NOTIFIER®
by Honeywell

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 panel 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 Guides for Proper Use of System Smoke Detectors, which are made available at no charge to all installing dealers. These documents can be found at http://www.systemsensor.com/html/applicat.html. 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 panel. 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 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.

Limit-C1-2-2007

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 manuals are read and understood.

CAUTION - System Re-acceptance Test after Software Changes: To ensure proper system operation, this product must be tested in accordance with NFPA 72 after any programming operation or change in site-specific software. Re-acceptance 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 0-49º C/32-120º F and at a relative humidity 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15-27º C/60-80º 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 interference, 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, or 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.

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.

Precau-D1-9-2005

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 devices pursuant to Subpart B of Part 15 of FCC Rules, which is designed to provide reasonable protection against such interference when devices are 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 or her 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-oelectriques 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.

Software Downloads

In order to supply the latest features and functionality in fire alarm and life safety technology to our customers, we make frequent upgrades to the embedded software in our products. To ensure that you are installing and programming the latest features, we strongly recommend that you download the most current version of software for each product prior to commissioning any system. Contact Technical Support with any questions about software and the appropriate version for a specific application.

Documentation Feedback

Your feedback helps us keep our documentation up-to-date and accurate. If you have any comments or suggestions about our online Help or printed manuals, you can email us.

Please include the following information:

- Product name and version number (if applicable)
- Printed manual or online Help
- Topic Title (for online Help)
- Page number (for printed manual)
- Brief description of content you think should be improved or corrected
- Your suggestion for how to correct/improve documentation

Send email messages to:

FireSystems.TechPubs@honeywell.com

Please note this email address is for documentation feedback only. If you have any technical issues, please contact Technical Services.

Table of Contents

Section 1: Overview

1.1 Introduction

This document contains information for installing, programming and operating the UDACT, Universal Digital Alarm Communicator/Transmitter.

1.2 UL 864 Compliance

1.2.1 Products Subject to AHJ Approval

This product has been certified to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864 9th Edition.

The following products have not received UL 864 9th Edition certification and may only be used in retrofit applications. Operation of the UDACT with products not tested for UL 864 9th Edition has not been evaluated and may not comply with NFPA 72 and/or the latest edition of UL 864. These applications will require the approval of the local Authority Having Jurisdiction (AHJ).

System 500	NFS-640
System 5000	NCA
AM2020/AFP1010	AFP-300/400
AFP-100	NFS-3030
AFP-200	

1.2.2 Programming Features Subject to AHJ Approval

This product incorporates field-programmable software. The features and/or options listed below must be approved by the local AHJ.

This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.			
Program Feature or Option	**Permitted in UL 864? (Y/N)**	**Possible Settings**	**Settings Permitted in UL 864**
AC Loss Reporting Delay	YES	1 = 1 hour 2 = 2 hour 3 = 6 hours 4 = 7 hours 5 = 8 hours 6 = 9 hours 7 = 10 hours 8 = 11 hours 9 = 15 hours A = 16 hours B = 17 hours C = 20 hours D = 21 hours E = 22 hours F = 23 hours	1 = 1 hour 2 = 2 hour
Host Panel ID	YES	0 = AFP-100 1 = System 500 2 = Do not use 3 = System 5000 4 = System 5000 with AIM-200 5 = NFS2-640, NFS-640, NFS-320 6 = AFP-200 7 = AM2020/AFP1010, NCA, NCA-2, NFS-3030, NFS2-3030 8 = AFP-300/AFP-400 9 = Do not use	5 = NFS2-640, NFS-320 7 = NCA-2, NFS2-3030

1.3 Related Documentation

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
NFS-320	NFS-320 Installation Manual	52745
NFS-640	NFS-640 Installation Manual	51332
NFS2-640	NFS2-640 Installation Manual	52741
NFS-3030	NFS-3030 Installation Manual	51330
NFS2-3030	NFS2-3030 Installation Manual	52544
AM2020/AFP1010	AM2020/AFP1010 Installation Manual	15088
NCA	Network Control Annunciator	51482
NCA-2	Network Control Annunciator	52482
All	Notifier Device Compatibility Document	15378

Table 1.1 Related Documentation

1.4 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.

1.5 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-8RB 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.

1.6 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:
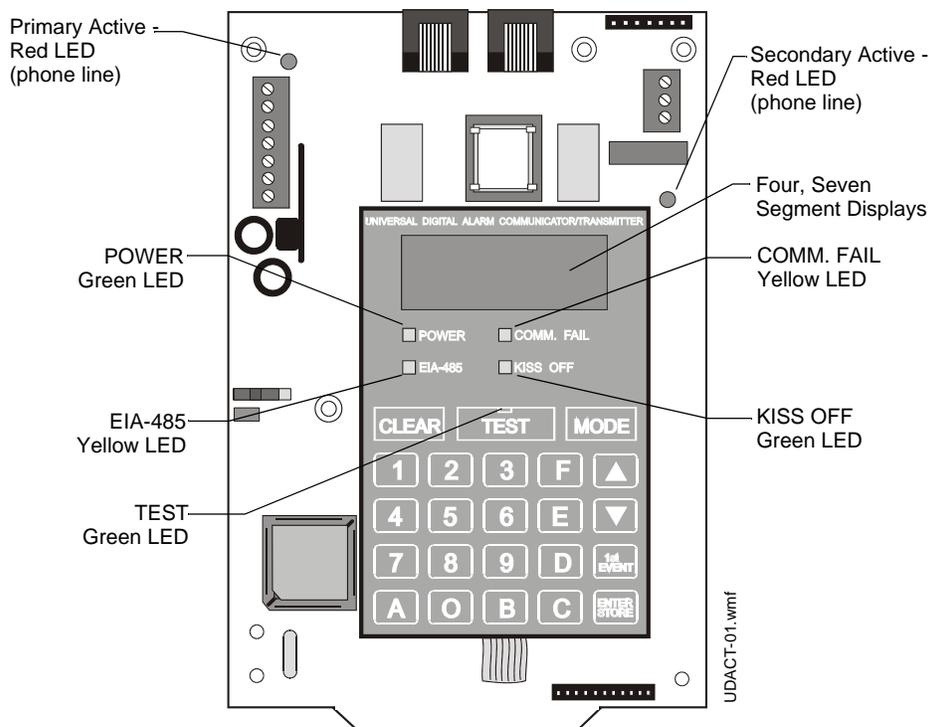
Figure 1.1 Controls and Indicators

1.7 Compatible Panels

The UDACT has been designed to be compatible with the following Fire Alarm Control Panels. For current and compatible FACP firmware, refer to Magni-Fire.

