010, AFP-300/400 or AFP-200.
## Table 2.0-2: AFP-300/400 Messages As They Appear on the INA and NCS (page 1 of 5)

<table>
<thead>
<tr>
<th>AFP-300/400 Type ID.</th>
<th>AFP-300/400 Message</th>
<th>INA LCD Message</th>
<th>NCS Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke Detect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alarm (short): ALARM: Smoke Detect device label zone label 01:27:00p 03/07/00 M121</td>
<td>alarm (short): ALARM N232 MSMK device label zone label 01:27p 03/07/00 121</td>
<td>alarm (short): Alarm: Smoke Detect device label zone label N232L1M21 01:27:00 3/07/00</td>
<td>trouble: TROUBLE SMOKE DETECT device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
</tr>
<tr>
<td>trouble: TROUBLE SMOKE DETECT device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
<td>trouble: TROUBLE N232 MSMK device label Z055 INVALID REPLY 01:27p 03/07/00 121</td>
<td>trouble: Trouble Smoke Detect device label Invalid Reply N232L1M21 01:27:00 3/07/00</td>
<td></td>
</tr>
<tr>
<td>Heat Detect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alarm (short): ALARM: HEAT DETECT device label zone label 01:27:00p 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 MHT device label zone label 01:27p 03/07/00 121</td>
<td>alarm (short): Alarm: Heat Detect device label zone label N232L1M21 01:27:00 3/07/00</td>
<td>trouble: TROUBL HEAT DETECT device label Invalid Reply N232L1M21 01:27:00 3/07/00</td>
</tr>
<tr>
<td>trouble: TROUBL HEAT DETECT device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 MHT device label Z055 INVALID REPLY 01:27p 03/07/00 121</td>
<td>trouble: Trouble Heat Detect device label Invalid Reply N232L1M21 01:27:00 3/07/00</td>
<td></td>
</tr>
<tr>
<td>Pull Station</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alarm (short): ALARM: PULL STATION device label zone label 01:27:00p 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 PULL device label zone label 01:27p 03/07/00 121</td>
<td>alarm (short): Alarm: Pull Station device label zone label N232L1M21 01:27:00 3/07/00</td>
<td>trouble: TROUBL PULL STATION device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
</tr>
<tr>
<td>trouble: TROUBL PULL STATION device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 PULL device label Z055 INVALID REPLY 01:27p 03/07/00 121</td>
<td>trouble: Trouble Pull Station device label Invalid Reply N232L1M21 01:27:00 3/07/00</td>
<td></td>
</tr>
<tr>
<td>Monitor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alarm (short): ALARM: MONITOR device label zone label 01:27:00p 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 MON device label zone label 01:27p 03/07/00 121</td>
<td>alarm (short): Alarm: Monitor device label zone label N232L1M21 01:27:00 3/07/00</td>
<td>trouble: TROUBL MONITOR device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
</tr>
<tr>
<td>trouble: TROUBL MONITOR device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 MON device label Z055 INVALID REPLY 01:27p 03/07/00 121</td>
<td>trouble: Trouble Monitor device label Invalid Reply N232L1M21 01:27:00 3/07/00</td>
<td></td>
</tr>
<tr>
<td>(blank)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alarm (short): ALARM: device label zone label 01:27p:00 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 device label zone label 01:27p:03/07/00 121</td>
<td>alarm (short): Alarm: device label zone label N232L1M21 01:27:00 3/07/00</td>
<td>trouble: TROUBL device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
</tr>
<tr>
<td>trouble: TROUBL device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 device label Z055 INVALID REPLY 01:27p:03/07/00 121</td>
<td>trouble: Trouble device label Invalid Reply N232L1M21 01:27:00p 03/07/00</td>
<td></td>
</tr>
<tr>
<td>Abort Switch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alarm (short): ACTIVE ABORT SWITCH device label zone label 01:27:00p 03/07/00 M121</td>
<td>alarm (short): ACTIVE N22 absw device label zone label 01:27p 03/07/00 121</td>
<td>alarm (short): Active Abort Switch device label zone label N232L1M21 01:27:00 3/07/00</td>
<td>trouble: TROUBL ABORT SWITCH device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
</tr>
<tr>
<td>trouble: TROUBL ABORT SWITCH device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 ABSSW device label Z055 INVALID REPLY 01:27p 03/07/00 121</td>
<td>trouble: Trouble Abort Switch device label Invalid Reply N232L1M21 01:27:00 3/07/00</td>
<td></td>
</tr>
<tr>
<td>Man. Release</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alarm (short): ALARM: MAN. RELEASE device label zone label 01:27:00p 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 MANR device label zone label 01:27p 03/07/00 121</td>
<td>alarm (short): Alarm: Man. Release device label zone label N232L1M21 01:27:00 3/07/00</td>
<td>trouble: TROUBL MAN. RELEASE device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
</tr>
<tr>
<td>trouble: TROUBL MAN. RELEASE device label Z05 INVALID REPLY 01:27:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 MANR device label Z055 INVALID REPLY 01:27p 03/07/00 121</td>
<td>trouble: Trouble Man. Release device label Invalid Reply N232L1M21 01:27:00 3/07/00</td>
<td></td>
</tr>
<tr>
<td>AFP-300/400 Type ID.</td>
<td>AFP-300/400 Message</td>
<td>INA LCD Message</td>
<td>NCS Message</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Silence</strong></td>
<td>alarm (short): ACTIVE SILENCE device label zone label 12:40:00p 03/07/00 M121</td>
<td>alarm (short): ACTIVE N232 SIL device label zone label 12:40p 03/07/00 121</td>
<td>alarm (short): Active Silence device label zone label N232LM121 12:40:00 03/07/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL SILENCE device label Z05 INVALID REPLY 12:40:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 SIL device label Z05 INVALID REPLY 12:40p 03/07/00 121</td>
<td>trouble: Trouble Silence device label Invalid Reply N232LM121 12:40:00 03/07/00</td>
</tr>
<tr>
<td><strong>System Reset</strong></td>
<td>alarm (short): ACTIVE SYSTEM RESET device label zone label 12:40:00p 03/07/00 M121</td>
<td>alarm (short): ACTIVE N232 SRST device label zone label 12:40p 03/07/00 121</td>
<td>alarm (short): Active System Reset device label zone label N232LM121 12:40:00 03/07/00</td>
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<td>trouble: TROUBL SYSTEM RESET device label Z05 INVALID REPLY 12:40:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 SRST device label Z05 INVALID REPLY 12:40p 03/07/00 121</td>
<td>trouble: Trouble System Reset device label Invalid Reply N232LM121 12:40:00 03/07/00</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td>alarm (short and open): ACTIVE SECURITY device label zone label 12:40:00p 03/07/00 M121</td>
<td>alarm (short): TROUBLN232 SECU device label Z05 SECURITY ALARM 12:40p 03/07/00 121</td>
<td>alarm (short and open): Security Burglar Al device label zone label N232LM121 12:40:00 03/07/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL SECURITY device label Z05 INVALID REPLY 12:40:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 SECU device label Z05 INVALID REPLY 12:40p 03/07/00 121</td>
<td>trouble: Trouble Burglar Al device label Invalid Reply N232LM121 12:40:00 03/07/00</td>
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<tr>
<td><strong>Trouble MON</strong></td>
<td>alarm (short): TROUBL TROUBLE MON device label Z05 SHORT CIRCUIT 12:40:00p 03/07/00 M121</td>
<td>alarm (short): TROUBL N232 MTRB device label Z05 SHORT CIRCUIT 12:40p 03/07/00 121</td>
<td>alarm (short): Troubl Trouble Mon device label Short Circuit N232LM121 12:40:00 03/07/00</td>
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<td>trouble: TROUBL TROUBLE MON device label Z05 INVALID REPLY 12:40:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 MTRB device label Z05 INVALID REPLY 12:40p 03/07/00 121</td>
<td>trouble: Trouble Trouble Mon device label Invalid Reply N232LM121 12:40:00 03/07/00</td>
</tr>
<tr>
<td><strong>PAS Inhibit</strong></td>
<td>alarm: ACTIVE PAS INHIBIT device label zone label 12:40:00p 03/07/00 M121</td>
<td>alarm (short): ACTIVE N232 PASi device label zone label 12:40p 03/07/00 121</td>
<td>alarm (short): Active Pas Inhibit device label zone label N232LM121 12:40:00 03/07/00</td>
</tr>
<tr>
<td></td>
<td>trouble: TROUBL PAS INHIBIT device label Z05 INVALID REPLY 12:40:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 PASI device label Z05 INVALID REPLY 12:40p 03/07/00 121</td>
<td>trouble: Trouble Pas Inhibit device label Invalid Reply N232LM121 12:40:00 03/07/00</td>
</tr>
<tr>
<td><strong>AllCall Page</strong></td>
<td>alarm (short): ACTIVE ALLCALL PAGE device label zone label 12:40:00p 03/07/00 M121</td>
<td>alarm (short): ACTIVE N232 ALPG device label zone label 12:40p 03/07/00 121</td>
<td>alarm (short): Allcall Page device label zone label N232LM121 12:40:00 03/07/00</td>
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<td>trouble: TROUBL ALLCALL PAGE device label Z05 INVALID REPLY 12:40:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 ALPG device label Z05 INVALID REPLY 12:40p 03/07/00 121</td>
<td>trouble: Trouble Allcall Page device label Invalid Reply N232LM121 12:40:00 03/07/00</td>
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<tr>
<td><strong>Tamper</strong></td>
<td>alarm (short): ACTIVE TAMPER device label zone label 12:40:00p 03/07/00 M121</td>
<td>alarm (short): ACTIVE N232 TAMPER device label SPRINKLER TROUBLE 12:40p 03/07/00 121</td>
<td>alarm (short): Supervisory Tamper device label zone label N232LM121 12:40:00 03/07/00</td>
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<td>trouble: TROUBL TAMPER device label Z05 INVALID REPLY 12:40:00p 03/07/00 M121</td>
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<td>trouble: Trouble Tamper device label Invalid Reply N232LM121 12:40:00 03/07/00</td>
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<tr>
<td><strong>Fire Control</strong></td>
<td>alarm (short): ACTIVE FIRE CONTROL device label zone label 12:40:00p 03/07/97 M121</td>
<td>alarm (short): ACTIVE N232 FCON device label zone label 12:40p 03/07/00 121</td>
<td>alarm (short): Active Fire Control device label zone label N232LM121 12:40:00 03/07/00</td>
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<td>trouble: TROUBL FIRE CONTROL device label Z05 INVALID 12:40:00p 03/07/00 M121</td>
<td>trouble: TROUBL N232 FCON device label Z05 INVALID REPLY 12:40p 03/07/00 121</td>
<td>trouble: Trouble Fire Control device label Invalid Reply N232LM121 12:40:00 03/07/00</td>
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</table>

