# NOTIFIER®

# Universal Digital Alarm Communicator/Transmitter
# UDACT
## Instruction Manual

# Fire Alarm System Limitations

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

**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 particles 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 photoelectronic 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.).

**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.

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# Installation Precautions

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

**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° C/32-120° F and at a relative humidity of 85% RH - 93% per ULC - (non-condensing) at 30° C/86° 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° C/60-80° 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.

**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.

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# 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 radio-electriques depassant les limites applicables aux appareils numeriques de la classe A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

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# Table of Contents

## Overview

## Installation and Wiring

## Programming Instructions

# Overview

## Introduction

This document contains information for installing, programming and operating the UDACT, Universal Digital Alarm Communicator/Transmitter. The table below contains a list of document sources for supplemental information:

| Control Panels | Refer to... | Part Number |
|---|---|---|
| System 500 | System 500 Instruction Manual | 15019 |
| System 5000 | System 5000 Installation Manual | 15583 |
| AFP-100 | AFP-100 Instruction Manual | 51010 |
| AFP-200 | AFP-200 Instruction Manual | 15511 |
| AFP-300/AFP-400 | AFP-300/AFP-400 Installation Manual | 50253 |
| AFC-600 | AFC-600 Installation Manual | 51031 |
| NFS-640 | NFS-640 Installation Manual | 51332 |
| NFS-3030 | NFS-3030 Installation Manual | 51330 |
| AM2020/AFP1010 | AM2020/AFP1010 Installation Manual | 15088 |
| INA | Intelligent Network Annunciator Manual | 15092 |
| NCA | Network Control Annunciator | 51482 |
| All | Notifier Device Compatibility Document | 15378 |

**NOTE: When used in this manual, NFS-3030 refers to both the NFS-3030 and the NFS-3030E.**

# Description

The Universal Digital Alarm Communicator/Transmitter (UDACT) may be used with a variety of Notifier control panels. The UDACT transmits system status to UL Listed Central Station Receivers via the public switched telephone network. The UDACT, which is compact in size, mounts internally in some panels or externally in a separate enclosure. EIA-485 annunciator communications bus and 24 volt (nominal) connections are required.

# Features

- Dual telephone lines
- Dual telephone line voltage detect
- Compact in size: 6.75" x 4.25"
- Built-in programmer
- Built-in four character red 7-segment LED display
- Manual test report function
- Manual master transmission clear function
- Mounts in separate ABS-8R or UBS-1 enclosure
- Communicates vital system status including:

  Independent zone/point alarm, trouble and supervisory
  AC (main) power loss (programmable report delay)
  Low battery and earth fault
  System off normal
  12 or 24 hour test signal
  Abnormal test signal per UL requirements
  Annunciation of UDACT troubles including: loss of phone lines, communication failure with either Central Station, total communication failure

- Troubleshoot mode converts keypad to DTMF touchpad
- Individual LEDs for:

  Power
  EIA-485 loss
  Manual Test
  Kissoff
  Comm Fail
  Primary Line Seize
  Secondary Line Seize

- Open collector relay driver for Total Communication Failure or UDACT trouble.
- Real Time Clock
- Simple EIA-485 interface to host panel
- Maximum of 14 point trouble messages transmitted per hour.

# Controls and Indicators

The following membrane type switches are provided on the front panel of the UDACT:

| | | |
|---|---|---|
| CLEAR | TEST | MODE |
| Up Arrow | Down Arrow | Digits 0 - 9 |
| 1st EVENT | ENTER/STORE | Letters A -F |

Displays are as shown below:
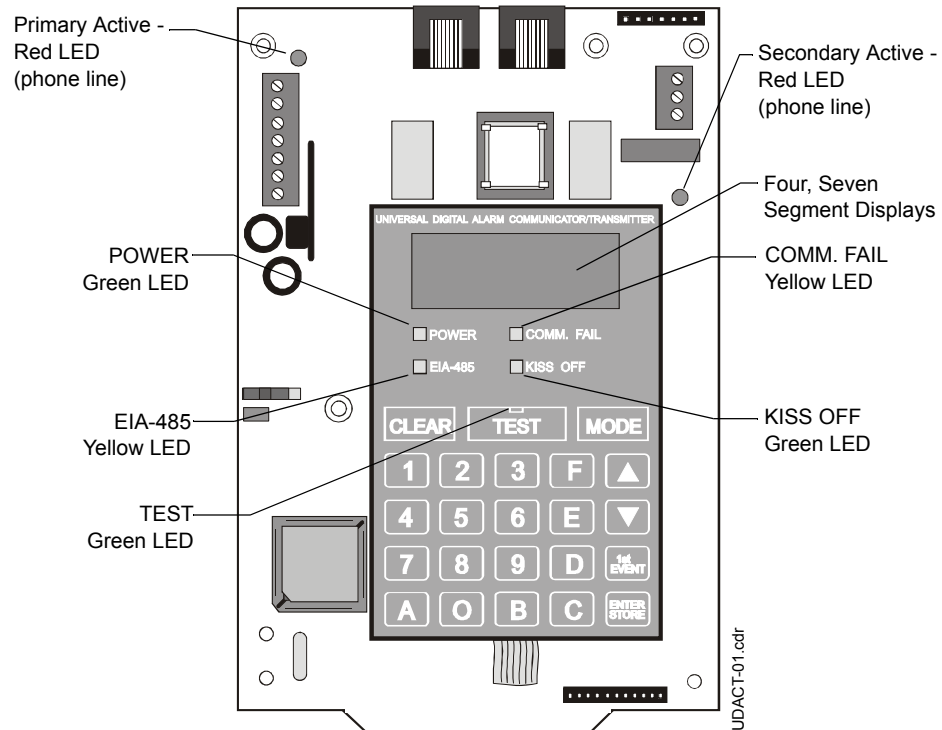


**Figure 1  Controls and Indicators**

# Compatible Panels

The UDACT has been designed to be compatible with the following "Notifier" Fire Alarm Control Panels. FACP firmware with the listed part numbers or higher (those part numbers beginning with a # are higher than those without) must be installed to allow use of the UDACT with the corresponding panel.

| Fire Alarm Control Panel | FACP Firmware Part Number | Fire Alarm Control Panel | FACP Firmware Part Number |
|---|---|---|---|
| System 500 | 73611 | AFP-100 | #AFP100V10 |
| System 5000 | 73610 | AFP-200 | 73609 |
| AM2020/AFP1010 | 6.6 Standalone M2.7 Network | AFP-300/AFP-400 | #AFP4R20 |
| | | NFS-640 | #NFS6R1.00 |
| INA | M2.8 Network | AFC-600 | #AFC6R10 |
| NCA | #NCAV1.0 | NFS-3030 | #3030V1.00 |

**Table 1  Compatible FACP & Firmware**

# Digital Communicator

Two modular phone jacks allow easy connection to telephone lines. Modular jacks are labeled PH1 and PH2 for the Primary and Secondary phone lines. Telephone line 'Primary and Secondary Active' red LEDs are provided as well as a green 'Kissoff' LED. The integral digital communicator provides the following functions:

- Line Seizure - takes control of the phone lines disconnecting any premises phones.
- Off/On Hook - perform on and off-hook status to the phone lines.
- Listen for dial tone - 440 hertz tone typical in most networks.
- Dialing the Central Station(s) number - default is Touch-Tone®, programmable to rotary.
- For tone burst or touchtone type formats: Discern proper 'Ack' and 'Kiss-off' tone(s) - The frequency and time duration of the tone(s) varies with the transmission format. The UDACT will adjust accordingly.
- Communicate in the following formats (refer to "Compatible Receivers" on page 65 for compatible receivers):

  6 Tone Burst Types: 20 pps (3+1, 4+1, 4+2)
  3 Touchtone Types: 4 + 1 Ademco Express, 4 + 2 Ademco Express and Ademco Contact ID

The UDACT circuit board contains a CPU, other primary components and wiring interface connectors.

# Circuits

## Communications

Communications between the UDACT and the host control panel is accomplished over a two wire EIA-485 serial interface which is power-limited and supervised by the control panel and the UDACT. The wiring connections are made to the RS +, RS – and Shield terminals of TB1 on the UDACT.

The EIA-485 circuit cannot be T-Tapped and must be wired in a continuous fashion from the control panel to the UDACT and, if installed, annunciators. The wire must be 12AWG to 18AWG twisted pair, shielded cable with a Characteristic Impedance of 120 Ohms, +/– 20%. Limit the total wire resistance to 100 Ohms on the EIA-485 circuit. Do not run cable adjacent to, or in the same conduit as 120 volts AC service, noisy electrical circuits that are powering mechanical bells or horns, audio circuits above 25 volts RMS, motor control circuits, or SCR power circuits.

## Primary and Secondary Phone Lines

Modular jacks are used to interface the primary and secondary phone lines to the public telephone network.

## Communicator Fail Relay Driver

Relay driver output for Central Station communication failure is available.

## Earth Ground

An earth ground connection to the UDACT is required for transient protection. One option allows connection via Earth Gnd terminal on TB3 using solid 12 AWG (3.25mm$^2$) wire to provide lightning protection (this connection is not required when the UDACT is mounted in a grounded metal enclosure via the upper right mounting hole).

A second option allows connection via the upper right corner mounting hole using a metal standoff and screws, attach to grounded metal cabinet.

# Specifications

## DC Power

24VDC (nominal) filtered, non-resettable and power-limited.  Voltage range is 21.2 to 28.2 volts.  DC Power at terminal block TB1 (+, –) is 40 mA in standby, 75 mA maximum while communicating and 100 mA with the open collector output engaged and communicating.

## Data Communications

EIA-485 Serial Interface, terminal block  TB1 (RS+, RS–, Shield, RS+, RS–). Power-limited source must be used. The terminals marked "TERM RS+, RS–" are for future use.

## Auxiliary Output

TB3 Communicator Failure. An Open Collector type output, normally high, active low which sinks up to 40 mA.  TB3 (+24V) = 21.2 to 28.2 volts, power-limited.  Use UL listed relay P/N: MR-101/C or MR-201/C with this output.

# Telephone Requirements and Warnings

**Note:**    **The FCC ID label is located on the inside of the door of the host panel**

**or**

**The FCC ID label is located on the inside cover of the remote backbox.**

## Telephone Circuitry

Ringer Equivalence Number (REN) = 0.6B
AC Impedance 10.0 Mega Ohm
Complies with FCC Part 68
Mates with RJ31X Male Connector
Supervision Threshold: less than 4.0 volts for 2 minutes

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the REN should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total REN, contact the telephone company to determine the maximum REN for the calling area.

## Digital Communicator

Before connecting the UDACT to the public switched telephone network, the installation of two RJ31X jacks is necessary. The following information is provided if required by the local telephone company:

| | |
|---|---|
| **Manufacturer:** | Notifier<br>12 Clintonville Road<br>Northford, CT 06472 |
| **Product Model Number:** | UDACT |
| **FCC Registration Number:** | 1W6USA-20723-AL-E |
| **Ringer Equivalence:** | 0.6B |

## Telephone Company Rights and Warnings

*The telephone company under certain circumstances may temporarily discontinue services and/or make changes in its facilities, services, equipment or procedures which may affect the operation of this control panel. However, the telephone company is required to give advance notice of such changes or interruptions.*
*If the control panel causes harm to the telephone network, the telephone company reserves the right to temporarily discontinue service. Advance notification will be provided except in cases when advance notice is not practical. In such cases, notification will be provided as soon as possible. The opportunity will be given to correct any problems and to file a complaint.*

DO NOT CONNECT THIS PRODUCT TO COIN TELEPHONE, GROUND START, OR PARTY LINE SERVICES.

*When the control panel activates, premise phones will be disconnected.*
*Two separate phone lines are required. Do not connect both telephone interfaces to the same telephone line.*
*The control panel must be connected to the public switched telephone network upstream of any private telephone system at the protected premises.*
*An FCC compliant telephone cord must be used with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible RJ31X male modular plug which is Part 68 compliant.*

## For Canadian Applications

The following is excerpted from CP-01 Issue 5:

"NOTICE: The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100."

Industry Canada (IC) Compliance - "This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications."

IC Registration Number: 2132 6030 A          Load Number: 3

# Modes and Special Functions

MODE

6 6 7 6

ENTER STORE
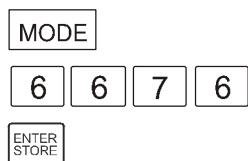
## Normal Mode

Normal Mode is the standard mode of operation. In this mode, the UDACT monitors host FACP status as well as monitoring telephone line voltage. The UDACT reports system status information to UL listed Central Stations. Information transmitted includes general alarm, trouble and supervisory. It also transmits either the number of zones or points activated or the specific point(s) activated, depending upon the compatible panel, programming selections and transmission format selection. Specific system trouble conditions and specific UDACT troubles are also transmitted.

MODE

7 7 6 4

ENTER STORE
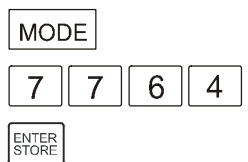
## Program Mode

Program Mode is used to program the UDACT. While the UDACT is in the program mode, it cannot receive host FACP status information. Refer to "Programming Instructions" on page 29 for complete information.

MODE

8 9 7 3

ENTER STORE
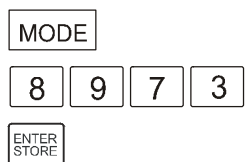
## Type Mode

Type Mode is used to define the specific type of device (point) used or function of a zone. Type Mode is also used to disable the alarm report for any zone/point in the system.

**Note:** AM2020/AFP1010, NFS-3030, INA, AFC-600, NFS-640, and NCA applications restrict Type Mode programming to a maximum of 568 points. All remaining points above 568 will report as fire alarm points only.

MODE

8 7 6 8

ENTER STORE
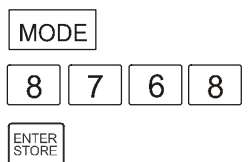
## Troubleshoot Mode

Troubleshoot Mode may be used for testing the telephone line wiring. Connection from the UDACT's modular jacks, through RJ31X jacks and into the telephone network may be easily checked. In this mode, the keypad acts similar to a telephone touchpad.

MODE

5 2 6 7

ENTER STORE
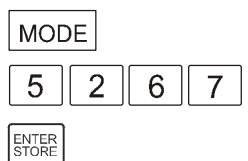
## Lamp Test Mode

Lamp Test mode turns on all segments of the 4 character display plus all LEDs on the UDACT, except primary and secondary LEDs.

| CLEAR |
| 2 | 5 | 3 | 2 |
| ENTER STORE |
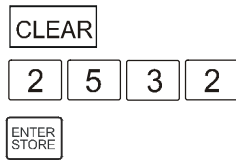
# Clear Function

When the clear function is activated, it causes the UDACT to immediately stop transmissions, hang-up from the telephone network and clear out any messages that were waiting for transmission and reset.
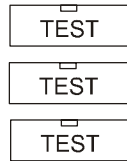
| TEST |
| TEST |
| TEST |

# Manual Test Function

The manual test function allows for a test report message to be sent to both Central Stations upon activation.

# Notes

# Installation and Wiring

## Installation

### Options

The UDACT is either installed internally in the FACP cabinet or in a remote cabinet. The following table contains information specific to each FACP that is compatible with the UDACT. See "Internal Installation" on page 20 for instructions on internal installation and "Remote Installation" on page 22 for instructions on remote installation. Any additional information required for installing the UDACT in a specific Fire Alarm Control Panel will be found in the appropriate appendix relating to that panel.

| Fire Alarm Control Panel | Cabinet Style | Where Installed |
|---|---|---|
| AFP-100 | SBB-1 | Internal or Remote |
| AFP-200 | CAB-200AA | Remote Only |
| AFP-300/AFP-400 | CAB-400AA | Remote Only |
|  | CAB-3/4 Series | Internal or Remote |
| AFC-600 | CAB-600AA | Remote Only |
|  | CAB-3/4 Series | Internal or Remote |
| System 500 | CAB-500 | Remote Only |
| System 5000 | CAB-3/4 Series | Internal or Remote |
| AM2020/AFP1010 | CAB-3/4 Series | Internal or Remote |
| INA | CAB-3/4 Series | Internal or Remote |
| NCA | CAB-3/4 Series | Internal or Remote |
| NFS-640 | CAB-3/4 Series | Internal or Remote |
| NFS-3030 | CAB-3/4 Series | Internal or Remote |

**Table 2  Installation Options**

# Internal Installation

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before installation or making any connections to prevent personal and/or circuit damage.

### CHS-4/CHS-4MB Chassis Mounting

The UDACT is installed on a CHS-4/CHS-4MB Chassis within the control panel backbox as described and shown below:

| Step | Action |
|------|--------|
| 1 | Disconnect AC power and disconnect batteries. |
| 2 | Snap three (3) nylon support posts in the three (3) mounting holes of the UDACT as shown below. |
| 3 | Install one aluminum/nylon standoff and one aluminum standoff onto the studs of the chassis slot in which the UDACT is to be installed. Tighten securely. |
| 4 | Position the UDACT on the standoffs, snap into place and secure at aluminum standoff with a #6-32 screw. Tighten securely. |
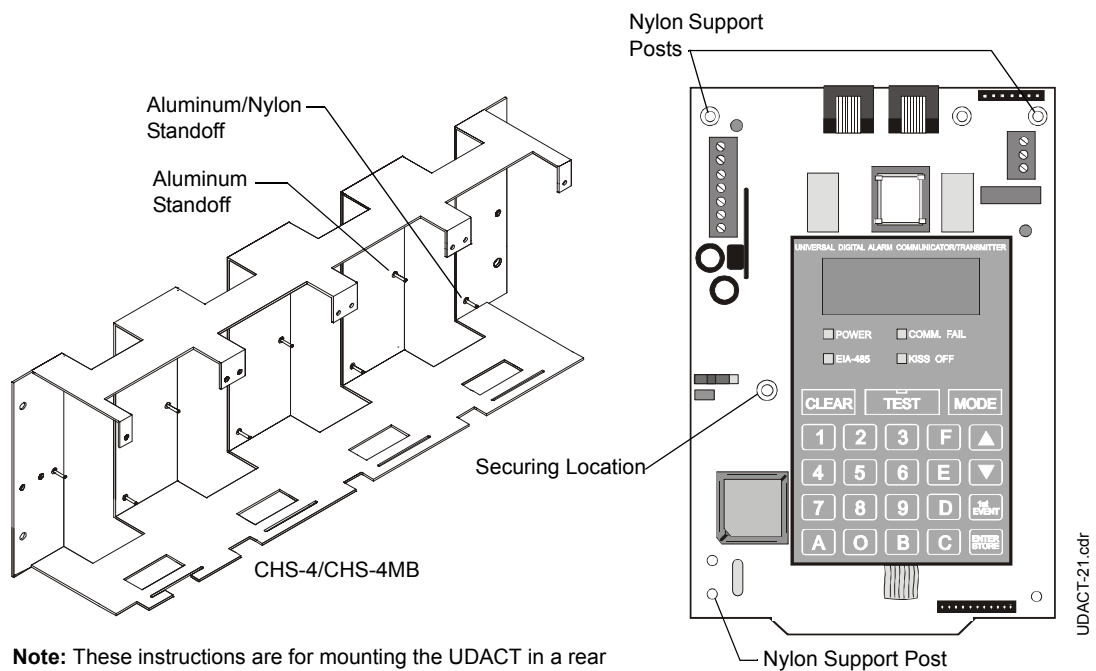


**Note:** These instructions are for mounting the UDACT in a rear position of the CHS-4/CHS-4MB. The board must then be grounded using a grounding wire connected from the TB3 EARTH terminal to the nearest standoff connecting the chassis to the cabinet. Do not mount the UDACT in a front position of the CHS-4.

**Figure 2  CHS-4/CHS-4MB Installation**

**CHS-M2 Chassis Mounting**

The UDACT is installed on a CHS-M2 Chassis within the control panel backbox as described and shown below:

| Step | Action |
|------|--------|
| 1 | Disconnect AC power and disconnect batteries. |
| 2 | Insert the tab at the bottom of the board into the chassis slot as indicated. |
| 3 | Position the UDACT on the standoffs and fasten with #4 screws. |
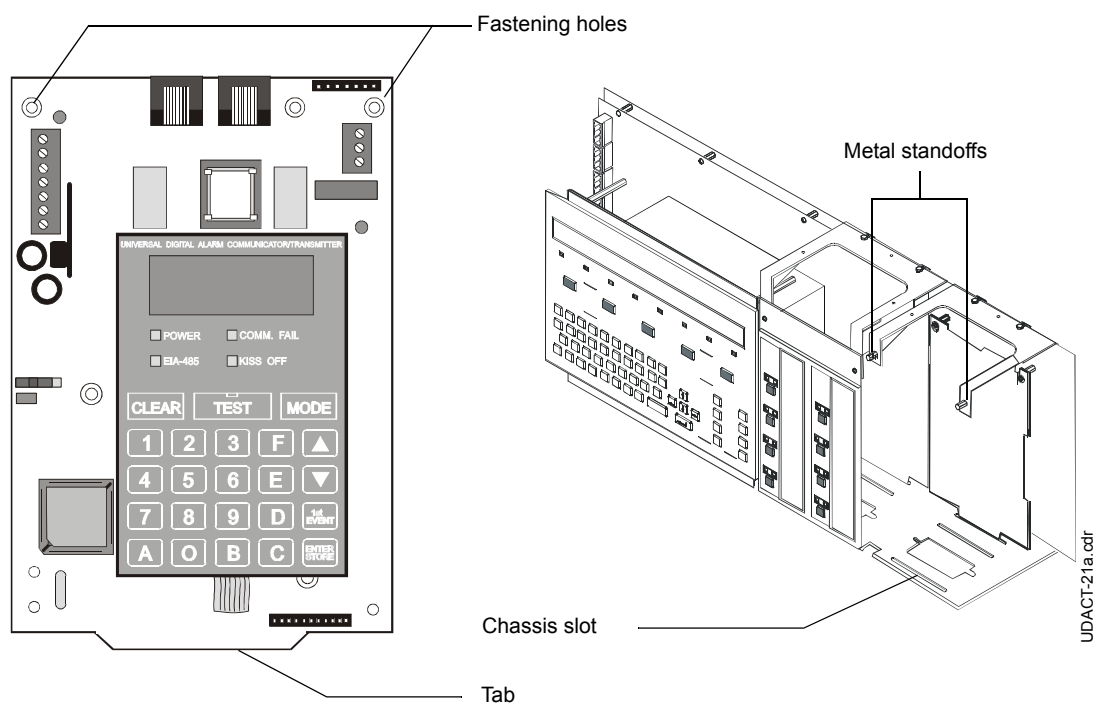


**Figure 3  CHS-M2 Installation**

## Remote Installation

For remote installation the UDACT uses either an ABS-8R/RB or UBS-1 enclosure. The unit must be placed within 6000 feet (1828.8 meters) of the Fire Alarm Control Panel.

Installation for either enclosure is detailed below:

| Step | Action |
|------|--------|
| 1 | Align the UDACT to the four (4) threaded standoffs at the back of the ABS-8R/RB or UBS-1 enclosure. |
| 2 | Secure using the four (4) screws supplied with the enclosure. Tighten securely. |
| 3 | After completion of connections and programming, secure cover to ABS-8R/RB box with two (2) screws. Tighten securely. |
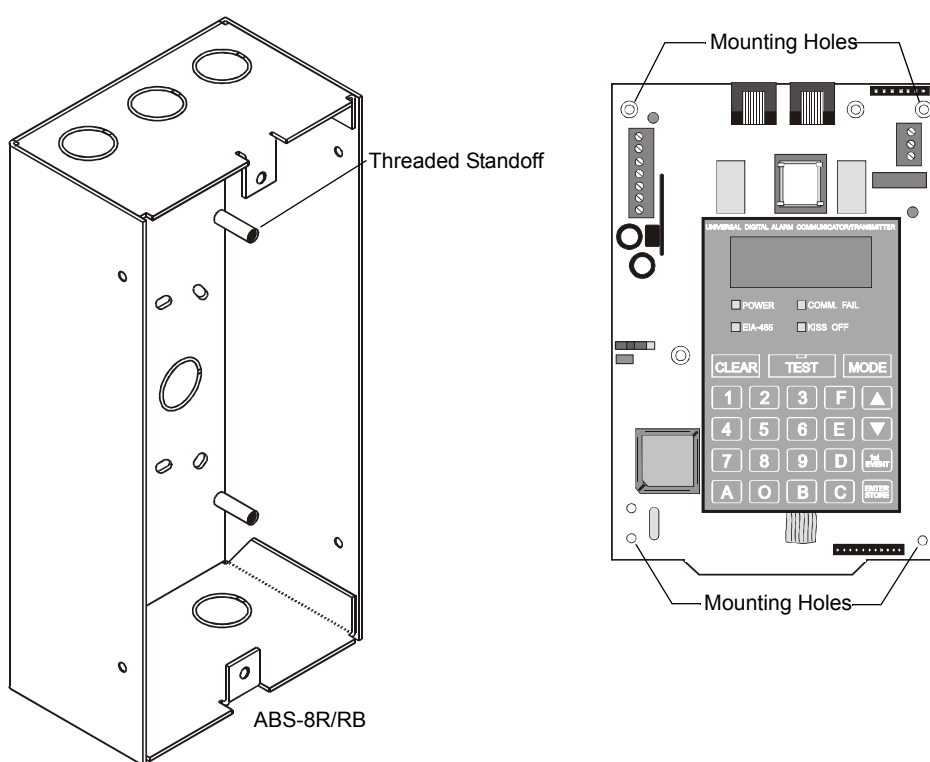
**Figure 4  ABS-8R/RB Installation**

# Power Connection - 24 VDC

24 VDC filtered, non-resettable power is connected between the Main Power Supply of the FACP and the UDACT using twisted pair wire.

*For complete information on wiring the UDACT to a specific FACP see the appropriate appendix.*
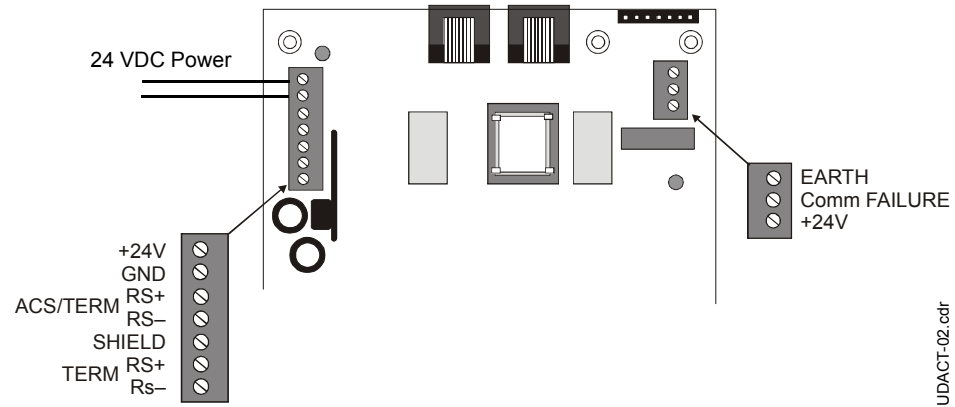


**Figure 5  Power Connection**

# Communication Connection

The EIA-485 Serial Interface is connected between the Fire Alarm Control Panel and the UDACT using twisted pair, shielded cable. Recommended wire size is 12 AWG (3.25mm$^2$) to 18 AWG (0.75mm$^2$).

For complete information on wiring the UDACT to a specific FACP see the appropriate appendix.
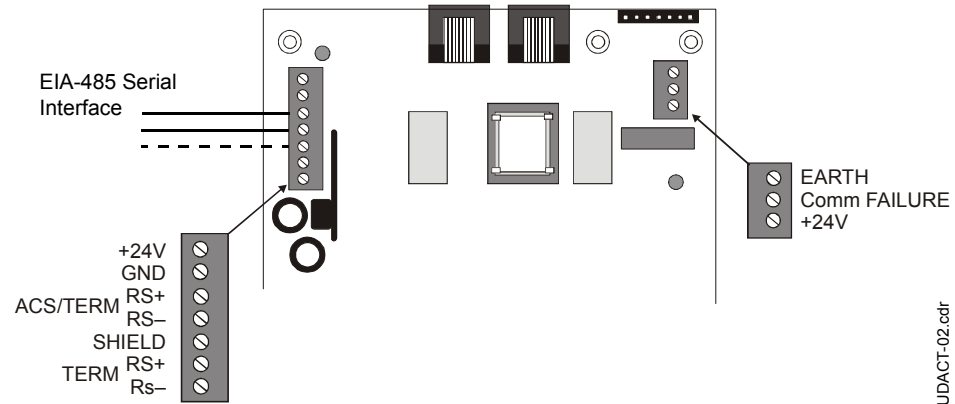


**Figure 6  Communication Connection**

# Telephone Connections

Provision to connect to two independent telephone lines is available via two telephone jacks labeled PH1 (Primary) and PH2 (Secondary). Telephone line control/command is possible via double line seizure as well as usage of an RJ31X style interconnection.  (RJ31X jacks must be ordered separately).