- System 5000
- System 500
- AM2020/AFP1010
- AFP-100
- AFP-200
- AFP-300/400
- NFS2-640
- NFS-640
- NFS-320
- NCA
- NCA-2
- NFS-3030
- NFS2-3030

1.8 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 Active" 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 61 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.

1.9 Circuits

1.9.1 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 12 to 18 AWG 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.

1.9.2 Primary and Secondary Phone Lines

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

1.9.3 Communicator Fail Relay Driver

Relay driver output for Central Station communication failure is available.

1.9.4 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.

1.10 Specifications

1.10.1 DC Power

24VDC (nominal) filtered, non-resettable and power-limited. 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.

1.10.2 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.

1.10.3 Auxiliary Output

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

1.11 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.

1.11.1 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.

1.11.2 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:	Honeywell Life Safety 12 Clintonville Road Northford, CT 06472
Product Model Number:	UDACT
FCC Registration Number:	1W6USA-20723-AL-E
Ringer Equivalence:	0.6B

Important! The UDACT must not be used to dial a phone number that is call-forwarded per requirements of UL 864 9th Edition.

1.11.3 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.

1.11.4 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 <u>Load Number</u> (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: <u>2132 6030 A</u>   Load Number: <u>3</u>

1.12 Modes and Special Functions

1.12.1 Normal Mode

MODE

6	6	7	6

ENTER STORE
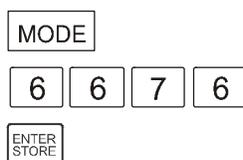
Normal Mode is the standard mode of operation. In this mode, the UDACT monitors host FACP status as well as monitoring telephone line voltage. The UDACT reports system status information to UL listed Central Stations. Information transmitted includes general alarm, trouble and supervisory. It also transmits 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.

1.12.2 Program Mode

MODE

7   7   6   4

ENTER
STORE
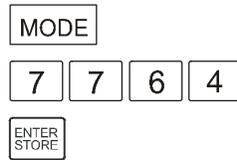
Program Mode is used to program the UDACT. While the UDACT is in the program mode, it cannot receive host FACP status information. Refer to "Programming Instructions" on page 28 for complete information.

1.12.3 Type Mode

MODE

8   9   7   3

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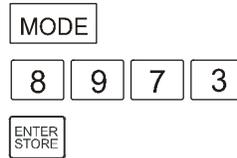
Type Mode is used to define the specific type of device (point) used or function of a zone. Type Mode is also used to disable the alarm report for any zone/point in the system.

NOTE: AM2020/AFP1010, NFS-3030, NFS2-3030, NFS2-640, NFS-640, NCA-2, 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.

1.12.4 Troubleshoot Mode

MODE

8   7   6   8

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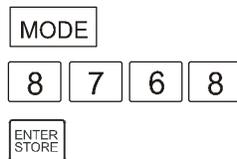
Troubleshoot Mode may be used for testing the telephone line wiring. Connection from the UDACT's modular jacks, through RJ31X jacks and into the telephone network may be easily checked. In this mode, the keypad acts similar to a telephone touchpad.

1.12.5 Lamp Test Mode

MODE

5   2   6   7

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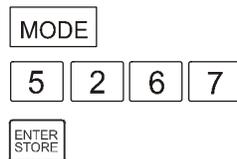
Lamp Test mode turns on all segments of the 4 character display plus all LEDs on the UDACT, except primary and secondary LEDs.

1.12.6 Clear Function

CLEAR

2   5   3   2

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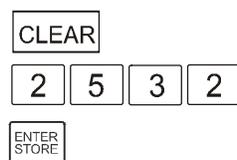
When the clear function is activated, it causes the UDACT to immediately stop transmissions, hang-up from the telephone network and clear out any messages that were waiting for transmission and reset.

1.12.7 Manual Test Function
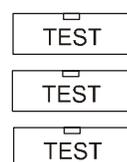
TEST

TEST

TEST

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

Section 2: Installation and Wiring

2.1 Installation

2.1.1 Options

The UDACT is either installed internally in the FACP cabinet or remotely in an ABS-8RB or UBS-1 enclosure. The following table contains information specific to each FACP that is compatible with the UDACT. See "Internal Installation" on page 18 for instructions on internal installation and "Remote Installation" on page 22 for instructions on remote installation. 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	AFP-200 Cabinet	Remote Only
AFP-300/AFP-400	CAB-400AA	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
NCA-2	CAB-3/4 Series	Internal or Remote
NCA	CAB-3/4 Series	Internal or Remote
NFS2-640	CAB-3/4 Series	Internal or Remote
NFS-320	NFS-320 Cabinet	Internal or Remote
NFS-640	CAB-3/4 Series	Internal or Remote
NFS2-3030	CAB-3/4 Series	Internal or Remote
NFS-3030	CAB-3/4 Series	Internal or Remote

Table 2.1 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 CHS-4MB consists of the CHS-4N chassis and the MP-1B dress plate.)

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.
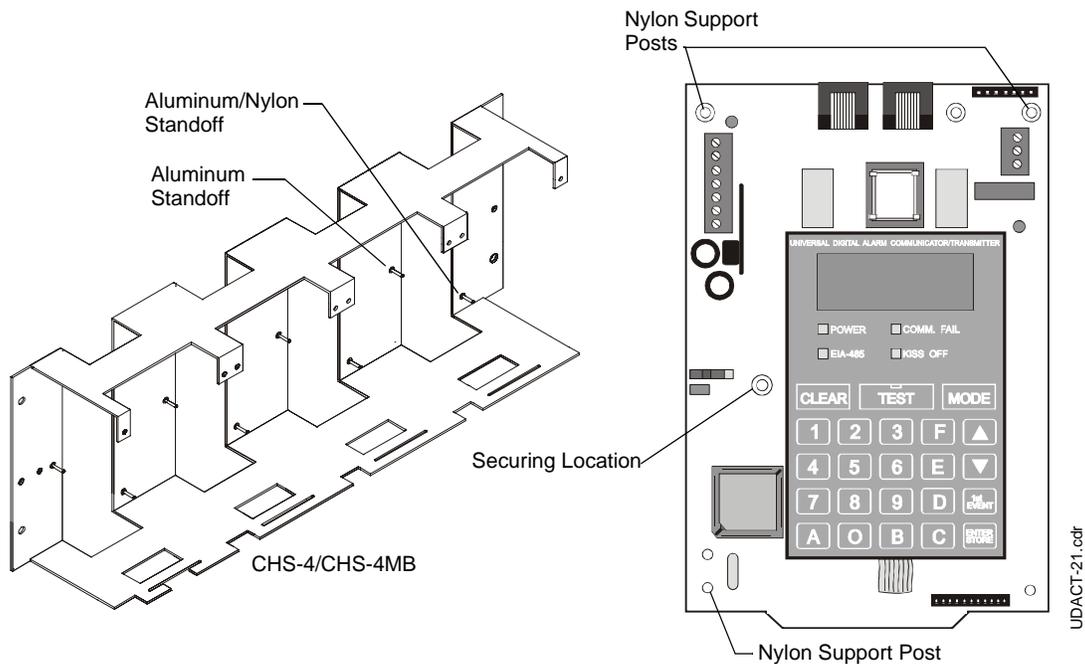
Figure 2.1 CHS-4/CHS-4MB Installation

📄 **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.