**Table 2.0-2: AFP-300/400 Messages As They Appear on the INA and NCS (page 2 of 5)**

INA 150921 05/30/01

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<table>
<thead>
<tr>
<th>AF-300/400 Type I.D.</th>
<th>AF-300/400 Message</th>
<th>INA LCD Message</th>
<th>NCS Message</th>
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<tr>
<td>Tele. Page</td>
<td>alarm (short): ACTIVE TELE. PAGE device label zone label 03:15:00P 03/07/00 M121</td>
<td>alarm (short): ACTIVE N232 TLPG device label zone label 3:15P 03/07/00 121</td>
<td>alarm (short): Active Tele Page device label zone label N232LM21 15:15:00 03/07/00</td>
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<tr>
<td></td>
<td>trouble: TROUBL TE. PAGE device label Z05 INVALID REPLY 3:15:00P 03/07/00 M121</td>
<td>trouble: TROUBL N232 TLPG device label Z005 INVALID REPLY 3:15P 03/07/00 121</td>
<td>trouble: Trouble Tele Page device label Invalid Reply N232LM21 15:15:00 03/07/00</td>
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<tr>
<td>Comb. Monitor</td>
<td>alarm (short): ALARM: COMB. MONITOR device label zone label 3:15:00P 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 COMB device label zone label 3:15P 03/07/000121</td>
<td>alarm (short): Alarm: Comb Monitor device label zone label N232LM21 15:15:00 03/07/00</td>
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<td>trouble: TROUBL COMB. MONITOR device label Z05 INVALID REPLY 3:15:00P 03/07/00 M121</td>
<td>trouble: TROUBL N232 COMB device label Z005 INVALID REPLY 3:15P 03/07/00 121</td>
<td>trouble: Trouble Comb. Monitor device label Invalid Reply N232LM21 15:15:00 03/07/00</td>
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<td>Sprinkler Sys</td>
<td>alarm (short): ALARM: SPRINKLER SYS device label zone label 3:15:00P 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 SPSU device label zone label 3:15P 03/07/000121</td>
<td>alarm (short): Alarm: Sprinkler Sys device label zone label N232LM21 15:15:00 03/07/00</td>
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<td>trouble: TROUBL SPRINKLR SYS device label Z05 INVALID REPLY 3:15:00P 03/07/00 M121</td>
<td>trouble: TROUBL N232 SPSU device label Z005 INVALID REPLY 3:15P 03/07/00 121</td>
<td>trouble: Trouble Sprinkler Sys device label Invalid Reply N232LM21 15:15:00 03/07/00</td>
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<tr>
<td>Second Shot</td>
<td>alarm (short): ACTIVE SECOND SHOT device zone label 3:15:00P 03/07/00 M121</td>
<td>alarm (short): ACTIVE N232 SPSH device label zone label 3:15P 03/07/000121</td>
<td>alarm (short): Active Second Shot device label zone label N232LM21 15:15:00 03/07/00</td>
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<td>trouble: TROUBL N232 SPSH device label Z005 INVALID REPLY 3:15P 03/07/00 121</td>
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<td>Man Rel Dlay</td>
<td>alarm (short): ALARM : MAN REL DLAY device label zone label 3:15:00P 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 MRDL device label zone label 3:15P 03/07/000121</td>
<td>alarm (short): Alarm: Man Rel Dlay device label zone label N232LM21 15:15:00 03/07/00</td>
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<td>trouble: TROUBL N232 MRDL device label Z005 INVALID REPLY 3:15P 03/07/00 121</td>
<td>trouble: Trouble Man Rel Dlay device label Invalid Reply N232LM21 15:15:00 03/07/00</td>
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<tr>
<td>Hazard Alert</td>
<td>alarm (short): ACTIVE HAZARD ALERT device label zone label 3:15:00P 03/07/00 M121</td>
<td>alarm (short): TROUBL N232 HAZA device label SPRINKLR TROUBL 3:15P 03/07/00121</td>
<td>alarm (short): Supervisory Hazard Alert device label zone label N232LM21 15:15:00 03/07/00</td>
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<tr>
<td>Supervisory</td>
<td>alarm (short): ACTIVE SUPERVISORY device label zone label 3:15:00P 03/07/00 M121</td>
<td>alarm (short): SUPERV N232 SUPR device label SPRINKLR TROUBL 3:15P 03/07/00121</td>
<td>alarm (short): Supervisory device label zone label N232LM21 15:15:00 03/07/00</td>
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<td>trouble: TROUBL N232 SUPR device label Z005 INVALID REPLY 3:15P 03/07/00 121</td>
<td>trouble: Trouble Supervisory device label Invalid Reply N232LM21 15:15:00 03/07/00</td>
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<tr>
<td>Waterflow</td>
<td>alarm short: ALARM: WATERFLOW device label zone label 3:15:00P 03/07/00 M121</td>
<td>alarm (short): ALARM: N232 WAT device label zone label 3:15P 03/07/00 121</td>
<td>alarm (short): Alarm: Water Flow device label zone label N232LM21 15:15:00 03/07/00</td>
</tr>
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<td>trouble: TROUBL WATERFLOW device label Z05 INVALID REPLY 3:15:00P 03/07/00 M121</td>
<td>trouble: TROUBL WATERFLOW device label Z005 INVALID REPLY 3:15P 03/07/00 121</td>
<td>trouble: Trouble Water Flow device label Invalid Reply N232LM21 15:15:00 03/07/00</td>
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Table 2.0-2: AFP-300/400 Messages As They Appear on the INA and NCS (page 3 of 5)
<table>
<thead>
<tr>
<th>Control</th>
<th>Relay</th>
<th>Bell Circuit</th>
<th>Strobe Ckt</th>
<th>Horn Circuit</th>
<th>Audible Ckt</th>
<th>Rel End Bell</th>
<th>Release Ckt</th>
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<tbody>
<tr>
<td>on: No Annunciation*</td>
<td>on: No Annunciation*</td>
<td>on: No Annunciation*</td>
<td>on: No Annunciation*</td>
<td>on: No Annunciation*</td>
<td>on: No Annunciation*</td>
<td>on: No Annunciation*</td>
<td>on: No Annunciation*</td>
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<td>trouble: TROUBL CONTROL device label Z05 INVALID REPLY 12:07:00P 03/16/00 M101</td>
<td>trouble: TROUBL RELAY device label Z05 INVALID</td>
<td>trouble: TROUBL BELL CIRCUIT device label Z05 INVALID REPLY 12:07:00P 03/16/00 M101</td>
<td>trouble: TROUBL STROBE CKT device label Z05 INVALID REPLY 12:07:00P 03/16/00 M101</td>
<td>trouble: TROUBL HORN CIRCUIT device label Z05 INVALID REPLY 12:07:00P 03/16/00 M101</td>
<td>trouble: TROUBL AUDIBLE CKT device label Z05 INVALID REPLY 12:07:00P 03/16/00 M101</td>
<td>trouble: TROUBL REL END BELL device label ZR1 INVALID REPLY 12:07:00P 03/16/00 M101</td>
<td>trouble: TROUBL RELEASE CKT device label ZR1 INVALID REPLY 12:07:00P 03/16/00 M101</td>
</tr>
<tr>
<td>on: ACTIVE N232 FP400 OUTPUT DEVICE 12:07P 03/16/00 101</td>
<td>on: ACTIVE N232 CON device label Z05 INVALID REPLY 12:07P 03/16/00 101</td>
<td>on: ACTIVE N232 AFP400 OUTPUT DEVICE 12:07P 03/16/00 101</td>
<td>on: ACTIVE N232 REL device label Z05 INVALID REPLY 12:07P 03/16/00 101</td>
<td>on: ACTIVE N232 AFP400 OUTPUT DEVICE 12:07P 03/16/00 101</td>
<td>on: ACTIVE N232 STROBE CKT device label Z05 INVALID REPLY 12:07P 03/16/00 101</td>
<td>on: ACTIVE N232 REL END BELL device label Z INVALID REPLY 12:07P 03/16/00 101</td>
<td>on: ACTIVE N232 RELEASE CKT device label Z INVALID REPLY 12:07P 03/16/00 101</td>
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<td>on: Active AFP400 Output Device N232L1M21 12:07:00 3/16/00</td>
<td>on: Active N232 Control device label Invalid ReplyN232L1M21 12:07:00 3/16/00</td>
<td>on: Active AFP400 Output Device N232L1M21 12:07:00 3/16/00</td>
<td>on: Active N232 REL device label Invalid Reply N232L1M21 12:07:00 3/16/00</td>
<td>on: Active AFP400 Output Device N232L1M21 12:07:00 3/16/00</td>
<td>on: Trouble Bell Circuit device label Invalid Reply N232L1M21 12:07:00 3/16/00</td>
<td>on: Trouble Rel End Bell device label Invalid Reply N232L1M21 12:07:00 3/16/00</td>
<td>on: Trouble Release Ckt device label Invalid Reply N232L1M21 12:07:00 3/16/00</td>
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</table>