**Note:** It is critical that the UDACT be located as the first device on the incoming telephone circuit to properly function.
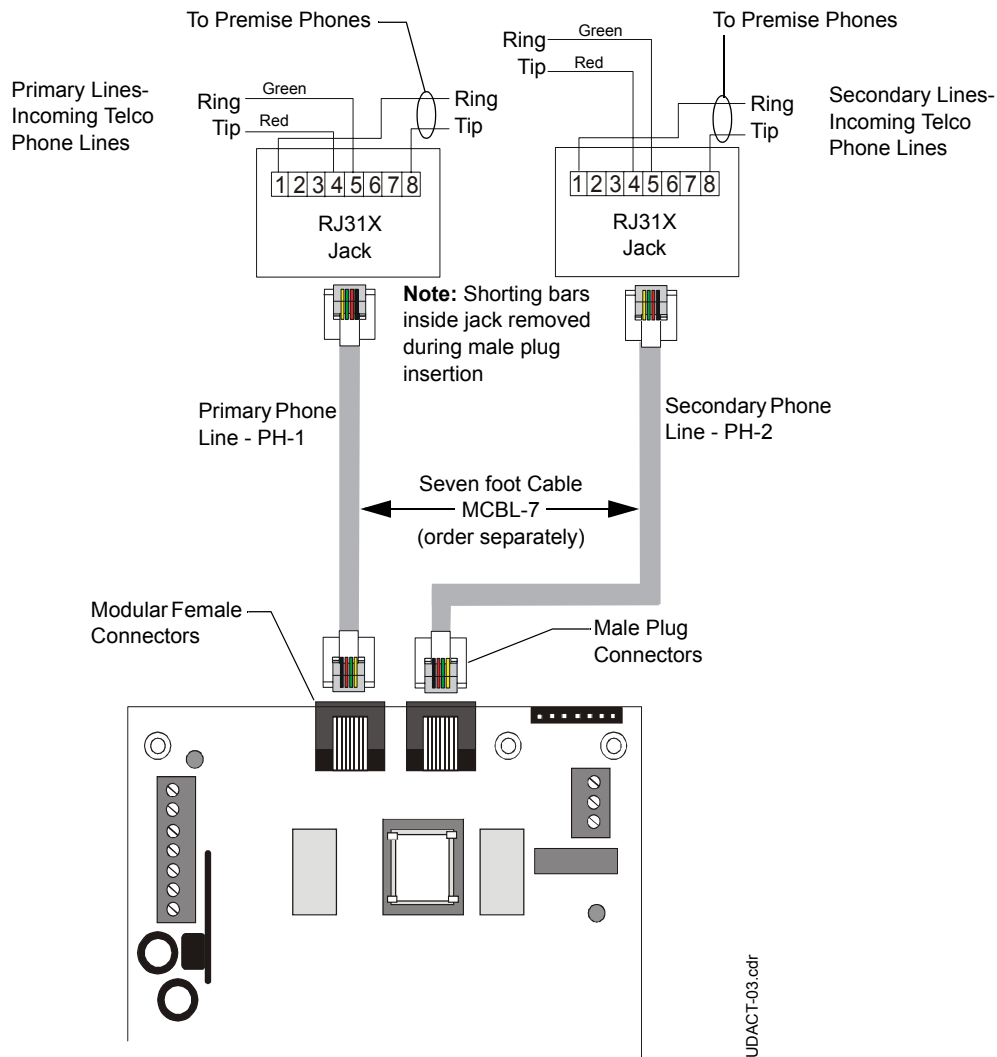
**Figure 7  Wiring Phone Jacks**

# Relay Driver (Auxiliary Output) Connections

The UDACT's open collector output on TB3 (Comm Fail), is provided for Communicator Failure and UDACT trouble.  It can be used to drive UL listed relay MR-101/C or MR-201/C. The output is rated for 40 mA. The normal condition for the output is Off (de-energized).

Communicator Failure occurs when the maximum number of attempts to reach both central stations has taken place or when both phone lines are disconnected. UDACT trouble conditions include loss of telephone line voltage to the primary and/or secondary phone lines, communication failure to the primary or secondary Central Stations, total communication failure, entry into program, type and troubleshoot modes.

Wiring from the UDACT terminal TB3 to the relay must be in the same room, no more than 20 feet in length, and enclosed in conduit. Wiring from the relay output contacts must remain in the same room as the UDACT.

When the UDACT is programmed for 'Receive Only' (typically this occurs when annunciators are also used and are set for 'Receive/Transmit'), the relay output is used to provide a UDACT trouble input to the host control panel. For AFP-100, AFP-200, AFP-300, AFP-400, AFC-600, NFS-640, NFS-3030, and AM2020/AFP1010 applications, use an FMM-1 module to supervise the relay closure (refer to Figure 9 on page 26). Program the custom label field to read 'UDACT Trouble'. For System 500 or System 5000 applications, wire the relay output to the annunciator trouble input circuit or use the relay to trigger zone trouble.

When the UDACT is programmed for 'Receive/Transmit', EIA-485 supervision and UDACT trouble status are automatically handled by the host control panel. The relay output may, however, be used for UDACT communications failure if desired.
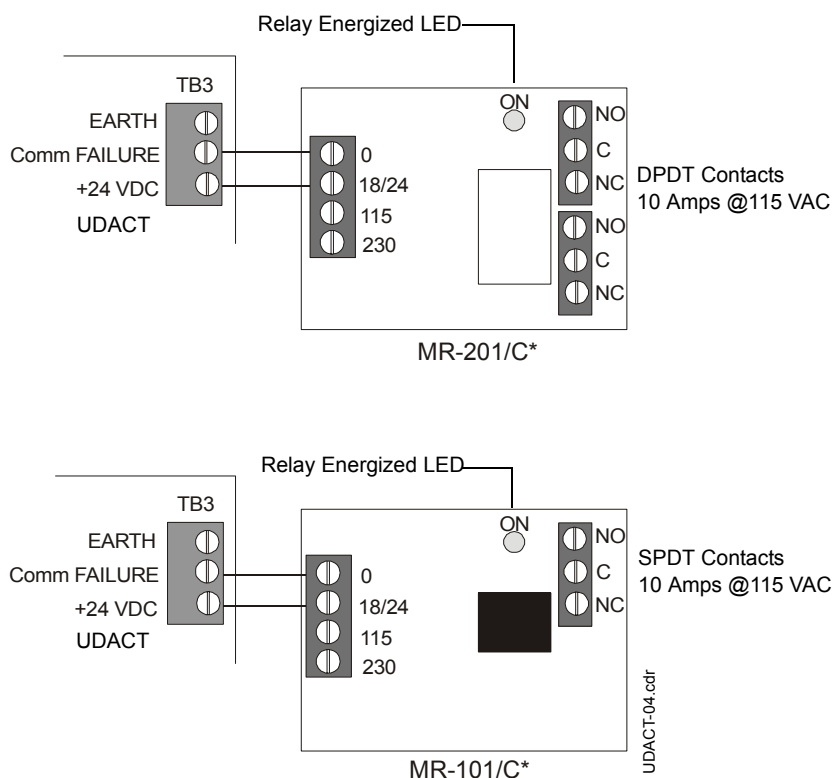


**Figure 8  Relay Driver Connections**

Continuation of SLC

SLC from FACP

FMM-1

47K EOL Resistor (included)

TB3

EARTH
Comm FAILURE
+24 VDC

UDACT

ON
NO
C
NC

0
18/24
115
230

MR-101/C*
(MR-201/C may be used)

UDACT-05.cdr
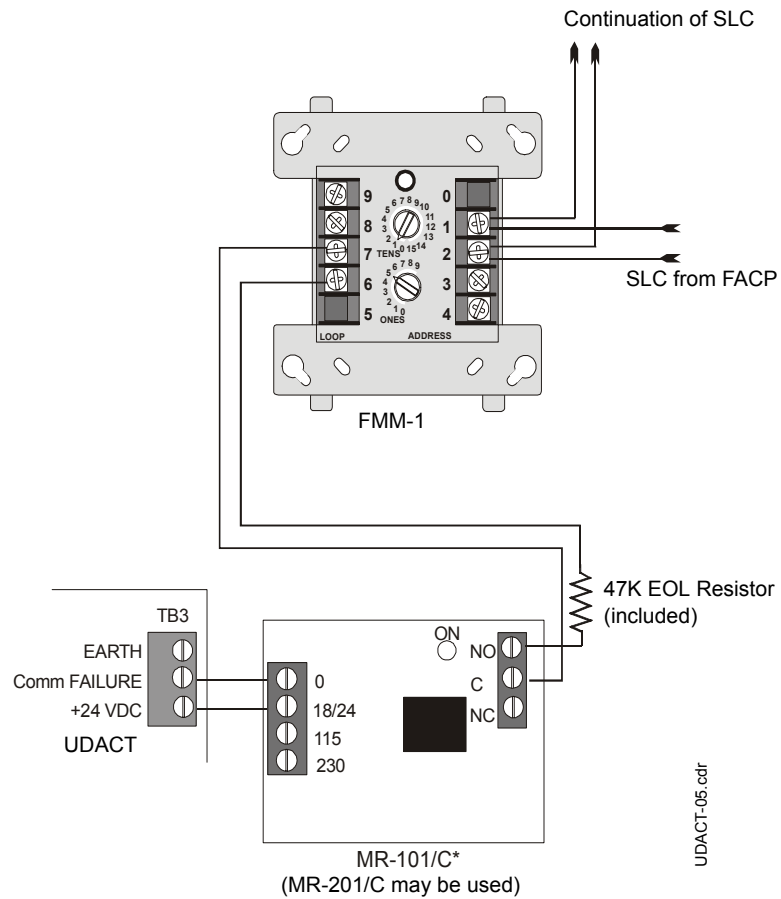
**Note:** FMM-1 Monitor Module is used to supervise Normally Closed output of MR-101/C. On UDACT trouble and Comm Fail, MR-101/C relay contact will open causing FMM-1 to transmit trouble condition to FACP.

**Figure 9  Monitoring for UDACT Trouble**

# UL Power-limited Wiring Requirements

Power-limited and nonpower-limited circuit wiring must remain separated in the cabinet. All power-limited circuit wiring must remain at least 0.25" away from any nonpower-limited circuit wiring. Furthermore, all power-limited circuit wiring and nonpower-limited circuit wiring must enter and exit the cabinet through different knockouts and/or conduits.
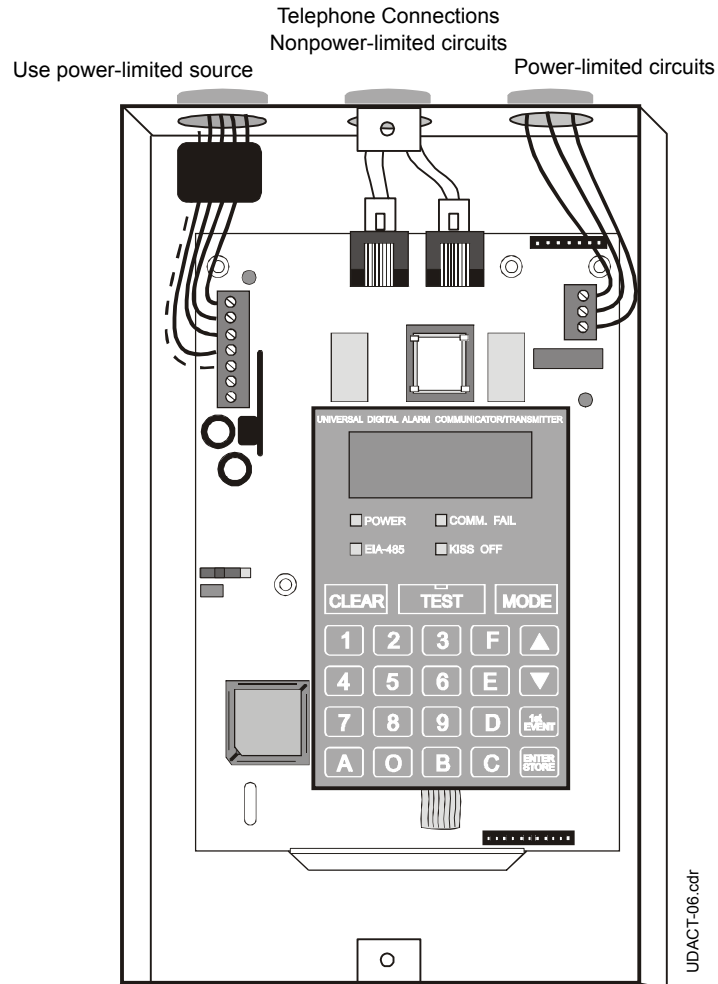


**Figure 10  Typical Wiring for UL Power-limited Requirements**

# Programming Instructions

## General

Programming of the UDACT is possible at any time including while it is communicating with a Central Station.

**Note:** During communication, addresses 16 and 42 are not programmable.

The UDACT has been designed for many different types of applications. After examining your specific application, review the programming options and choose the entries best suited for your system.

The UDACT has a built-in programmer. All programming selections are stored in nonvolatile Electrically-Erasable Programmable Read-Only Memory (EEPROM). This ensures that the UDACT will retain all entries made in programming mode even if both AC and battery power are removed.

The user **must** program the primary and secondary phone numbers, account numbers and 24 hour test report times for each Central Station account and the current time. Some UDACT options/features come pre-programmed. However, the user may change all factory defaults. If all settings are acceptable, programming is complete.

## Entering Programming Mode

☛ To enter the Program Mode, press the MODE key, then **7764**, then ENTER/STORE. 7764 spells PROG on a Touch-Tone® phone.

If an incorrect key is entered, re-enter the proper 4-digit code **before** pressing the ENTER/STORE key. As you enter information into the UDACT, the digits will scroll across the display from right to left. You are allowed a pause of up to 10 seconds in between each number while entering the code. After pressing the ENTER/STORE key, the UDACT will be in Program Mode and display 00_F. You are allowed up to ten minutes of idle time at this point before starting your programming, otherwise the UDACT will go back to Normal Mode. You also have a maximum of 10 minutes between any key stroke. All entries made prior to the 10 minute time-out are valid and stored provided the enter key is hit after each entry.

Once in Programming Mode, the UDACT will:

- Ignore the Test and Clear keys.
- Continue to communicate any events not previously acknowledged at the Central Station prior to entering Programming Mode.

**Note:** Address 56 is factory set to = 0, *UDACT communications disabled.* This setting keeps the communicator off until address 56 is changed to 1, 2, 3 or 4. Once address 56 is changed from 0 and a valid phone number is entered, transmission of the "UDACT Off Normal" report will occur.
*Refer to page 34 for information on program selection for address 56.*

Throughout programming mode, the first three locations on the left of the display represent the memory address which can range from 00 to 208 (Alpha characters are not used). The last location (farthest right) represents the contents of the memory address. The first address displayed is shown below:

00_F

(address)(data)

# Switch Functions

The Function of each switch in program mode is shown below:



No function in this mode —

Address entry keys are 0 to 9

Data entry keys are 0 to 9 and A to F

Select operating mode

Increment memory address

Decrement memory address

Once = First memory address
Twice = type any address

Save data, go to next address
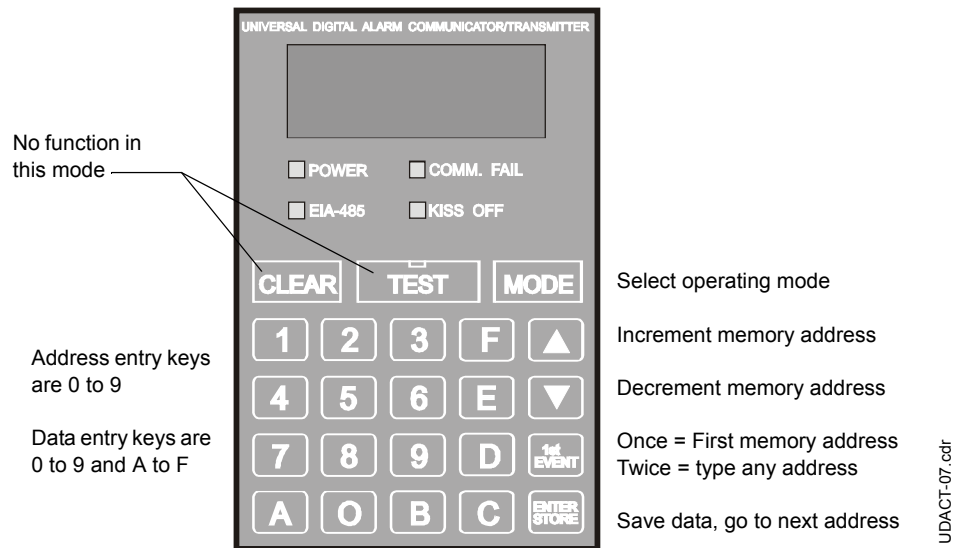
**Figure 11  UDACT Keypad**

# Programming Options

## Primary Phone Number (00-15)

The first sixteen addresses, 00-15, are factory set to 'F' (from 00_F  to  15_F). Programming is typically done as follows:
If your phone number is 484-7161,  type **4**, the display will read 00_4, press ENTER/STORE to save the entry to memory and increment to the next address 01_F.

Enter the remaining numbers in their respective addresses as shown below:

| 4 | 8 | 4 | 7 | 1 | 6 | 1 | F | F | F | F | F | F | F | F | F |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |

Valid entries for both the primary and secondary phone numbers are 0 - F with the numeric digits as dialed numbers and hexadecimal digits (A-F) representing the following functions:

A= * on a Touchtone phone keypad

B= # on a Touchtone phone keypad

C= look for secondary dial tone for up to 2 seconds (then, dial anyway)

D= 3-second pause

E= 5-second pause

F= end of phone number (Note: F must be entered)

## Primary Number Communication Format (16)

One location is needed to select the Communication Format to the primary phone number. Address 16 is used for this purpose. The default (factory setting) for this address is Contact ID, which is 4+2 Standard, 1800 Hz 'Carrier', 2300 Hz 'ack'. You may enter 0, 1, 2, 4, 6, 8, C or E in place of the default, then press ENTER/STORE. When selecting the format, note that Ademco Contact ID is the only format in the UDACT which identifies the specific zone or point status to the Central Station. All other formats report the number of zones or points that are active but do not identify the specific zone or point.   Choose from the list of formats below:

| | |
|---|---|
| 0: | 4+1 Ademco Express Standard, DTMF, 1400/2300 ACK |
| 1: | 4+2 Ademco Express Standard, DTMF, 1400/2300 ACK |
| 2: | 3+1 Standard 1800 Hz Carrier, 2300 Hz ACK |
| 3: | Not Used |
| 4: | 3+1 Standard 1900 Hz Carrier, 1400 Hz ACK |
| 5: | Not Used |
| 6; | 4+1 Standard 1800 Hz Carrier, 2300 Hz ACK |
| 7: | Not Used |
| 8: | 4+1 Standard 1900 Hz Carrier, 1400 Hz ACK |
| 9: | Not Used |
| A: | 4+2 Standard 1800 Hz Carrier, 2300 Hz ACK |
| B: | Not Used |
| C: | 4+2 Standard 1900 Hz Carrier, 1400 Hz ACK |
| D: | Not Used |
| E: | Ademco Contact ID (default) |
| F: | Not Used |

**Note:** Consult your Central Station for proper selection or consult our factory representatives. For any format chosen, the UDACT automatically programs all of the event codes. See Table 4 through Table 9.

⚠ **CAUTION:** Default entries for event codes are always programmed into memory when ENTER/STORE is pressed at this location! This can be avoided by using the up or down arrows to navigate through programming locations.

## Primary Number Account Code (17-20)

Four locations at addresses 17-20 default to all '0's. Valid entries are (0-9 and A-F). The number of digits entered must match the format selection. If programming '2 or 4' into address 16, enter 3 digits (location 20 is ignored). If programming '0, 1, 6, 8, A, C, or E' into address 16, enter 4 digits.

## Primary Number 24 Hour Test Time (21-24)

Use military time when entering the 24 hour Test Time. The 24 hour test report to phone number 1 takes up four locations, from addresses 21-24. The default is 00:00 (12:00 midnight). The limits for each location are as follows;  21: enter 0, 1 or 2;  22: enter 0-9; 23: enter 0-5; 24: enter 0-9.

**Note:** Do not use A-F.

## Primary Number 24/12 Hour Test Time Interval (25)

The test report sent to the primary phone number may be sent every 12 or 24 hours. If the message is to be sent every 24 hours, leave the factory default entry of zero. If 12 hour test report time is needed, enter 1.

## Secondary Phone Number (26-41)

Programming is similar to programming the primary phone number located at addresses 00 - 15. The defaults are also all 'F's.:

| F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |

## Secondary Number Communication Format (42)

Programming is the same as the primary number's Communication Format at address 16. Default entry is 'E', Contact ID. When selecting the format, note that Ademco Contact ID is the only format in the UDACT which identifies the specific zone or point status to the Central Station. All other formats report the number of zones or points that are active but do not identify the specific zone or point. Choose one entry from the list below:

| | |
|---|---|
| 0: | 4+1 Ademco Express Standard, DTMF, 1400/2300 ACK |
| 1: | 4+2 Ademco Express Standard, DTMF, 1400/2300 ACK |
| 2: | 3+1 Standard 1800 Hz Carrier, 2300 Hz ACK |
| 3: | Not Used |
| 4: | 3+1 Standard 1900 Hz Carrier, 1400 Hz ACK |
| 5: | Not Used |
| 6; | 4+1 Standard 1800 Hz Carrier, 2300 Hz ACK |
| 7: | Not Used |
| 8: | 4+1 Standard 1900 Hz Carrier, 1400 Hz ACK |
| 9: | Not Used |
| A: | 4+2 Standard 1800 Hz Carrier, 2300 Hz ACK |
| B: | Not Used |
| C: | 4+2 Standard 1900 Hz Carrier, 1400 Hz ACK |
| D: | Not Used |
| E: | Ademco Contact ID (default) |
| F: | Not Used |

⚠️ **CAUTION:** Default entries for event codes are always programmed into memory when ENTER/STORE is pressed at this location! This can be avoided by using the up or down arrows to navigate through programming locations.

## Secondary Number Account Code (43-46)

This code is programmed in addresses 43 - 46 in the same manner as the primary phone number Account Code. Default entries are all '0s'.

# Secondary Number  24-Hour Test Time (47-50)

This number is programmed in addresses 47-50 in the same manner as the primary number 24-Hour Test Time. Default is 00:00 (12:00 midnight).

# Secondary Number 24/12 Hour Test Time (51)

The test report sent to the Secondary phone number may be sent every 12 or 24 hours. If the report is to be sent every 24 hours, leave the factory default entry of zero. If a 12 hour test report time is needed, enter 1.

# Start Monitoring Address (52-53)

This address is programmed to indicate the first group of zones or points to be monitored and reported to the Central Station. See the table below.

# End Monitoring Address (54-55)

This address is programmed to indicate the last group of zones or points to be monitored and reported to the Central Station. See the table below.

*Use the Start and End Monitoring Address programming locations to set the reporting range of the UDACT.*

| ZONE REPORTING | | | | |
|---|---|---|---|---|
| | **START** (Factory Default) | **Valid Entries** | **END** (Factory Default) | **Valid Entries** |
| AFP-100 | 01[2] | 01 | 01[2] | 01 |
| AFP-200 | 01[1] | 01 | 02[1] | 01, 02 |
| AFP-300/AFP-400 | 11[1] | 11 - 19 | 12[1] | 11 - 19 |
| AFC-600, NFS-640 | 20[1] | 20 - 32 | 32[1] | 20 - 32 |
| System 500 | 01[2] | 01 | 01[2] | 01 |
| System 5000 | 01[3] | 01 - 04 | 02[3] | 01 - 04 |
| System 5000 with AIM-200 | 01[4] | 01 - 04 | 04[4] | 01 - 04 |
| NFS-3030 | 01[5] | 01 - 32 | User Defined | 01 - 32 |
| Note 1. Reports status of up to 99 zones<br>Note 2. Reports status of up to 56 zones<br>Note 3. Reports status of up to 120 zones<br>Note 4. Reports status of up to 248 zones<br>Note 5. Reports status of up to 1000 zones. | | | | |
| **POINT REPORTING** | | | | |
| AFP-100 | 01[6] | 01 | 04[6] | 04 |
| AFP-300/AFP-400 | 11[7] | 11 - 19 | 19[7] | 11 - 19 |
| AFC-600, NFS-640 | 20[8] | 20 - 32 | 32[8] | 20 - 32 |
| AM2020/AFP1010/INA, NCA, NFS-3030 | 01[9] | 01 - 32 | User Defined | 01 - 32 |
| Note 6. Reports status of up to 198 points<br>Note 7. Reports status of up to 448 points<br>Note 8. Reports status of up to 700 points<br>Note 9. Reports status of up to 2040 points | | | | |

**Table 3  Start and End Monitoring Addresses**

**Note:** For additional information on the starting and ending addresses, refer to the host FACP Manual.

## UDACT Communication Selection (56)

Leaving address 56 at '0' disables communications to the Central Station(s). Enter '1' for zone reporting, receive only, '2' for zone reporting, receive/transmit, '3' for point reporting, receive only, or '4' for point reporting, receive/transmit. See "Type Mode" on page 55 for additional information on detailed reporting.

**Note:** Use receive only selection when using remote annunciators. Be certain to set one of the annunciators for receive/transmit for EIA-485 communications bus supervision. Use the receive/transmit entry when annunciators are not installed or when the UDACT receive/transmit function is to be used to supervise the EIA-485 communication bus. For more information on the receive/transmit function, refer to annunciator manuals.

## Backup Reporting (57)

Leaving address 57 at '0' means that reports will be transmitted to the secondary phone number only if attempts to communicate to the primary phone number are unsuccessful. Programming a '1' causes all reports to be transmitted to the secondary phone number.

## Touchtone/Rotary Select (58)

A '0' programmed in this address by the factory triggers touchtone dialing over both telephone lines. Select '1' for rotary dialing.

## Make Break Ratio (59)

Use this address only if you have chosen '1' for address 58. The make/break ratio is factory set to '0' which is 67/33, but may be changed to '1' which is a 62/38 ratio.

## Address (60)

Leave default of 0.

## Address (61)

Leave default of 0.

## AC Loss Reporting Delay (62)

'0' is factory default which causes immediate reporting of AC loss. Valid entries are 0 to 9 and A to F corresponding to the following reporting delay times: '1' = 6 hour, '2' = 7 hours, '3' = 8 hours, '4' = 9 hours, '5' = 10 hours, '6' = 11 hours, '7' = 15 hours, '8' = 16 hours, '9' = 17 hours, 'A' = 18 hours, 'B' = 19 hours, 'C' = 20 hours, 'D' = 21 hours, 'E' = 22 hours and 'F' = 23 hours.

## Host Panel ID (63)

Enter one of the following digits corresponding to the Control Panel in which the UDACT is installed. **A correct entry is essential for proper operation.**

| | | |
|---|---|---|
| 0 = AFP-100 | 3 = System 5000 | 6 = AFP-200 (Factory Default Setting) |
| 1 = System 500 | 4 = System 5000 with AIM-200 | 7 = AM2020/AFP1010/INA, NCA, NFS-3030 |
| 2 = Do not use | 5 = AFC-600, NFS-640 | 8 = AFP-300/AFP-400 |
| | | 9 = Do not use |

## Loop Number (64 - 65)

For Contact ID format only. Factory default is '00'. Maximum value is '97'. Refer to Section 5.0 for additional information.

## Device/Zone Number (66 - 68)

For Contact ID format only. These entries apply to the general reports only, i.e. general alarm, general trouble, general supervisory. Factory default is '000'. Maximum value is '999'. Refer to "Reporting Formats" on page 59 for additional information.

*Note: For the Contact ID Format, Loop Number and Device Number do not directly correspond to the AM2020 or NFS-3030 Loop or Device Number, instead, it is a convenient way to transmit data to the Central Station. Using the default Loop Number of '00' allows the reporting of a maximum of 999 devices or zones (001-999). To report device addresses or zones higher than 999 (the AM2020 and NFS-3030 can report up to 2,040 addresses), the Loop Number is incremented by one to report up to an additional 1,000 device addresses or zones on the same panel. Following is an example (using the factory defaults) of Loop Number and Device Number settings for the UDACT on a single AM2020 control panel:*

*Loop Number '00' reports points/zones 00 001 to 00 999*

*Loop Number '01' reports points/zones 01 000 to 01,999*

*Loop Number '02' reports points/zones 02 000 to 02,040*

*If the Loop Number (64-65) is programmed to 10, the devices are reported as:*

*Loop Number '10' reports points/zones 10 001 to 10 999*

*Loop Number '11' reports points/zones 11 000 to 11,999*

*Loop Number '12' reports points/zones 12 000 to 12,040*

*In applications which utilize multiple AM2020s and/or NFS-3030s, the group number may be used to help identify each facility being monitored. This also applies to multiple facilities monitored by a variety of compatible Notifier Fire Alarm Control Panels. For example, each UDACT can report its panel's devices by designating different Loop Numbers for each panel. The Loop Numbers assigned to a particular panel must be sequential, but the Loop Numbers from one panel to the next need not be sequential; i.e., the Loop Numbers assigned for the UDACT on one AM2020 or NFS-3030 might be 00, 01 or 02 while the Loop Numbers for another FACP might be 10, 11 or 12 or any other set of unused consecutive numbers. For additional information on the AM2020/AFP1010 control panels refer to "Appendix I: AM2020/AFP1010" on page 109. For additional information on the NFS-3030 control panel refer to "NFS-3030" on page 115.*

## Programming Event Codes (69-208)

The type of reports and 'event codes' that are sent to the Central Station are in Table 4 through Table 9. The selections made for the Primary Central Station Number Communication Format (address 16) and the Secondary Central Station Number Communication Format (address 42) automatically program addresses 69-208 with factory default selections.

Any of the event codes may be changed. **Consult your Central Station prior to altering the event codes.** For the 3+1, 4+1 and 4+1 Express formats, entering an event code of '0' will cause the communicator to NOT transmit the report.   Enter two zeroes for 4+2 and 4+2 Express Formats. For Ademco Contact ID format enter three zeroes. Transmission of reports to either or both Central Station phone numbers may be disabled.

Note the special 'System Abnormal Test Report' event code. This report was added per UL DACT requirements. This report is generated in place of the normal test report when an alarm and/or trouble condition exists at the time the test report is due to be sent.

## Programming the Real-Time Clock

Entering an address greater than 209 will cause a display of the current time. On power up, the clock will start running from the factory setting of 00:01 (military time).

The far left digit will be flashing, indicating that this is the first digit to be programmed. Select a digit then press ENTER/STORE.  The digit 2nd from the left will start flashing.  Select a digit then press ENTER/STORE.  Hours setting is complete.  With the digit 2nd from the right flashing, select a digit then press ENTER/STORE.  The digit on the far right will start flashing.  Select a digit then press ENTER/STORE. Minutes setting is complete.

## End Programming

Exit Programming Mode by pressing MODE, followed by the 4-digit code corresponding to an alternate mode of operation, then press ENTER/STORE. For example to return to Normal Mode: Press MODE, 6676, and ENTER/STORE. During Program Mode, if no key is pressed within 10 minutes, the UDACT will revert to Normal Mode.