Mounting on the NFS-320 chassis

The UDACT is installed on the chassis within the NFS-320 backbox as described and shown below:

Step	Action
1	Disconnect AC power and disconnect batteries.
2	Remove the KDM-R2 keypad. Do not remove the onboard power supply.
3	Remove the two 1" standoffs from the bottom of the CPU and replace with the two #4-40 x 0.5" standoffs provided with the UDACT.
4	Install the bracket supplied with the UDACT onto the 0.5" standoffs and secure with two #4-40 x .25" screws provided with the UDACT.
5	Insert the tab at the bottom of the UDACT into the slot on the bracket as indicated.
6	Position the UDACT on the standoffs and fasten with two #4-40 x .25" screws provided.

NOTE: If using the UDACT inside the NFS-320 cabinet, do not install a second option board. Also, the UDACT must be programmed before re-installing the keypad on the NFS-320.
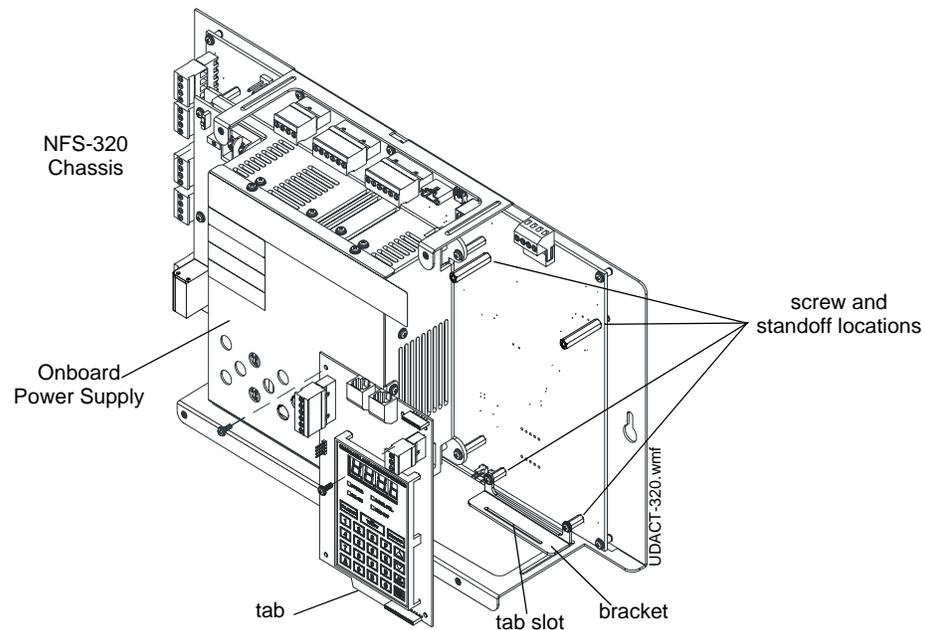
Figure 2.2 NFS-320 Chassis Installation

NFS2-640 Chassis Mounting

The UDACT is installed on a NFS2-640 Chassis within the control panel backbox as described and shown below:

Step	Action
1	Disconnect AC power and disconnect batteries.
2	Position the UDACT on the standoffs and fasten with #4-40 screws.

NOTE: The UDACT can only be mounted in the rear position of the fourth column of the NFS2-640 Chassis and cannot have other option boards mounted in front.   Be sure to mount the chassis to the backbox before mounting the UDACT.

Note: Mount chassis to backbox before installing the UDACT. The UDACT must be mounted flush against the chassis in the fourth column. Do not install other option boards in front of the UDACT.

NFS2-640
Chassis

UDACT_CHS2-M2.cdr

standoff locations

#4-40 screws
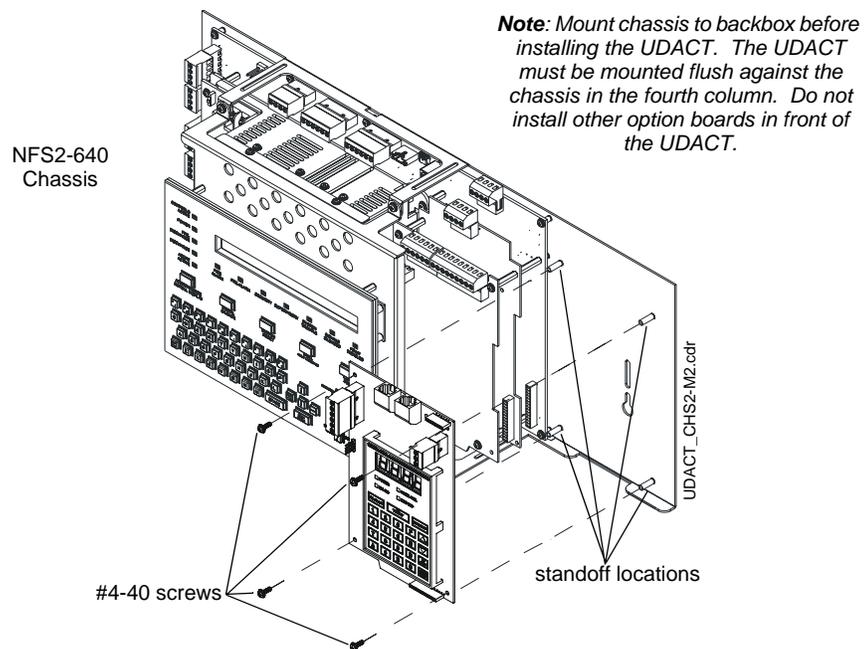
Figure 2.3 NFS2-640 Chassis Installation