*All AFP-300/400 messages that say 'No Annunciation' will be displayed in the History Buffer, only.

Table 2.0-2: AFP-300/400 Messages As They Appear on the INA and NCS (page 4 of 5)
<table>
<thead>
<tr>
<th>AFP-300/400 Type ID.</th>
<th>AFP-300/400 Message</th>
<th>INA LCD Message</th>
<th>NCS Message</th>
</tr>
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<tbody>
<tr>
<td>Rel Ckt Ulc</td>
<td>on: No Annunciation*</td>
<td>on: ACTIVE N232 AFP400 OUTPUT DEVICE 04:55P 03/16/00 101</td>
<td>on: Active AFP400 Output Device N232L1M1 16:55:00 3/16/00</td>
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<tr>
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<td>trouble: TROUBL REL CKT ULC device label ZR1 INVALID REPLY 04:55:00P 03/16/00 M101</td>
<td>trouble: TROUBL N232 RULC device label Z INVALID REPLY 04:55P 03/16/00 101</td>
<td>trouble: Trouble Rel Ckt Ulc device label Invalid Reply N232L1M1 16:55:00 3/16/00</td>
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<tr>
<td>Rel Audible</td>
<td>on: No Annunciation*</td>
<td>on: ACTIVE N232 AFP400 OUTPUT DEVICE 04:55P 03/16/00 101</td>
<td>on: Active AFP400 Output Device N232L1M1 16:55:00 3/16/00</td>
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<tr>
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<td>trouble: TROUBL REL AUDIBLE device label ZR1 INVALID REPLY 04:55:00P 03/16/00 M101</td>
<td>trouble: TROUBL N232 RAUD device label Z INVALID REPLY 04:55P 03/16/00101</td>
<td>trouble: Trouble Rel Audible device label Invalid Reply N232L1M1 16:55:00 3/16/00</td>
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<tr>
<td>Nonreset Stl</td>
<td>on: No Annunciation*</td>
<td>on: ACTIVE N232 AFP400 OUTPUT DEVICE 04:55P 03/16/00 101</td>
<td>on: Active AFP400 Output Device N232L1M1 16:55:00 3/16/00</td>
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<td>trouble: TROUBL NONRESET CTL device label Z05 INVALID REPLY 04:55:00P 03/16/00 M101</td>
<td>trouble: TROUBL N232 NONR device label Z055 INVALID REPLY 04:55P 03/16/00101</td>
<td>trouble: Trouble Nonreset Ctrl device label Invalid Reply N232L1M1 16:55:00 3/16/00</td>
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<tr>
<td>Telephone</td>
<td>on: No Annunciation*</td>
<td>on: ACTIVE N232 AFP400 OUTPUT DEVICE 04:55P 03/16/00 101</td>
<td>on: Active AFP400 Output Device N232L1M1 16:55:00 3/16/00</td>
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<td>trouble: TROUBL N232 TELE device label Z055 INVALID REPLY 04:55P 03/16/00101</td>
<td>trouble: Trouble Telephone device label Invalid Reply N232L1M1 16:55:00 3/16/00</td>
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<tr>
<td>Rel Code Bell</td>
<td>on: No Annunciation*</td>
<td>on: ACTIVE N232 AFP400 OUTPUT DEVICE 04:55P 03/16/00 101</td>
<td>on: Active AFP400 Output Device N232B1 16:55:00 3/16/00</td>
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<tr>
<td></td>
<td>trouble: TROUBL REL CODE BELL device label ZR1</td>
<td>trouble: TROUBL N232 RCBL device label ZR01 INVALID REPLY 04:55P 03/16/00 B01</td>
<td>trouble: Trouble Rel Code Bell device label Invalid Reply N232B1 16:55:00 3/16/00</td>
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<td>Instant Rel</td>
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<td>on: Active AFP400 Output Device N232L1M1 16:55:00 3/16/00</td>
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<td>Relea Form C</td>
<td>on: No Annunciation*</td>
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<td>on: Active AFP400 Output Device N232L1M1 16:55:00 3/16/00</td>
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<td>Speaker</td>
<td>on: No Annunciation*</td>
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<td>trouble: TROUBL N232 SPKR device label Z055 INVALID REPLY 04:55P 03/16/00101</td>
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</table>

*Any AFP-300/400 messages that say 'No Annunciation' will be displayed in the History Buffer, only.

Table 2.0-2: AFP-300/400 Messages As They Appear on the INA and NCS (page 5 of 5)
2.1 **ACKNOWLEDGING A FIRE ALARM**

The following must be completed to acknowledge a fire alarm condition:

Push ![ACK STEP](image) and the **ALARM**: device status will change to **ACK AL** (Acknowledged Fire Alarm).

When the fire alarm condition clears (either automatically in the case of devices programmed for Tracking or by depression of the SYSTEM RESET key), the panel will display **CLR AL** and the piezo will resound. The following must be completed to acknowledge the clearing of a fire alarm:

Push ![ACK STEP](image) and the **CLR AL** status will change to **ACL AL** (Acknowledged Clear Fire Alarm).

When multiple events have occurred, the system will display the first event that occurred (with the exception of the first fire alarm always overriding any previous sprinkler supervisory or trouble). When the ACK STEP key is pushed, the operator will have acknowledged the event that is being displayed on the CRT Monitor and INA LCD. The acknowledged message for this event will be displayed for several seconds, followed by display of the next unacknowledged event. The piezo sounder will be silenced only after all events have been acknowledged.
SECTION 3 SECURITY ALARM, SUPERVISORY AND TROUBLE SIGNALS

3.1 Security Alarm, Supervisory, and Trouble Signals from AM2020/AFP1010, AFP-200 and AFP-300/400 SLC Devices

The following example illustrates the format used to display security alarms, supervisory, and trouble signals received from an AM2020/AFP1010, AFP-300/400 and AFP-200. Refer to the AM2020/AFP1010, AFP-200 and AFP-300/400 Manuals. The INA will only display security alarm, supervisory, and trouble signals for the network nodes that have been programmed into the INA.

### DEVICE TYPES

<table>
<thead>
<tr>
<th>Detector</th>
<th>Modules</th>
</tr>
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<td>FPHT</td>
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</tr>
</tbody>
</table>

### Node Address

(Range is from 1 to 240)

### Device Status

The first zone that the device was mapped to during programming of the network node.

### Software Zone

### TYPES OF TROUBLES

<table>
<thead>
<tr>
<th>Detector</th>
<th>Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>DET FAILED TEST</td>
<td>DEVICE DISABLED</td>
</tr>
<tr>
<td>DEVICE DISABLED</td>
<td>INVALID REPLY</td>
</tr>
<tr>
<td>DRIFT TOLERANCE</td>
<td>OPEN CIRCUIT</td>
</tr>
<tr>
<td>INVALID REPLY</td>
<td>POINT TROUBLE</td>
</tr>
<tr>
<td>LOW CHAMBER VALUE</td>
<td>SECURITY ALERT</td>
</tr>
<tr>
<td>MAINTENANCE REQ</td>
<td>SPRINKLER TROUBLE</td>
</tr>
<tr>
<td>PRE-ALARM ALERT</td>
<td></td>
</tr>
</tbody>
</table>

### Custom Device Label

that was entered during programming of the network node.