# 3+1, 4+1 Express and 4+1 Standard Formats

## Primary Number

If '0, 2, 4, 6 or 8' are entered for address 16, the following data is automatically programmed for the primary phone number event codes. Enter a '0' for the data setting to disable the report. These formats do not support zone/point programming. For zone/point reporting, refer to Contact ID.

| Address | Description | Setting |
|---|---|---|
| 69 | Primary # General Alarm Code | 1 |
| 70 | Primary # Zone/Point Alarm Code | 0 |
| 71 | Primary # General Supervisory Code | 8 |
| 72 | Primary # Zone/Point Supervisory Code | 0 |
| 73 | Primary # General Fault Code | F |
| 74 | Primary # AC Fault Code | F |
| 75 | Primary # Zone/Point Fault Code | 0 |
| 76 | Primary # Low Battery Fault Code | F |
| 77 | Primary # Telco Primary Line Fault Code | F |
| 78 | Primary # Telco Secondary Line Fault Code | F |
| 79 | Primary # NAC Fault Code | F |
| 80 | Primary # Comm. Trouble Primary # Code | F |
| 81 | Primary # Comm. Trouble Secondary # Code | F |
| 82 | Primary # 485 Comm. Trouble Code | F |
| 83 | Primary # System Off Normal Code | F |
| 84 | Primary # UDACT Off Normal Code | F |
| 85 | Primary # General Alarm Restore Code | E |
| 86 | Primary # Zone/Point Alarm Restore Code | 0 |
| 87 | Primary # General Supervisory Restore Code | E |
| 88 | Primary # Zone/Point Supervisory Restore Code | 0 |
| 89 | Primary # General Fault Restore Code | E |
| 90 | Primary # AC Fault Restore Code | E |
| 91 | Primary # Zone/ Point Fault Restore Code | 0 |
| 92 | Primary # Low Battery Fault Restore Code | E |
| 93 | Primary # Telco Primary Line Fault Restore Code | E |
| 94 | Primary # Telco Secondary Line Fault Restore Code | E |
| 95 | Primary # NAC Fault Restore Code | E |
| 96 | Primary # Comm.Trouble Primary Number Restore Code | E |
| 97 | Primary # Comm. Trouble Secondary Number Restore Code | E |
| 98 | Primary # 485 Comm. Trouble Restore Code | E |
| 99 | Primary # System Off Normal Restore Code | E |
| 100 | Primary # UDACT Off Normal Restore Code | E |
| 101 | Primary # System 24 Hour Test | 9 |
| 102 | Primary # System 24 Hour Test w/active event | F |
| 103 | Primary # Manual Test | 9 |

**Note:** Zero entries prevent the transmission of the report to the Central Station.

### Table 4  Event Codes, Primary Number

# Secondary Number

If '0, 2, 4, 6 or 8' are entered for address 42, the following data is automatically programmed for the secondary phone number event codes. Enter a '0' for the data setting to disable the report. These formats do not support zone/point programming. For zone/point reporting, refer to Contact ID.

| Address | Description | Setting |
|---------|-------------|---------|
| 139 | Secondary # General Alarm Code | 1 |
| 140 | Secondary # Zone/Point Alarm Code | 0 |
| 141 | Secondary # General Supervisory Code | 8 |
| 142 | Secondary # Zone/Point Supervisory Code | 0 |
| 143 | Secondary # General Fault Code | F |
| 144 | Secondary # AC Fault Code | F |
| 145 | Secondary # Zone/Point Fault Code | 0 |
| 146 | Secondary # Low Battery Fault Code | F |
| 147 | Secondary # Telco Primary Line Fault Code | F |
| 148 | Secondary # Telco Secondary Line Fault Code | F |
| 149 | Secondary # NAC Fault Code | F |
| 150 | Secondary # Comm. Trouble Primary # Code | F |
| 151 | Secondary # Comm. Trouble Secondary # Code | F |
| 152 | Secondary # 485 Comm. Trouble Code | F |
| 153 | Secondary # System Off Normal Code | F |
| 154 | Secondary # UDACT Off Normal Code | F |
| 155 | Secondary # General Alarm Restore Code | E |
| 156 | Secondary # Zone/Point Alarm Restore Code | 0 |
| 157 | Secondary # General Supervisory Restore Code | E |
| 158 | Secondary # Zone/Point Supervisory Restore Code | 0 |
| 159 | Secondary # General Fault Restore Code | E |
| 160 | Secondary # AC Fault Restore Code | E |
| 161 | Secondary # Zone/ Point Fault Restore Code | 0 |
| 162 | Secondary # Low Battery Fault Restore Code | E |
| 163 | Secondary # Telco Primary Line Fault Restore Code | E |
| 164 | Secondary # Telco Secondary Line Fault Restore Code | E |
| 165 | Secondary # NAC Fault Restore Code | E |
| 166 | Secondary # Comm.Trouble Primary Number Restore Code | E |
| 167 | Secondary # Comm. Trouble Secondary Number Restore Code | E |
| 168 | Secondary # 485 Comm. Trouble Restore Code | E |
| 169 | Secondary # System Off Normal Restore Code | E |
| 170 | Secondary # UDACT Off Normal Restore Code | E |
| 171 | Secondary # System 24 Hour Test | 9 |
| 172 | Secondary # System 24 Hour Test w/active event | F |
| 173 | Secondary # Manual Test | 9 |

**Note:** Zero entries prevent the transmission of the report to the Central Station.

## Table 5  Event Codes, Secondary Number

# 4+2 Standard and 4+2 Express Formats

## Primary Number

If '1, A or C' are entered for address 16, the following data is automatically programmed for the primary phone number event codes. Enter a '0' for the data setting to disable the report. These formats do not support zone/point programming. For zone/point reporting, refer to Contact ID.

| Address | Description | Setting |
|---------|-------------|---------|
| 69-70 | Primary # General Alarm Code | 11 |
| 71-72 | Primary # Zone/Point Alarm Code | 00 |
| 73-74 | Primary # General Supervisory Code | 81 |
| 75-76 | Primary # Zone/Point Supervisory Code | 00 |
| 77-78 | Primary # General Fault Code | F1 |
| 79-80 | Primary # AC Fault Code | F6 |
| 81-82 | Primary # Zone/Point Fault Code | 00 |
| 83-84 | Primary # Low Battery Fault Code | F8 |
| 85-86 | Primary # Telco Primary Line Fault Code | FA |
| 87-88 | Primary # Telco Secondary Line Fault Code | FB |
| 89-90 | Primary # NAC Fault Code | FC |
| 91-92 | Primary # Comm. Trouble Primary # Code | FD |
| 93-94 | Primary # Comm. Trouble Secondary # Code | FE |
| 95-96 | Primary # 485 Comm. Trouble Code | FE |
| 97-98 | Primary # System Off Normal Code | FF |
| 99-100 | Primary # UDACT Off Normal Code | FF |
| 101-102 | Primary # General Alarm Restore Code | E1 |
| 103-104 | Primary # Zone/Point Alarm Restore Code | 00 |
| 105-106 | Primary # General Supervisory Restore Code | E2 |
| 107-108 | Primary # Zone/Point Supervisory Restore Code | 00 |
| 109-110 | Primary # General Fault Restore Code | E3 |
| 111-112 | Primary # AC Fault Restore Code | E6 |
| 113-114 | Primary # Zone/ Point Fault Restore Code | 00 |
| 115-116 | Primary # Low Battery Fault Restore Code | E8 |
| 117-118 | Primary # Telco Primary Line Fault Restore Code | EA |
| 118-120 | Primary # Telco Secondary Line Fault Restore Code | EB |
| 121-122 | Primary # NAC Fault Restore Code | EC |
| 123-124 | Primary # Comm.Trouble Primary Number Restore Code | ED |
| 125-126 | Primary # Comm. Trouble Secondary Number Restore Code | EE |
| 127-128 | Primary # 485 Comm. Trouble Restore Code | EE |
| 129-130 | Primary # System Off Normal Restore Code | EF |
| 131-132 | Primary # UDACT Off Normal Restore Code | EF |
| 133-134 | Primary # System 24 Hour Test | 99 |
| 135-136 | Primary # System 24 Hour Test w/active event | 91 |
| 137-138 | Primary # Manual Test | 92 |

**Note:** Zero entries prevent the transmission of the report to the Central Station.

**Table 6  Event Codes, Primary Number**

# Secondary Number

If '1, A or C' are entered for address 42, the following data is automatically programmed for the secondary phone number event codes. Enter a '0' for the data setting to disable the report. These formats do not support zone/point programming. For zone/point reporting, refer to Contact ID.

| Address | Description | Setting |
|---|---|---|
| 139-140 | Secondary# General Alarm Code | 11 |
| 141-142 | Secondary # Zone/Point Alarm Code | 00 |
| 143-144 | Secondary # General Supervisory Code | 81 |
| 145-146 | Secondary # Zone/Point Supervisory Code | 00 |
| 147-148 | Secondary # General Fault Code | F1 |
| 149-150 | Secondary # AC Fault Code | F6 |
| 151-152 | Secondary # Zone/Point  Fault Code | 00 |
| 153-154 | Secondary # Low Battery Fault Code | F8 |
| 155-156 | Secondary # Telco Primary Line Fault Code | FA |
| 157-158 | Secondary # Telco Secondary Line Fault Code | FB |
| 159-160 | Secondary # NAC Fault Code | FC |
| 161-162 | Secondary # Comm. Trouble Primary # Code | FD |
| 163-164 | Secondary # Comm. Trouble Secondary # Code | FE |
| 165-166 | Secondary # 485 Comm. Trouble Code | FE |
| 167-168 | Secondary # System Off Normal Code | FF |
| 169-170 | Secondary # UDACT Off Normal Code | FF |
| 171-172 | Secondary # General Alarm Restore Code | E1 |
| 173-174 | Secondary # Zone/Point Alarm Restore Code | 00 |
| 175-176 | Secondary # General Supervisory Restore Code | E2 |
| 177-178 | Secondary # Zone/Point Supervisory Restore Code | 00 |
| 179-180 | Secondary # General Fault Restore Code | E3 |
| 181-182 | Secondary # AC Fault Restore Code | E6 |
| 183-184 | Secondary # Zone/ Point Fault Restore Code | 00 |
| 185-186 | Secondary # Low Battery Fault Restore Code | E8 |
| 187-188 | Secondary # Telco Primary Line Fault  Restore Code | EA |
| 189-190 | Secondary # Telco Secondary Line Fault Restore Code | EB |
| 191-192 | Secondary # NAC Fault Restore Code | EC |
| 193-194 | Secondary # Comm.Trouble Primary Number Restore Code | ED |
| 195-196 | Secondary # Comm. Trouble Secondary Number Restore Code | EE |
| 197-198 | Secondary # 485 Comm. Trouble Restore Code | EE |
| 199-200 | Secondary # System Off Normal Restore Code | EF |
| 201-202 | Secondary # UDACT Off Normal Restore Code | EF |
| 203-204 | Secondary # System 24 Hour Test | 99 |
| 205-206 | Secondary # System 24 Hour Test w/active event | 91 |
| 207-208 | Secondary # Manual Test | 92 |

**Note:** Zero entries prevent the transmission of the report to the Central Station.

## Table 7  Event Codes, Secondary Number

# Ademco Contact ID Format

## Primary Number

If 'E' is entered for address 16, the following data is automatically programmed for the primary phone number event codes. Enter a '000' for the data setting to disable the report.

| Address | Description | Setting[1] | Group #[6] | Sensor # |
|---------|-------------|---------|---------|---------|
| 69-71 | Primary# General Alarm Code | 110 | 00 | 000[2] |
| 72-74 | Primary # Zone/Point Alarm Code[5] | 110[4] | 00 | Note [3] |
| 75-77 | Primary # General Supervisory Code | 200 | 00 | 000[2] |
| 78-80 | Primary # Zone/Point Supervisory Code[5] | 200 | 00 | Note [3] |
| 81-83 | Primary # General Fault Code | 300 | 00 | |
| 84-86 | Primary # AC Fault Code | 301 | 00 | |
| 87-89 | Primary # Zone/Point Fault Code[5] | 380 | 00 | Note [3] |
| 90-92 | Primary # Low Battery Fault Code | 302 | 00 | |
| 93-95 | Primary # Telco Primary Line Fault Code | 351 | 00 | |
| 96-98 | Primary # Telco Secondary Line Fault Code | 352 | 00 | |
| 99-101 | Primary # NAC Fault Code | 321 | 00 | |
| 102-104 | Primary # Comm. Trouble Primary # Code | 354 | 00 | |
| 105-107 | Primary # Comm. Trouble Secondary # Code | 354 | 00 | |
| 108-110 | Primary # 485 Comm. Trouble Code | 300 | 00 | |
| 111-113 | Primary # System Off Normal Code | 308 | 00 | |
| 114-116 | Primary # UDACT Off Normal Code | 350 | 00 | |
| 117-119 | Primary # System 24 Hour Test | 602 | 00 | |
| 120-122 | Primary # System 24 Hour Test w/active event | 608 | 00 | |
| 123-125 | Primary # Manual Test Message | 601 | 00 | |

**Table 8  Ademco Contact ID, Primary Number**

Notes:

1) Zero entries prevent the transmission of the report to the Central Station.

2) Refer to Contact ID program locations 64 - 68.

3) The identification of the zone/device number is automatically transmitted by the UDACT and is added to the main event code.  See Table 5-3 for more information.

4) For control panels; System 500, System 5000, AFP-200, AFP-400, AFC-600, NFS-640, AFP1010, AM2020, INA, NFS-3030, and NCA the factory default event code is 110 and reprogrammable. The AFP-400 and AFP-100 are unique in point reporting mode in that only the control module report codes are programmable. The factory setting of report code 111 is fixed for addressable smoke detectors and cannot be changed.

5) AFP-200 applications transmit by zone, not by point.

6) The Group # is automatically incremented for AM2020/AFP1010/INA, NFS-3030 and NCA applications.

# Secondary Number

If 'E' is entered for address 42, the following data is automatically programmed for the secondary phone number event codes. Enter a '000' for the data setting to disable the report.

| Address | Description | Setting[1] | Group #[6] | Sensor # |
|---------|-------------|---------|---------|----------|
| 139-141 | Secondary# General Alarm Code | 110 | 00 | 000[2] |
| 142-144 | Secondary # Zone/Point Alarm Code[5] | 110[4] | 00 | Note [3] |
| 145-147 | Secondary # General Supervisory Code | 200 | 00 | 000[2] |
| 148-150 | Secondary # Zone/Point Supervisory Code[5] | 200 | 00 | Note [3] |
| 151-153 | Secondary # General Fault Code | 300 | 00 | |
| 154-156 | Secondary # AC Fault Code | 301 | 00 | |
| 157-159 | Secondary # Zone/Point  Fault Code[5] | 380 | 00 | Note [3] |
| 160-162 | Secondary # Low Battery Fault Code | 302 | 00 | |
| 163-165 | Secondary # Telco Primary Line Fault Code | 351 | 00 | |
| 166-168 | Secondary # Telco Secondary Line Fault Code | 352 | 00 | |
| 169-171 | Secondary # NAC Fault Code | 321 | 00 | |
| 172-174 | Secondary # Comm. Trouble Primary # Code | 354 | 00 | |
| 175-177 | Secondary # Comm. Trouble Secondary # Code | 354 | 00 | |
| 178-180 | Secondary # 485 Comm. Trouble Code | 300 | 00 | |
| 181-183 | Secondary # System Off Normal Code | 308 | 00 | |
| 184-186 | Secondary # UDACT Off Normal Code | 350 | 00 | |
| 187-189 | Secondary # System 24 Hour Test | 602 | 00 | |
| 190-192 | Secondary # System 24 Hour Test w/active event | 608 | 00 | |
| 193-195 | Secondary # Manual Test Message | 601 | 00 | |

**Table 9  Ademco Contact ID, Secondary Number**

Notes:

1) Zero entries prevent the transmission of the report to the Central Station.

2) Refer to Contact ID program locations 64 - 68.

3) The identification of the zone/device number is automatically transmitted by the UDACT and is added to the main event code.  See Table 5-3 for more information.

4) For control panels; System 500, System 5000, AFP-200, AFP-400, AFC-600, NFS-640, AFP1010, AM2020, INA, NFS-3030, and NCA the factory default event code is 110 and reprogrammable. The AFP-400 and AFP-100 are unique in point reporting mode in that only the control module report codes are programmable. The factory setting of report code 111 is fixed for addressable smoke detectors and cannot be changed.

5) AFP-200 applications transmit by zone, not by point.

6) The Group # is automatically incremented for AM2020/AFP1010/INA applications.

# Programming Reference Sheets

## Options

To enter Programming, press MODE, then **7764**, then ENTER/STORE.

☐00 ☐01 ☐02 ☐03 ☐04 ☐05 ☐06 ☐07 ☐08 ☐09 ☐10 ☐11 ☐12 ☐13

☐14 ☐15 **Primary Phone Number:** Enter 'F' to represent the end of the number.

☐16 **Primary Communication Format:** Enter 0 - F.

☐17 ☐18 ☐19 ☐20 **Primary Account Code:** Valid keys are 0-F.

☐21 ☐22 ☐23 ☐24 **Primary 24-Hour Test Time:** Enter military time (i.e. 1400 for 2 PM).

☐25 **Primary Number Test Time Interval:** Enter '0' for 24-hour; '1' - 12-hour.

☐26 ☐27 ☐28 ☐29 ☐30 ☐31 ☐32 ☐33 ☐34 ☐35 ☐36 ☐37 ☐38 ☐39

☐40 ☐41 **Secondary Phone Number:** Enter 'F' to represent the end of the number.

☐42 **Secondary Communication Format:** Enter 0-F.

☐43 ☐44 ☐45 ☐46 **Secondary Account Code:** Valid keys are 0-F.

☐47 ☐48 ☐49 ☐50 **Secondary 24-Hour Test Time:** Enter military time (1400 for 2 PM).

☐51 **Secondary Number Test Time Interval:** Enter '0' for 24-hour; '1' - 12-hour.

☐52 ☐53 **Start Monitoring Address:** Valid entries are 01 through 32.

☐54 ☐55 **End Monitoring Address:** Valid entries are 01 through 32.

☐56 **UDACT Communication Selection:** Enter '0' to disable UDACT communication; '1' for zone reporting receive only communication; '2' for zone reporting receive/transmit communication; '3' for point reporting receive only; or '4' for point reporting receive/transmit.

☐57 **Backup Reporting:** Enter '0' to have secondary phone number act as backup only; '1' to have secondary phone number receive all reports and messages along with primary phone number.

☐58 **Touchtone/Rotary Select:** Enter '0' for touchtone dialing; '1' for rotary dialing.

☐ 59 **Make/Break Ratio:** If rotary dialing is selected in Address 58; Enter '0' for a 67/73 make/break ratio; '1' for a 62/38 make/break ratio.

☐ 60 Leave default of 0.

☐ 61 Leave default of 0.

☐ 62 **AC Loss Reporting Delay:** Enter '0' for no time delay after AC loss; '1' for 6 hour delay; '2' for 7 hour delay; '3' for 8 hour delay; '4' for 9 hour delay; '5' for 10 hour delay; '6' for 11 hour delay; '7' for 15 hour delay; '8' for 16 hour delay; '9' for 17 hour delay; 'A' for 18 hour delay; 'B' for 19 hour delay; 'C' for 20 hour delay; 'D' for 21 hour delay; 'E' for 22 hour delay; or 'F' for 23 hour delay.

☐ 63 **Host Panel ID:** Enter '0' for AFP-100;  '1' for System 500;  '3' for System 5000;  '4' for System 5000 with AIM-200;  '5' for AFC-600, NFS-640;  '7' for AM2020/AFP1010/INA, NCA, and NFS-3030; '8' for AFP-300/AFP-400; or leave default of '6' for AFP-200; all other entries are invalid.

☐ 64 ☐ 65 **Loop Number:** Factory set to '00'.  Valid entries are 00 through 97

☐ 66 ☐ 67 ☐ 68 **Device/Zone Number for General Reports:** Factory set to '000'.  Valid entries are 000 through 999.

## Event Codes

☐ 69 ☐ 70 ☐ 71 ☐ 72 ☐ 73 ☐ 74 ☐ 75 ☐ 76 ☐ 77 ☐ 78 ☐ 79

☐ 80 ☐ 81 ☐ 82 ☐ 83 ☐ 84 ☐ 85 ☐ 86 ☐ 87 ☐ 88 ☐ 89 ☐ 90

☐ 91 ☐ 92 ☐ 93 ☐ 94 ☐ 95 ☐ 96 ☐ 97 ☐ 98 ☐ 99 ☐ 100 ☐ 101

☐ 102 ☐ 103 ☐ 104 ☐ 105 ☐ 106 ☐ 107 ☐ 108 ☐ 109 ☐ 110 ☐ 111 ☐ 112

☐ 113 ☐ 114 ☐ 115 ☐ 116 ☐ 117 ☐ 118 ☐ 119 ☐ 120 ☐ 121 ☐ 122 ☐ 123

☐ 124 ☐ 125 ☐ 126 ☐ 127 ☐ 128 ☐ 129 ☐ 130 ☐ 131 ☐ 132 ☐ 133 ☐ 134

☐ 135 ☐ 136 ☐ 137 ☐ 138 ☐ 139 ☐ 140 ☐ 141 ☐ 142 ☐ 143 ☐ 144 ☐ 145

☐ 146 ☐ 147 ☐ 148 ☐ 149 ☐ 150 ☐ 151 ☐ 152 ☐ 153 ☐ 154 ☐ 155 ☐ 156

☐ 157 ☐ 158 ☐ 159 ☐ 160 ☐ 161 ☐ 162 ☐ 163 ☐ 164 ☐ 165 ☐ 166 ☐ 167

☐ 168 ☐ 169 ☐ 170 ☐ 171 ☐ 172 ☐ 173 ☐ 174 ☐ 175 ☐ 176 ☐ 177 ☐ 178

☐ 179 ☐ 180 ☐ 181 ☐ 182 ☐ 183 ☐ 184 ☐ 185 ☐ 186 ☐ 187 ☐ 188 ☐ 189

☐ 190 ☐ 191 ☐ 192 ☐ 193 ☐ 194 ☐ 195 ☐ 196 ☐ 197 ☐ 198 ☐ 199 ☐ 200

☐ 201 ☐ 202 ☐ 203 ☐ 204 ☐ 205 ☐ 206 ☐ 207 ☐ 208

# Factory Default Settings

**Primary Phone Number:**

| 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F |

**Primary Communication Format:**

| 16 |
|----|
| E |

**Primary Account Code:**

| 17 | 18 | 19 | 20 |
|----|----|----|----|
| 0 | 0 | 0 | 0 |

**Primary 24-Hour Test Time:**

| 21 | 22 | 23 | 24 |
|----|----|----|----|
| 0 | 0 | 0 | 0 |

**Primary Number Test Time Interval:**

| 25 |
|----|
| 0 |

**Secondary Phone Number:**

| 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F |

**Secondary Communication Format:**

| 42 |
|----|
| E |

**Secondary Account Code:**

| 43 | 44 | 45 | 46 |
|----|----|----|----|
| 0 | 0 | 0 | 0 |

**Secondary 24-Hour Test Time:**

| 47 | 48 | 49 | 50 |
|----|----|----|----|
| 0 | 0 | 0 | 0 |

**Secondary Number Test Time Interval:**

| 51 |
|----|
| 0 |

**Start Monitoring Address:**

| 52 | 53 |
|----|----|
| 0 | 1 |

**End Monitoring Address:**

| 54 | 55 |
|----|----|
| 0 | 1 |

**UDACT Communication Selection:**

| 56 |
|----|
| 0 |

**Backup Reporting:**

| 57 |
|----|
| 0 |

**Touchtone/Rotary Select:**

| 58 |
|----|
| 0 |

**Make/Break Ratio:**

| 59 |
|----|
| 0 |

Leave default of 0.

| 60 |
|----|
| 0 |

Leave default of 0.

| 61 |
|----|
| 0 |

**AC Loss Reporting Delay:**

| 62 |
|----|
| 0 |

**Host Panel ID:**

| 63 |
|----|
| 6 |

**Loop Number:**

| 64 | 65 |
|----|----|
| 0 | 0 |

**Device/Zone Number for General Reports:**

| 66 | 67 | 68 |
|----|----|----|
| 0 | 0 | 0 |

| 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 1 | 0 | 0 | 8 | 1 | 0 | 0 | F | 1 | F | 6 | 0 | 0 |

| 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| F | 8 | F | A | F | B | F | C | F | D | F | E | F | E |

| 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |
|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F | F | F | F | E | 1 | 0 | 0 | E | 2 | 0 | 0 | E | 3 |

| 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| E | 6 | 0 | 0 | E | 8 | E | A | B | E | C | E | D | |

| 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| E | E | E | E | E | F | E | F | 9 | 9 | 9 | 1 | 9 | 2 |

| 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 0 | 0 | 8 | 1 | 0 | 0 | F | 1 | F | 6 | 0 | 0 |

| 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F | 8 | F | A | F | B | F | C | F | D | F | E | F | E |

| 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F | F | F | F | E | 1 | 0 | 0 | E | 2 | 0 | 0 | E | 3 |

| 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| E | 6 | 0 | 0 | E | 8 | E | A | E | B | E | C | E | D |

| 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| E | E | E | E | E | F | E | F | 9 | 9 | 9 | 1 | 9 | 2 |

# Notes

# Operating Instructions

The UDACT has five Modes of operation; Normal, Program, Lamp Test, Troubleshoot and Type mode.

This chapter will cover all but the 'Program Mode', which was discussed in the *Programming Instructions* chapter.

# Normal Mode

Upon initial power up, the system will be in Normal Mode. This section discusses operation of the UDACT in the Normal Mode.

## Function Keys

Below is a description of the function keys in Normal Mode:
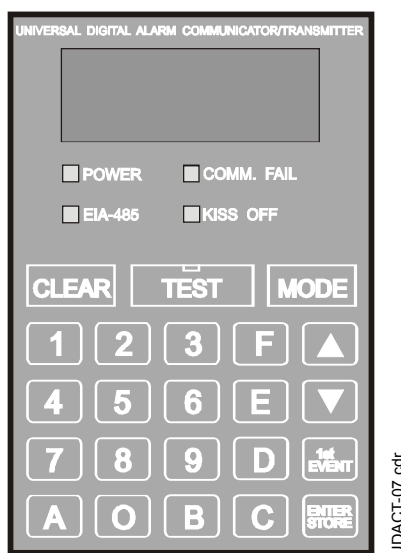
**Figure 12  UDACT Keypad**

### Clear

The Clear function will cause the UDACT to:

- cease transmissions
- clear any active or pending transmissions
- reset and return to normal system processing

☛ To perform the Clear function, press the CLEAR key, then **2532,** then ENTER/STORE. 2532 spells CLEA on a Touch-Tone® phone.

### Test

If the TEST key is pressed three times in rapid succession the UDACT will transmit a test message to both Central Stations. The message reported is the same as the system 24 hour test message for all formats except Ademco Contact ID which has a separate test message.

## Mode

Pressing the MODE key followed by a valid 4-digit numerical code and ENTER/STORE selects one of the four modes of operation.

☛ To enter Normal Mode from any other mode press MODE, then **6676**, then ENTER/STORE. 6676 spells NORM on a Touch-Tone® phone.

## 1st Event

This key along with the Up Arrow and Down Arrow keys, are used to display UDACT fault conditions. Press the 1ST EVENT key at any time to display the first event that occurred.

## Down Arrow

Use the Down Arrow key to view other fault events (older) that have occurred and are active - not cleared yet.

## Up Arrow

Use the Up Arrow key to view other fault events (newer), that have occurred and are active - not cleared yet.

## Enter/Store

See individual mode descriptions in other sections for detailed descriptions of the ENTER/STORE key.

# Displays and LEDs

Four, seven-segment red LED characters (see below) provide visual annunciation of UDACT trouble conditions. A list of messages that may appear on the display in Normal Mode is shown below:

| Message | Meaning |
|---------|---------|
| PH_1 | Primary Number Communication Fault |
| PH_2 | Secondary Number Communication Fault |
| no_1 | Primary Phone Line Fault |
| no_2 | Secondary Phone Line Fault |

**Table 10  Normal Mode Messages**

Seven individual LEDs are provided on the panel as described and shown below:
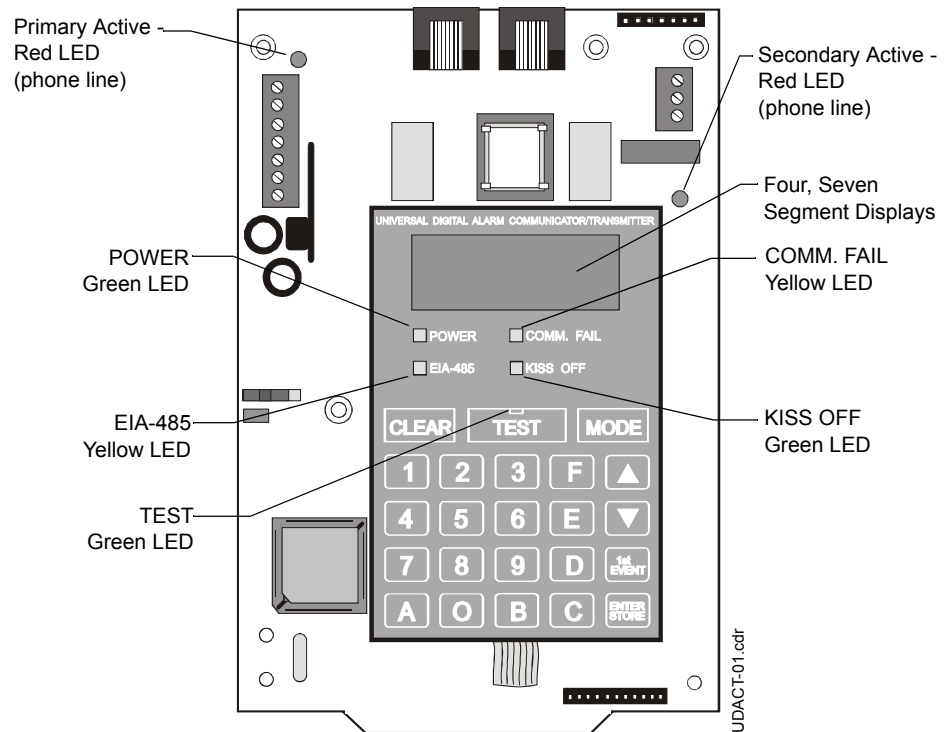


**Figure 13  Display and LEDs**

**EIA-485** - A yellow LED that turns on steady when a fault on the EIA-485 circuit is detected.

**Comm. Fail** - This yellow LED turns on to indicate the loss of both telephone lines or that the maximum number of attempts to communicate with both Central Stations has been unsuccessful.  Note: During a comm fail, the display will show either a PH1 and PH2 or no1 and no2.