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.
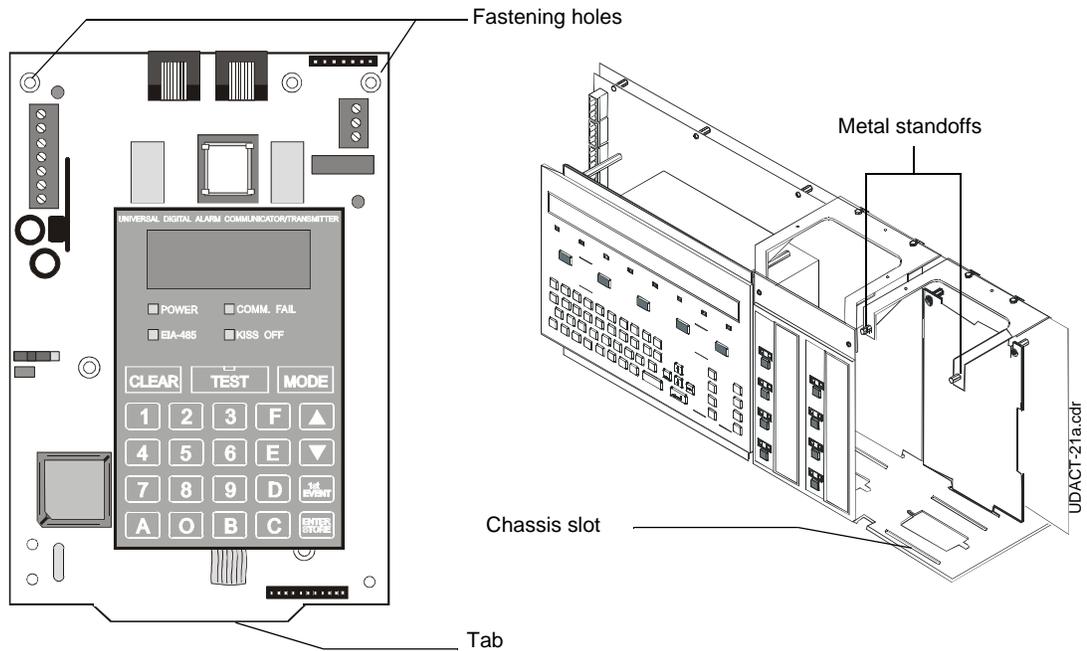
Figure 2.4 CHS-M2 Installation

Remote Installation

For remote installation, the UDACT uses either an ABS-8RB 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-8RB 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-8RB box with two (2) screws. Tighten securely.
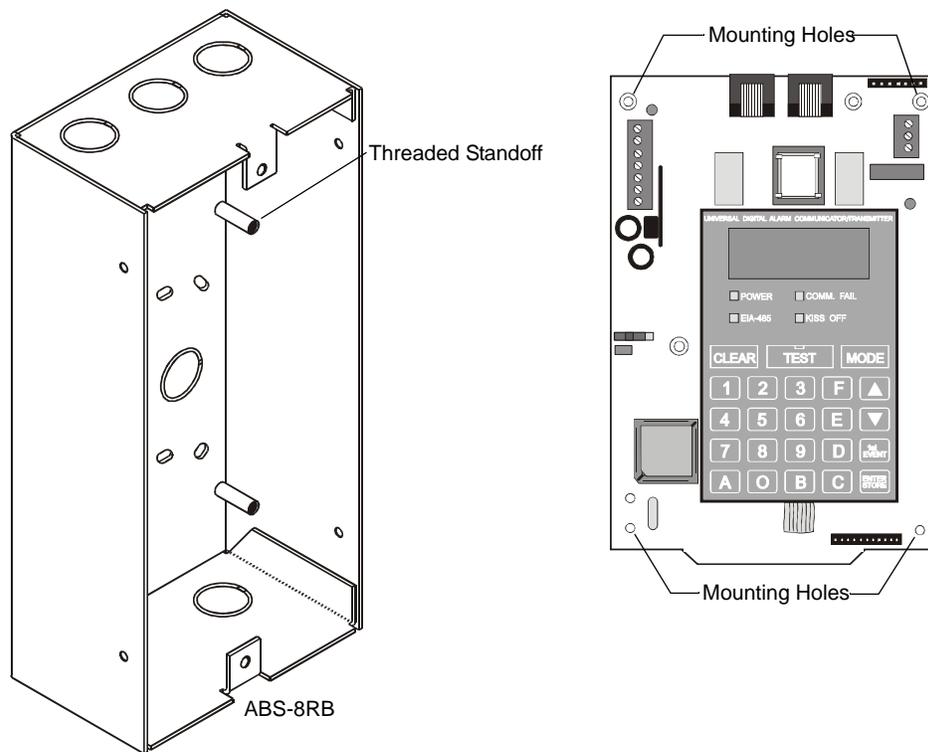
Figure 2.5 ABS-8RB Installation

2.2 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
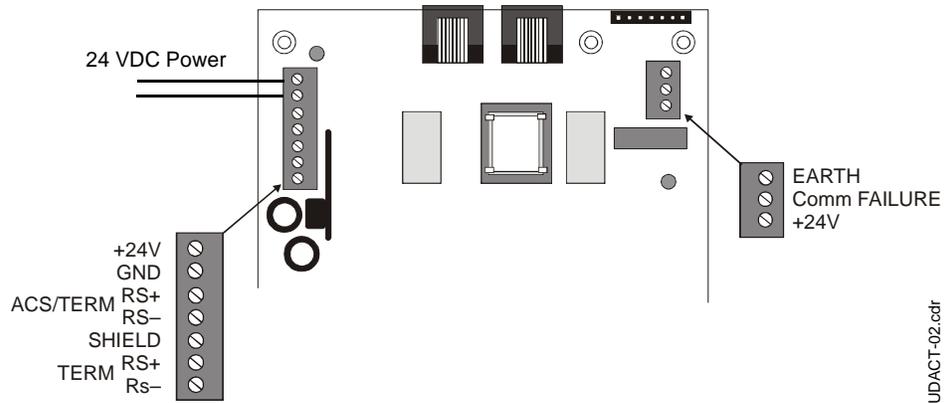
Figure 2.6 Power Connection

2.3 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.
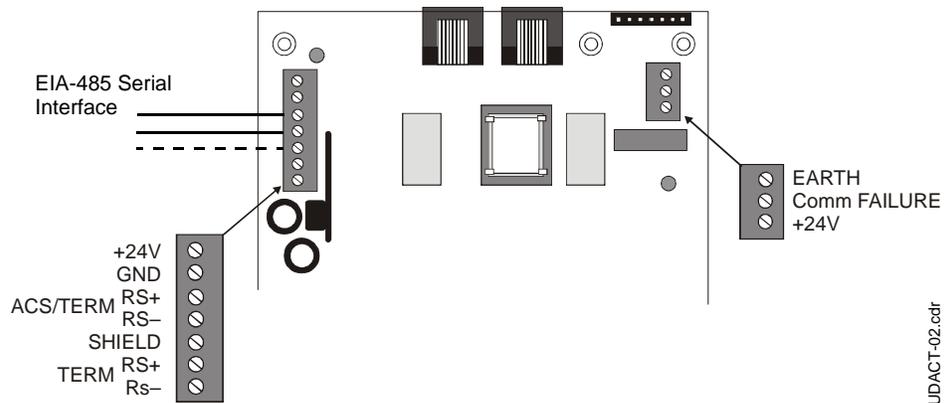
Figure 2.7 Communication Connection

2.4 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.