### Time and Date

Hour:Minute Month/Day/Year

### Loop Number

(Range is from 1 to 9, with 0=Loop 10)

### Device Address

(Range is from 01-99)

###AFP-300/400 bell circuit range is B01-B04

### AFP-300/400 panel circuit range is P11-P88

### NOTE:

For a more detailed explanation of Software Type Identification, refer to the Programming Chapter in the AM2020/AFP1010 Manual or the AFP-200 and AFP-300/400 Manuals.

NOTE: The piezo sounder will sound steadily for unacknowledged security alarm, supervisory, and trouble conditions.
### 3.2 Trouble

#### 3.2.1 Trouble With AM2020/AFP1010 Disabled Zones

The following example illustrates the format used to display disabled zone trouble conditions received from AM2020/ AFP1010 nodes that have been programmed into the INA. Refer to the AM2020/AFP1010 Manual.

**NOTE:** For a more detailed explanation of Software Type Identification, refer to the Programming Chapter in the AM2020/AFP1010 Manual.

---

**Node Address**
(Range is from 1 to 240)

**Device Status**

**Device Type:**
FZON
RZON

**Custom Zone Label**
that was entered during programming.

**Software Zone**
The first zone that was mapped during programming of the network node.

**Fixed Field**

**Time and Date**
Hour:Minute Month/Day/Year

**Zone Address**
(Range is from Z001-Z240)

**NOTE:** The piezo souneder will sound steadily for unacknowledged trouble conditions.
3.2.2 Trouble With AM2020/AFP1010, AFP-300/400 and AFP-200 Equipment

The following example illustrates the format used to display equipment trouble signals received from an AM2020/AFP1010, AFP-300/400 or AFP-200.

![Node Address](Range is from 1 to 240)

TROUBL N211 CATSTRPHC LOOP INTRFAC BOARD
2 COMMUNICATION FLT 04:32P 03/01/00 T19

**Time and Date**
Hour:Minute Month/Day/Year

**Trouble Index**
Provide this index to your NOTIFIER Representative for troubleshooting.

**NOTE:** Messages for System Troubles are the same for AFP-200, AFP-300/400, INA and NCS.

3.2.3 Trouble With AM2020/AFP1010 Annunciators

The following example illustrates the format used to display trouble conditions with the Annunciator Control System modules received from an AM2020 or AFP1010.

![Node Address](Range is from 1 to 240)

TROUBL N211 ANN 01 INSTALLATION ERROR ANNUNCIATOR 1 04:32P 03/01/00 N80

**Custom Label**
Label that was entered during programming.

**Time and Date**
Hour:Minute Month/Day/Year

**Trouble Index**
Provide this index to your NOTIFIER Representative for troubleshooting.

**NOTE:** The piezo sounder will sound steadily for unacknowledged trouble conditions.
3.2.4 Trouble With INA and NCS Equipment

Signals originating at INAs and NCSs will be transmitted to other reporting nodes (i.e., NCS or another INA) on the network. Network node off-line conditions depend on the local settings (grouping and linking) of the INA and are detected individually by all reporting nodes on the network. The following example illustrates the format used by the INA to display equipment trouble signals from local and remote INAs and NCSs. Local INA troubles and remote INA and NCS troubles have a lower priority than AM2020/AF1010, AF-300/400 or AF-200 unacknowledged alarms and troubles. Refer to Chapter Two, About Priorities.

![Diagram of INA trouble display]

3.2.5 Trouble With Network Communications

The INA will display a node communications trouble for any node that was present on the network but stopped communicating. The following example illustrates the format used to display Network Communications Trouble.

![Diagram of NCS trouble display]

**NOTE:** The piezo sounder will sound steadily for unacknowledged trouble conditions.
3.3 **BLOCK ACKNOWLEDGE**

The function of block acknowledge gives the user the ability to acknowledge multiple trouble conditions with a single depression of the ACK STEP key. The INA will function as follows:

- An INA block acknowledge command is transmitted to every programmed node, including display nodes. Local INA troubles will also be acknowledged if present.
- Upon the initiation of a block acknowledge command, local troubles, including any off-line conditions, will be acknowledged at all programmed nodes, including display nodes.
- Acknowledged messages are not recorded as individual events once the block acknowledge message has been displayed.
- Cleared events will be recorded individually as they occur in the history buffer and on the printer. Cleared events will not be displayed on the LCD.
- Cleared events do not have to be acknowledged.
- Signals may come and go without being acknowledged. For this reason, the tracking option in the AM2020/AFP1010 must not be enabled for security input devices.
- Upon completion of block acknowledge, the INA will enter the "display acknowledged events" mode of operation. Refer to the Displaying Current Alarms and Troubles section within this manual.

The block acknowledge function can be disabled.

Push ![ACK STEP](Image) to execute block acknowledge. The following message will appear:

```
NETWORK BLOCK ACKNOWLEDGE INITIATED BY
NODE XXX     04:32P 03/01/00
```

After a node has completed block acknowledge, a message will be transmitted to the INA. The INA, at that point, will show XXX to represent the FACP node which completed the block acknowledge. The following message will be displayed for approximately 1.5 seconds:

```
BLOCK ACKNOWLEDGE COMPLETED BY
NODE XXX     04:33P 03/01/00
```

A separate message will be displayed for every node which completed a block acknowledge. **Note:** When employing Block Acknowledge operation with the INA, all nodes on the network must be configured for Block Acknowledge to establish proper network operation.
3.4 ACKNOWLEDGING TROUBLES IN RECEIVING UNIT MODE
(Block Acknowledge Disabled)

The receiving unit mode of operation acknowledges each individual trouble received by the INA. To acknowledge a trouble condition in receiving mode:

Push [ACK STEP] and the TROUBLE status will change to ACK TB (acknowledged trouble).

When the trouble condition clears, the panel will display CLR TB and the piezo will sound again. To acknowledge the clearing of a trouble condition:

Push [ACK STEP] and the CLR TB status will change to ACL TB (acknowledged clear trouble).

When multiple troubles have occurred, the INA will display the first event that occurred (with the exception of fire alarms which always override any non-sprinkler supervisory trouble). When the ACK STEP key is pushed, the operator will have acknowledged the highest priority event, not necessarily the event presently being displayed. The acknowledged message for the first prioritized event will be displayed for several seconds, followed by display of the next priority unacknowledged event. Note: Local INA troubles are acknowledged in the same manner that fire panel troubles are acknowledged.

When employing Receiving Unit Mode with the INA, all nodes on the network must be configured for Receive Mode to establish proper network operation.

3.5 DISPLAYING CURRENT ALARMS AND TROUBLES

The following must be completed to display alarms and troubles which have been acknowledged but not cleared:

Push [ACK STEP] and the next acknowledged event in the NOTI•FIRE•NET™ system will be displayed on the INA LCD. All events which are not restored to normal can be reviewed by depressing the ACK STEP key repeatedly.

Depressing the ACK STEP key repeatedly will display all acknowledged signals on the network; the INA will review every signal. In this review mode, the INA will display all acknowledged fire alarms on the node with the lowest node address. It will then display all fire alarms on the node with the next highest node address. This will continue until all acknowledged fire alarms have been displayed, at which time the first trouble on the node with the lowest address will be displayed. The acknowledged troubles will be displayed in the same manner as the acknowledged fire alarms. When the INA is finished with all node information it will display its local and remote INA/NCS acknowledged information. When all troubles have been displayed, the cycle repeats.
SECTION 4  REMOTE PERIPHERALS

The INA will support the installation of optional remote video display terminals and printers.

The CRT Terminal displays all network information. The CRT is provided with a keyboard that can be used to operate the INA provided the following conditions are met:

- The CRT with keyboard must be located in the same room as the INA.
- When not in use, the keyboard must be removed or it must be locked up.

4.1 PRINT FUNCTIONS

The printer can be used to provide a permanent record of all system events, the local history buffer, or local programming. Alarms, troubles, and acknowledgments are recorded on the printer as they occur in the system. The CRT and printer will not function during a primary power failure. For this reason, the use of an uninterruptible power supply (UPS) is recommended.

When printing the local history buffer or local programming, printing will be done out of background until the function is complete or the operator aborts printing. If an event is received by the INA, it will be printed immediately and no special attempts will be made to distinguish the new event from the events printed from the local history buffer. New events, should they occur, will be interspersed throughout the printout. Print functions are accessed by pressing the Special Function key.

Press [SPL] and the display will show:

PRESS 1=RPTS, 2=HIS

After the operator chooses "1" to print reports, the following display will appear:

PRESS 1=PROG, 2=HIS ALARM, 3=HIS EVENTS

Choosing 1 for programming, enables the INA to print its local programming information. System programming will print first, followed by annunciator panel programming and then annunciator point programming. Choosing 2 for alarm or 3 for event history buffer, enables the INA to print out all fire alarms or events stored in the selected buffer, starting with the first event that occurred. After selecting programming information (1), history alarm (2), or history events (3), the following screen appears.