**Power** - A green LED that remains on while power is supplied to the UDACT. If this indicator fails to light under normal conditions, service the system immediately.

**Kiss Off** - A green LED that blinks when the Central Station has acknowledged receipt of each transmitted message.

**Test** - A green LED that turns on to indicate that a manual test message is being transmitted and turns off after messages transmit.

**Primary Line Active** - A red LED that indicates the primary phone line is active.

**Secondary Line Active** - A red LED that indicates the secondary phone line is active.

# Normal Mode Operation

Normal mode is the standard mode of operation. In this mode, the UDACT monitors the following:

- Host FACP status, power input and EIA-485 communications.
- UDACT telephone line voltage.

The four character 7-segment display is normally off and does not annunciate events that are being transmitted. The display will only annunciate UDACT trouble conditions in the normal mode.

The UDACT transmits zone/point and system status reports to a Central Station via the public switched telephone network. Two supervised telephone line connections are made to interface the UDACT to the telephone lines.

The UDACT supervises both telephone lines for proper voltage. A delay of two minutes will occur before a fault in either phone line connection is reported as a trouble. When a fault is detected, the 4 character display will show either 'no 1' or 'no 2' depending upon which telephone line has the fault ('no 1' = Primary Line, 'no 2' = Secondary Line) and the trouble condition will be reported to the Central Station over the remaining good phone line. A 30 second delay will be incured after recovery from a fault.

The UDACT comes with line seizure capability provided for both the primary and secondary telephone line interfaces. **Any time that the UDACT needs to make a call to the Central Station, line seizure will disconnect any local premises phones sharing the same telephone line.**

All transmission to the Central Station will be sent over the Primary phone line. In the event of noisy phone lines, transmissions will be sent over the backup Secondary phone line.

A maximum of 14 point trouble messages are transmitted per hour. This will prevent the saturation of phone calls to the Central Station in the event an SLC loop is removed.

Two phone numbers must be programmed, the Primary phone number and the Secondary phone number. All system reports will be transmitted to the primary phone number. Reports will automatically be sent to the secondary phone number if attempts to transmit to the primary phone number are unsuccessful. If 10 total attempts to communicate are unsuccessful, the Communicator Failure output will be turned on (TB3 - comm fail). Note that as an option, *all reports may also be sent to the secondary phone number.* Refer to "Programming Instructions" on page 29.

The UDACT meets NFPA 72 for Remote Station Protective Signaling Service and Central Station Signaling Service reporting requirements for: (a) the type of signal, (b) condition and (c) location of the reporting premises.

*Continued on the next page...*

Since higher priority events take precedence over lower priority events, the UDACT will transmit higher priority events before sending the lower priority events. Priorities are as follows:

| Event Activations | | Event Restorals | |
|---|---|---|---|
| 1 | General Alarm | 19 | General Alarm Restoral |
| 2 | Zone/Point Alarm #N | 20 | Zone/Point Alarm #N Restoral |
| 3 | General Supervisory | 21 | General Supervisory Restoral |
| 4 | Zone/Point Supervisory #N | 22 | Zone/Point Supervisory #N Restoral |
| 5 | General System Trouble | 23 | General System Trouble Restoral |
| 6 | AC Power Loss | 24 | AC Power Loss Restoral |
| 7 | Zone/Point Trouble #N | 25 | Zone/Point Trouble #N Restoral |
| 8 | Low Battery | 26 | Low Battery Restoral |
| 9 | Telco Primary Line Fault | 27 | Telco Primary Line Fault Restoral |
| 10 | Telco Secondary Line Fault | 28 | Telco Secondary Line Fault Restoral |
| 11 | NAC Fault Code | 29 | NAC Fault Code Restoral |
| 12 | Communication Trouble, Primary Number | 30 | Communication Trouble, Primary Number Restoral |
| 13 | Communication Trouble, Secondary Number | 31 | Communication Trouble, Secondary Number Restoral |
| 14 | EIA-485 Communication Bus Trouble | 32 | EIA-485 Communication Bus Trouble Restoral |
| 15 | System Off-Normal Code | 33 | System Off-Normal Code Restoral |
| 16 | System Automatic Test Report | | |
| 17 | System Abnormal Automatic Test Report | | |
| 18 | Manual Activated Test Report | | |

**Table 11  Event Activations and Restorals**

**Note:** Where #N represents the number of zones or devices in alarm or trouble.  This is valid for all formats except Ademco Contact ID.

For all formats, the 'general' reports are always transmitted (unless disabled).  The zone or point information may follow the general report if enabled.

For all pulsed formats and both Ademco Express formats, the zone/point report is repeated per the total number of zones or points activated once factory default entries of zero are removed. See Table 4 through Table 9. When Ademco Contact ID format is used, the actual zone or point activated is identified in the report.

The UDACT comes factory programmed with the reports identified above as item numbers 2, 4, 7, 20, 22 and 25 set to zero, preventing the reports from being transmitted for the pulsed and Ademco Express formats.  These reports are factory programmed for active transmission when using the Ademco Contact ID.

# Key Report Descriptions

## UDACT OFF Normal Report

Removing the UDACT from Normal Mode and placing it into Program, Type or Troubleshoot Mode causes a transmission of an 'UDACT Off Normal' fault message. Returning the UDACT to Normal Mode causes a transmission of a 'UDACT return to normal' restoral message.

## Panel OFF Normal Report

The UDACT will send a "System off normal" report when the host FACP indicates it has gone 'OFF Normal' during various aspects of system programming, on most panels. When the host FACP is returned to normal, restoring the fire protection, the UDACT will report a "System off normal restoral" report.

## System Test Report

The UDACT will transmit a test report to both Central Stations at programmed intervals (typically every 24 hours). Should there exist an abnormal condition in the fire alarm system (such as an alarm, trouble or supervisory condition) at the time when the test report is due to be transmitted, the UDACT will report the 'system abnormal test report.' If the system is normal, the report transmitted will be the normal 'system test report'.

## EIA-485 Communications Trouble Report

The UDACT supervises the integrity of the information received from the FACP via the EIA-485 communications bus. Should the communications bus malfunction or be temporarily disabled (as during programming of the System 500 and 5000 panel), the UDACT transmits the report '485 comm trouble.' When the communications bus returns to proper operation, the UDACT will report '485 comm trouble restoral.'

# Type Mode

⚠

**CAUTION:** The UDACT fire protection and reporting capabilities are inactive while in Type Mode.

Type Mode may be used to disable reports by zone or point and to identify the specific functionality of each zone or point in the system via Ademco Contact ID format. Factory default for all zones is Fire Alarm. Use Type Mode to identify the function of each zone or point as follows:

|                   |                     |
|-------------------|---------------------|
| General fire alarm | Burglary           |
| Supervisory       | 24 hour non-burglary |
| Pull stations     | High temperature    |
| Heat detectors    | Low temperature     |
| Waterflows        | Low water pressure  |
| Duct detectors    | Low water level     |
| Flame sensor      | Pump failure        |
| Smoke zone        |                     |

**Note:** On the AFP-100 when reporting point information, the factory default for addressable monitor modules is Fire Alarm code 110 and the default for addressable detectors is Smoke Detector code 111. The smoke detector default cannot be modified.

**Note:** AM2020/AFP1010, INA, AFC-600, NFS-640, NFS-3030, and NCA applications restrict Type Mode programming to a maximum of 568 points. All remaining points above 568 will report as fire alarm points.

☛ To access Type Mode press MODE, then **8973**, then ENTER/STORE.

8973 spells TYPE on a Touch-Tone® phone.

The UDACT will display three digits. For example, initial entry will display **01  0**.

The characters to the left identify the zone or point number. In this example, 01 identifies zone 01 or point address 01. The character to the right (0 in this example) identifies the type of zone or point as follows:

0 = Zone or point defined as fire alarm
1 = Disable zone or point report
2 = Zone or point defined as supervisory
3 = Zone or point defined as pull station
4 = Zone or point defined as heat detector
5 = Zone or point defined as waterflow
6 = Zone or point defined as duct detector
7 = Zone or point defined as flame sensor
8 = Zone or point defined as smoke zone (Use for group of addressable or conventional smoke detectors and for addressable monitor modules monitoring conventional smoke detectors.)
9 = Zone or point defined as burglary
A = Zone or point defined as 24 hour non-burglary
B = Zone or point defined as high temperature
C = Zone or point defined as low temperature
D = Zone or point defined as low water pressure
E = Zone or point defined as low water level
F = Zone or point defined as pump failure

Factory default is all zones or points set to '0' for fire alarm. The '0' setting for zone reporting allows the mixing of types of devices on a single zone. To change the type definition of the zone or point from the factory default of 0, select 2 to F corresponding to the type of device(s) used (do not mix device types for these settings), or select 1 to disable alarm reporting of any zone or point. The digit entered will appear on the far right display. Next press the ENTER/STORE key. This stores the entry into E2 memory and increments to the next higher address.

Use the UP, DOWN and 1ST EVENT keys to move through the list of zones/points (refer to Appendices), similar to the method described in the programming section of this manual.

To define all zones or points as fire alarm (return to original factory default settings):
enter zone or point **999** and then press the ENTER/STORE key. The display will change to **01   0**, indicating a return to the factory default settings.

## Disabling of Zones or Points

This feature is primarily used when system points have been defined as remote reset, acknowledge, silence or drill switches.  Refer to the FACP technical manual for additional information.  *Activation of remote switches appear as alarms on the EIA-485 bus.  The UDACT will report these points as fire alarm points unless disabled in the Type Mode.  Disabling zones or points also prohibits the activation (shorted or alarm activated condition) from being reported by the UDACT.  Disabling of the zone or point does not affect the reporting of the zone or point trouble condition.*

**Note:** Programming '6' into Host Panel ID address 63 selects an AFP-200 as the host panel. This selection automatically programs Type Mode '1' for zones 90-99 which disables reports for these zones. To transmit reports for zones 90-99, use Type Mode entries of '0' or '2' through 'F'.

## Zone or Point Supervisory

A zone or point must be defined as supervisory to allow the UDACT to identify the correct report to transmit to the central station.  Follow the programming instructions in the FACP manual to program a zone or point as supervisory.  Next, program the zone or point as a code 2 for supervisory.  Use the charts in the appendices applicable to your FACP to enter point and zone definitions.

# Troubleshoot Mode

☞ To access Troubleshoot Mode, press MODE, then **8768**, then ENTER/STORE.
8768 spells TROU on a Touch-Tone® phone.

Once in this mode, the UDACT will:

- Transmit the 'UDACT Off Normal' message to the Central Station(s).
- Continue to communicate any events not yet acknowledged at the Central Station prior to entering Troubleshoot Mode.

The UP, DOWN and 1ST EVENT keys do not function in this mode.

## Telephone Line Testing

Pressing **C** for touchtone dialing or **D** for rotary dialing, followed by ENTER/STORE causes seizure of the primary phone line which in turn lights the red LED signifying Primary phone line active. After a delay of three seconds, the UDACT goes off hook to acquire a dial tone.

The keypad may be used as a telephone touchpad for number dialing.  Once the first digit is pressed, the display will move the C or D character one position to the left, while placing the digit to be dialed on the farthest right display position.  Continue to press the phone numbers to  be dialed. Successive depressions of the ENTER/STORE key hangs up and picks up the phone (places the phone on or off the hook).

The secondary phone line may be tested by pressing the **E** key for touchtone dialing or the **F** key for rotary dialing and then following the same procedure used for the primary phone line.

A handset may be temporarily connected across transformer T1 as indicated below.  The handset, when connected across T1, may be used only as an amplifier/speaker or telephone with the UDACT used for number dialing.
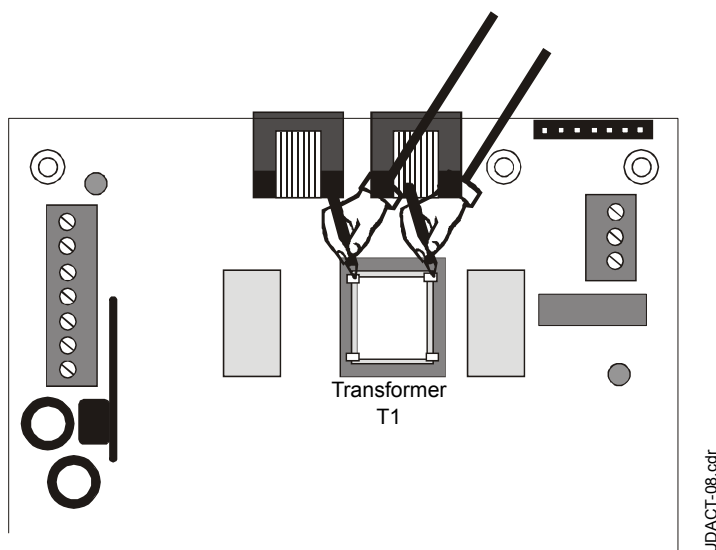


**Figure 14  Handset/Speaker Connection**

# Lamp Test Mode

This will test all system LEDs. The LEDs will stay on for five seconds, then the UDACT will return to Normal Mode.

☞ To perform a Lamp Test, press MODE, then **5267**, then ENTER/STORE.
5267 spells LAMP on a Touch-Tone® phone.

# Notes

# Reporting Formats

## Data Reporting Structure

The table below shows the data reporting structure for each of the pulsed formats as well as the Ademco Express formats.

- Ademco Express formats allow a typical data message to be transmitted to the Central Station in under 5 seconds.
- Pulsed formats typically require 15 to 20 seconds in comparison.

Table 13 on page 60 defines each letter code used in Table 12.

Table 14 on page 61 describes the data reporting structure used for Ademco Contact ID format.

Do not select any of the pulsed or Ademco Express Formats if identification of the specific zone or point is desired. Use Ademco Contact ID for specific zone or point identification.

| | Format # 0, 2, 4, 6, 8 | Format # 1, A, C |
|---|---|---|
| Report | 3+1/4+1/Standard 4+1 Express | 4+2/Standard 4+2 Express |
| Alarm | SSS(S) A | SSSS AA2 |
| Alarm Restore | SSS(S) RA | SSSS RARA2 |
| Zone Trouble (Zone Open) | SSS(S) RTZ | SSSS TZTZ2 |
| Zone Trouble Restore | SSS(S) RTZ | SSSS RTZRTZ2 |
| System Trouble | SSS(S) TS | SSSS TSTS2 |
| System Trouble Restore | SSS(S) RTS | SSSS RTSRTS2 |
| Low Battery | SSS(S) L | SSSS LL2 |
| Low Battery Restore | SSS(S) RL | SSSS RLRL2 |
| AC Loss | SSS(S) P | SSSS PP2 |
| AC Loss Restore | SSS(S) RP | SSSS RPRP2 |
| Supervisory Condition | SSS(S) V | SSSS VV2 |
| Supervisory Condition Restore | SSS(S) RV | SSSS RVRV2 |
| Test Report | SSS(S) X | SSSS XX2 |
| Abnormal Test Report | SSS(S) XA | SSSS XAXA2 |

**Table 12  Data Reporting Structure**

**Note:** Refer to Table 17 on page 65 for a list of compatible receivers.

Letter codes for Table 12 on page 59:

| SSS or SSSS | = Subscriber ID |
|---|---|
| A | = Alarm (1st digit) |
| A2 | = Alarm (2nd digit) |
| RA | = Alarm Restore (1st digit) |
| RA2 | = Alarm Restore (2nd digit) |
| TZ | =Zone Trouble (1st digit) |
| TZ2 | =Zone Trouble (2nd digit) |
| RTZ | =Zone Trouble Restore (1st digit) |
| RTZ2 | =Zone Trouble Restore (2nd digit) |
| TS | =System Trouble (1st digit) |
| TS2 | =System Trouble (2nd digit) |
| RTS | =System Trouble Restore (1st digit) |
| RTS2 | =System Trouble Restore (2nd digit) |
| L | =Low Battery (1st digit) |
| L2 | =Low Battery (2nd digit) |
| RL | =Low Battery Restore (1st digit) |
| RL2 | =Low Battery Restore (2nd digit) |
| P | =AC Loss (1st digit) |
| P2 | =AC Loss (2nd digit) |
| RP | =AC Loss Restore (1st digit) |
| RP2 | =AC Loss Restore (2nd digit) |
| V | =Supervisory Condition (1st digit) |
| V2 | =Supervisory Condition (2nd digit) |
| RV | =Supervisory Condition Restore (1st digit) |
| RV2 | =Supervisory Condition Restore (2nd digit) |
| X | =Test Report (1st digit) |
| X2 | =Test Report (2nd digit) |
| XA | =Test Report Restore (1st digit) |
| XA2 | =Test Report Restore (2nd digit) |

**Table 13  Letter Code Definitions**

# Ademco Contact ID

The reporting structure for the Ademco Contact ID format is as follows:

## SSSS 18 QXYZ GG CCC

| | |
|---|---|
| SSSS | = Four digit Subscriber ID (addresses 17 - 20 and 43 - 46) |
| 18 | = Identifies transmission as Contact ID to the receiver at the Central Station |
| Q | = Event Qualifier; 1 = New Event, 2 = New Restore |
| XYZ | = Event Code (shown in Table 4 to Table 9) |
| GG | = Group or Loop number |
| CCC | = Device or Zone number |

**Table 14  Ademco Contact ID Reporting Structure**

**Note:** For general reports (alarm, trouble and supervisory), the GG and CCC fields are transmitted as 00 and 000 unless changes to addresses 64-65 and 66-68 are made.
64 - 65 = Loop number (GG), (factory default is 00)
66 - 68 = Device/Zone number (CCC) for General Alarm, Fault or Supervisory messages (factory default is 000).

A typical printout of alarm and trouble reports in the Ademco Contact ID Reporting Structure follows:

| Time | Date | Rcvr/ Line ID | SSSS | QXYX | GG | CCCC | |
|---|---|---|---|---|---|---|---|
| 11:28 | 10/14 | 11 | 7777 | E110 | 00 | C000 | General Alarm |
| 11:28 | 10/14 | 11 | 7777 | E111 | 00 | C046 | Alarm SD46 |
| 11:28 | 10/14 | 11 | 7777 | E300 | 00 | C000 | General Trouble |
| 11:28 | 10/14 | 11 | 7777 | E380 | 00 | C046 | Trouble SD46 |
| 11:28 | 10/14 | 11 | 7777 | R110 | 00 | C000 | General Alarm Restore |
| 11:28 | 10/14 | 11 | 7777 | R111 | 00 | C046 | Alarm SD46 Restore |
| 11:28 | 10/14 | 11 | 7777 | R300 | 00 | C000 | General Trouble Restore |
| 11:28 | 10/14 | 11 | 7777 | R380 | 00 | C046 | Trouble SD46 Restore |

**Note:** In the sample report, SD46 refers to smoke detector at address 46 or on zone 46.

**Note:** 18, which is used in the reporting structure to identify the transmission as Contact ID, is not printed out in the alarm and trouble report.

**Note:** Q, which is the Event Qualifier for the reporting structure, is printed out in the report as an E for New Event or R for New Restore.

**Note:** CCCC, the first C is not transmitted by the UDACT but is printed by the Central Station Receiver printer output.

*Continued on the next page...*

By using the Type Mode feature, identification of zone/point types is possible.  Limits for the maximum number of zones/points reported for each panel are as follows:

AFP-100 = 198 points or 56 zones
AFP-200 = 99 zones
AFP-300 = 256 points or 99 zones
AFP-400 = 448 points or 99 zones
AFC-600 = 568 points or 99 zones
NFS-640 = 568 points or 99 zones
System 500 = 56 zones
System 5000 = 120 zones
System 5000 with AIM-200 = 248 zones
AM2020/AFP1010/INA = 568 points
NFS-3030 = 568 points or 568 zones
NCA = 568 point or 99 zones

| Type ID # | Activated Device | Report |
|---|---|---|
| 2 | Supervisory Alarm | E200 00 C001 |
| 3 | Pull Station Alarm | E115 00 C003 |
| 4 | Heat Sensor Alarm | E114 00 C004 |
| 5 | Waterflow Alarm | E113 00 C005 |
| 6 | Duct Detector Alarm | E116 00 C006 |
| 7 | Flame Sensor Alarm | E117 00 C007 |
| 8 | Smoke Zone Alarm (Conventional) | E111 00 C002 |
| 9 | Burglary | E130 00 C008 |
| A | 24 Hour Non-burglary | E150 00C009 |
| B | High Temperature | E158 00 C010 |
| C | Low Temperature | E159 00 C011 |
| D | Low Water Pressure | E201 00 C012 |
| E | Low Water Level | E204 00 C013 |
| F | Pump Failure | E206 00 C014 |

**Table 15  Type Mode Reporting Codes**

| FACP | Maximum Address |
|------|-----------------|
| System 500 | 56 |
| AFP-100 | 198 |
| AFP-200 | 99 |
| System 5000 | 120 |
| System 5000 with AIM-200 | 248 |
| AFP-300 | 256 |
| AFP-400 | 448 |
| AFC-600 | 568 |
| NFS-640 | 568 |
| AM2020/AFP1010/INA | 568 |
| NCA | 568 |
| NFS-3030 | 568 |

**Table 16  Type Mode Maximum Address**

# Compatible Receivers

## UL Listed Receivers

The chart below shows UL listed receivers compatible with the UDACT:

| | Format #<br>(Addresses 16 & 24) | Ademco 685 (1) | Silent Knight 9000 | ITI CS-4000 (3) | FBI CP220FB | Osborne Hoffman Quick Alert Models 1 & 2 | Radionics 6000/65000 (5) | Linear/Sescoa 3000R (7) | Surguard MLR-2 (9) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 4+1 Ademco Express | ✔ | | | ✔ | | | | ✔ |
| 1 | 4+2 Ademco Express | ✔ | | ✔ | ✔ | ✔(8) | | | ✔ |
| 2 | 3+1/Standard/1800/2300 | ✔ | ✔(2) | ✔ | ✔(4) | ✔ | ✔ (5, 6) | ✔ | ✔ |
| 3 | Not Used | | | | | | | | |
| 4 | 3+1/Standard/1900/1400 | ✔ | ✔(2) | | ✔(4) | ✔ | | ✔ | ✔ |
| 5 | Not Used | | | | | | | | |
| 6 | 4+1/Standard/1800/2300 | ✔ | ✔(2) | ✔ | ✔(4) | ✔ | ✔(5) | ✔ | ✔ |
| 7 | Not Used | | | | | | | | |
| 8 | 4+1/Standard/1900/1400 | ✔ | ✔(2) | | ✔(4) | ✔ | | ✔ | ✔ |
| 9 | Not Used | | | | | | | | |
| A | 4+2/Standard/1800/2300 | ✔ | ✔(2) | ✔ | ✔(4) | ✔ | ✔(5) | ✔ | ✔ |
| B | Not Used | | | | | | | | |
| C | 4+2/Standard/1000/1400 | | ✔(2) | | ✔(4) | | | ✔ | ✔ |
| D | Not Used | | | | | | | | |
| E | Ademco Contact ID | ✔ | | | ✔ | ✔ | | | ✔ |
| F | Not Used | | | | | | | | |

NOTES:
(1) With 685-8 Line Card with Rev 4.4d software.
(2) With 9002 Line Card Rev 9035 software or 9032 Line Card with 9326A software.
(3) Rev. 4.0 software.
(4) FBI CP220FB Rec-11 Line Card with Rev 2.6 software and a memory card with Rev 3.8 software.
(5) Model 6500 with Rev 600 software.
(6) Model 6000 with Rev 204 software.
(7) With Rev B control card at Rev 1.4 software and Rev C line card at Rev 1.5 software.
(8) Model 2 only.
(9) Version 1.62 software.

**Table 17  Compatible UL Listed Receivers**

# Notes

# Appendix A: AFP-100

## General

The UDACT is capable of reporting a maximum of 56 zones or 198 points when used with the AFP-100. For more information on the AFP-100 see the *AFP-100 Instruction Manual*.

## Mounting

### Internal

The UDACT can be mounted in the AFP-100 cabinet by following the instructions and referring to the figure below:

| Step | Action |
|------|--------|
| 1 | Disconnect all sources of power (AC and DC). |
| 2 | Install 3 nylon and 1 aluminum 5/8" long snap-in standoffs (provided) in the holes located on the right side of the circuit board. |
| 3 | Place the SW2 switch in the down position to enable AC Loss Delay Reporting. |
| 4 | Carefully connect the ribbon cable (PN 75306, provided) to connector J16 on the circuit board and to connector J10 on the UDACT. |
| 5 | Align and snap the UDACT to the nylon standoffs. |
| 6 | Secure the UDACT to the aluminum standoff using the screw provided. Tighten securely. |
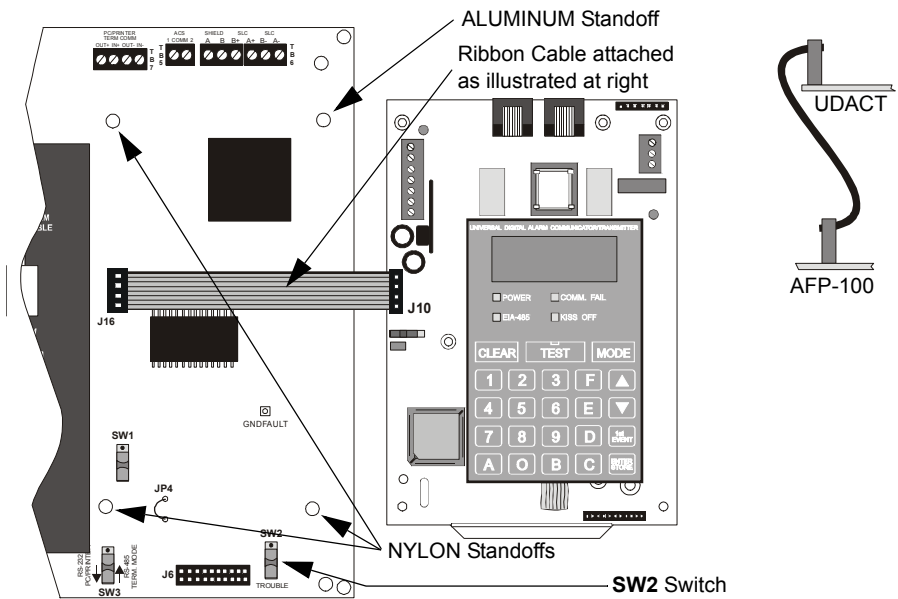


**Figure 15  UDACT Installation in AFP-100 Cabinet**

### Remote

The UDACT can also be mounted remotely using an ABS-8R or UBS-1 enclosure placed within 6000 feet (1828.8 meters) of the control panel.
Refer to "Remote Installation" on page 22 for installation instructions.

# Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

## Connections

With internal installation the EIA-485 circuit and 24VDC are provided directly from the J16 connector.

**Note:** A 120 ohm EOL resistor is not required on the UDACT EIA-485 terminals when it is installed inside the AFP-100 cabinet.

For external connections refer to Figure 16 on page 68.

Connect the communication line between the EIA-485 terminal block TB5 on the AFP-100 and TB-1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If last device or no other devices are connected to the external EIA-485, install a 120 ohm EOL resistor (PN 71244) across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to a solid building earth ground.

Connect 24VDC filtered, non-resettable power from terminal block TB4 on the AFP-100 to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1. Ferrite cores, PN 29090, are recommended for all applications.