Important! *The UDACT must <u>not</u> be used to dial a phone number that is call-forwarded per requirements of UL 864 9th Edition.*
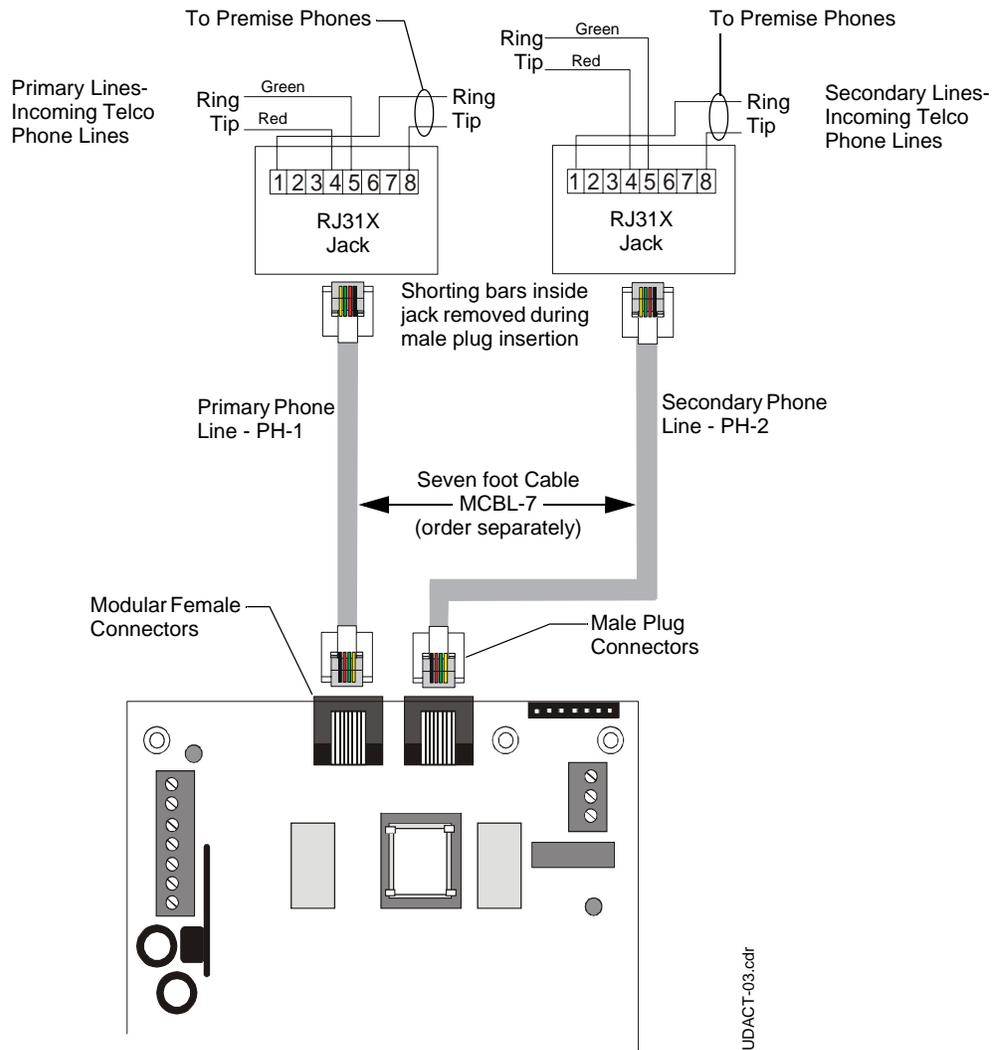
Figure 2.8 Wiring Phone Jacks