PRESS 1=REQUEST, 2=ABORT

Choosing 1 starts the action requested and choosing 2 aborts the action.
SECTION 5  THE SPLIT HISTORY BUFFER

The history buffer on the INA is split into two separate viewing options, alarms and events. The history buffer contains a total of 500 events with 100 entries for alarms and 400 entries for events. The history buffer is accessed through the Special Function key.

Press \text{SPL \ FUNCT} and the display will show:

\[
\text{PRESS 1=RPTS, 2=HIS}
\]

After the operator enters 2 for the history buffer, the following will be displayed:

\[
\text{PRESS 1=HIS ALARM, 2=HIS EVENTS}
\]

The operator must choose 1 to view alarms and 2 to view events. The alarm buffer contains new alarms, acknowledged alarms, clear alarms, and acknowledged clear alarms. The event buffer contains all events, including alarm conditions. The Prior key steps through the history buffer in a reverse direction. The Next key steps through the history buffer in a forward direction.
INA
INTELLIGENT NETWORK ANNUNCIATOR

CHAPTER THREE
PROGRAMMING
SECTION 1 INA PROGRAMMING

1.1 INTRODUCTION

This chapter covers the programming options of the INA and features available to the programmer. This chapter is presented through the perspective of the CRT-2 Monitor. The prompts are displayed on the CRT screen in the order that they appear (top to bottom) on the pages that follow. If a CRT is not employed, the prompts will appear on the 40-character, two-line INA liquid crystal display as displayed in Chapter Two, Operation.

Menus
At the top of each sub-menu in this programming guide, a string of keys is displayed to illustrate the sequence of keys needed to reach a particular menu.

Passwords
Access to keypad or menu levels one and two require entry of specific passwords. These levels allow an authorized programmer to initialize or alter the programming of the INA. Entry requirements are defined as follows:

- A Level One password is required for Alter Status.
- A Level Two password is required for Programming.

If the main operator of the system requires access to a function which is password protected, contact the distributor who installed the system for the required password(s). The INA is shipped with initial Level One and Level Two passwords of five zeroes (00000).

Backspace Key

The backspace key serves several purposes. At a menu prompt, the backspace key aborts the selection of that option. When entering data or making a selection from the menu, the Backspace key erases the last character or digit entered.
1.1.2 Programming Annunciator Points
Refer to Appendix B, Software Type IDs, for a definition of annunciator types supported by the INA ACS.

Network Annunciator Point Programming
A shadow annunciator point is one which mimics or follows the state of a predetermined and programmed remote node annunciator control system point. An INA annunciator point can mimic an FACP annunciator point. For example, for the INA to mimic A4P18 on node 25, the user must program A4P18 on the INA as an NAPT point, and then specify Node 25. This implies that there must be a direct mapping between an INA annunciator point and an FACP annunciator point. In addition, A4P18 must be programmed on the local panel. In order for the NAPT point to function, the FACP to which it corresponds must be programmed into the INA's group.

If the point programmed on the FACP is a control point, the corresponding INA annunciator point will also become a control point. It can control whatever is mapped to that point on the FACP. If the point programmed on the FACP is simply an input point, the corresponding INA annunciator point will only shadow the FACP point. No control can be executed from the INA in this case.

The FACP's annunciator panel does not have to be physically installed. Depending on the particular release of software in your system, the annunciator panel may have to be programmed into the panel temporarily to actually program the annunciator points needed and then later removed from programming to clear any trouble conditions. Contact your NOTIFIER Distributor for information on the latest software features available for the INA.

Telephone points must be mapped on the local panel as ATEL points, consistent with local operation. On the INA, the same point must be programmed as a NAPT point, and the node address specified to shadow the local panel.

NOTE: The INA supports shadow annunciation for all AM2020/AFP1010 ACS points. It supports shadow annunciation for the two special, point programmable, annunciators on the AFP-300/400. Shadow annunciation on the AFP-200 is not supported.

1.2 The Initial Programming Outline
For initial programming of the INA, or for major changes and additions, the following basic procedure is recommended to prevent errors resulting in reprogramming and wasted time.

- Make copies of the Programming Sheets (contained in Appendix C) in the back of this manual.
- Use these work sheets to record the exact information for every annunciator point in the network system. Pay special attention to the Software Type IDs. For voice systems, pay close attention to AMG annunciator point commands as described in the Voice Multiplex System Manual.
- Assemble and apply power to the INA as described in the Installation Chapter of this document (also the Voice Multiplex System manual, if appropriate). All annunciator modules must be physically installed.
- The Level One and Level Two passwords can be changed. The INA is delivered from the factory with passwords of 00000. Write down or memorize your passwords! To change the passwords, enter the following:
  \[
  \text{Pre} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 1 \quad 6 \quad 2 \quad \text{Enter} \quad \text{(1 OR 2)} \quad \text{Then enter the new password.}
  \]
- Enter Full Point Programming. Use the work sheets developed in the second step of this outline and enter information on all annunciator points in the network. Enter Partial System Programming for major changes and additions.
- Cycle power to the INA (power must be off for a minimum of 70 seconds).
- Install all nodes and thoroughly test the entire network.
SECTION 2  THE MAIN PROGRAMMING MENU

The Programming Mode is accessed by entering the following (a Level Two password is required):

![Programming Mode Access]

After entering the Programming Mode, the display will show the following Main Programming menu:

PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG

The Main Programming menu has six options shown below. **NOTE: Option 2 of the Main Programming menu is reserved for future use.**

1=PSYS Partial System Programming - Selective programming of INA functions

3=PPRG Partial Point Programming - Selectively altering the operating parameters of annunciator points.

4=FPRG Full Point Programming - Complete programming of annunciator points and their respective operating parameters.

5=REMV Remove - Permits the selective removal (from INA memory) of any of the annunciator points.

6=PSWD Password - Allows the programmer to assign custom five-digit Level One and Level Two passwords.

7=MSG Message - Allows the Level Two programmer to define the custom 40-Character User Label displayed on the CRT Monitor and the INA's Liquid Crystal Display (LCD).

Refer to Figure 2.0-1 for a flow chart of the Main Programming menu. Detailed information on the Main Programming Options follows.
Press PROG Key

Enter Level Two Password

Valid Password? Yes

Select Main Programming Menu Option 1, 3-6

1 = PSYS (Partial System Programming)

3 = PPRG (Partial Point Programming)

4 = FPRG (Full Point Programming)

5 = REMV (Selective Removal of Annunciator Points)

6 = PSWD (Assign or Alter Passwords)

7 = MSG (Assign or Alter Message Displayed on Control Panel)

Error Message

Valid Password?

Yes

No
2.1 PARTIAL SYSTEM PROGRAMMING

The Partial System Programming menu has the following seven options:

1=NFN   **NOTI•FIRE•NET™** - Changing the node address, selecting communication threshold, specifying groups and linkages and selecting the network configuration.

2=KEY   Keyswitch - Enable or disable the INA keyswitch input.

3=CABLE  Power Supervision Cable - Enable or disable the INA power supervision cable.

4=ANN   Annunciator Module Programming - Install or remove annunciator (EIA-485) devices from the INA.

5=UDACT Universal Digital Alarm Communicator Transmitter - Program and specify the base annunciator protocol address in the system.

6=EXTEQ  External Equipment - Change any optional features associated with the CRT monitor, printer(s), Page-1 interface, or the modem interface.

7=LOCP  Local Parameters - Selectively programs the INA for either Block Acknowledge or Receiving Unit Mode operation.

![Diagram of Partial System Programming Menu Flow Chart]

**Figure 2.1-1 Partial System Programming Menu Flow Chart**
Refer to Figure 2.1-1 for a flow chart of the of the Partial System Programming menu. Detailed information on the Partial System Programming menu options follows.

1=NFN - NOTI•FIRE•NET™

Option 1 from the Partial System Programming menu allows the user to program the INA, change the NOTI•FIRE•NET™ node address, select the network configuration, or select the communication threshold for the MIB-W or MIB-WF. The INA may be autoprogrammed to include all nodes on the network in its group or manually programmed to include only selected nodes. For more information on INA groups and autoprogramming, refer to About Groups and Linking in Chapter Two of this manual.

A unique address must be assigned at each node in the network. Using both MIB data ports changes the network to a Style 7 operation. Note: Programming steps will be aborted if any new events are received by the INA.

2=KEY - Keyswitch

Option 2 from the Partial System Programming menu allows the programmer to enable or disable the INA keyswitch input. When the keyswitch is enabled and in the OFF position, the INA keypad will not accept user input. If the keyswitch is enabled and in the ON position, the keypad will accept input. When the keyswitch is disabled, the keypad is always ready to accept user input.