2. Recommended wire is 12 AWG ($3.25mm^2$) to 18 AWG (0.75mm$^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 16.

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

3. Conduit is recommended for external wire runs. Consult local building codes.

4. Refer to "Specifications" on page 13 for power requirements.

Below is a remote installation of a UDACT with an AFP-100:
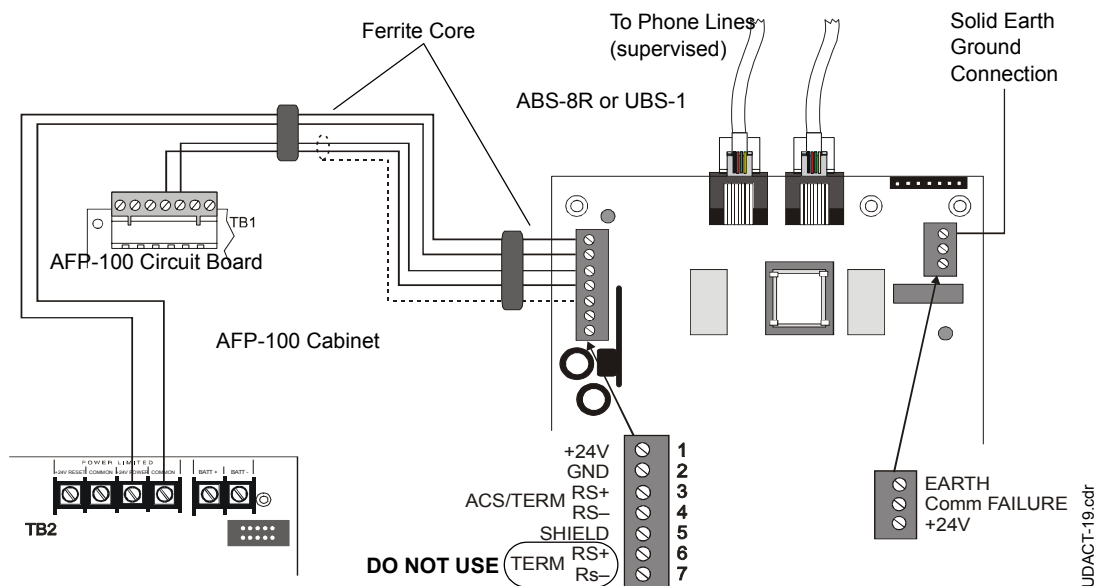


**Figure 16  UDACT and AFP-100**

# Zone Assignments

Use chart to carefully identify function of each zone in the system. Take special precaution with any supervisory zones in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.

| Zone | Zone Function | Zone | Zone Function |
|------|---------------|------|---------------|
| 1 | | 29 | |
| 2 | | 30 | |
| 3 | | 31 | |
| 4 | | 32 | |
| 5 | | 33 | |
| 6 | | 34 | |
| 7 | | 35 | |
| 8 | | 36 | |
| 9 | | 37 | |
| 10 | | 38 | |
| 11 | | 39 | |
| 12 | | 40 | |
| 13 | | 41 | |
| 14 | | 42 | |
| 15 | | 43 | |
| 16 | | 44 | |
| 17 | | 45 | |
| 18 | | 46 | |
| 19 | | 47 | |
| 20 | | 48 | |
| 21 | | 49 | |
| 22 | | 50 | |
| 23 | | 51 | |
| 24 | | 52 | |
| 25 | | 53 | |
| 26 | | 54 | |
| 27 | | 55 | |
| 28 | | 56 | |

**Table 18**

**Table 19  Zone Assignments - AFP-100**

# Point Assignments

Use chart to carefully identify all points in the system. Take special precaution with any supervisory points and remote switches in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.

| Point No | Type of Device Module Loop | Point No | Type of Device Module Loop | Point No | Type of Device Module Loop | Point No | Type of Device Module Loop |
|---|---|---|---|---|---|---|---|
| 001 | | 051 | | 101 | | 151 | |
| 002 | | 052 | | 102 | | 152 | |
| 003 | | 053 | | 103 | | 153 | |
| 004 | | 054 | | 104 | | 154 | |
| 005 | | 055 | | 105 | | 155 | |
| 006 | | 056 | | 106 | | 156 | |
| 007 | | 057 | | 107 | | 157 | |
| 008 | | 058 | | 108 | | 158 | |
| 009 | | 059 | | 109 | | 159 | |
| 010 | | 060 | | 110 | | 160 | |
| 011 | | 061 | | 111 | | 161 | |
| 012 | | 062 | | 112 | | 162 | |
| 013 | | 063 | | 113 | | 163 | |
| 014 | | 064 | | 114 | | 164 | |
| 015 | | 065 | | 115 | | 165 | |
| 016 | | 066 | | 116 | | 166 | |
| 017 | | 067 | | 117 | | 167 | |
| 018 | | 068 | | 118 | | 168 | |
| 019 | | 069 | | 119 | | 169 | |
| 020 | | 070 | | 120 | | 170 | |
| 021 | | 071 | | 121 | | 171 | |
| 022 | | 072 | | 122 | | 172 | |
| 023 | | 073 | | 123 | | 173 | |
| 024 | | 074 | | 124 | | 174 | |
| 025 | | 075 | | 125 | | 175 | |
| 026 | | 076 | | 126 | | 176 | |
| 027 | | 077 | | 127 | | 177 | |
| 028 | | 078 | | 128 | | 178 | |
| 029 | | 079 | | 129 | | 179 | |
| 030 | | 080 | | 130 | | 180 | |
| 031 | | 081 | | 131 | | 181 | |
| 032 | | 082 | | 132 | | 182 | |
| 033 | | 083 | | 133 | | 183 | |
| 034 | | 084 | | 134 | | 184 | |
| 035 | | 085 | | 135 | | 185 | |
| 036 | | 086 | | 136 | | 186 | |
| 037 | | 087 | | 137 | | 187 | |
| 038 | | 088 | | 138 | | 188 | |
| 039 | | 089 | | 139 | | 189 | |
| 040 | | 090 | | 140 | | 190 | |
| 041 | | 091 | | 141 | | 191 | |
| 042 | | 092 | | 142 | | 192 | |
| 043 | | 093 | | 143 | | 193 | |
| 044 | | 094 | | 144 | | 194 | |
| 045 | | 095 | | 145 | | 195 | |
| 046 | | 096 | | 146 | | 196 | |
| 047 | | 097 | | 147 | | 197 | |
| 048 | | 098 | | 148 | | 198 | |
| 049 | | 099 | | 149 | | | |
| 050 | | 100 | | 150 | | | |

**Table 20**

**Table 21  Point Assignments - AFP-100**

# Appendix B: AFP-200

## General

The UDACT is capable of reporting a maximum of 99 zones when used with the AFP-200.

For more information on the AFP-200 see the *AFP-200 Instruction Manual*.

## Mounting

Since the AFP-200 cannot accommodate the UDACT in the control panel enclosure, the UDACT must be mounted remotely using an ABS-8R or UBS-1 enclosure placed within 6000 feet (1828.8 meters) of the control panel. Refer to "Remote Installation" on page 22 for installation instructions.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 17 on page 72.

Connect the communication line between the EIA-485 terminal block TB5 on the AFP-200 and TB-1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If last device or no other devices are connected to the EIA-485, install a 120 ohm EOL resistor (PN 71244) across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to a solid building earth ground.

Connect 24VDC filtered, non-resettable power from terminal block TB1 on the AFP-200 to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1. Ferrite cores, PN 29090, are recommended for all applications.

2. Recommended wire is 12 AWG ($3.25mm^2$) to 18 AWG ($0.75mm^2$) twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 17.

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

3. Conduit is recommended for external wire runs. Consult local building codes.

4. Refer to "Specifications" on page 13 for power requirements.

Below is a remote installation of a UDACT with an AFP-200:
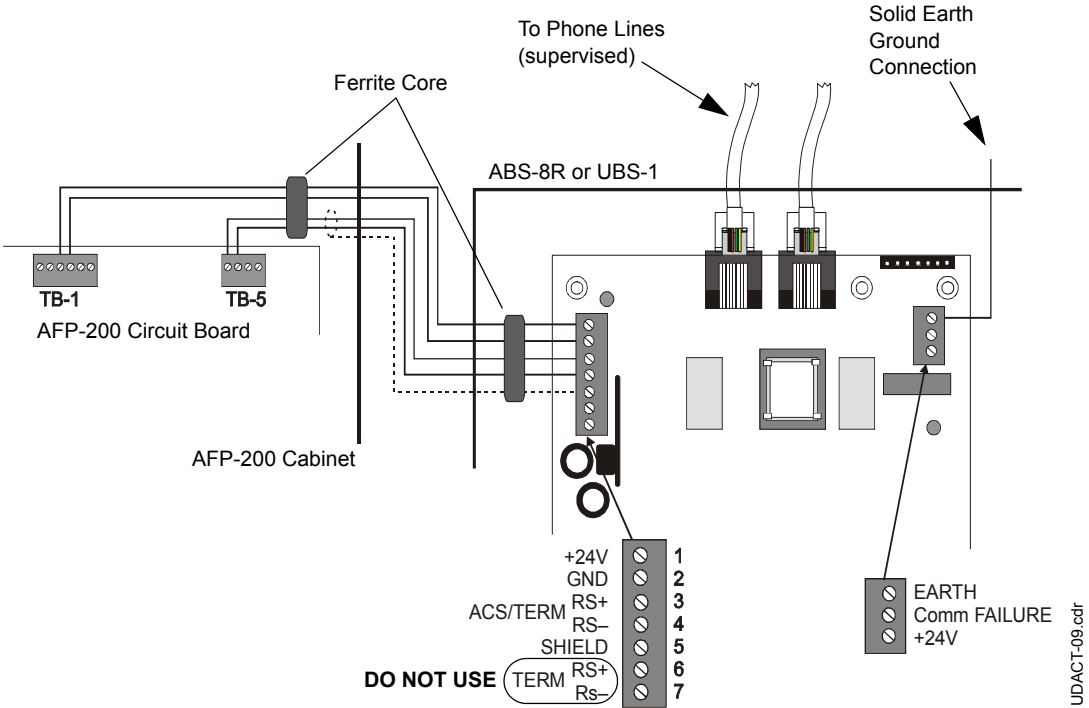


**Figure 17  UDACT and AFP-200**

# Zone Assignments

Use chart to carefully identify function of each zone in the system. Take special precaution with any supervisory zones in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.

**Note:** When selecting burglary zones, modify the general supervisory report at addresses 75-77 and 145-147, to report general burglary.

| Zone | Zone Function | Zone | Zone Function | Zone | Zone Function |
|------|---------------|------|---------------|------|---------------|
| 1 |  | 34 |  | 67 |  |
| 2 |  | 35 |  | 68 |  |
| 3 |  | 36 |  | 69 |  |
| 4 |  | 37 |  | 70 |  |
| 5 |  | 38 |  | 71 |  |
| 6 |  | 39 |  | 72 |  |
| 7 |  | 40 |  | 73 |  |
| 8 |  | 41 |  | 74 |  |
| 9 |  | 42 |  | 75 |  |
| 10 |  | 43 |  | 76 |  |
| 11 |  | 44 |  | 77 |  |
| 12 |  | 45 |  | 78 |  |
| 13 |  | 46 |  | 79 |  |
| 14 |  | 47 |  | 80 |  |
| 15 |  | 48 |  | 81 |  |
| 16 |  | 49 |  | 82 |  |
| 17 |  | 50 |  | 83 |  |
| 18 |  | 51 |  | 84 |  |
| 19 |  | 52 |  | 85 |  |
| 20 |  | 53 |  | 86 |  |
| 21 |  | 54 |  | 87 |  |
| 22 |  | 55 |  | 88 |  |
| 23 |  | 56 |  | 89 |  |
| 24 |  | 57 |  | 90 |  |
| 25 |  | 58 |  | 91 |  |
| 26 |  | 59 |  | 92 |  |
| 27 |  | 60 |  | 93 |  |
| 28 |  | 61 |  | 94 |  |
| 29 |  | 62 |  | 95 |  |
| 30 |  | 63 |  | 96 |  |
| 31 |  | 64 |  | 97 |  |
| 32 |  | 65 |  | 98 |  |
| 33 |  | 66 |  | 99 |  |

**Table 22**

**Table 23  Zone Assignments - AFP-200**

# Notes

# Appendix C: System 500

## General

The UDACT is capable of reporting a maximum of 56 zones when used with the System 500. It reports alarms and troubles on inputs and reports only troubles on outputs. Beware of 'gaps' in the reporting of input circuits. The gaps depend upon the mounting location and FACP configuration. The System 500 has a maximum of 16 inputs.

For more information on the System 500 see the *System 500 Instruction Manual*.

## Mounting

Since the System 500 cannot accommodate the UDACT in the control panel enclosure, the UDACT must be mounted remotely using an ABS-8R or UBS-1 enclosure placed within 6000 feet (1828.8 meters) of the control panel. Refer to "Remote Installation" on page 22 for installation instructions.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 18 on page 76.

Connect the communication line between the EIA-485 terminal block on the System 500 and TB-1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If last devices or no other devices are connected to the EIA-485, install a 120 ohm EOL resistor (PN 71244) across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to a solid building earth ground.

Connect 24VDC filtered, non-resettable power from MPS-24BPCA (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1. Ferrite cores, PN 29090, are recommended for all applications.

2. Recommended wire is 12 AWG ($3.25mm^2$) to 18 AWG ($0.75mm^2$) twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 18.

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

3. Conduit is recommended for external wire runs. Consult local building codes.

4. Refer to "Specifications" on page 13 for power requirements.

Below is a remote installation of a UDACT with a System 500:
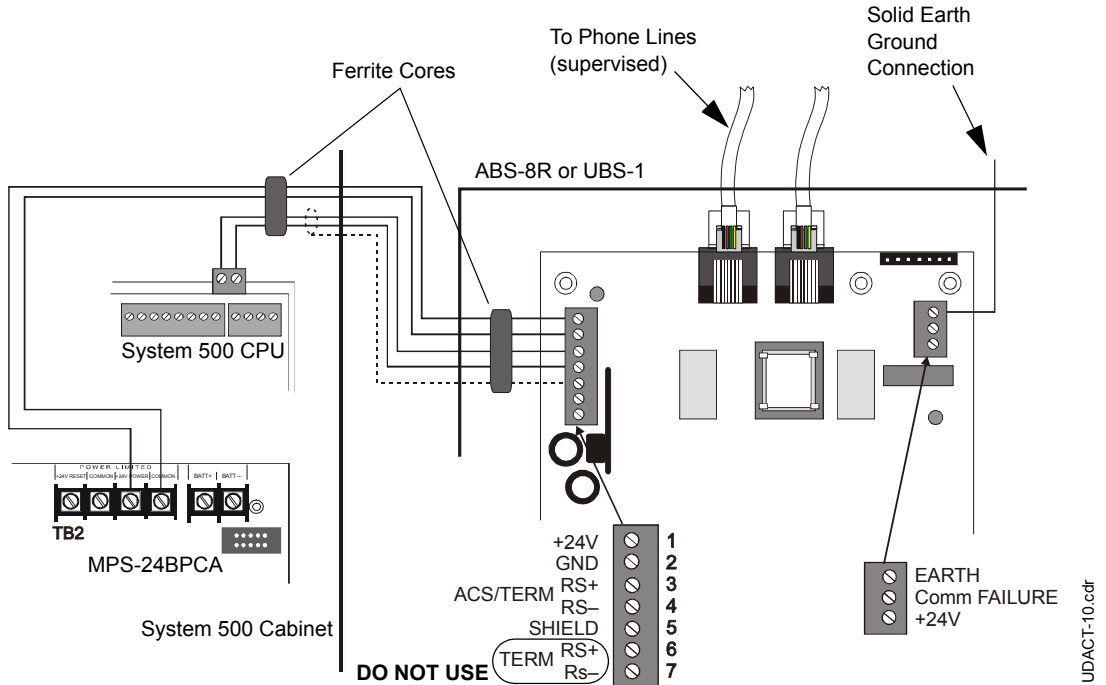


**Figure 18  UDACT and System 500**

# Zone Assignments

Use chart to carefully identify function of each zone in the system. Take special precaution with any supervisory zones in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.

| Zone | Zone Function | Zone | Zone Function |
|---|---|---|---|
| 1 | | 29 | |
| 2 | | 30 | |
| 3 | | 31 | |
| 4 | | 32 | |
| 5 | | 33 | |
| 6 | | 34 | |
| 7 | | 35 | |
| 8 | | 36 | |
| 9 | | 37 | |
| 10 | | 38 | |
| 11 | | 39 | |
| 12 | | 40 | |
| 13 | | 41 | |
| 14 | | 42 | |
| 15 | | 43 | |
| 16 | | 44 | |
| 17 | | 45 | |
| 18 | | 46 | |
| 19 | | 47 | |
| 20 | | 48 | |
| 21 | | 49 | |
| 22 | | 50 | |
| 23 | | 51 | |
| 24 | | 52 | |
| 25 | | 53 | |
| 26 | | 54 | |
| 27 | | 55 | |
| 28 | | 56 | |

**Table 24**

**Table 25  Zone Assignments - System 500**

# Notes

# Appendix D: System 5000

## General

The UDACT is capable of reporting a maximum of 120 zones when used with the System 5000.  It reports alarms and troubles on inputs and reports only troubles on outputs.  Beware of 'gaps' in the reporting of input circuits.  The gaps depend upon the mounting location and FACP configuration.

AIM-200 modules are reported as a maximum of 8 zones when selecting programming entry 63=3.  Setting entry 63=4 allows point reporting of the first AIM-200 module as explained below.

For more information on the System 5000 see the *System 5000 Installation Manual*.

## Module Slot Position

Each module slot position may accept a variety of option modules including the AIM-200, input and output modules.  Regardless of which module is placed into the module slot location, the UDACT will report the identity of the zone/point as shown in the tables below:

AIM-200 modules placed into any module slot location must be configured as an '8 Zone Input' module.

| System 5000 Enclosure: Module Slot Positions | | | |
|---|---|---|---|
| CPU | Points 1 - 8 | Points 9 - 16 | Points 17 - 24 |
| Points 25 - 32 | Points 33 - 40 | Points 40 - 48 | Points 49 - 56 |
| Points 57 - 64 | Points 65 - 72 | Points 73 - 80 | Points 81 - 88 |
| Points 89 - 96 | Points 97 - 104 | Points 105 - 112 | Points 113 - 120 |

**Table 26  Using AIM-200 Module Configured as 8 Zone Input Module**

AIM-200 modules placed into any module slot location must be configured as an '8 Zone Input' module, except the first module slot position.  Program the System 5000 in 'AIM mode'.

| System 5000 Enclosure: Module Slot Positions | | | |
|---|---|---|---|
| CPU | AIM Point ID (see below) | Points 9 - 16 | Points 17 - 24 |
| Points 25 - 32 | Points 33 - 40 | Points 40 - 48 | Points 49 - 56 |
| Module Slots not available in this configuration | | | |
| Module Slots not available in this configuration | | | |

**Table 27  Using First AIM-200 Module Configured as 192 Points**

The UDACT reports by individual point the devices connected to the first AIM-200 module in the first option module slot as follows:

Addressable Smoke Detectors 1 - 64 report as points 57 - 120.

Addressable Monitor/Control Modules 1 - 64 report as points 121 - 184

Addressable Smoke Detectors 65 - 96 report as points 185 - 216

Addressable Monitor/Control Modules 65 - 96 report as points 217 - 248

# Mounting

The UDACT may be mounted in the System 5000 control panel enclosure or be mounted remotely using an ABS-8R or UBS-1 enclosure placed within 6000 feet (1828.8 meters) of the control panel. Refer to "Remote Installation" on page 22 or "Internal Installation" on page 20 for installation instructions.

# Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

## Connections

Refer to Figure 20 and Figure 19 on page 81.

Connect the communication line between the EIA-485 terminal block on the System 5000 and TB-1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to the CHS-4 Chassis or to a solid building earth ground.

Connect 24 VDC filtered, non-resettable power from the MPS-24A or MPS-24B (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1.  Ferrite cores, PN 29090, are recommended for all applications.

2.  Recommended wire is 12 AWG ($3.25mm^2$) to 18 AWG ($0.75mm^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 20.

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

3.  Conduit is recommended for external wire runs. Consult local building codes.

4.  Refer to "Specifications" on page 13 for power requirements.

Below is a remote installation of a UDACT with a System 5000 using an MPS-24B power supply:



**Figure 19  UDACT and System 5000 with MPS-24B**
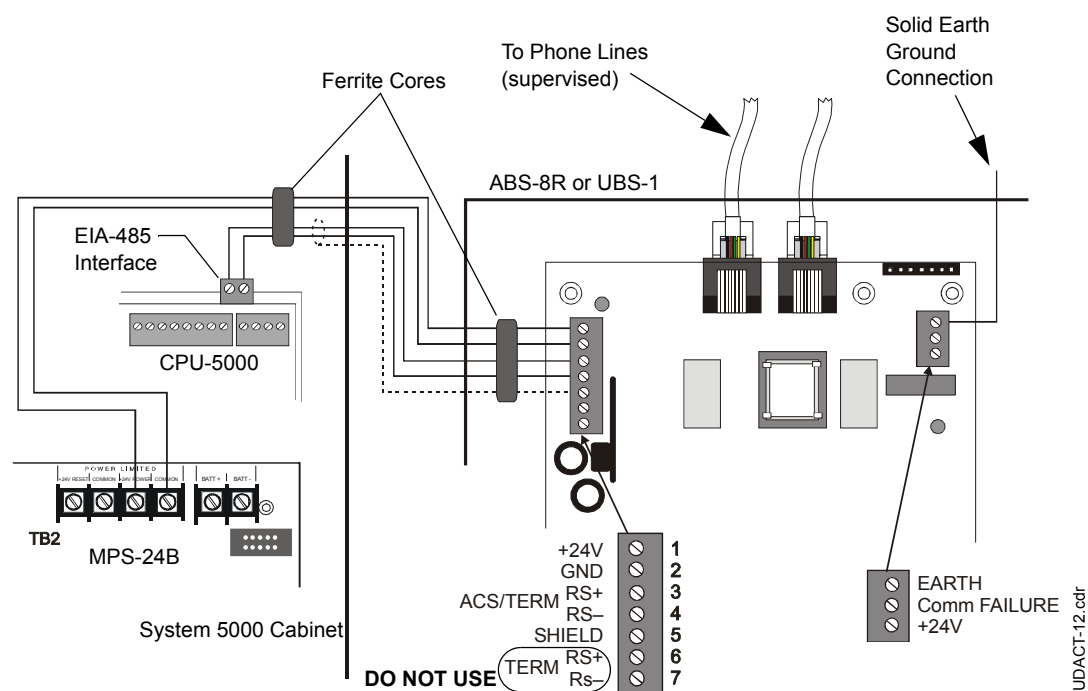
Below is an internal installation of a UDACT with a System 5000 using an MPS-24A power supply:



**Figure 20  UDACT and System 5000 with MPS-24A**
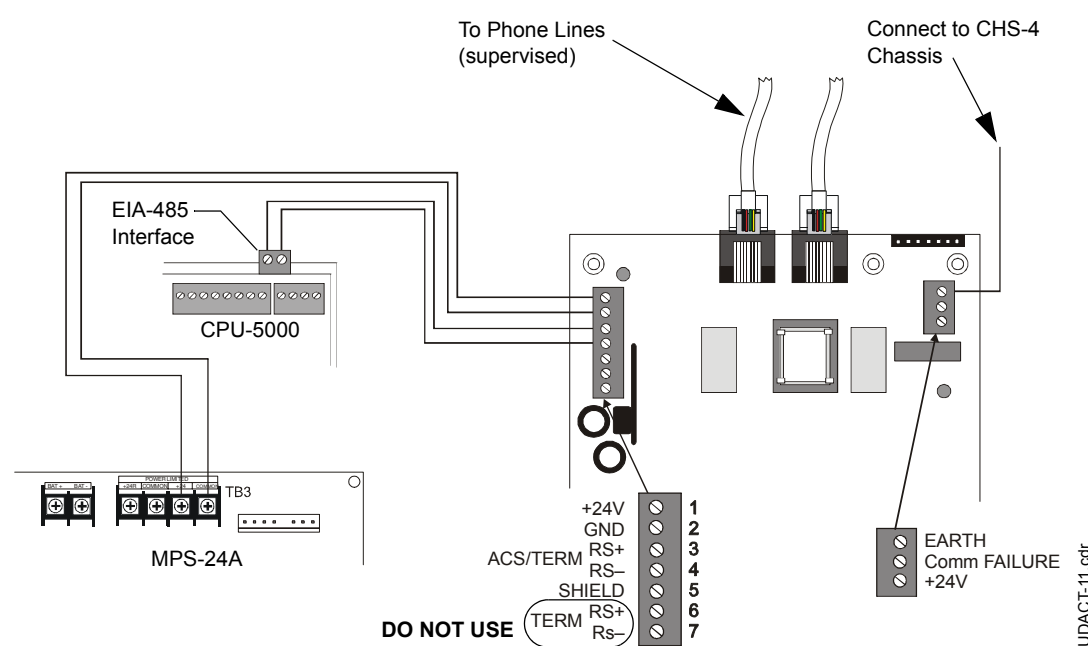
# Zone Assignments with AIM-200

Use chart to carefully identify function of each zone in the system. Take special precaution with any supervisory zones in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.

| Zone | Zone Function | Zone | Zone Function | Zone | Zone Function |
|------|---------------|------|---------------|------|---------------|
| 1 | | 42 | | 83 | |
| 2 | | 43 | | 84 | |
| 3 | | 44 | | 85 | |
| 4 | | 45 | | 86 | |
| 5 | | 46 | | 87 | |
| 6 | | 47 | | 88 | |
| 7 | | 48 | | 89 | |
| 8 | | 49 | | 90 | |
| 9 | | 50 | | 91 | |
| 10 | | 51 | | 92 | |
| 11 | | 52 | | 93 | |
| 12 | | 53 | | 94 | |
| 13 | | 54 | | 95 | |
| 14 | | 55 | | 96 | |
| 15 | | 56 | | 97 | |
| 16 | | 57 | | 98 | |
| 17 | | 58 | | 99 | |
| 18 | | 59 | | 100 | |
| 19 | | 60 | | 101 | |
| 20 | | 61 | | 102 | |
| 21 | | 62 | | 103 | |
| 22 | | 63 | | 104 | |
| 23 | | 64 | | 105 | |
| 24 | | 65 | | 106 | |
| 25 | | 66 | | 107 | |
| 26 | | 67 | | 108 | |
| 27 | | 68 | | 109 | |
| 28 | | 69 | | 110 | |
| 29 | | 70 | | 111 | |
| 30 | | 71 | | 112 | |
| 31 | | 72 | | 113 | |
| 32 | | 73 | | 114 | |
| 33 | | 74 | | 115 | |
| 34 | | 75 | | 116 | |
| 35 | | 76 | | 117 | |
| 36 | | 77 | | 118 | |
| 37 | | 78 | | 119 | |
| 38 | | 79 | | 120 | |
| 39 | | 80 | | 121 | |
| 40 | | 81 | | 122 | |
| 41 | | 82 | | 123 | |

**Table 28**

Zone Assignments with AIM-200 (cont.)

| Zone | Zone Function | Zone | Zone Function | Zone | Zone Function |
|------|---------------|------|---------------|------|---------------|
| 124 | | 166 | | 208 | |
| 125 | | 167 | | 209 | |
| 126 | | 168 | | 210 | |
| 127 | | 169 | | 211 | |
| 128 | | 170 | | 212 | |
| 129 | | 171 | | 213 | |
| 130 | | 172 | | 214 | |
| 131 | | 173 | | 215 | |
| 132 | | 174 | | 216 | |
| 133 | | 175 | | 217 | |
| 134 | | 176 | | 218 | |
| 135 | | 177 | | 219 | |
| 136 | | 178 | | 220 | |
| 137 | | 179 | | 221 | |
| 138 | | 180 | | 222 | |
| 139 | | 181 | | 223 | |
| 140 | | 182 | | 224 | |
| 141 | | 183 | | 225 | |
| 142 | | 184 | | 226 | |
| 143 | | 185 | | 227 | |
| 144 | | 186 | | 228 | |
| 145 | | 187 | | 229 | |
| 146 | | 188 | | 230 | |
| 147 | | 189 | | 231 | |
| 148 | | 190 | | 232 | |
| 149 | | 191 | | 233 | |
| 150 | | 192 | | 234 | |
| 151 | | 193 | | 235 | |
| 152 | | 194 | | 236 | |
| 153 | | 195 | | 237 | |
| 154 | | 196 | | 238 | |
| 155 | | 197 | | 239 | |
| 156 | | 198 | | 240 | |
| 157 | | 199 | | 241 | |
| 158 | | 200 | | 242 | |
| 159 | | 201 | | 243 | |
| 160 | | 202 | | 244 | |
| 161 | | 203 | | 245 | |
| 162 | | 204 | | 246 | |
| 163 | | 205 | | 247 | |
| 164 | | 206 | | 248 | |
| 165 | | 207 | | | |

**Table 29**

**Table 30  Zone Assignments - System 5000 with AIM-200**

# Zone Assignments without AIM-200

Use chart to carefully identify function of each zone in the system. Take special precaution with any supervisory zones in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the

function of remaining zones in the system for proper reporting.

| Zone | Zone Function | Zone | Zone Function | Zone | Zone Function |
|---|---|---|---|---|---|
| 1 | | 41 | | 81 | |
| 2 | | 42 | | 82 | |
| 3 | | 43 | | 83 | |
| 4 | | 44 | | 84 | |
| 5 | | 45 | | 85 | |
| 6 | | 46 | | 86 | |
| 7 | | 47 | | 87 | |
| 8 | | 48 | | 88 | |
| 9 | | 49 | | 89 | |
| 10 | | 50 | | 90 | |
| 11 | | 51 | | 91 | |
| 12 | | 52 | | 92 | |
| 13 | | 53 | | 93 | |
| 14 | | 54 | | 94 | |
| 15 | | 55 | | 95 | |
| 16 | | 56 | | 96 | |
| 17 | | 57 | | 97 | |
| 18 | | 58 | | 98 | |
| 19 | | 59 | | 99 | |
| 20 | | 60 | | 100 | |
| 21 | | 61 | | 101 | |
| 22 | | 62 | | 102 | |
| 23 | | 63 | | 103 | |
| 24 | | 64 | | 104 | |
| 25 | | 65 | | 105 | |
| 26 | | 66 | | 106 | |
| 27 | | 67 | | 107 | |
| 28 | | 68 | | 108 | |
| 29 | | 69 | | 109 | |
| 30 | | 70 | | 110 | |
| 31 | | 71 | | 111 | |
| 32 | | 72 | | 112 | |
| 33 | | 73 | | 113 | |
| 34 | | 74 | | 114 | |
| 35 | | 75 | | 115 | |
| 36 | | 76 | | 116 | |
| 37 | | 77 | | 117 | |
| 38 | | 78 | | 118 | |
| 39 | | 79 | | 119 | |
| 40 | | 80 | | 120 | |

**Table 31**

**Table 32  Zone Assignments - System 5000 without AIM-200**

# Appendix E: AFP-300 & AFP-400

## General

### AFP-300

The UDACT is capable of reporting a maximum of 99 zones or 256 points when used with the AFP-300.

### AFP-400

The UDACT is capable of reporting a maximum of 99 zones or 448 points when used with the AFP-400.

## Mounting

If the AFP-300 or AFP-400 is contained in a CAB-400AA cabinet, then the UDACT must be mounted remotely in an ABS-8R or UBS-1 enclosure placed within 6000 feet (1828.8 meters) away from the control panel. For mounting instructions see "Remote Installation" on page 22.

If the AFP-300 or AFP-400 is contained in a CAB-3/4 Series cabinet, then the UDACT may be mounted to a CHS-4 chassis within that cabinet. For mounting instructions see "Internal Installation" on page 20.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 21 and Figure 22 on page 86.

Connect the communication line between the EIA-485 terminal block TB4 on the AFP-300/AFP-400 and TB1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to the CHS-4 Chassis or to a solid building earth ground.

Connect 24VDC filtered, non-resettable power from the MPS-400 (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1.  Ferrite cores, PN 29090, are recommended for all applications.