2.5 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, NFS2-640, NFS-640, NFS-320, NFS2-3030, NFS-3030, and AM2020/AFP1010 applications, use an FMM-1 module to supervise the relay closure (refer to Figure 2.10 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.
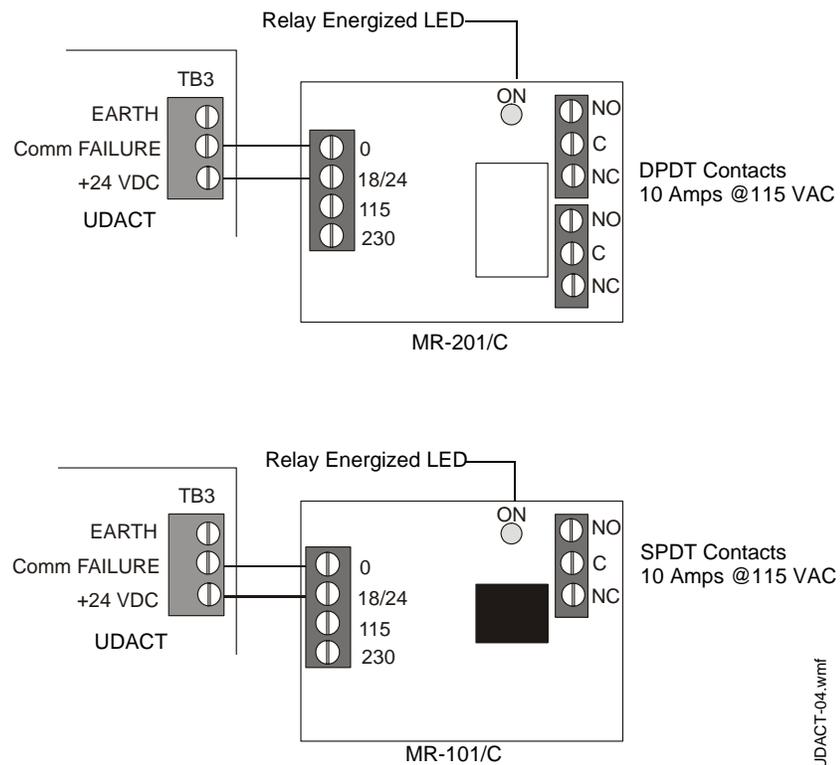
Figure 2.9 Relay Driver Connections
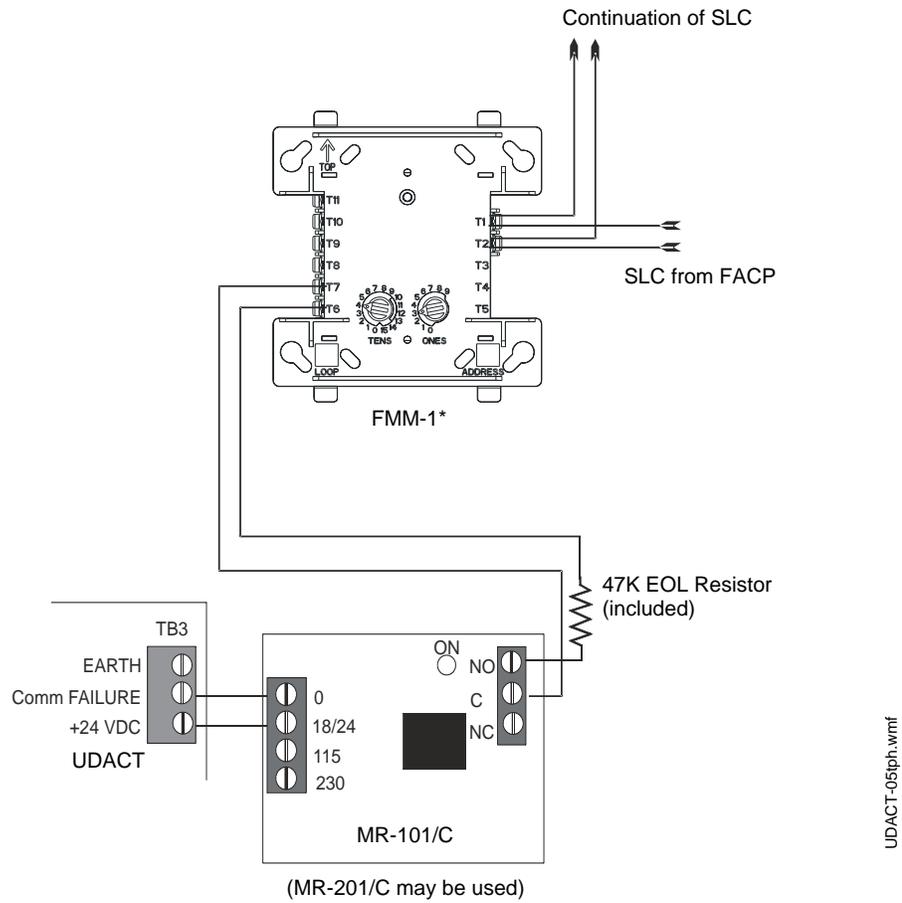
*If the SLC device does not match the one in this figure, refer to the SLC manual appendix, which contains wiring conversion charts for type V and type H modules.

NOTE: An FMM-1 Monitor Module is used to supervise the Normally Closed output of MR-101/C. If a Trouble Condition or Communication Failure occurs on the UDACT, the MR-101/C relay contact will open, causing the FMM-1 to transmit a trouble condition to the FACP.

Figure 2.10 Monitoring for UDACT Trouble

2.6 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.
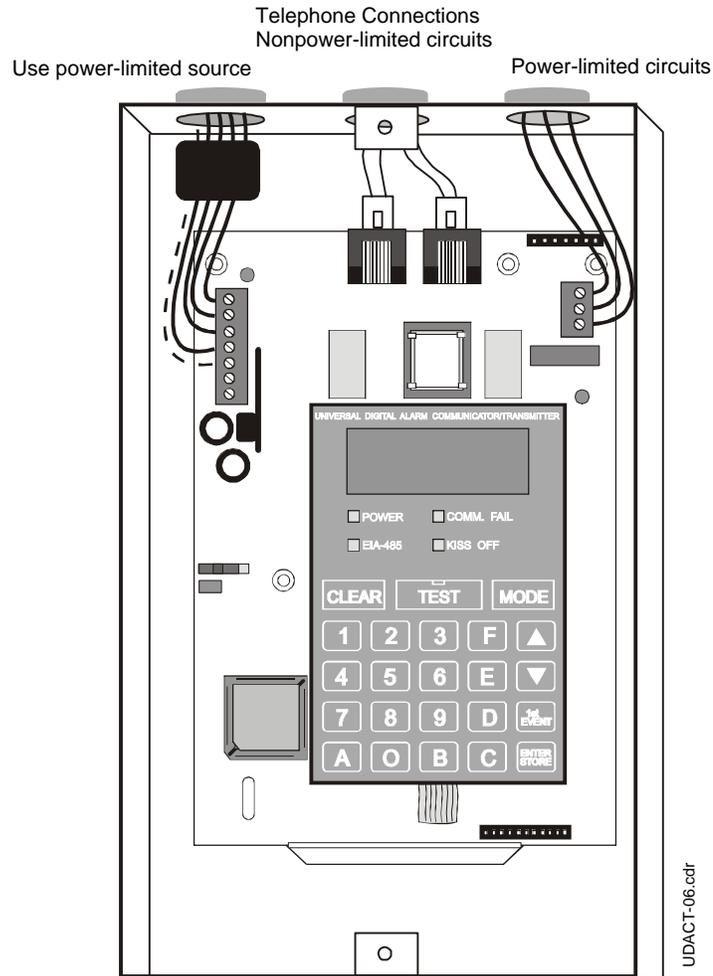
Figure 2.11 Typical Wiring for UL Power-limited Requirements

Section 3: Programming Instructions

3.1 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.