To enable the keyswitch, install the shunt on only one terminal of Connector J3. To disable the keypad without using the keyswitch, install the shunt plug across both terminals of Connector J3 on the INA. For more information on the keyswitch and shunt plug, refer to Chapter One, Section 2.2.2 of this manual.

3=CABLE - Power Supervision Cable

Option 3 from the Partial System Programming menu allows the programmer to enable or disable the INA power supervision cable. When the power supervision cable is enabled, the INA will supervise the main power supply. When the power supervision cable is disabled, the INA will not supervise the main power supply. If the INA is sharing a power supply with an AM2020/AFP1010 panel, the power supervision cable should be disabled because the AM2020/AFP1010 supervises the main power supply.
4=ANN - Annunciator Module Programming

Option 4 from the Partial System Programming menu allows the programmer to install and remove annunciator (EIA-485) devices from the INA. The modules must still physically be installed or removed from the system to prevent a local trouble condition.

PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG : 1
PRESS 1=NHF, 2=KEY, 3=CABLE, 4=ANN, 5=UDACT, 6=EXTEO, 7=LOCPS : 4
ENTER THE AnnunciATOR NUMBER TO CHANGE (1 – 32) : 1
IS AnnunciATOR 01 TO BE INSTALLED IN SYSTEM? (Y=Yes, N=No) : Y
ENTER 20 CHARACTER CUSTOM LABEL : Annunciator One
DO YOU WANT TO CHANGE ANOTHER AnnunciATOR? (Y=Yes, N=No) : N

NOTES: 1. When removing annunciator modules, all installed points on the affected annunciators should first be removed from programming for proper system operation. 2. The SCS-8 and SCS-8L firmware has been updated in conjunction with Software Release 2.8. The new SCS firmware is not backward compatible with older revisions of software.

5=UDACT - UDACT Installation

This option allows the installer to program a Notifier UDACT (Universal Digital Alarm Communicator Transmitter) and specify its base annunciator protocol address in the system. The following example illustrates programming a UDACT.

• Before programming a UDACT into an INA system, the number of annunciator addresses required must be determined. First, take the number of annunciator points in the system and add 8 points (for the UDACT). Then, divide the total by 64 to obtain the number of annunciator addresses required (round up to next whole number if decimal).

PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG : 5
PRESS 1=NHF, 2=KEY, 3=CABLE, 4=ANN, 5=UDACT, 6=EXTEO, 7=LOCPS : 5
DO YOU WANT TO CHANGE THE UDACT PROGRAMMING? (Y=Yes, N=No) : Y
DO YOU WANT A UDACT INSTALLED? (Y=Yes, N=No) : Y
ENTER THE BASE ADDRESS FOR UDACT OPERATION (1-32) : 1

Notes:
• The UDACT must be programmed at an installed annunciator address. Once programmed, the first 8 annunciator protocol points (base address only) automatically become unique fire panel status indicators (see UDACT Manual, Document 50050). These 8 functions required by the UDACT override any previous INA annunciator point programming. When a UDACT is installed, the first 8 INA annunciator points associated with the UDACT base address cannot be reprogrammed/removed and have no read status functionality. Any previous programming of these 8 points is removed.
• Multiple annunciator addresses may need to be programmed depending upon the range specified by the UDACT annunciator address switches.
• The UDACT cannot be used in systems containing an AVPS-24, AA-30, AA-120 or XP Transponder since a primary power failure signal transmission will not be delayed as required for this application.
• The UDACT can not be used in a system with a NIB-96.
• When a UDACT is programmed into the system, both the red and yellow LEDs will illuminate on an annunciator point mapped to a supervisory input during the presence of a supervisory signal for that point.
• Off-premises transmission of security alarms using the UDACT must be made by mapping input points with the software type ID "SACM" and "SEQM" to annunciator points within the range of the UDACT. Use of other security type IDs for this purpose will result in simultaneous transmission of a trouble signal.
• Multiple UDACT usage per INA system is not permitted.
6=EXTEQ - External Equipment

Option 6 of the Partial System Programming menu allows the user to change any optional features associated with the CRT monitor, printer(s), Page-1 interface, or modem interface.

Terminal Supervision: Electrical supervision of the CRT monitor. Unless terminal supervision is selected, the CRT will not beep (i.e. no bell characters will be sent) when unacknowledged troubles or unacknowledged alarms are present.

Printer Monitoring: The INA will monitor the printer's Ready/Busy line for off-line, out of paper, or buffer full error conditions. This option only functions for PRN or Keltron printers.

Pager: The pager must be enabled when a compatible pager is connected to the auxiliary printer port.

Modem: If selected, the following remote device (CRT) functions are inhibited: ACK STEP, SIGNAL SILENCE, SYSTEM RESET, PROGRAMMING and ALTER STATUS. This option must be employed when a modem is used to receive signals from an off-premise device. See the TPI-232 manual.

PRESS 1=PSVS,3=PPRG,4=FRPG,5=REMU,6=PSWD,7=MSG : 1
PRESS 1=FN,2=KEY,3=CABLE,4=ANN,5=UDACT,6=EXTEQ,7=LOCP : 6
DO YOU WANT TO CHANGE THE TERMINAL SUPERVISION? (Y=YES, N=NO) : Y
DO YOU WANT THE TERMINAL SUPERVISION ENABLED? (Y=YES, N=NO) : Y
DO YOU WANT TO CHANGE THE PRINTER MONITORING? (Y=YES, N=NO) : Y
DO YOU WANT THE PRINTER MONITORING ENABLED? (Y=YES, N=NO) : Y
DO YOU WANT TO CHANGE THE PAGER PROGRAMMING? (Y=YES, N=NO) : Y
DO YOU WANT THE PAGER ENABLED? (Y=YES, N=NO) : Y
DO YOU WANT TO CHANGE THE MODEM PROGRAMMING? (Y=YES, N=NO) : Y
DO YOU WANT THE MODEM ENABLED? (Y=YES, N=NO) : Y

7=LOCP - Local Parameters

Option 7 of the Partial System Programming menu allows the user to change the INA mode of operation from Block Acknowledge to Receiving Unit Mode. Note: If the mode of operation is changed, all nodes in the INA's group must be reprogrammed for the same operational mode. If an NCS, AFP-300/400 or AFP-200 fire alarm panel is present on the NOTI-FIRE-NET network, Receiving Unit Mode cannot be selected. The NCS, AFP-300/400 and AFP-200 do not support receiving unit mode at this time.

PRESS 1=PSVS,3=PPRG,4=FRPG,5=REMU,6=PSWD,7=MSG : 1
PRESS 1=FN,2=KEY,3=CABLE,4=ANN,5=UDACT,6=EXTEQ,7=LOCP : 7
DO YOU WANT TO MODIFY NFPA LISTING? (Y=YES, N=NO) : Y
SELECT NFPA LISTING (1=RCU) : 1
DO YOU WANT TO PROGRAM OR REMOVE THIS LISTING? (Y=PRG,N=RMU) : N
2.2 PARTIAL POINT PROGRAMMING

The Partial Point Programming menu has the following two options:

1 = TYPID  Type ID - Change the type ID of an annunciator point connected to the INA.
2 = NMAP  Network Mapping - Change the network zone or FACP mapping of the annunciator point.

Refer to Figure 2.2-1 for a flow chart of the Partial Point Programming menu. Detailed information on the Partial Point Programming menu options is found on the following pages.

Each option under Partial Point Programming prompts the user to enter the address of the annunciator point or network zone affected. Leading zeros are not required. The addresses assume the following formats:

Annunciator Point Address - AXXPYY

annunciator module 1 to 32
annunciator point 1 to 64

Network Node - NYYYZXXX

Network Node
Node Zone

1 to 240

Figure 2.2-1 Partial Point Programming Menu Flow Chart
1= TYPID - Type ID

Option 1 from the Partial Point Programming menu allows the programmer to change the software type ID of an annunciator point connected to the network.

PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG
PRESS 1=TYPID, 2=NMAP
ENTER AXXPVV FOR PT. CHANGE (BCKSPC TO ABORT)
ENTER TYPE ID

For a description of software type IDs, refer to Appendix B of this document.

2 = NMAP - Network Mapping

Option 2 from the Partial Point Programming menu allows the programmer to change the network zone or FACP mapping of the entered annunciator point. Specific AM2020/AFP1010 and AFP-300/400 ACS points may be mimicked by an INA ACS point. On the AFP-200, INA ACS points may only be mapped to zones.

NOTES:
1) Only type NZON annunciator points can be mapped to a network zone.
2) Annunciator points can only be mapped to a single network zone.
3) NAPT points can be mapped to only one node, therefore they will mimic only one local annunciator point.