2.  Recommended wire is 12 AWG (3.25mm$^2$) to 18 AWG (0.75mm$^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 21.

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

3.  Conduit is recommended for external wire runs. Consult local building codes.

4.  Refer to "Specifications" on page 13 for power requirements.

Below is a remote installation of a UDACT with an AFP-300/AFP-400:
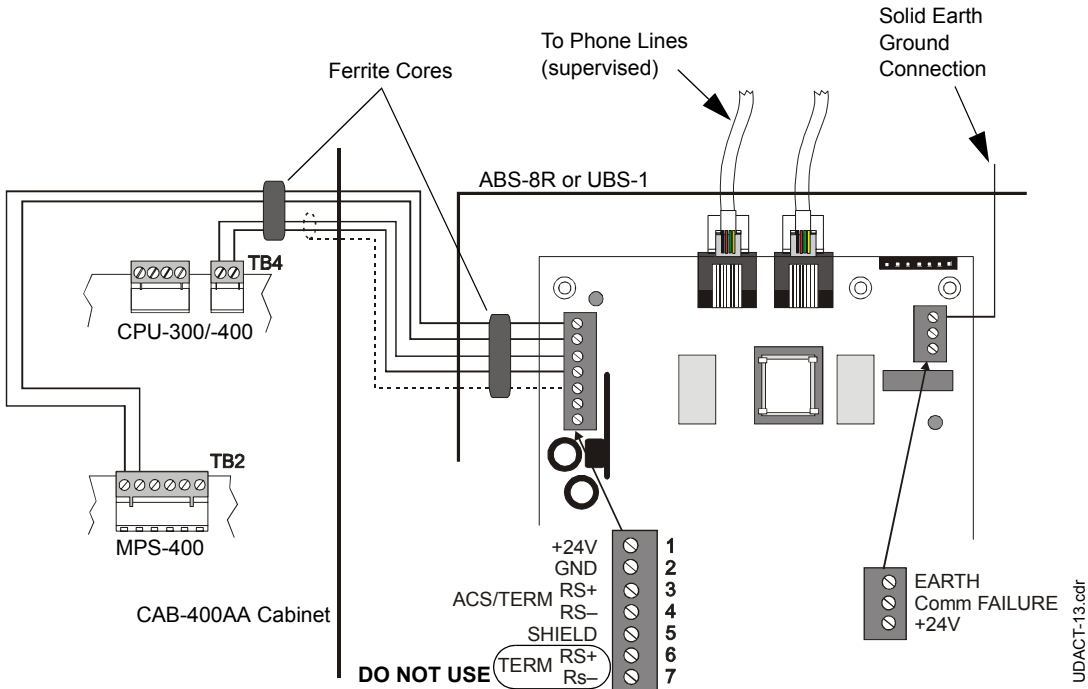
**Figure 21  UDACT and AFP-300/AFP-400 in CAB-AA**

Below is an internal installation of a UDACT with an AFP-300/AFP-400:
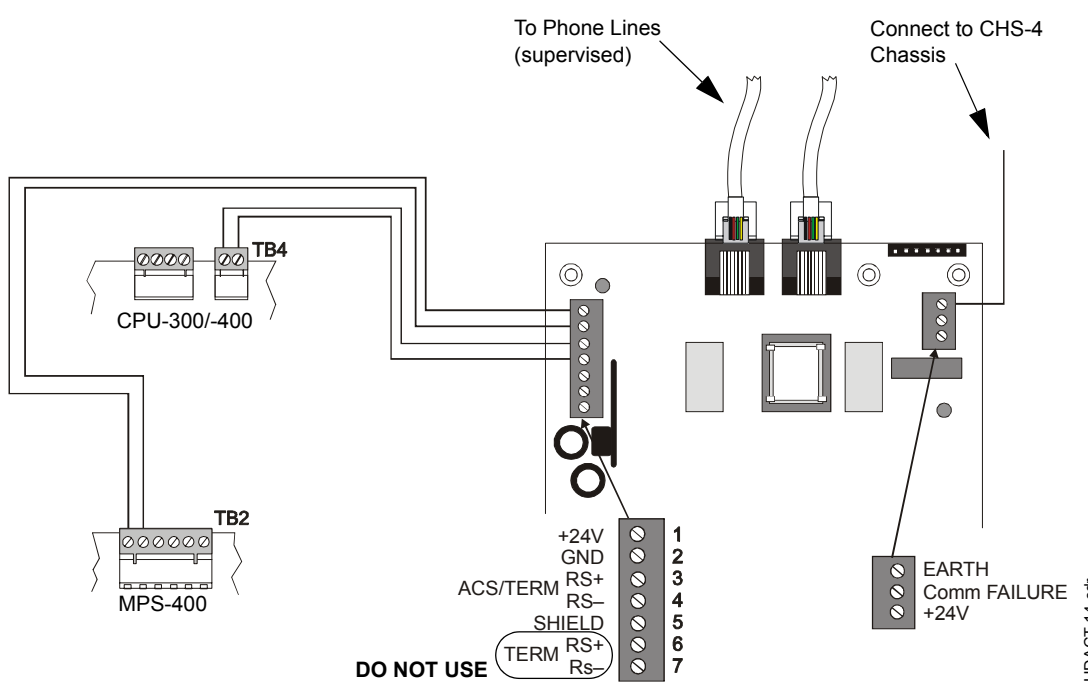
**Figure 22  UDACT and AFP-300/AFP-400 in CAB-3/4**

# Type Mode Programming

To disable or identify a zone or point in Type Mode (refer to "Type Mode" on page 55), the following Entries/Addresses are used:

## For Zone Identification:

Zones 1 - 99 are programmed by Entries/Addresses 01 - 99.  The factory default code is 'fire alarm.'

## For Point Identification:

Loop 1, Modules 101 - 196 are programmed by Type Mode Entries/Addresses 01 - 96

Loop 2 Modules 201 - 296 are programmed by Type Mode Entries/Addresses 101 - 196

Loop 1, Detectors 101 - 196 are programmed by Type Mode Entries/Addresses 201 - 296

Loop 2, Detectors 201 - 296 are programmed by Type Mode Entries/Addresses 301 - 396

System 5000 output modules are programmed by Type Mode Entries/Addresses 401 - 464

⚠ **CAUTION:** Addresses 97 - 100, 197 - 200, 297 - 300, and 397-400 must not be programmed. System 5000 output module addresses are dependent upon module location. Refer to the CAB-B3, CAB-C3 and CAB-400AA illustrations on next page.

# Event Code/Report Transmission

Via Ademco Contact ID Format Only

## For Zone Reporting:

Zones 1 - 99 report as zone numbers 01 - 99

## For Point Reporting:

Loop 1, Modules 101 - 196 report as device numbers 01 - 96 (Report defaults to '110')

Loop 2, Modules 201 - 296 report as device numbers 101 - 196 (Report defaults to '110')

Loop 1, Detectors 101 - 196 report as device numbers 201 - 296 (Report defaults to '111')

Loop 2, Detectors 201 - 296 report as device numbers 301 - 396 (Report defaults to '111')

Output Modules 1 - 64 report as device numbers 401 - 464 (Report defaults to '380', trouble only)

**CAUTION:** Point reports for Loop 1, Modules 197 through 199, Detectors 197 through 199 and point reports for Loop 2, Modules 297 through 299 and Detectors 297 through 299 are omitted. However, when devices are installed on either SLC Loop and the device is in alarm or trouble, the UDACT will transmit the general alarm and general trouble reports if enabled.

Following are module locations and their corresponding addresses in various cabinets:

**CAB - B3**

| AFP-300/-400 CPU | | 417-424 | 425-432 |
|---|---|---|---|
| 433-440 | 441-448 | 449-456 | 457-464 |

**CAB - C3**

| AFP-300/-400 CPU | | | |
|---|---|---|---|
| 401-408 | 409-416 | 417-424 | 425-432 |
| 433-440 | 441-448 | 449-456 | 457-464 |

**CAB - 400AA**

| AFP-300/-400 CPU | 401-408 |
|---|---|

**Note:** In order for point reporting of System 5000 modules to report as shown above, be certain to use the last connectors on the module slot cable.

# Zone Assignments

Use chart to carefully identify function of each zone in the system. Take special precaution with any supervisory zones in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.

**Note:** When selecting burglary zones, modify the general supervisory report at addresses 75-77 and 145-147, to report general burglary.

| Zone | Zone Function | Zone | Zone Function | Zone | Zone Function |
|------|---------------|------|---------------|------|---------------|
| 1 | | 34 | | 67 | |
| 2 | | 35 | | 68 | |
| 3 | | 36 | | 69 | |
| 4 | | 37 | | 70 | |
| 5 | | 38 | | 71 | |
| 6 | | 39 | | 72 | |
| 7 | | 40 | | 73 | |
| 8 | | 41 | | 74 | |
| 9 | | 42 | | 75 | |
| 10 | | 43 | | 76 | |
| 11 | | 44 | | 77 | |
| 12 | | 45 | | 78 | |
| 13 | | 46 | | 79 | |
| 14 | | 47 | | 80 | |
| 15 | | 48 | | 81 | |
| 16 | | 49 | | 82 | |
| 17 | | 50 | | 83 | |
| 18 | | 51 | | 84 | |
| 19 | | 52 | | 85 | |
| 20 | | 53 | | 86 | |
| 21 | | 54 | | 87 | |
| 22 | | 55 | | 88 | |
| 23 | | 56 | | 89 | |
| 24 | | 57 | | 90 | |
| 25 | | 58 | | 91 | |
| 26 | | 59 | | 92 | |
| 27 | | 60 | | 93 | |
| 28 | | 61 | | 94 | |
| 29 | | 62 | | 95 | |
| 30 | | 63 | | 96 | |
| 31 | | 64 | | 97 | |
| 32 | | 65 | | 98 | |
| 33 | | 66 | | 99 | |

**Table 33**

**Table 34  Zone Assignments - AFP-300/AFP-400**

# Point Assignments

Use chart to carefully identify all points in the system. Take special precaution with any supervisory points and remote switches in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.
If using an AFP-300, use only 'Module Loop 1' or 'Detector Loop 1'.

| Point No | Type of Device: Module Loop 1 | Point No | Type of Device: Module Loop 1 | Point No | Type of Device: Module Loop 2 | Point No | Type of Device: Module Loop 2 |
|---|---|---|---|---|---|---|---|
| 001 | | 051 | | 101 | | 151 | |
| 002 | | 052 | | 102 | | 152 | |
| 003 | | 053 | | 103 | | 153 | |
| 004 | | 054 | | 104 | | 154 | |
| 005 | | 055 | | 105 | | 155 | |
| 006 | | 056 | | 106 | | 156 | |
| 007 | | 057 | | 107 | | 157 | |
| 008 | | 058 | | 108 | | 158 | |
| 009 | | 059 | | 109 | | 159 | |
| 010 | | 060 | | 110 | | 160 | |
| 011 | | 061 | | 111 | | 161 | |
| 012 | | 062 | | 112 | | 162 | |
| 013 | | 063 | | 113 | | 163 | |
| 014 | | 064 | | 114 | | 164 | |
| 015 | | 065 | | 115 | | 165 | |
| 016 | | 066 | | 116 | | 166 | |
| 017 | | 067 | | 117 | | 167 | |
| 018 | | 068 | | 118 | | 168 | |
| 019 | | 069 | | 119 | | 169 | |
| 020 | | 070 | | 120 | | 170 | |
| 021 | | 071 | | 121 | | 171 | |
| 022 | | 072 | | 122 | | 172 | |
| 023 | | 073 | | 123 | | 173 | |
| 024 | | 074 | | 124 | | 174 | |
| 025 | | 075 | | 125 | | 175 | |
| 026 | | 076 | | 126 | | 176 | |
| 027 | | 077 | | 127 | | 177 | |
| 028 | | 078 | | 128 | | 178 | |
| 029 | | 079 | | 129 | | 179 | |
| 030 | | 080 | | 130 | | 180 | |
| 031 | | 081 | | 131 | | 181 | |
| 032 | | 082 | | 132 | | 182 | |
| 033 | | 083 | | 133 | | 183 | |
| 034 | | 084 | | 134 | | 184 | |
| 035 | | 085 | | 135 | | 185 | |
| 036 | | 086 | | 136 | | 186 | |
| 037 | | 087 | | 137 | | 187 | |
| 038 | | 088 | | 138 | | 188 | |
| 039 | | 089 | | 139 | | 189 | |
| 040 | | 090 | | 140 | | 190 | |
| 041 | | 091 | | 141 | | 191 | |
| 042 | | 092 | | 142 | | 192 | |
| 043 | | 093 | | 143 | | 193 | |
| 044 | | 094 | | 144 | | 194 | |
| 045 | | 095 | | 145 | | 195 | |
| 046 | | 096 | | 146 | | 196 | |
| 047 | | 097 | | 147 | | 197 | |
| 048 | | 098 | Do Not | 148 | | 198 | Do Not |
| 049 | | 099 | Program | 149 | | 199 | Program |
| 050 | | 100 | | 150 | | 200 | |

**Table 35**

Point Assignments

Point Assignments continued:

| Point No | Type of Device: Detectors Loop 1 | Point No | Type of Device: Detectors Loop 1 | Point No | Type of Device; Detectors Loop 2 | Point No | Type of Device: Detectors Loop 2 |
|---|---|---|---|---|---|---|---|
| 201 | | 251 | | 301 | | 351 | |
| 202 | | 252 | | 302 | | 352 | |
| 203 | | 253 | | 303 | | 353 | |
| 204 | | 254 | | 304 | | 354 | |
| 205 | | 255 | | 305 | | 355 | |
| 206 | | 256 | | 306 | | 356 | |
| 207 | | 257 | | 307 | | 357 | |
| 208 | | 258 | | 308 | | 358 | |
| 209 | | 259 | | 309 | | 359 | |
| 210 | | 260 | | 310 | | 360 | |
| 211 | | 261 | | 311 | | 361 | |
| 212 | | 262 | | 312 | | 362 | |
| 213 | | 263 | | 313 | | 363 | |
| 214 | | 264 | | 314 | | 364 | |
| 215 | | 265 | | 315 | | 365 | |
| 216 | | 266 | | 316 | | 366 | |
| 217 | | 267 | | 317 | | 367 | |
| 218 | | 268 | | 318 | | 368 | |
| 219 | | 269 | | 319 | | 369 | |
| 220 | | 270 | | 320 | | 370 | |
| 221 | | 271 | | 321 | | 371 | |
| 222 | | 272 | | 322 | | 372 | |
| 223 | | 273 | | 323 | | 373 | |
| 224 | | 274 | | 324 | | 374 | |
| 225 | | 275 | | 325 | | 375 | |
| 226 | | 276 | | 326 | | 376 | |
| 227 | | 277 | | 327 | | 377 | |
| 228 | | 278 | | 328 | | 378 | |
| 229 | | 279 | | 329 | | 379 | |
| 230 | | 280 | | 330 | | 380 | |
| 231 | | 281 | | 331 | | 381 | |
| 232 | | 282 | | 332 | | 382 | |
| 233 | | 283 | | 333 | | 383 | |
| 234 | | 284 | | 334 | | 384 | |
| 235 | | 285 | | 335 | | 385 | |
| 236 | | 286 | | 336 | | 386 | |
| 237 | | 287 | | 337 | | 387 | |
| 238 | | 288 | | 338 | | 388 | |
| 239 | | 289 | | 339 | | 389 | |
| 240 | | 290 | | 340 | | 390 | |
| 241 | | 291 | | 341 | | 391 | |
| 242 | | 292 | | 342 | | 392 | |
| 243 | | 293 | | 343 | | 393 | |
| 244 | | 294 | | 344 | | 394 | |
| 245 | | 295 | | 345 | | 395 | |
| 246 | | 296 | | 346 | | 396 | |
| 247 | | 297 | | 347 | | 397 | |
| 248 | | 298 | Do Not | 348 | | 398 | Do Not |
| 249 | | 299 | Program | 349 | | 399 | Program |
| 250 | | 300 | | 350 | | 400 | |

**Table 36**

**Note:** Addressable detectors on Loops 1 and 2 may be disabled using Type Mode. The Event Code cannot be altered.

Point Assignments continued:

| Point No | Type of Device: System 5000 Output Modules | Point No | Type of Device: System 5000 Output Modules |
|---|---|---|---|
| 401 | | 451 | |
| 402 | | 452 | |
| 403 | | 453 | |
| 404 | | 454 | |
| 405 | | 455 | |
| 406 | | 456 | |
| 407 | | 457 | |
| 408 | | 458 | |
| 409 | | 459 | |
| 410 | | 460 | |
| 411 | | 461 | |
| 412 | | 462 | |
| 413 | | 463 | |
| 414 | | 464 | |
| 415 | | | |
| 416 | | | |
| 417 | | | |
| 418 | | | |
| 419 | | | |
| 420 | | | |
| 421 | | | |
| 422 | | | |
| 423 | | | |
| 424 | | | |
| 425 | | | |
| 426 | | | |
| 427 | | | |
| 428 | | | |
| 429 | | | |
| 430 | | | |
| 431 | | | |
| 432 | | | |
| 433 | | | |
| 434 | | | |
| 435 | | | |
| 436 | | | |
| 437 | | | |
| 438 | | | |
| 439 | | | |
| 440 | | | |
| 441 | | | |
| 442 | | | |
| 443 | | | |
| 444 | | | |
| 445 | | | |
| 446 | | | |
| 447 | | | |
| 448 | | | |
| 449 | | | |
| 450 | | | |

**Table 37**

**Note:** System 5000 modules may only be disabled using Type Mode. Event Code cannot be altered. Physical location is critical to the point number reported. Refer to Appendix C.

**Table 38  Point Assignments - AFP-300/AFP-400**

# Appendix F: AFC-600

## General

The UDACT is capable of reporting a maximum of 99 zones or 700 points when used with the AFC-600.

## Mounting

If the AFC-600 is contained in a CAB-600AA cabinet, then the UDACT must be mounted remotely in an ABS-8R or UBS-1 enclosure placed within 6000 feet (1828.8 meters) away from the control panel. For mounting instructions see "Remote Installation" on page 22.

If the AFC-600 is contained in a CAB-3/4 Series cabinet, then the UDACT may be mounted to a CHS-4 chassis within that cabinet. For mounting instructions see "Internal Installation" on page 20.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 23 and Figure 24 on page 94.

Connect the communication line between the EIA-485 terminal block TB4 on the CPU-600 and TB1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to the CHS-4 Chassis or to a solid building earth ground.

Connect 24VDC filtered, non-resettable power from the MPS-6 (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1.  Ferrite cores, PN 29090, are recommended for all applications.

2.  Recommended wire is 12 AWG ($3.25mm^2$) to 18 AWG ($0.75mm^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 23.

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

3.  Conduit is recommended for external wire runs. Consult local building codes.

4.  Refer to "Specifications" on page 13 for power requirements.

Below is a remote installation of a UDACT with an AFC-600:
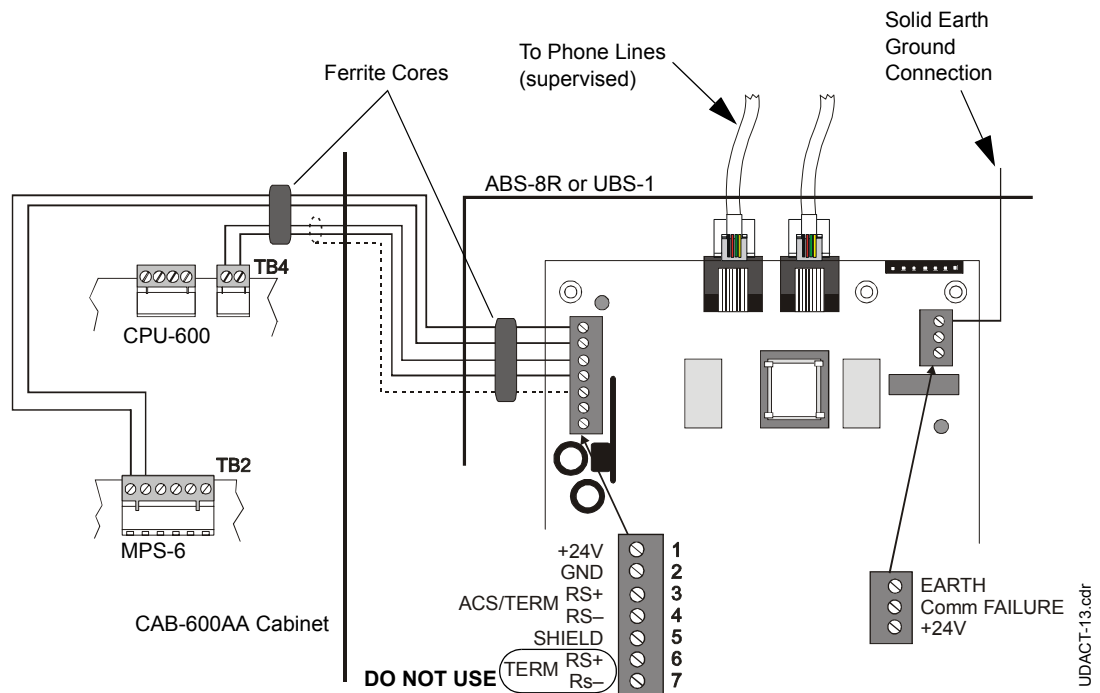
**Figure 23  UDACT and AFC-600 in a CAB-AA**

Below is an internal installation of a UDACT with an AFC-600:
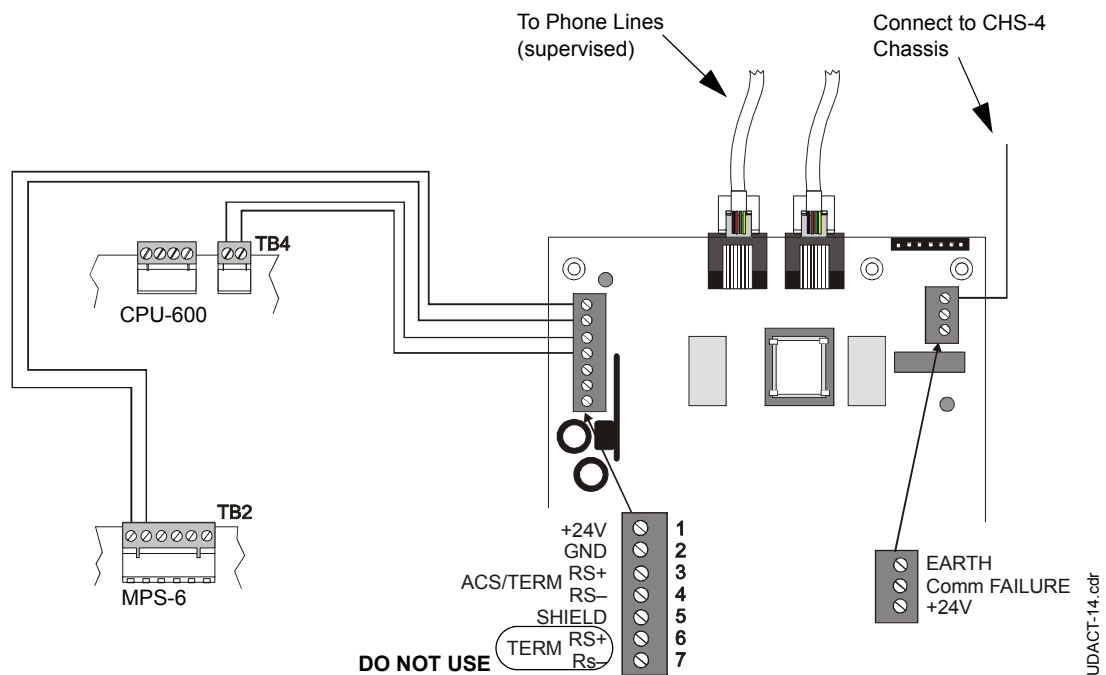
**Figure 24  UDACT and AFC-600 in CAB-3/4**

# Type Mode Programming

To disable or identify a zone or point in Type Mode (refer to "Type Mode" on page 55), the following Entries/Addresses are used:

## For Zone Identification:

Zones 1 - 99 are programmed by Entries/Addresses 01 - 99.  The factory default code is 'fire alarm.'

## For Point Identification:

Loop 1, Modules 1 - 64 are programmed by Type Mode Entries/Addresses 001 - 064

Loop 2, Modules 1 - 64 are programmed by Type Mode Entries/Addresses 065 - 128

Loop 1, Modules 65 - 128 are programmed by Type Mode Entries/Addresses 129 - 192

Loop 2, Modules 65 - 128 are programmed by Type Mode Entries/Addresses 193 - 256

Loop 1, Modules 129 - 159 are programmed by Type Mode Entries/Addresses 257 - 287 (288 not used)

Loop 2, Modules 129 - 159 are programmed by Type Mode Entries/Addresses 289 - 319 (320 not used)

Loop 1, Detectors 1 - 64 are programmed by Type Mode Entries/Addresses 321 - 384

Loop 2, Detectors 1 - 64 are programmed by Type Mode Entries/Addresses 385 - 448

Loop 1, Detectors 65 - 128 are programmed by Type Mode Entries/Addresses 449 - 512

Loop 2, Detectors 65 - 128 are programmed by Type Mode Entries/Addresses 513 - 576

# Event Code/Report Transmission

Via Ademco Contact ID Format Only

## For Zone Reporting:

Zones 1 - 99 report as zone numbers 01 - 99

## For Point Reporting:

Loop 1, Modules 1 - 64 report as device numbers 001 - 064

Loop 2, Modules 1 - 64 report as device numbers 065 - 128

Loop 1, Modules 65 - 128 report as device numbers 129 - 192

Loop 2, Modules 65 - 128 report as device numbers 193 - 256

Loop 1, Modules 129 - 159 report as device numbers 257 - 287 (288 is not used)

Loop 2, Modules 129 - 159 report as device numbers 289 - 319 (320 is not used)

Loop 1, Detectors 1 - 64 report as device numbers 321 - 384

Loop 2, Detectors 1 - 64 report as device numbers 385 - 448

Loop 1, Detectors 65 - 128 report as device numbers 449 - 512

Loop 2, Detectors 65 - 128 report as device numbers 513 - 576

Loop 1, Detectors 129 - 159 report as device numbers 577 - 607 (608 is not used)

Loop 2, Detectors 129 - 159 report as device numbers 609 - 639 (640 is not used)

Output Modules 1 - 64 report as device numbers 641 - 704

# Zone Assignments

Use chart to carefully identify function of each zone in the system. Take special precaution with any supervisory zones in the system. Use Type Mode (refer to "Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.