3.2 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, theUDACT 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 33 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:

<div align="center">

00_F
(address)(data)

</div>

3.3 Switch Functions

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

No function in
this mode

Select operating mode

Increment memory address

Decrement memory address

Address entry keys
are 0 to 9

Data entry keys are
0 to 9 and A to F

Once = First memory address
Twice = type any address

Save data, go to next address

UDACT-07.wmf
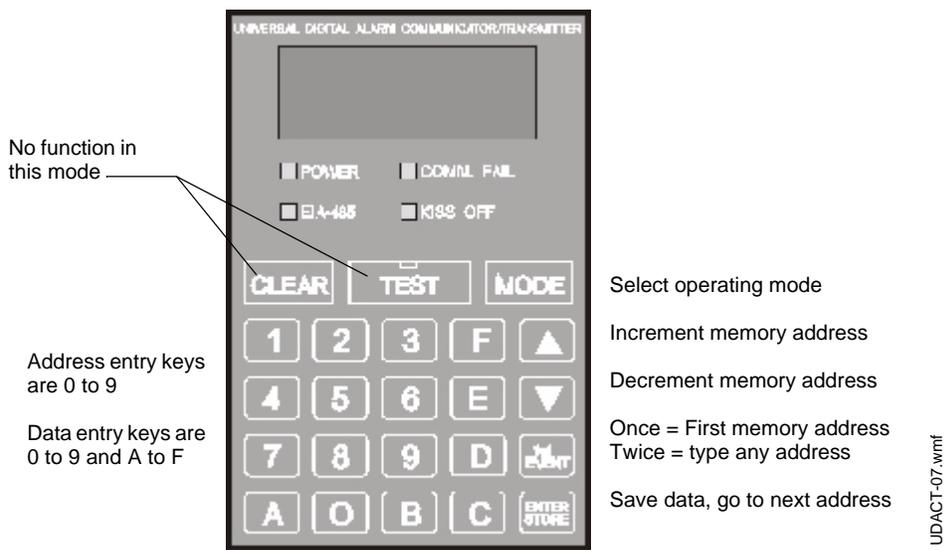
Figure 3.1 UDACT Keypad

3.4 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)

3.4.1 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 3.2 through Table 3.7.

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.

3.4.2 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.

3.4.3 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.

3.4.4 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.

3.4.5 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

3.4.6 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

0:	4+1 Ademco Express Standard, DTMF, 1400/2300 ACK
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.

3.4.7 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 "0"s.

3.4.8 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).

3.4.9 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.

3.4.10 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.

3.4.11 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
NFS2-640, NFS-640, NFS-320	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, NFS2-3030	01[5]	01 - 32	User Defined	01 - 32
Note 1. Reports status of up to 99 zones Note 2. Reports status of up to 56 zones Note 3. Reports status of up to 120 zones Note 4. Reports status of up to 248 zones Note 5. Reports status of up to 1000 zones.				
POINT REPORTING				
AFP-100	01[6]	01	04[6]	04
NFS-320	20[7]	20 - 32	32[7]	20 - 32
AFP-300/AFP-400	11[8]	11 - 19	19[8]	11 - 19
NFS2-640, NFS-640	20[9]	20 - 32	32[9]	20 - 32
AM2020/AFP1010, NCA, NCA-2, NFS2-3030, NFS-3030	01[10]	01 - 32	User Defined	01 - 32
Note 6. Reports status of up to 198 points Note 7. Reports status of up to 318 points Note 8. Reports status of up to 448 points Note 9. Reports status of up to 636 points Note 10. Reports status of up to 2040 points				

Table 3.1 Start and End Monitoring Addresses

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

3.4.12 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 52 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.

3.4.13 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.

3.4.14 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.

3.4.15 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.

3.4.16 Address (60)

Leave default of "0".

3.4.17 Address (61)

Leave default of "0".

3.4.18 AC Loss Reporting Delay (62)

"0" is the setting 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" = 1 hour, "2" = 2 hours (factory default setting), "3" = 6 hours, "4" = 7 hours, "5" = 8 hours, "6" = 9 hours, "7" = 10 hours, "8" = 11 hours, "9" = 15 hours, "A" = 16 hours, "B" = 17 hours, "C" = 20 hours, "D" = 21 hours, "E" = 22 hours and "F" = 23 hours.

3.4.19 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
- 1 = System 500
- 2 = Do not use
- 3 = System 5000
- 4 = System 5000 with AIM-200
- 5 = NFS2-640, NFS-640, NFS-320
- 6 = AFP-200 (Factory Default Setting)
- 7 = AM2020/AFP1010, NCA, NCA-2, NFS-3030, NFS2-3030

- 8 = AFP-300/AFP-400
- 9 = Do not use

3.4.20 Loop Number (64 - 65)

For Contact ID format only. Factory default is "00". Maximum value is "97". Refer to Section 5 for additional information.

3.4.21 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 56 for additional information.

NOTE: For the Contact ID Format, Loop Number and Device Number do not directly correspond to the AM2020, NFS-3030, or NFS2-3030. 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, NFS-3030, and NFS2-3030 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, NFS2-3030, 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, NFS2-3030, 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 H on page 103. For additional information on the NFS-3030 and NFS2-3030 control panel refer to Appendix I, "NFS2-3030 (UL 9th) and NFS-3030 (UL 8th)", on page 109.

3.4.22 Programming Event Codes (69-208)

The type of reports and "event codes" that are sent to the Central Station are in Table 3.2 through Table 3.7. 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.

3.4.23 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.

3.4.24 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.

3.5 3+1, 4+1 Express and 4+1 Standard Formats

3.5.1 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 3.2 Event Codes, Primary Number

3.5.2 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 3.3 Event Codes, Secondary Number

3.6 4+2 Standard and 4+2 Express Formats

3.6.1 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
119-120	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 3.4 Event Codes, Primary Number

3.6.2 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 3.5 Event Codes, Secondary Number

3.7 Ademco Contact ID Format

3.7.1 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 # [2]	Sensor #
69-71	Primary# General Alarm Code	110	00	000 [3]
72-74	Primary # Zone/Point Alarm Code [4]	110 [5]	00	Note [6]
75-77	Primary # General Supervisory Code	200	00	000 [3]
78-80	Primary # Zone/Point Supervisory Code [4]	200	00	Note [6]
81-83	Primary # General Fault Code	300	00	
84-86	Primary # AC Fault Code	301	00	
87-89	Primary # Zone/Point Fault Code [4]	380	00	Note [6]
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	
126-128	Primary # General Security Code [7]	130	00	000 [3]

1 Zero entires prevent the transmission of the report to the Central Station.
2 The Group # is automatically incremented for AM2020/AFP1010, NFS2-3030, NFS-3030, NCA-2, and NCA applications.
3 Refer to Contact ID program locations 64 - 68.
4 AFP-200 applications transmit by zone, not by point.
5 For control panels; System 500, System 5000, AFP-200, AFP-400, NFS2-640, NFS-640, NFS-320, AFP1010, AM2020, NFS2-3030, NFS-3030, NCA-2, and NCA, the factory default event code is 110 and reprogrammable. The AFP-400 and AFP-100are 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.
6 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.
7 The General Security Code applies to UL 864 9th Edition-listed Control Panels only.