Example for Network Zone Annunciator map programming:

PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG
PRESS 1=TYPID, 2=NMAP
ENTER AXXPVV FOR PT. CHANGE (BCKSPC TO ABORT)
ENTER NYYVZXXX FOR MAPPING TO NETWORK NODE AND ZONE

Example for Network Shadow Annunciator map programming:

ENTER AXXPVV FOR PT. CHANGE (BCKSPC TO ABORT)
ENTER NODE ADDRESS NXXX FOR NETWORK ANNUNCIATOR POINT

When programming a shadow annunciator point, make sure that the INA shadow annunciator point has the same address as the annunciator point on the corresponding node. In the example above, shadow point A3P16 on the INA, mimics A3P16 on Node 3. For more information on shadow annunciator points, refer to Section 1.1.2 of this chapter, Programming Annunciator Points.
### 2.2.1 INA ACS Programming Example

In the example below, the INA's network node address is N4. N4 annunciator points A1P1, A1P2, and A1P3 are shadow annunciator points. AM2020/AFP1010 and AFP-300/400 FACP's at Node 5, Node 6, and Node 7 are included in the INA's group.

![Diagram of INA ACS Programming Example](image)

A1P1 on Node 4 mimics A1P1 on Node 5. A1P2 on Node 4 mimics A1P2 on Node 6. A1P3 on Node 4 mimics A1P3 on Node 7. Programming for this example is as follows:

- N5A1P1 is programmed with an annunciator point Type ID
- N4A1P1 is programmed with Type ID NAPT
- N6A1P2 is programmed with an annunciator point Type ID
- N4A1P2 is programmed with Type ID NAPT
- N7A1P3 is programmed with an annunciator point Type ID
- N4A1P3 is programmed with Type ID NAPT

In the above example:

- The INA shadow annunciator point address must be the same as the address of the FACP annunciator point that the programmer wishes to mimic.
- The INA shadow annunciator points are mapped to the FACP points (Nodes 5, 6 and 7) through Full Point Programming with type NAPT or through network mapping (NMAP) under Partial Point Programming.
- The FACP annunciator point being mimicked by the INA shadow annunciator point must be installed in FACP programming, but an annunciator module does not have to be physically installed at the FACP.
- If a device or zone activates the FACP annunciator point through annunciator point mapping, the corresponding shadow INA annunciator point will also be activated.

INA ACS annunciator points can be mapped to AFP-200 and AFP-300/400 zones. INA ACS points cannot mimic AFP-200 ACS points and only AFP-300/400 ACS points can be mapped to the special annunciators. INA ACS points are mapped to AFP-300/400 zones during full-point programming with Type ID NZON. INA ACS points are mapped to AFP-200 CCBE Zones through Full Point Programming or under Partial System Programming with the Type ID NZON. Note that only one non-alarm device can be mapped to a CCBE zone on an AFP-200 when the zone is mapped to an INA ACS point. When the AFP-200 or AFP-300/400 zones are activated, the INA ACS point mapped to that zone is also activated. For more information on AFP-200 and AFP-300/400 zones, refer to the appropriate manual.

ACM-16AT annunciators which operate with an AMG may also contain shadow annunciator points programmed with Type ID NAPT. An activated ACM-16AT shadow annunciator point activates the AMG voice evacuation. When employing INA shadow ACM-16AT/AMG shadow annunciator points, do not physically install the annunciator or AMG at any other node in the INA's group.

**Note:** For more information on annunciator mapping on the AM2020/AFP1010, refer to Chapter Three of Document 15088. For more information on shadow annunciator points, refer to Section 1.1.2 of this chapter. For more information on annunciator mapping on the AFP-300/400, refer to Appendix A of Document 50255.
2.3 FULL POINT PROGRAMMING

Option 4 from the Programming Menu allows the programmer to completely program all of the annunciator points in the INA. For a description of each of the parameters programmed here, refer to the section on Partial Point Programming.

Example for zone mapping:

PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG : 4
ENTER AXXPVY FOR PT. INSTALL (BCKSPC TO ABORT) : A3P14
ENTER TYPE ID : N2ON
ENTER NVIZXX FOR MAPPING TO NETWORK NODE AND ZONE : N3Z20

Example for shadow mapping:

ENTER AXXPVY FOR PT. INSTALL (BCKSPC TO ABORT) : A3P14
ENTER TYPE ID : NAPT
ENTER NODE ADDRESS NXXX FOR NETWORK ANNUNCIATOR POINT : N3

NOTES:
1) Only type NZON annunciator points can be mapped to a network zone.
2) Annunciator points can only be mapped to a single network zone.
3) NAPT points can be mapped to only one node, therefore they will shadow only one local annunciator point.

The control panel continuously loops back through the Full Point Programming routine, allowing the operator to enter annunciator points one after the other. Pressing the backspace key will abort Full Point Programming.

2.4 POINT REMOVAL

Option 5 from the Programming Menu allows the programmer to remove annunciator points from INA memory. After an INA annunciator point has been removed, the LEDs associated with that point will turn off and stay off. Annunciator points that are removed will not function in any capacity until reinstalled under Full Point Programming.

PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG : 5
ENTER AXXPVY FOR PT. REMOVAL (BCKSPC TO ABORT) : A3P14

2.5 PASSWORD

Option 6 from the Programming Menu allows the programmer to change the Level One and Level Two passwords for the INA.

The INA is shipped with initial Level One and Level Two passwords of 000000. As a security measure, the control panel does not echo password digits to the liquid crystal display and CRT screen. Rather, it displays an asterisk (*) for each digit entered. After entering five password digits, pressing ENTER places the new password into operation. Acceptable characters for a password are the digits 0 through 9.

PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG : 6
PRESS 1=LEVEL ONE, 2=LEVEL TWO
ENTER LEVEL TWO PASSWORD: *****
A Forgotten Password?
If a Level One or Level Two password is incorrectly entered, the panel will respond by displaying a special code word and prompt the programmer to reenter the password. If the password has been forgotten, record this code word and contact NOTIFIER. After proper authentication, the original password can be determined by deciphering the code word. An example of this code word follows:

```
ENTER LEVEL ONE PASSWORD:   ******
INVALID PASSWORD:  7129406 REENTER PASSWORD:
```

2.6 MESSAGE
Option 7 from the Programming Menu allows the programmer to change the 40-Character Custom User Label for the system. Acceptable characters for the label include Letters A through Z, digits 0 through 9, periods (.), dashes (-), and spaces.

```
PRESS 1=PSYS, 3=PPRG, 4=FPRG, 5=REMU, 6=PSWD, 7=MSG : 7
ENTER 40 CHARACTER CUSTOM USER LABEL : NOTIFIER
```

SECTION 3  THE INA ALTER STATUS MENU
The Alter Status mode is accessed by entering the following (a Level One password is required):

```
Alter Status   ?????
Level 1 Password
```

After entering the Alter Status mode, the display will show the following Main Alter Status Menu:

```
PRESS 1=DIS, 2=CTL, 4=TIME, 7=GZON :
```

1=DISABLE
Option 1 from the Alter Status menu allows the programmer to disable specific devices or zones.

```
PRESS 1=DIS, 2=CTR, 4=TIME, 7=GZON : 1
ENTER XXXXXXXX(D/M)ZZ OR XXXXXXXX FOR POINT CHANGE : N100L10D20
DO YOU WANT THIS POINT DISABLED (Y=YES, N=NO) : Y
```

Note: To make sure that the device or zone being altered actually changed states, conduct a read status after using the alter status command.

2=CONTROL MODULE
Option 2 from the Alter Status menu allows the programmer to turn specific control modules on or off.

```
PRESS 1=DIS, 2=CTR, 4=TIME, 7=GZON : 2
ENTER XXXXXXXXVMZ2 FOR CONTROL MODULE CHANGE : N100L10M70
DO YOU WANT THE POINT TO BE ON OR OFF? (Y=ON, N=OFF) : Y
```

Note: To make sure that the control module being altered is actually a control module or if the module is already on or off, conduct a read status prior to using the alter status command.
Option 4 from the Alter Status menu allows the programmer to reset the time/date system clock.

PRESS 1=DIS, 2=CTL, 4=TIME, 7=GZON
ENTER THE MONTH (1-12) : 4
ENTER THE DAY-OF-MONTH (1-31) : 3
ENTER THE YEAR (0-99) : 1
ENTER THE DAY-OF-WEEK (1-SUN,...,7-SAT) : 96
ENTER THE HOURS IN MILITARY TIME (0-23) : 2
ENTER THE MINUTES (0-59) : 15
NOTIFIER

All systems normal 03:37p 03/01/00

NOTES:
1) Military time and conventional time are the same for the hours of 1:00 am to noon. To convert conventional time to a military equivalent for the hours of 1:00 p.m. to midnight, add 12. Example: 1:00 p.m. conventional time is equal to 1300 hours military time (refer to Table 3-1).

2) On the NOTIFIRENET network, node clocks are synchronized every hour according to the time and date on the master clock node. The last INA, AM2020/AFP1010, AFP-300/400 or NCS on the network where the time and date were manually programmed is the master clock node.