**Note:** When selecting burglary zones, modify the general supervisory report at addresses 75-77 and 145-147, to report general burglary.

| Zone | Zone Function | Zone | Zone Function | Zone | Zone Function |
|---|---|---|---|---|---|
| 1 | | 34 | | 67 | |
| 2 | | 35 | | 68 | |
| 3 | | 36 | | 69 | |
| 4 | | 37 | | 70 | |
| 5 | | 38 | | 71 | |
| 6 | | 39 | | 72 | |
| 7 | | 40 | | 73 | |
| 8 | | 41 | | 74 | |
| 9 | | 42 | | 75 | |
| 10 | | 43 | | 76 | |
| 11 | | 44 | | 77 | |
| 12 | | 45 | | 78 | |
| 13 | | 46 | | 79 | |
| 14 | | 47 | | 80 | |
| 15 | | 48 | | 81 | |
| 16 | | 49 | | 82 | |
| 17 | | 50 | | 83 | |
| 18 | | 51 | | 84 | |
| 19 | | 52 | | 85 | |
| 20 | | 53 | | 86 | |
| 21 | | 54 | | 87 | |
| 22 | | 55 | | 88 | |
| 23 | | 56 | | 89 | |
| 24 | | 57 | | 90 | |
| 25 | | 58 | | 91 | |
| 26 | | 59 | | 92 | |
| 27 | | 60 | | 93 | |
| 28 | | 61 | | 94 | |
| 29 | | 62 | | 95 | |
| 30 | | 63 | | 96 | |
| 31 | | 64 | | 97 | |
| 32 | | 65 | | 98 | |
| 33 | | 66 | | 99 | |

**Table 39**

**Table 40  Zone Assignments**

# Point Assignments

Use chart to carefully identify all points in the system. Take special precaution with any supervisory points and remote switches in the system. Use Type Mode (refer to"Type Mode" on page 55) to match the function of remaining zones in the system for proper reporting.

| Point No | Type of Device: Module Loop 1 | Point No | Type of Device: Module Loop 1 | Point No | Type of Device: Module Loop 2 | Point No | Type of Device: Module Loop 2 |
|---|---|---|---|---|---|---|---|
| 001 | | 033 | | 065 | | 097 | |
| 002 | | 034 | | 066 | | 098 | |
| 003 | | 035 | | 067 | | 099 | |
| 004 | | 036 | | 068 | | 100 | |
| 005 | | 037 | | 069 | | 101 | |
| 006 | | 038 | | 070 | | 102 | |
| 007 | | 039 | | 071 | | 103 | |
| 008 | | 040 | | 072 | | 104 | |
| 009 | | 041 | | 073 | | 105 | |
| 010 | | 042 | | 074 | | 106 | |
| 011 | | 043 | | 075 | | 107 | |
| 012 | | 044 | | 076 | | 108 | |
| 013 | | 045 | | 077 | | 109 | |
| 014 | | 046 | | 078 | | 110 | |
| 015 | | 047 | | 079 | | 111 | |
| 016 | | 048 | | 080 | | 112 | |
| 017 | | 049 | | 081 | | 113 | |
| 018 | | 050 | | 082 | | 114 | |
| 019 | | 051 | | 083 | | 115 | |
| 020 | | 052 | | 084 | | 116 | |
| 021 | | 053 | | 085 | | 117 | |
| 022 | | 054 | | 086 | | 118 | |
| 023 | | 055 | | 087 | | 119 | |
| 024 | | 056 | | 088 | | 120 | |
| 025 | | 057 | | 089 | | 121 | |
| 026 | | 058 | | 090 | | 122 | |
| 027 | | 059 | | 091 | | 123 | |
| 028 | | 060 | | 092 | | 124 | |
| 029 | | 061 | | 093 | | 125 | |
| 030 | | 062 | | 094 | | 126 | |
| 031 | | 063 | | 095 | | 127 | |
| 032 | | 064 | | 096 | | 128 | |

**Table 41**

Point Assignments continued:

| Point No | Type of Device: Module Loop 1 | Point No | Type of Device: Module Loop 1 | Point No | Type of Device: Module Loop 2 | Point No | Type of Device: Module Loop 2 |
|---|---|---|---|---|---|---|---|
| 129 | | 161 | | 193 | | 225 | |
| 130 | | 162 | | 194 | | 226 | |
| 131 | | 163 | | 195 | | 227 | |
| 132 | | 164 | | 196 | | 228 | |
| 133 | | 165 | | 197 | | 229 | |
| 134 | | 166 | | 198 | | 230 | |
| 135 | | 167 | | 199 | | 231 | |
| 136 | | 168 | | 200 | | 232 | |
| 137 | | 169 | | 201 | | 233 | |
| 138 | | 170 | | 202 | | 234 | |
| 139 | | 171 | | 203 | | 235 | |
| 140 | | 172 | | 204 | | 236 | |
| 141 | | 173 | | 205 | | 237 | |
| 142 | | 174 | | 206 | | 238 | |
| 143 | | 175 | | 207 | | 239 | |
| 144 | | 176 | | 208 | | 240 | |
| 145 | | 177 | | 209 | | 241 | |
| 146 | | 178 | | 210 | | 242 | |
| 147 | | 179 | | 211 | | 243 | |
| 148 | | 180 | | 212 | | 244 | |
| 149 | | 181 | | 213 | | 245 | |
| 150 | | 182 | | 214 | | 246 | |
| 151 | | 183 | | 215 | | 247 | |
| 152 | | 184 | | 216 | | 248 | |
| 153 | | 185 | | 217 | | 249 | |
| 154 | | 186 | | 218 | | 250 | |
| 155 | | 187 | | 219 | | 251 | |
| 156 | | 188 | | 220 | | 252 | |
| 157 | | 189 | | 221 | | 253 | |
| 158 | | 190 | | 222 | | 254 | |
| 159 | | 191 | | 223 | | 255 | |
| 160 | | 192 | | 224 | | 256 | |

**Table 42**

Point Assignments continued:

| Point No | Type of Device: Module Loop 1 | Point No | Type of Device: Module Loop 2 | Point No | Type of Device: Detector Loop1 | Point No | Type of Device: Detector Loop 1 |
|---|---|---|---|---|---|---|---|
| 257 | | 289 | | 321 | | 353 | |
| 258 | | 290 | | 322 | | 354 | |
| 259 | | 291 | | 323 | | 355 | |
| 260 | | 292 | | 324 | | 356 | |
| 261 | | 293 | | 325 | | 357 | |
| 262 | | 294 | | 326 | | 358 | |
| 263 | | 295 | | 327 | | 359 | |
| 264 | | 296 | | 328 | | 360 | |
| 265 | | 297 | | 329 | | 361 | |
| 266 | | 298 | | 330 | | 362 | |
| 267 | | 299 | | 331 | | 363 | |
| 268 | | 300 | | 332 | | 364 | |
| 269 | | 301 | | 333 | | 365 | |
| 270 | | 302 | | 334 | | 366 | |
| 271 | | 303 | | 335 | | 367 | |
| 272 | | 304 | | 336 | | 368 | |
| 273 | | 305 | | 337 | | 369 | |
| 274 | | 306 | | 338 | | 370 | |
| 275 | | 307 | | 339 | | 371 | |
| 276 | | 308 | | 340 | | 372 | |
| 277 | | 309 | | 341 | | 373 | |
| 278 | | 310 | | 342 | | 374 | |
| 279 | | 311 | | 343 | | 375 | |
| 280 | | 312 | | 344 | | 376 | |
| 281 | | 313 | | 345 | | 377 | |
| 282 | | 314 | | 346 | | 378 | |
| 283 | | 315 | | 347 | | 379 | |
| 284 | | 316 | | 348 | | 380 | |
| 285 | | 317 | | 349 | | 381 | |
| 286 | | 318 | | 350 | | 382 | |
| 287 | | 319 | | 351 | | 383 | |
| 288 | Not Used | 320 | Not Used | 352 | | 384 | |

**Table 43**

**Note:** Addressable detectors on Loops 1 and 2 may be disabled using Type Mode. The Event Code cannot be altered.

*Continued on the next page...*

Point Assignments continued:

| Point No | Type of Device: Detector Loop 2 | Point No | Type of Device: Detector Loop 2 | Point No | Type of Device: Detector Loop1 | Point No | Type of Device: Detector Loop 1 |
|---|---|---|---|---|---|---|---|
| 385 | | 417 | | 449 | | 481 | |
| 386 | | 418 | | 450 | | 482 | |
| 387 | | 419 | | 451 | | 483 | |
| 388 | | 420 | | 452 | | 484 | |
| 389 | | 421 | | 453 | | 485 | |
| 390 | | 422 | | 454 | | 486 | |
| 391 | | 423 | | 455 | | 487 | |
| 392 | | 424 | | 456 | | 488 | |
| 393 | | 425 | | 457 | | 489 | |
| 394 | | 426 | | 458 | | 490 | |
| 395 | | 427 | | 459 | | 491 | |
| 396 | | 428 | | 460 | | 492 | |
| 397 | | 429 | | 461 | | 493 | |
| 398 | | 430 | | 462 | | 494 | |
| 399 | | 431 | | 463 | | 495 | |
| 400 | | 432 | | 464 | | 496 | |
| 401 | | 433 | | 465 | | 497 | |
| 402 | | 434 | | 466 | | 498 | |
| 403 | | 435 | | 467 | | 499 | |
| 404 | | 436 | | 468 | | 500 | |
| 405 | | 437 | | 469 | | 501 | |
| 406 | | 438 | | 470 | | 502 | |
| 407 | | 439 | | 471 | | 503 | |
| 408 | | 440 | | 472 | | 504 | |
| 409 | | 441 | | 473 | | 505 | |
| 410 | | 442 | | 474 | | 506 | |
| 411 | | 443 | | 475 | | 507 | |
| 412 | | 444 | | 476 | | 508 | |
| 413 | | 445 | | 477 | | 509 | |
| 414 | | 446 | | 478 | | 510 | |
| 415 | | 447 | | 479 | | 511 | |
| 416 | | 448 | | 480 | | 512 | |

**Table 44**

**Note:** Addressable detectors on Loops 1 and 2 may be disabled using Type Mode. The Event Code cannot be altered.

*Continued on the next page...*

Point Assignments continued:

| Point No | Type of Device: Detector Loop 2 | Point No | Type of Device: Detector Loop 2 | Point No | Type of Device: Detector Loop1 | Point No | Type of Device: Detector Loop 2 |
|---|---|---|---|---|---|---|---|
| 513 | | 545 | | 577 | | 609 | |
| 514 | | 546 | | 578 | | 610 | |
| 515 | | 547 | | 579 | | 611 | |
| 516 | | 548 | | 580 | | 612 | |
| 517 | | 549 | | 581 | | 613 | |
| 518 | | 550 | | 582 | | 614 | |
| 519 | | 551 | | 583 | | 615 | |
| 520 | | 552 | | 584 | | 616 | |
| 521 | | 553 | | 585 | | 617 | |
| 522 | | 554 | | 586 | | 618 | |
| 523 | | 555 | | 587 | | 619 | |
| 524 | | 556 | | 588 | | 620 | |
| 525 | | 557 | | 589 | | 621 | |
| 526 | | 558 | | 590 | | 622 | |
| 527 | | 559 | | 591 | | 623 | |
| 528 | | 560 | | 592 | | 624 | |
| 529 | | 561 | | 593 | | 625 | |
| 530 | | 562 | | 594 | | 626 | |
| 531 | | 563 | | 595 | | 627 | |
| 532 | | 564 | | 596 | | 628 | |
| 533 | | 565 | | 597 | | 629 | |
| 534 | | 566 | | 598 | | 630 | |
| 535 | | 567 | | 599 | | 631 | |
| 536 | | 568 | | 600 | | 632 | |
| 537 | | 569 | | 601 | | 633 | |
| 538 | | 570 | | 602 | | 634 | |
| 539 | | 571 | | 603 | | 635 | |
| 540 | | 572 | | 604 | | 636 | |
| 541 | | 573 | | 605 | | 637 | |
| 542 | | 574 | | 606 | | 638 | |
| 543 | | 575 | | 607 | | 639 | |
| 544 | | 576 | | 608 | Not Used | 640 | Not Used |

**Table 45**

**Note:** Addressable detectors on Loops 1 and 2 may be disabled using Type Mode. The Event Code cannot be altered.

*Continued on the next page...*

Point Assignments continued:

| Point No | Type of Device: Output Module | Point No | Type of Device: Output Module |
|---|---|---|---|
| 641 | | 673 | |
| 642 | | 674 | |
| 643 | | 675 | |
| 644 | | 676 | |
| 645 | | 677 | |
| 646 | | 678 | |
| 647 | | 679 | |
| 648 | | 680 | |
| 649 | | 681 | |
| 650 | | 682 | |
| 651 | | 683 | |
| 652 | | 684 | |
| 653 | | 685 | |
| 654 | | 686 | |
| 655 | | 687 | |
| 656 | | 688 | |
| 657 | | 689 | |
| 658 | | 690 | |
| 659 | | 691 | |
| 660 | | 692 | |
| 661 | | 693 | |
| 662 | | 694 | |
| 663 | | 695 | |
| 664 | | 696 | |
| 665 | | 697 | |
| 666 | | 698 | |
| 667 | | 699 | |
| 668 | | 700 | |
| 669 | | 701 | |
| 670 | | 702 | |
| 671 | | 703 | |
| 672 | | 704 | |

**Table 46**

**Table 47  Point Assignments**

# Appendix G: NFS-640

## General

The UDACT is capable of reporting a maximum of 99 zones or 700 points when used with the NFS-640.

## Mounting

If the UDACT is not mounted within the cabinet that contains the NFS-640, then it must be mounted remotely in an ABS-8R/RB or UBS-1 enclosure placed within 6000 feet (1828.8 meters) of the control panel. For mounting instructions see "Remote Installation" on page 22.

If the NFS-640 is contained in a CAB-4 Series cabinet, then the UDACT may be mounted to a CHS-M2, CHS-4, or CHS-4MB chassis within that cabinet. For mounting instructions see "Internal Installation" on page 20.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 25 and Figure 26 on page 104.

Connect the communication line between the EIA-485 terminal block TB13 on the CPU-640 and TB1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to the CHS-4 Chassis or to a solid building earth ground.

Connect 24VDC filtered, non-resettable power from the CPU-640 TB7 to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1. Ferrite cores, PN 29090, are recommended for all applications.

2. Recommended wire is 12 AWG (3.25mm$^2$) to 18 AWG (0.75mm$^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 25.

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

1. Conduit is recommended for external wire runs. Consult local building codes.

2. Refer to "Specifications" on page 13 for power requirements.

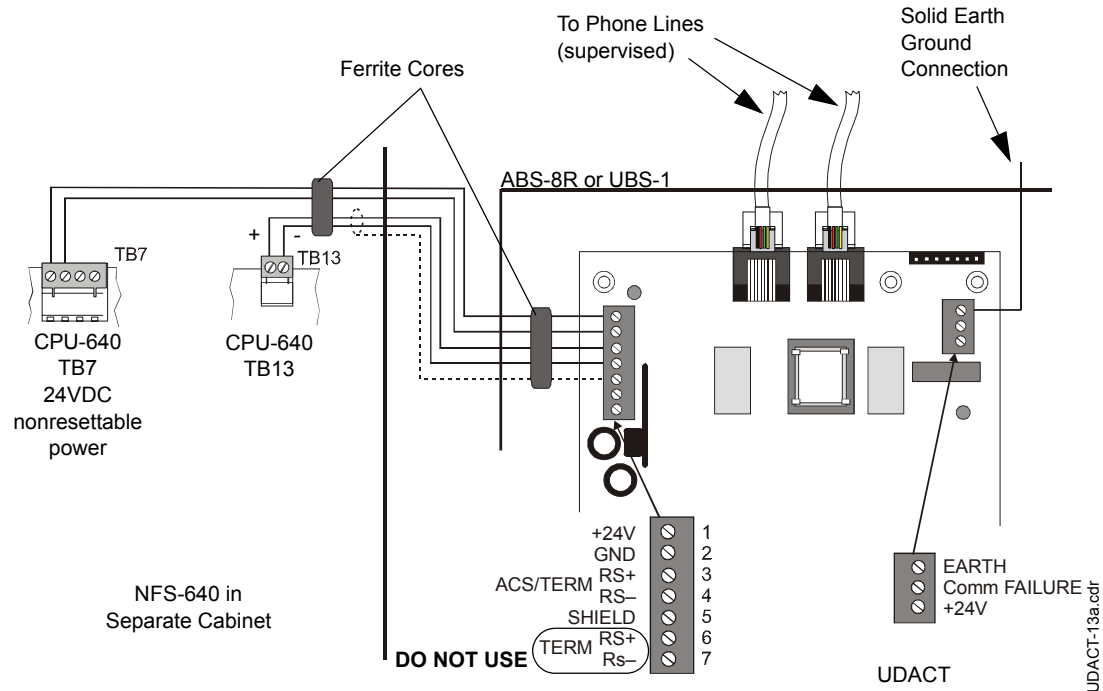Below is a remote installation of a UDACT with an NFS-640:



**Figure 25  UDACT and NFS-640 in Separate Cabinets**

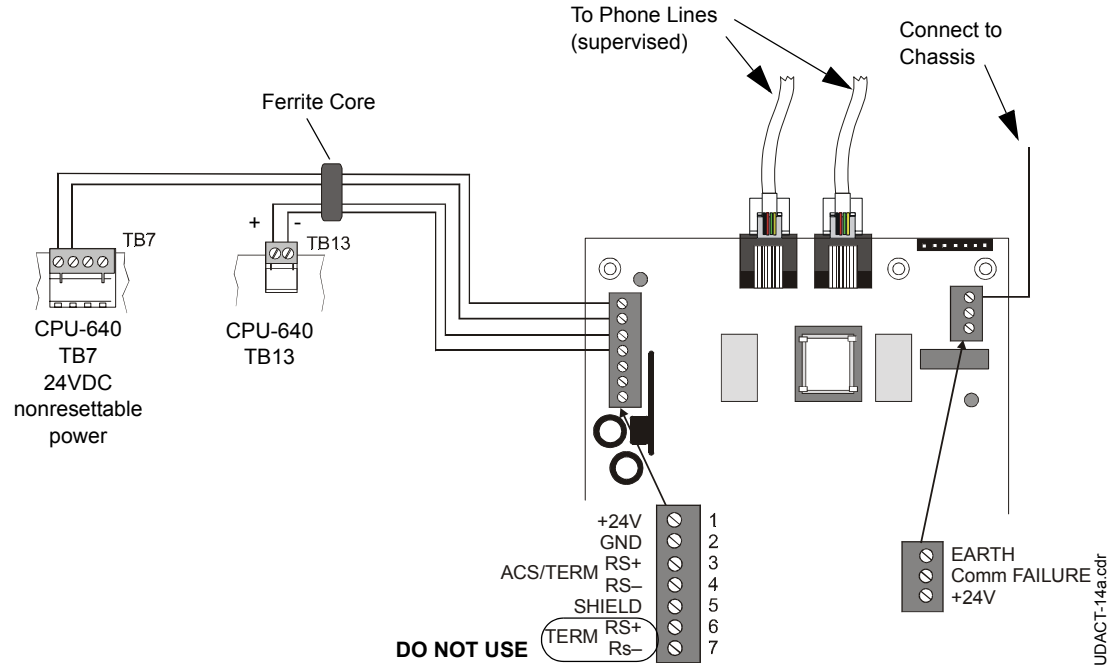Below is an internal installation of a UDACT with an NFS-640:



**Figure 26  UDACT and NFS-640 in the Same Cabinet**

# Type Mode Programming

To disable or identify a zone or point in Type Mode (refer to "Type Mode" on page 55), the following Entries/Addresses are used:

## For Zone Identification:

Zones 1 - 99 are programmed by Entries/Addresses 01 - 99. The factory default code is 'fire alarm.'

## For Point Identification:

Loop 1, Modules 1 - 64 are programmed by Type Mode Entries/Addresses 001 - 064

Loop 2, Modules 1 - 64 are programmed by Type Mode Entries/Addresses 065 - 128

Loop 1, Modules 65 - 128 are programmed by Type Mode Entries/Addresses 129 - 192

Loop 2, Modules 65 - 128 are programmed by Type Mode Entries/Addresses 193 - 256

Loop 1, Modules 129 - 159 are programmed by Type Mode Entries/Addresses 257 - 287 (288 not used)

Loop 2, Modules 129 - 159 are programmed by Type Mode Entries/Addresses 289 - 319 (320 not used)

Loop 1, Detectors 1 - 64 are programmed by Type Mode Entries/Addresses 321 - 384

Loop 2, Detectors 1 - 64 are programmed by Type Mode Entries/Addresses 385 - 448

Loop 1, Detectors 65 - 128 are programmed by Type Mode Entries/Addresses 449 - 512

Loop 2, Detectors 65 - 128 are programmed by Type Mode Entries/Addresses 513 - 576

# Event Code/Report Transmission

Via Ademco Contact ID Format Only

## For Zone Reporting:

Zones 1 - 99 report as zone numbers 01 - 99

## For Point Reporting:

Loop 1, Modules 1 - 64 report as device numbers 001 - 064

Loop 2, Modules 1 - 64 report as device numbers 065 - 128

Loop 1, Modules 65 - 128 report as device numbers 129 - 192

Loop 2, Modules 65 - 128 report as device numbers 193 - 256

Loop 1, Modules 129 - 159 report as device numbers 257 - 287 (288 is not used)

Loop 2, Modules 129 - 159 report as device numbers 289 - 319 (320 is not used)

Loop 1, Detectors 1 - 64 report as device numbers 321 - 384

Loop 2, Detectors 1 - 64 report as device numbers 385 - 448

Loop 1, Detectors 65 - 128 report as device numbers 449 - 512

Loop 2, Detectors 65 - 128 report as device numbers 513 - 576

Loop 1, Detectors 129 - 159 report as device numbers 577 - 607 (608 is not used)

Loop 2, Detectors 129 - 159 report as device numbers 609 - 639 (640 is not used)

Output Modules 1 - 64 report as device numbers 641 - 704

NOTE: Use Table 40 and Table 47 in Appendix F: AFC-600 as worksheets for the NFS-640.

# Appendix H: NCA

## General

The UDACT is capable of reporting a maximum of 99 zones or 2040 points when used with the NCA.

## Mounting

If the UDACT is not mounted in the same cabinet that contains the NCA, it must be mounted remotely in an ABS-8R/RB or UBS-1 enclosure placed within 6000 feet (1828.8 meters) away from the control panel. For mounting instructions see "Remote Installation" on page 22.

If the NCA is contained in a CAB-4 Series cabinet, then the UDACT may be mounted to a CHS-4/CHS-4MB chassis assembly within that cabinet. For mounting instructions see "Internal Installation" on page 20.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 27 and Figure 28 on page 108.

Connect the communication line between the EIA-485 terminal block TB3 on the NCA and TB1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to the chassis or to a solid building earth ground.

Connect 24VDC filtered, non-resettable power from NCA TB 1 to TB1 terminals 1 and 2 on the UDACT.

### Notes:

3. Ferrite cores, PN 29090, are recommended for all applications.

4. Recommended wire is 12 AWG (3.25mm$^2$) to 18 AWG (0.75mm$^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 27.

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

5. Conduit is recommended for external wire runs. Consult local building codes.

6. Refer to "Specifications" on page 13 for power requirements.

Use Table 51 in Appendix I: AM2020/AFP1010 as worksheets for the NCA.

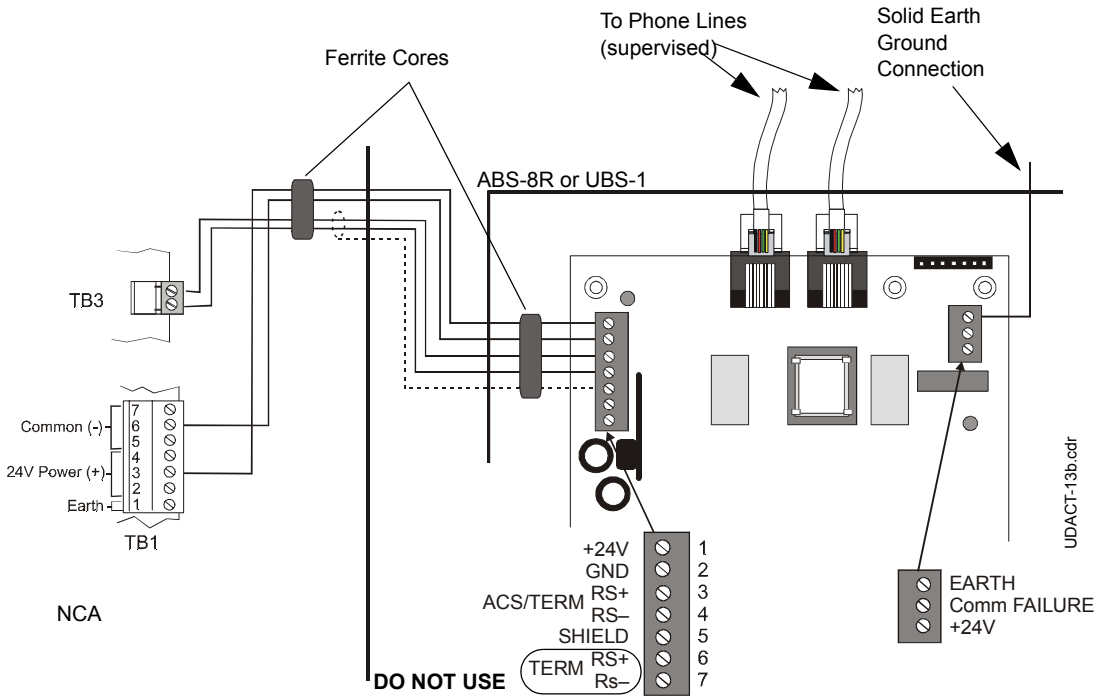Below is a remote installation of a UDACT with an NCA:



**Figure 27  UDACT and NCA in Separate Cabinets**

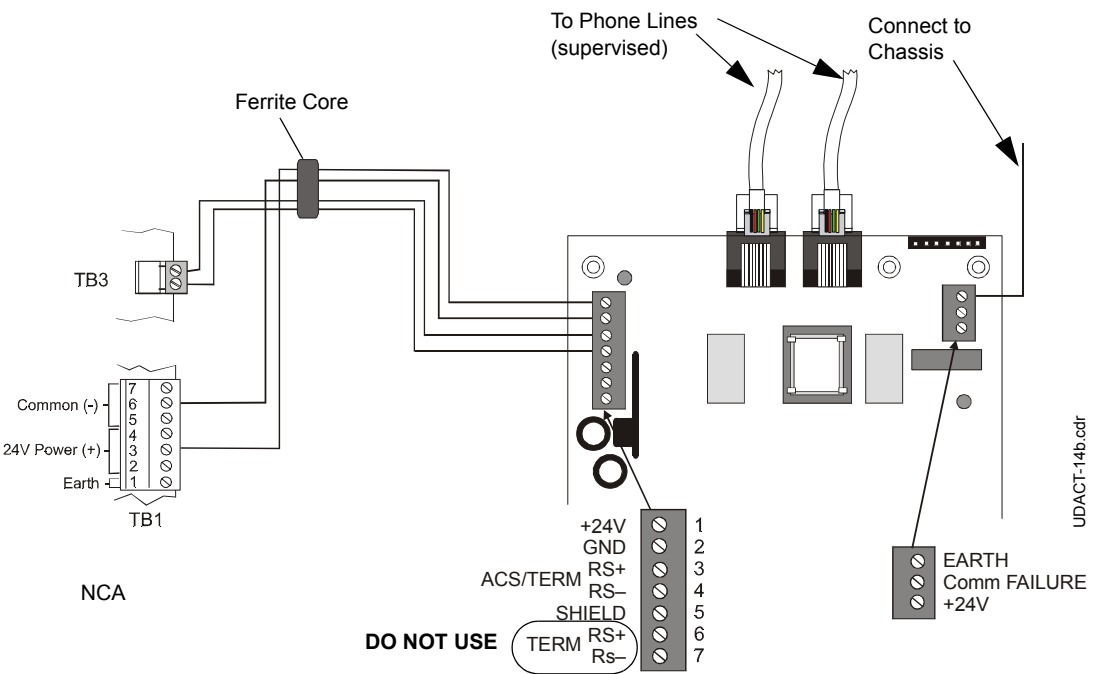Below is an internal installation of a UDACT with an NCA:



**Figure 28  UDACT and NCA in the Same Cabinet**

NOTE: Use Table 51 and in Appendix I: AM2020/AFP1010 as worksheets for the NCA.

# Appendix I: AM2020/AFP1010

## General

The UDACT is capable of reporting up to 2,040 points when used with the AM2020/AFP1010 (1,980 Addressable devices plus 60 zones or 1,800 Addressable devices plus 240 zones) The first 568 points can be programmed using the Type Mode feature (refer to "Type Mode" on page 55). All points greater than 568 can be transmitted only as fire alarm points. For the UDACT to report a supervisory point to the central station, both the FACP and the UDACT must have the point programmed as supervisory. Failure to program the panel or UDACT correctly will result in a fire alarm signal being transmitted to the central station.

**Note:** The UDACT does not support voice and burglary options when used with the AM2020/AFP1010. Refer to the *AM2020/AFP1010 Installation Manual* for additional restrictions and more information.

## Mounting

The UDACT may be mounted in the AM2020/AFP1010 control panel enclosure or be mounted remotely using an ABS-8R or UBS-1 enclosure placed within 6000 feet (1828.8 meters) of the control panel.

For mounting instructions see "Remote Installation" on page 22 or "Internal Installation" on page 20.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 29 and Figure 30 on page 110.

Connect the communication line between the EIA-485 terminal block on the AM2020/AFP1010 and TB-1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to the CHS-4 Chassis or to a solid building earth ground.

Connect 24 VDC filtered, regulated power from the MPS-24A or MPS-24B (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1.  Ferrite cores, PN 29090, are recommended for all applications.