Table 3-1 Conventional and Military Time

<table>
<thead>
<tr>
<th>Convention Time</th>
<th>Military Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00 am</td>
<td>0100 hours</td>
</tr>
<tr>
<td>2:00 am</td>
<td>0200 hours</td>
</tr>
<tr>
<td>3:00 am</td>
<td>0300 hours</td>
</tr>
<tr>
<td>4:00 am</td>
<td>0400 hours</td>
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<tr>
<td>5:00 am</td>
<td>0500 hours</td>
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<tr>
<td>6:00 am</td>
<td>0600 hours</td>
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<tr>
<td>7:00 am</td>
<td>0700 hours</td>
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<tr>
<td>8:00 am</td>
<td>0800 hours</td>
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<tr>
<td>9:00 am</td>
<td>0900 hours</td>
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<tr>
<td>10:00 am</td>
<td>1000 hours</td>
</tr>
<tr>
<td>11:00 am</td>
<td>1100 hours</td>
</tr>
<tr>
<td>12 Noon</td>
<td>1200 hours</td>
</tr>
<tr>
<td>1:00 pm</td>
<td>1300 hours</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>1400 hours</td>
</tr>
<tr>
<td>3:00 pm</td>
<td>1500 hours</td>
</tr>
<tr>
<td>4:00 pm</td>
<td>1600 hours</td>
</tr>
<tr>
<td>5:00 pm</td>
<td>1700 hours</td>
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<tr>
<td>6:00 pm</td>
<td>1800 hours</td>
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<td>7:00 pm</td>
<td>1900 hours</td>
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<tr>
<td>8:00 pm</td>
<td>2000 hours</td>
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<tr>
<td>9:00 pm</td>
<td>2100 hours</td>
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<tr>
<td>10:00 pm</td>
<td>2200 hours</td>
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<tr>
<td>11:00 pm</td>
<td>2300 hours</td>
</tr>
<tr>
<td>12 Midnight</td>
<td>2400 hours</td>
</tr>
</tbody>
</table>

7=GROUP ZONE DISABLE
Option 7 from the Alter Status menu allows the programmer to a group zone

PRESS 1=DIS, 2=CTL, 4=TIME, 7=GZON
ENTER NXXXXYYYYY FOR GROUP ZONE
DO YOU WANT THIS GROUP ZONE DISABLED? (Y=Yes, N=No) : N100Z150

Y
NOTES
INA
INTELLIGENT NETWORK ANNUNCIATOR

APPENDIX A
POWER SUPPLY CALCULATIONS
INTELLIGENT NETWORK ANNUNCIATOR

APPENDIX A

POWER SUPPLY CALCULATIONS

This Appendix permits the calculation of the primary and secondary power requirements for a power supply local to the INA (same cabinet).

<table>
<thead>
<tr>
<th>Category</th>
<th>Primary, Non-Fire Alarm Current (amps)</th>
<th>Primary, Fire Alarm Current (amps)</th>
<th>Secondary, Non-Fire Alarm Current (amps)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Qty</td>
<td>X [current draw]</td>
<td>Total</td>
</tr>
<tr>
<td>INA</td>
<td>[ 1 ]</td>
<td>0.250</td>
<td>0.250</td>
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<tr>
<td>MPS-24A/MPS-24AE</td>
<td>[ ]</td>
<td>0.064</td>
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<tr>
<td>MPM-2</td>
<td>[ ]</td>
<td>0.006</td>
<td></td>
</tr>
<tr>
<td>MPS-24B/MPS-24BE</td>
<td>[ ]</td>
<td>0.062</td>
<td></td>
</tr>
<tr>
<td>MIB-W</td>
<td>[ ]</td>
<td>0.035</td>
<td></td>
</tr>
<tr>
<td>MIB-F and MIB-WF</td>
<td>[ ]</td>
<td>0.028</td>
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</tr>
<tr>
<td>RPT-W, RPT-WF, RPT-F</td>
<td>[ ]</td>
<td>0.017</td>
<td></td>
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<td>RPT-485W, RPT-485WF</td>
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<td>0.017</td>
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</tr>
<tr>
<td>4-Wire Smoke Detectors</td>
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<tr>
<td>See Device Compatibility</td>
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<tr>
<td>Document</td>
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<tr>
<td>AA-30/AA-30E</td>
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<tr>
<td>AA-120/AA-130E</td>
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<tr>
<td>APS-6R</td>
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<tr>
<td>ACM-16AT, ACM-32A</td>
<td>[ ]</td>
<td>0.040</td>
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<tr>
<td>AEM-16AT, AEM-32A</td>
<td>[ ]</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>LCD-80</td>
<td>[ ]</td>
<td>0.100</td>
<td></td>
</tr>
<tr>
<td>ACM-8R (refer to Doc. 153A2)</td>
<td>[ ]</td>
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<tr>
<td>LDM Series (refer to Doc. 15585)</td>
<td>[ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Annunciator LEDs illuminated during non-fire alarm conditions</td>
<td>[ ]</td>
<td>0.016</td>
<td></td>
</tr>
<tr>
<td>ACM-16AT, ACM-32A</td>
<td>[ ]</td>
<td>0.016</td>
<td></td>
</tr>
<tr>
<td>ACM-16AT, ACM-32A</td>
<td>[ ]</td>
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<td></td>
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<tr>
<td>Notification Appliances:</td>
<td>[ ]</td>
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<tr>
<td>See manufacturer's instructions</td>
<td>[ ]</td>
<td></td>
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<tr>
<td>Miscellaneous</td>
<td>[ ]</td>
<td>0.020</td>
<td></td>
</tr>
<tr>
<td>A77-716B</td>
<td>[ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other devices drawing power from MPS-24A/MPS-24AE Terminals TB3-3 and TB3-4:</td>
<td>[ ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HID ACT</td>
<td>[ ]</td>
<td>0.100</td>
<td></td>
</tr>
<tr>
<td>Sum each column for totals</td>
<td>Primary, non-alarm total:</td>
<td>Primary, alarm total:</td>
<td>Secondary, non-alarm total:</td>
</tr>
</tbody>
</table>

Table A-1 INA Current Draw Calculations
INA

INTELLIGENT NETWORK ANNUNCIATOR

APPENDIX B

SOFTWARE TYPE IDs
INTELLIGENT NETWORK ANNUNCIATOR

APPENDIX B

SOFTWARE TYPE IDs

All annunciator points must declare an appropriate software type identification during programming. The declaration of a software type allows the INA to identify the type and configuration of specific devices mapped to it.

Each type ID is categorized by groups. There are 3 separate groups of software type IDs which are defined in the tables below. Each table consists of the following format:

**Type ID** - This is the software type entered by the programmer for a particular point.

**Display Label** - This is the form that the INA displays the Software Type ID on the CRT Monitor and the LCD.

**Type of Device** - Type of devices compatible and description of operating parameters for the particular type ID.

The INA will not permit the changing of a Software Type ID in one group to a Software Type ID in another group. To accomplish this, the point must be reinstalled with the Software Type ID of the desired group by using the *Full Point Programming* option of the Main Programming Menu.

### Network Annunciator Control

<table>
<thead>
<tr>
<th>Type I.D.</th>
<th>Display Label</th>
<th>Type of Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAST</td>
<td>ANN ACK/STEP</td>
<td>Annunciator Point used to execute ACKNOWLEDGE/STEP for all nodes in the INA group</td>
</tr>
<tr>
<td>ALMP</td>
<td>ANN LAMP TST</td>
<td>Annunciator Point used to execute local LAMP TEST</td>
</tr>
<tr>
<td>ARES</td>
<td>ANN RESET</td>
<td>Annunciator Point used to execute SYSTEM RESET for all nodes in the INA group</td>
</tr>
<tr>
<td>ASGS</td>
<td>ANN SIG SIL</td>
<td>Annunciator Point used to execute SIGNAL SILENCE for all nodes in the INA group</td>
</tr>
</tbody>
</table>

### Network Annunciator Zone

<table>
<thead>
<tr>
<th>Type I.D.</th>
<th>Display Label</th>
<th>Type of Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZON</td>
<td>NETWORK ZONE</td>
<td>Annunciator Point used to map to an FACP network zone</td>
</tr>
</tbody>
</table>

### Network Annunciator Point

<table>
<thead>
<tr>
<th>Type I.D.</th>
<th>Display Label</th>
<th>Type of Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAPT</td>
<td>NETWORK ANNUN POINT</td>
<td>Annunciator Point used to shadow an FACP Annunciator Point</td>
</tr>
</tbody>
</table>

*Note: For a complete description of Software Type IDs for specific devices and zones, refer to the AM2020/AFP1010 manual.*
INA
INTELLIGENT NETWORK ANNUNCIATOR

APPENDIX C
PROGRAMMING SHEET
<table>
<thead>
<tr>
<th>Address (AxxPyy)</th>
<th>Model</th>
<th>Type I.D.</th>
<th>Alphanumeric Label (20 characters max)</th>
<th>Network Mapping</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
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Job Name: ___________________________ Sheet __ of __
Completed by: ______________________ Date: ______________
Engineer: __________________________

Job Takeoff Form:
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