2.  Recommended wire is 12 AWG (3.25mm$^2$) to 18 AWG (0.75mm$^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 29

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

3.  Conduit is recommended for external wire runs. Consult local building codes.

4.  Refer to "Specifications" on page 13 for power requirements.

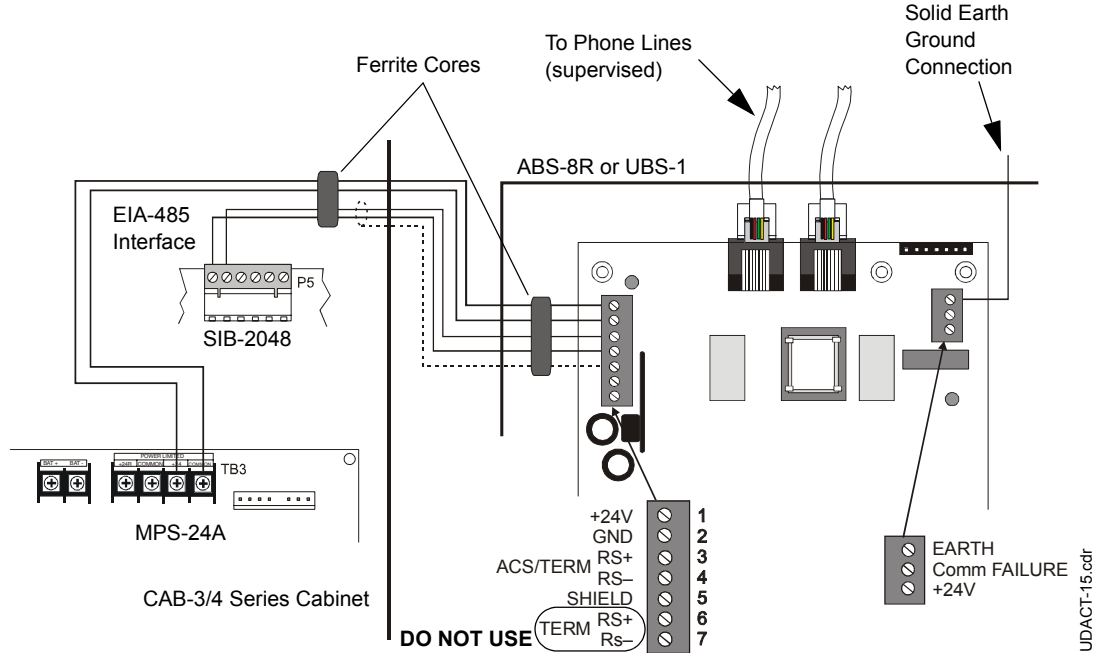Below is a remote installation of a UDACT with an AM2020/AFP1010 using an MPS-24A main power supply:



**Figure 29 UDACT and AM2020/AFP1010 with MPS-24A**

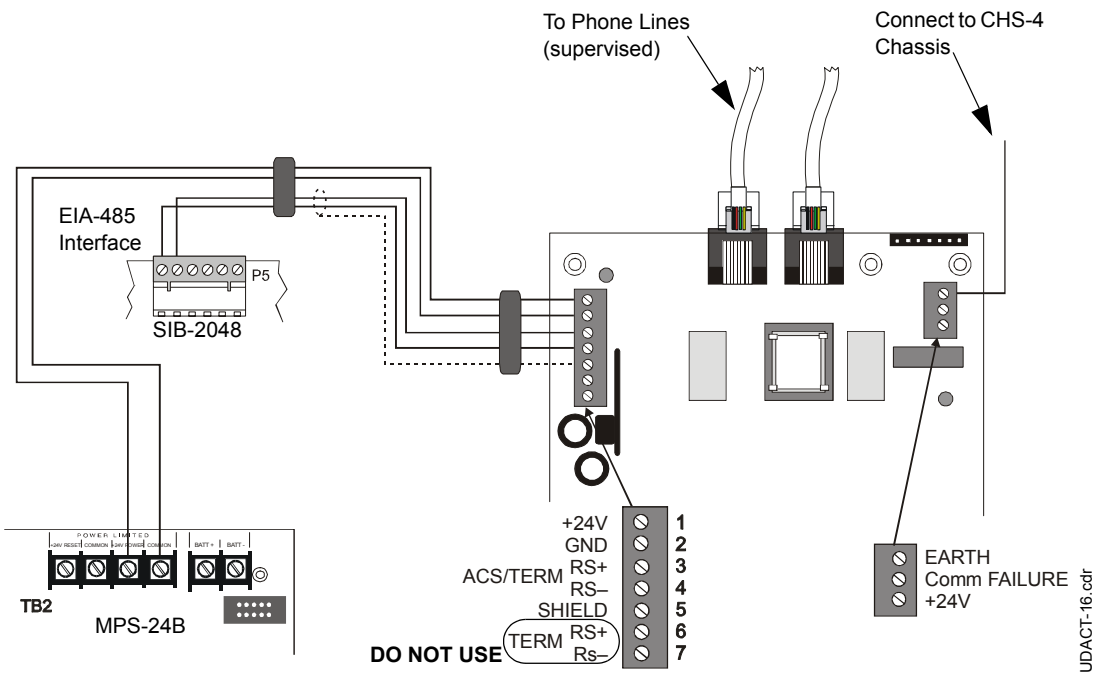Below is an internal installation of a UDACT with an AM2020/AFP1010 using an MPS-24B main power supply:



**Figure 30 UDACT and AM2020/AFP1010 with MPS-24B**

# Point Assignments

Use the following charts to carefully identify the function of each point in the system. Take special precaution with any supervisory points in the system. For the UDACT to report a supervisory point to the central station, both the FACP and the UDACT must have the point programmed as supervisory. Failure to program the panel or UDACT correctly will result in a fire alarm signal being transmitted to the central station. All points greater than 568 can only be transmitted as fire alarm points. Use Type Mode (refer to "Type Mode" on page 55) to match the function of points in the system for proper reporting.

| Point No | Point Function | Point No | Point Function | Point No | Point Function | Point No | Point Function |
|---|---|---|---|---|---|---|---|
| 001 | | 051 | | 101 | | 151 | |
| 002 | | 052 | | 102 | | 152 | |
| 003 | | 053 | | 103 | | 153 | |
| 004 | | 054 | | 104 | | 154 | |
| 005 | | 055 | | 105 | | 155 | |
| 006 | | 056 | | 106 | | 156 | |
| 007 | | 057 | | 107 | | 157 | |
| 008 | | 058 | | 108 | | 158 | |
| 009 | | 059 | | 109 | | 159 | |
| 010 | | 060 | | 110 | | 160 | |
| 011 | | 061 | | 111 | | 161 | |
| 012 | | 062 | | 112 | | 162 | |
| 013 | | 063 | | 113 | | 163 | |
| 014 | | 064 | | 114 | | 164 | |
| 015 | | 065 | | 115 | | 165 | |
| 016 | | 066 | | 116 | | 166 | |
| 017 | | 067 | | 117 | | 167 | |
| 018 | | 068 | | 118 | | 168 | |
| 019 | | 069 | | 119 | | 169 | |
| 020 | | 070 | | 120 | | 170 | |
| 021 | | 071 | | 121 | | 171 | |
| 022 | | 072 | | 122 | | 172 | |
| 023 | | 073 | | 123 | | 173 | |
| 024 | | 074 | | 124 | | 174 | |
| 025 | | 075 | | 125 | | 175 | |
| 026 | | 076 | | 126 | | 176 | |
| 027 | | 077 | | 127 | | 177 | |
| 028 | | 078 | | 128 | | 178 | |
| 029 | | 079 | | 129 | | 179 | |
| 030 | | 080 | | 130 | | 180 | |
| 031 | | 081 | | 131 | | 181 | |
| 032 | | 082 | | 132 | | 182 | |
| 033 | | 083 | | 133 | | 183 | |
| 034 | | 084 | | 134 | | 184 | |
| 035 | | 085 | | 135 | | 185 | |
| 036 | | 086 | | 136 | | 186 | |
| 037 | | 087 | | 137 | | 187 | |
| 038 | | 088 | | 138 | | 188 | |
| 039 | | 089 | | 139 | | 189 | |
| 040 | | 090 | | 140 | | 190 | |
| 041 | | 091 | | 141 | | 191 | |
| 042 | | 092 | | 142 | | 192 | |
| 043 | | 093 | | 143 | | 193 | |
| 044 | | 094 | | 144 | | 194 | |
| 045 | | 095 | | 145 | | 195 | |
| 046 | | 096 | | 146 | | 196 | |
| 047 | | 097 | | 147 | | 197 | |
| 048 | | 098 | | 148 | | 198 | |
| 049 | | 099 | | 149 | | 199 | |
| 050 | | 100 | | 150 | | 200 | |

**Table 48**

Point Assignments continued:

| Point No | Point Function | Point No | Point Function | Point No | Point Function | Point No | Point Function |
|---|---|---|---|---|---|---|---|
| 201 | | 251 | | 301 | | 351 | |
| 202 | | 252 | | 302 | | 352 | |
| 203 | | 253 | | 303 | | 353 | |
| 204 | | 254 | | 304 | | 354 | |
| 205 | | 255 | | 305 | | 355 | |
| 206 | | 256 | | 306 | | 356 | |
| 207 | | 257 | | 307 | | 357 | |
| 208 | | 258 | | 308 | | 358 | |
| 209 | | 259 | | 309 | | 359 | |
| 210 | | 260 | | 310 | | 360 | |
| 211 | | 261 | | 311 | | 361 | |
| 212 | | 262 | | 312 | | 362 | |
| 213 | | 263 | | 313 | | 363 | |
| 214 | | 264 | | 314 | | 364 | |
| 215 | | 265 | | 315 | | 365 | |
| 216 | | 266 | | 316 | | 366 | |
| 217 | | 267 | | 317 | | 367 | |
| 218 | | 268 | | 318 | | 368 | |
| 219 | | 269 | | 319 | | 369 | |
| 220 | | 270 | | 320 | | 370 | |
| 221 | | 271 | | 321 | | 371 | |
| 222 | | 272 | | 322 | | 372 | |
| 223 | | 273 | | 323 | | 373 | |
| 224 | | 274 | | 324 | | 374 | |
| 225 | | 275 | | 325 | | 375 | |
| 226 | | 276 | | 326 | | 376 | |
| 227 | | 277 | | 327 | | 377 | |
| 228 | | 278 | | 328 | | 378 | |
| 229 | | 279 | | 329 | | 379 | |
| 230 | | 280 | | 330 | | 380 | |
| 231 | | 281 | | 331 | | 381 | |
| 232 | | 282 | | 332 | | 382 | |
| 233 | | 283 | | 333 | | 383 | |
| 234 | | 284 | | 334 | | 384 | |
| 235 | | 285 | | 335 | | 385 | |
| 236 | | 286 | | 336 | | 386 | |
| 237 | | 287 | | 337 | | 387 | |
| 238 | | 288 | | 338 | | 388 | |
| 239 | | 289 | | 339 | | 389 | |
| 240 | | 290 | | 340 | | 390 | |
| 241 | | 291 | | 341 | | 391 | |
| 242 | | 292 | | 342 | | 392 | |
| 243 | | 293 | | 343 | | 393 | |
| 244 | | 294 | | 344 | | 394 | |
| 245 | | 295 | | 345 | | 395 | |
| 246 | | 296 | | 346 | | 396 | |
| 247 | | 297 | | 347 | | 397 | |
| 248 | | 298 | | 348 | | 398 | |
| 249 | | 299 | | 349 | | 399 | |
| 250 | | 300 | | 350 | | 400 | |

**Table 49**

Point Assignments continued:

| Point No | Point Function | Point No | Point Function | Point No | Point Function | Point No | Point Function |
|---|---|---|---|---|---|---|---|
| 401 | | 451 | | 501 | | 551 | |
| 402 | | 452 | | 502 | | 552 | |
| 403 | | 453 | | 503 | | 553 | |
| 404 | | 454 | | 504 | | 554 | |
| 405 | | 455 | | 505 | | 555 | |
| 406 | | 456 | | 506 | | 556 | |
| 407 | | 457 | | 507 | | 557 | |
| 408 | | 458 | | 508 | | 558 | |
| 409 | | 459 | | 509 | | 559 | |
| 410 | | 460 | | 510 | | 560 | |
| 411 | | 461 | | 511 | | 561 | |
| 412 | | 462 | | 512 | | 562 | |
| 413 | | 463 | | 513 | | 563 | |
| 414 | | 464 | | 514 | | 564 | |
| 415 | | 465 | | 515 | | 565 | |
| 416 | | 466 | | 516 | | 566 | |
| 417 | | 467 | | 517 | | 567 | |
| 418 | | 468 | | 518 | | 568 | |
| 419 | | 469 | | 519 | | | |
| 420 | | 470 | | 520 | | | |
| 421 | | 471 | | 521 | | | |
| 422 | | 472 | | 522 | | | |
| 423 | | 473 | | 523 | | | |
| 424 | | 474 | | 524 | | | |
| 425 | | 475 | | 525 | | | |
| 426 | | 476 | | 526 | | | |
| 427 | | 477 | | 527 | | | |
| 428 | | 478 | | 528 | | | |
| 429 | | 479 | | 529 | | | |
| 430 | | 480 | | 530 | | | |
| 431 | | 481 | | 531 | | | |
| 432 | | 482 | | 532 | | | |
| 433 | | 483 | | 533 | | | |
| 434 | | 484 | | 534 | | | |
| 435 | | 485 | | 535 | | | |
| 436 | | 486 | | 536 | | | |
| 437 | | 487 | | 537 | | | |
| 438 | | 488 | | 538 | | | |
| 439 | | 489 | | 539 | | | |
| 440 | | 490 | | 540 | | | |
| 441 | | 491 | | 541 | | | |
| 442 | | 492 | | 542 | | | |
| 443 | | 493 | | 543 | | | |
| 444 | | 494 | | 544 | | | |
| 445 | | 495 | | 545 | | | |
| 446 | | 496 | | 546 | | | |
| 447 | | 497 | | 547 | | | |
| 448 | | 498 | | 548 | | | |
| 449 | | 499 | | 549 | | | |
| 450 | | 500 | | 550 | | | |

**Table 50**

**Table 51  Point Assignments - AM2020/AFP1010**

# Appendix J: NFS-3030

## General

The UDACT is capable of reporting up to 2,040 points when used with the NFS-3030 (1,980 Addressable devices plus 60 zones or 1,800 Addressable devices plus 240 zones) The first 568 points can be programmed using the Type Mode feature (refer to "Type Mode" on page 55). All points greater than 568 can be transmitted only as fire alarm points. For the UDACT to report a supervisory point to the central station, both the FACP and the UDACT must have the point programmed as supervisory. Failure to program the panel or UDACT correctly will result in a fire alarm signal being transmitted to the central station.

**Note:** The UDACT does not support voice and burglary options when used with the NFS-3030. Refer to the *NFS-3030 Installation Manual* for additional restrictions and more information.

## Mounting

The UDACT may be mounted in the NFS-3030 control panel enclosure or be mounted remotely using an ABS-8R or UBS-1 enclosure placed in conduit and within 6000 feet (1828.8 meters) of the control panel.

For mounting instructions see "Remote Installation" on page 22 or "Internal Installation" on page 20.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 31 on page 116.

Connect the communication line between the EIA-485 terminal block on the CPU-3030 and TB1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to the CHS-4 Chassis or to a solid building earth ground.

Connect 24 VDC filtered, regulated power from the CPU-3030 or AMPS-24/E (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1.  Recommended wire is 12 AWG (3.25mm$^2$) to 18 AWG (0.75mm$^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 31

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

2.  Conduit is recommended for external wire runs. Consult local building codes.

3.  Refer to "Specifications" on page 13 for power requirements.

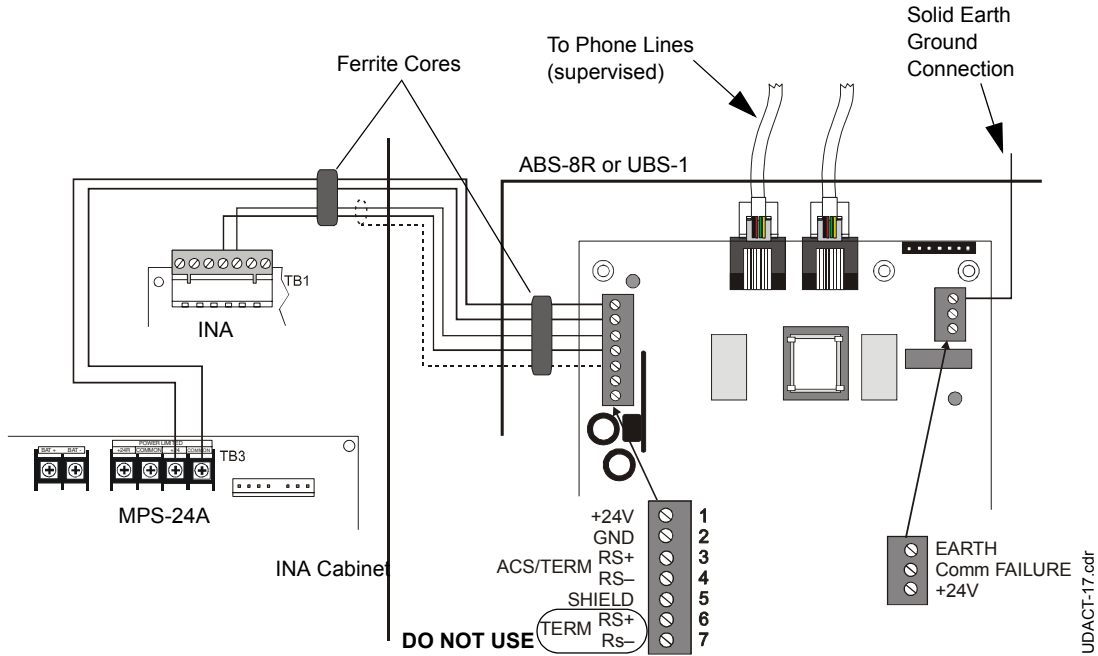Below is a remote installation of a UDACT with an NFS-3030 using power supplied by the control panel:



**Figure 31  UDACT and NFS-3030**

Below is a remote installation of a UDACT with an NFS-3030 using an AMPS-24/E main power supply:



**Figure 32  UDACT and NFS-3030 powered by AMPS-24/E**

# Point Assignments

Use the following charts to carefully identify the function of each point in the system. Take special precaution with any supervisory points in the system. For the UDACT to report a supervisory point to the central station, both the FACP and the UDACT must have the point programmed as supervisory. Failure to program the panel or UDACT correctly will result in a fire alarm signal being transmitted to the central station. All points greater than 568 can only be transmitted as fire alarm points. Use Type Mode (refer to "Type Mode" on page 55) to match the function of points in the system for proper reporting.

| Point No | Point Function | Point No | Point Function | Point No | Point Function | Point No | Point Function |
|---|---|---|---|---|---|---|---|
| 001 | | 051 | | 101 | | 151 | |
| 002 | | 052 | | 102 | | 152 | |
| 003 | | 053 | | 103 | | 153 | |
| 004 | | 054 | | 104 | | 154 | |
| 005 | | 055 | | 105 | | 155 | |
| 006 | | 056 | | 106 | | 156 | |
| 007 | | 057 | | 107 | | 157 | |
| 008 | | 058 | | 108 | | 158 | |
| 009 | | 059 | | 109 | | 159 | |
| 010 | | 060 | | 110 | | 160 | |
| 011 | | 061 | | 111 | | 161 | |
| 012 | | 062 | | 112 | | 162 | |
| 013 | | 063 | | 113 | | 163 | |
| 014 | | 064 | | 114 | | 164 | |
| 015 | | 065 | | 115 | | 165 | |
| 016 | | 066 | | 116 | | 166 | |
| 017 | | 067 | | 117 | | 167 | |
| 018 | | 068 | | 118 | | 168 | |
| 019 | | 069 | | 119 | | 169 | |
| 020 | | 070 | | 120 | | 170 | |
| 021 | | 071 | | 121 | | 171 | |
| 022 | | 072 | | 122 | | 172 | |
| 023 | | 073 | | 123 | | 173 | |
| 024 | | 074 | | 124 | | 174 | |
| 025 | | 075 | | 125 | | 175 | |
| 026 | | 076 | | 126 | | 176 | |
| 027 | | 077 | | 127 | | 177 | |
| 028 | | 078 | | 128 | | 178 | |
| 029 | | 079 | | 129 | | 179 | |
| 030 | | 080 | | 130 | | 180 | |
| 031 | | 081 | | 131 | | 181 | |
| 032 | | 082 | | 132 | | 182 | |
| 033 | | 083 | | 133 | | 183 | |
| 034 | | 084 | | 134 | | 184 | |
| 035 | | 085 | | 135 | | 185 | |
| 036 | | 086 | | 136 | | 186 | |
| 037 | | 087 | | 137 | | 187 | |
| 038 | | 088 | | 138 | | 188 | |
| 039 | | 089 | | 139 | | 189 | |
| 040 | | 090 | | 140 | | 190 | |
| 041 | | 091 | | 141 | | 191 | |
| 042 | | 092 | | 142 | | 192 | |
| 043 | | 093 | | 143 | | 193 | |
| 044 | | 094 | | 144 | | 194 | |
| 045 | | 095 | | 145 | | 195 | |
| 046 | | 096 | | 146 | | 196 | |
| 047 | | 097 | | 147 | | 197 | |
| 048 | | 098 | | 148 | | 198 | |
| 049 | | 099 | | 149 | | 199 | |
| 050 | | 100 | | 150 | | 200 | |

**Table 52**

Point Assignments continued:

| Point No | Point Function | Point No | Point Function | Point No | Point Function | Point No | Point Function |
|---|---|---|---|---|---|---|---|
| 201 | | 251 | | 301 | | 351 | |
| 202 | | 252 | | 302 | | 352 | |
| 203 | | 253 | | 303 | | 353 | |
| 204 | | 254 | | 304 | | 354 | |
| 205 | | 255 | | 305 | | 355 | |
| 206 | | 256 | | 306 | | 356 | |
| 207 | | 257 | | 307 | | 357 | |
| 208 | | 258 | | 308 | | 358 | |
| 209 | | 259 | | 309 | | 359 | |
| 210 | | 260 | | 310 | | 360 | |
| 211 | | 261 | | 311 | | 361 | |
| 212 | | 262 | | 312 | | 362 | |
| 213 | | 263 | | 313 | | 363 | |
| 214 | | 264 | | 314 | | 364 | |
| 215 | | 265 | | 315 | | 365 | |
| 216 | | 266 | | 316 | | 366 | |
| 217 | | 267 | | 317 | | 367 | |
| 218 | | 268 | | 318 | | 368 | |
| 219 | | 269 | | 319 | | 369 | |
| 220 | | 270 | | 320 | | 370 | |
| 221 | | 271 | | 321 | | 371 | |
| 222 | | 272 | | 322 | | 372 | |
| 223 | | 273 | | 323 | | 373 | |
| 224 | | 274 | | 324 | | 374 | |
| 225 | | 275 | | 325 | | 375 | |
| 226 | | 276 | | 326 | | 376 | |
| 227 | | 277 | | 327 | | 377 | |
| 228 | | 278 | | 328 | | 378 | |
| 229 | | 279 | | 329 | | 379 | |
| 230 | | 280 | | 330 | | 380 | |
| 231 | | 281 | | 331 | | 381 | |
| 232 | | 282 | | 332 | | 382 | |
| 233 | | 283 | | 333 | | 383 | |
| 234 | | 284 | | 334 | | 384 | |
| 235 | | 285 | | 335 | | 385 | |
| 236 | | 286 | | 336 | | 386 | |
| 237 | | 287 | | 337 | | 387 | |
| 238 | | 288 | | 338 | | 388 | |
| 239 | | 289 | | 339 | | 389 | |
| 240 | | 290 | | 340 | | 390 | |
| 241 | | 291 | | 341 | | 391 | |
| 242 | | 292 | | 342 | | 392 | |
| 243 | | 293 | | 343 | | 393 | |
| 244 | | 294 | | 344 | | 394 | |
| 245 | | 295 | | 345 | | 395 | |
| 246 | | 296 | | 346 | | 396 | |
| 247 | | 297 | | 347 | | 397 | |
| 248 | | 298 | | 348 | | 398 | |
| 249 | | 299 | | 349 | | 399 | |
| 250 | | 300 | | 350 | | 400 | |

**Table 53**

Point Assignments continued:

| Point No | Point Function | Point No | Point Function | Point No | Point Function | Point No | Point Function |
|---|---|---|---|---|---|---|---|
| 401 | | 451 | | 501 | | 551 | |
| 402 | | 452 | | 502 | | 552 | |
| 403 | | 453 | | 503 | | 553 | |
| 404 | | 454 | | 504 | | 554 | |
| 405 | | 455 | | 505 | | 555 | |
| 406 | | 456 | | 506 | | 556 | |
| 407 | | 457 | | 507 | | 557 | |
| 408 | | 458 | | 508 | | 558 | |
| 409 | | 459 | | 509 | | 559 | |
| 410 | | 460 | | 510 | | 560 | |
| 411 | | 461 | | 511 | | 561 | |
| 412 | | 462 | | 512 | | 562 | |
| 413 | | 463 | | 513 | | 563 | |
| 414 | | 464 | | 514 | | 564 | |
| 415 | | 465 | | 515 | | 565 | |
| 416 | | 466 | | 516 | | 566 | |
| 417 | | 467 | | 517 | | 567 | |
| 418 | | 468 | | 518 | | 568 | |
| 419 | | 469 | | 519 | | | |
| 420 | | 470 | | 520 | | | |
| 421 | | 471 | | 521 | | | |
| 422 | | 472 | | 522 | | | |
| 423 | | 473 | | 523 | | | |
| 424 | | 474 | | 524 | | | |
| 425 | | 475 | | 525 | | | |
| 426 | | 476 | | 526 | | | |
| 427 | | 477 | | 527 | | | |
| 428 | | 478 | | 528 | | | |
| 429 | | 479 | | 529 | | | |
| 430 | | 480 | | 530 | | | |
| 431 | | 481 | | 531 | | | |
| 432 | | 482 | | 532 | | | |
| 433 | | 483 | | 533 | | | |
| 434 | | 484 | | 534 | | | |
| 435 | | 485 | | 535 | | | |
| 436 | | 486 | | 536 | | | |
| 437 | | 487 | | 537 | | | |
| 438 | | 488 | | 538 | | | |
| 439 | | 489 | | 539 | | | |
| 440 | | 490 | | 540 | | | |
| 441 | | 491 | | 541 | | | |
| 442 | | 492 | | 542 | | | |
| 443 | | 493 | | 543 | | | |
| 444 | | 494 | | 544 | | | |
| 445 | | 495 | | 545 | | | |
| 446 | | 496 | | 546 | | | |
| 447 | | 497 | | 547 | | | |
| 448 | | 498 | | 548 | | | |
| 449 | | 499 | | 549 | | | |
| 450 | | 500 | | 550 | | | |

**Table 54**

**Table 55  Point Assignments - AM2020/AFP1010**

# Appendix K: INA

## General

The UDACT is capable of reporting up to 2,040 points when used with the Intelligent Network Annunciator (INA). The first 568 points can be programmed using the Type Mode feature (refer to "Type Mode" on page 55). All points greater than 568 can be transmitted only as fire alarm points. For the UDACT to report a supervisory point to the central station, both the FACP and the UDACT must have the point programmed as supervisory. Failure to program the panel or UDACT correctly will result in a fire alarm signal being transmitted to the central station.

**Note:** The UDACT does not support voice and burglary options when used with the INA. Refer to the *Intelligent Network Annunciator Manual* for additional restrictions and more information.

## Mounting

The UDACT may be mounted in the INA control panel enclosure or be mounted remotely using an ABS-8R or UBS-1 enclosure placed within 6000 feet (1828.8 meters) of the control panel.

For mounting instructions see "Remote Installation" on page 22 or "Internal Installation" on page 20.

## Wiring

⚠ **CAUTION:** Remove all power from the control panel by disconnecting AC and batteries before making any connections to prevent personal and/or circuit damage.

### Connections

Refer to Figure 33 and Figure 34 on page 122.

Connect the communication line between the EIA-485 terminal block on the INA and TB-1 terminals 3 and 4 on the UDACT, being certain to observe polarity.

If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT TB1 terminals 3 and 4.

Connect the Ground Wire (PN 71073, provided) from the UDACT EARTH terminal on TB3 to the CHS-4 Chassis or to a solid building earth ground.

Connect 24 VDC filtered, regulated power from the MPS-24A or MPS-24B (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

### Notes:

1. Ferrite cores, PN 29090, are recommended for all applications.

2. Recommended wire is 12 AWG (3.25mm$^2$) to 18 AWG (0.75mm$^2$), twisted pair, shielded cable. Connect only one end of shield: a) shield may be connected to cabinet (earth ground) at fire alarm panel, or b) shield may be connected to TB1 Terminal 5 (Shield) at UDACT as shown in Figure 33

**Note:** The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.

3. Conduit is recommended for external wire runs. Consult local building codes.

4. Refer to "Specifications" on page 13 for power requirements.

Below is a remote installation of a UDACT with an INA with an MPS-24A main power supply:



**Figure 33  UDACT and INA with MPS-24A**

Below is an internal installation of a UDACT with an INA and MPS-24B main power supply:
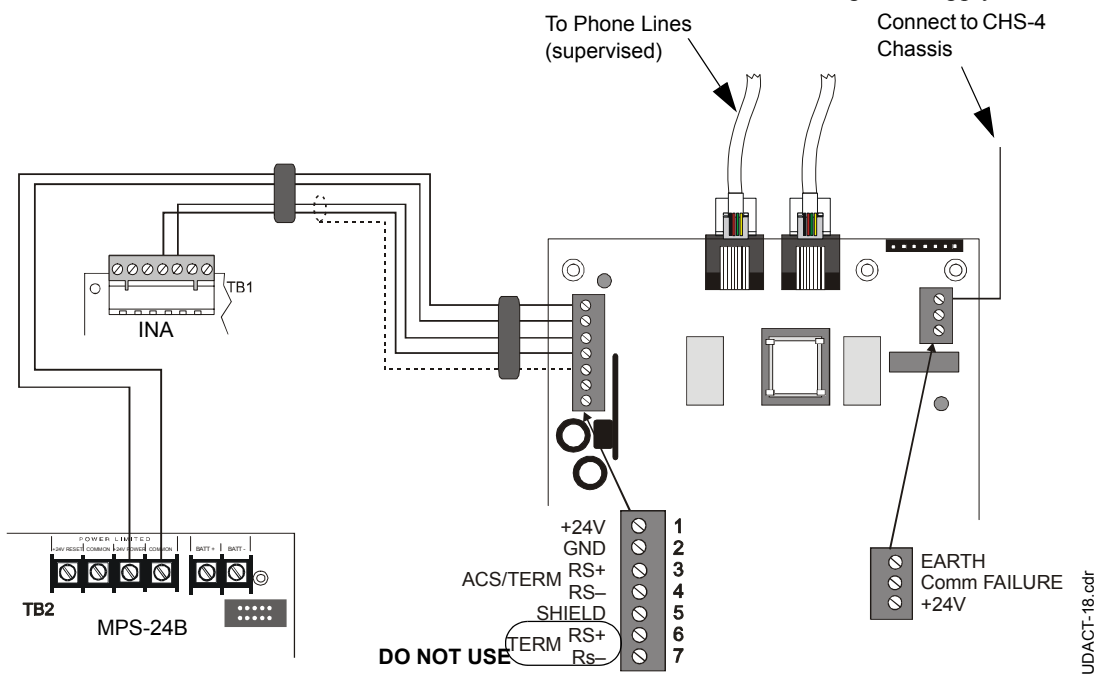


**Figure 34  UDACT and INA with MPS-24B**

# Appendix L: Annunciators

## General

The UDACT is connected to the EIA-485 communication bus. AFM series and LDM series annunciators may also occupy the same bus. Use of a UDACT along with one of the above mentioned annunciators on the same control panel will alter the assignments of the first eight yellow LEDs on the annunciator as follows:

### AFP-100, AFP-200, AFP-300/AFP-400 and AFC-600

| Yellow Annunciator LED | Assignment Without UDACT | Assignment With UDACT |
|---|---|---|
| 1 | System Trouble (except AC loss) | System Trouble (except AC loss) |
| 2 | Signals Silenced | Signals Silenced |
| 3 | Not Used | Program Mode |
| 4 | Not Used | Supervisory |
| 5 | Supervisory | Bell Trouble |
| 6 | Prealarm | Prealarm/ Maintenance Alert |
| 7 | AC Fail | Low Battery |
| 8 | Panel Trouble | AC Fail |

### System 500 & System 5000

| Yellow Annunciator LED | Assignment Without UDACT | Assignment With UDACT |
|---|---|---|
| 1 | System Trouble (except AC loss) | System Trouble (except AC loss) |
| 2 | Signals Silenced | Signals Silenced |
| 3 | Not Used | Not Used |
| 4 | Supervisory | Supervisory |
| 5 | Indicating Circuit #1 Trouble | Indicating Circuit #1 Trouble |
| 6 | Indicating Circuit #2 Trouble | Indicating Circuit #2 Trouble |
| 7 | Municipal Tie Trouble | Low Battery/ Ground Fault |
| 8 | AC Fail | AC Fail |

## AM2020/AFP1010/INA

| Yellow Annunciator LED | Assignment Without UDACT | Assignment With UDACT |
|---|---|---|
| 1 | Programmable | System Trouble (less AC loss, batt. & supv.) |
| 2 | Programmable | Not Used |
| 3 | Programmable | Program Mode |
| 4 | Programmable | Supervisory |
| 5 | Programmable | Not Used |
| 6 | Programmable | Maintenance Alert (future use) |
| 7 | Programmable | Low Battery/No Battery |
| 8 | Programmable | AC Fail |

Notes:

1. Use of a UDACT with the AFP-200, System 500 or System 5000 will not alter the assignment of the first eight red LEDs on the annunciator. The first Red LED annunciates alarms while the next seven Red LEDs are not used.

2. When using a UDACT with the AM2020/AFP1010/INA, the first Red LED on an annunciator is used to annunciate alarms while LEDs 2 through 8 are not used.

# Numerics

## W

wiring
    entering 27
    exiting 27
    nonpower-limited 27
    power limited 27
    Relay Driver 25

## Z

zone 33, 59, 62
zone number 55
zone reporting 33–34
zone trouble 25

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