Table 3.6 Ademco Contact ID, Primary Number

3.7.2 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 # [2]	Sensor #
139-141	Secondary# General Alarm Code	110	00	000 [3]
142-144	Secondary # Zone/Point Alarm Code [4]	110 [5]	00	Note [6]
145-147	Secondary # General Supervisory Code	200	00	000 [3]
148-150	Secondary # Zone/Point Supervisory Code [4]	200	00	Note [6]
151-153	Secondary # General Fault Code	300	00	
154-156	Secondary # AC Fault Code	301	00	
157-159	Secondary # Zone/Point Fault Code [4]	380	00	Note [6]
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	
196-198	Secondary # General Security Code [7]	130	00	000 [3]

1   Zero entires prevent the transmission of the report to the Central Station.
2   The Group # is automatically incremented for AM2020/AFP1010, NFS2-3030, NFS-3030, NCA-2 and NCA applications.
3   Refer to Contact ID program locations 64 - 68.
4   AFP-200 applications transmit by zone, not by point.
5   For control panels; System 500, System 5000, AFP-200, AFP-400, NFS2-640, NFS-640, NFS-320, AFP1010, AM2020, NFS2-3030, NFS-3030, NCA-2, 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.
6   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.
7   The General Security Code applies to UL 864 9th Edition-listed Control Panels only.

Table 3.7 Ademco Contact ID, Secondary Number

3.8 Programming Reference Sheets

3.8.1 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 1 hour delay; "2" for 2 hour delay (factory default); "3" for 6 hour delay; "4" for 7 hour delay; "5" for 8 hour delay; "6" for 9 hour delay; "7" for 10 hour delay; "8" for 11 hour delay; "9" for 15 hour delay; "A" for 16 hour delay; "B" for 17 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 NFS2-640, NFS-640, and NFS-320; "7" for AM2020/AFP1010, NCA-2, NCA, NFS2-3030, 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.

3.8.2 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

3.9 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	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

Section 4: 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.

4.1 Normal Mode

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

4.1.1 Function Keys

Below is a description of the function keys in Normal Mode:
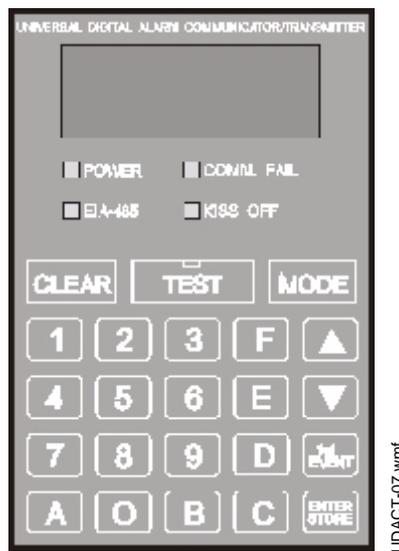
Figure 4.1 UDACT Keypad

Clear

The Clear function will cause the UDACT to:

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

> **NOTE:** 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.

NOTE: 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.

4.1.2 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 4.1 Normal Mode Messages

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

Primary Active -
Red LED
(phone line)

POWER
Green LED

EIA-485
Yellow LED

TEST
Green LED

Secondary Active -
Red LED
(phone line)

Four, Seven
Segment Displays

COMM. FAIL
Yellow LED

KISS OFF
Green LED

UNIVERSAL DIGITAL ALARM COMMUNICATOR/TRANSMITTER

POWER   COMM. FAIL

EIA-485   KISS OFF

CLEAR   TEST   MODE

UDACT-01.cdr
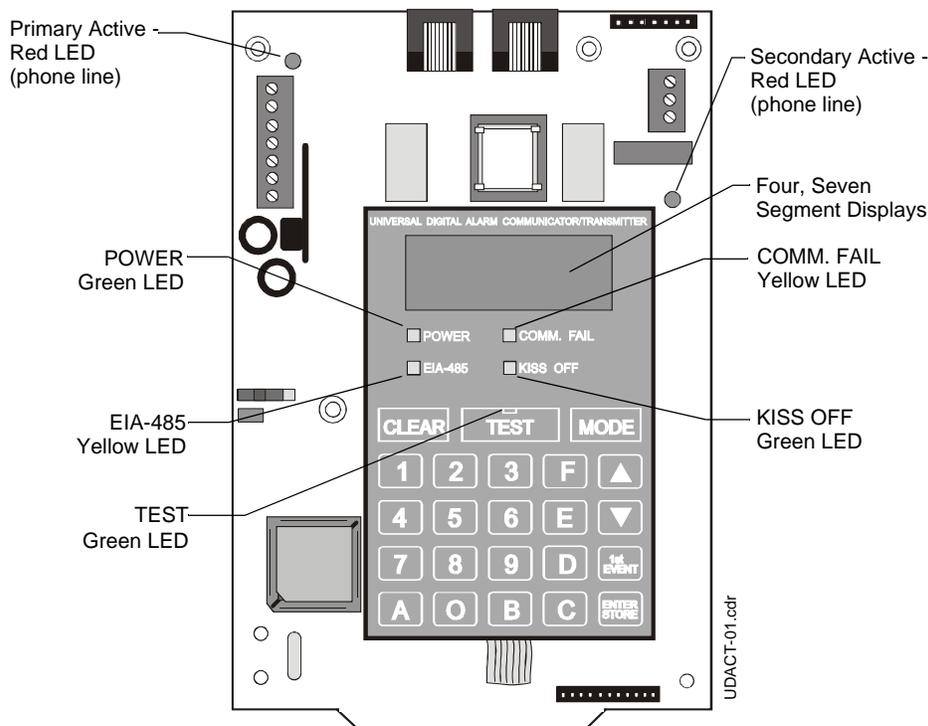
Figure 4.2 Display and LEDs

EIA-485 - A yellow LED that lights steadily when a fault on the EIA-485 circuit is detected.

Comm. Fail - This yellow LED lights 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 "PH 1" and "PH 2" or "no 1" and "no 2".

Power - A green LED that remains lit 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 flashes when the Central Station has acknowledged receipt of each transmitted message.

Test - A green LED that lights 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.

4.1.3 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 phone line. A 30 second delay will occur after recovery from a fault.

The UDACT features line seizure capability provided for both primary and secondary telephone line interfaces. **Any time the UDACT must call the Central Station, line seizure will disconnect any local premises phones sharing the same telephone line.**

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

A maximum of 14 point trouble messages are transmitted per hour. This will prevent the Central Station from being overloaded with trouble messages in the event an SLC 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 number. Reports will automatically be sent to the secondary number if attempts to transmit to the primary number are unsuccessful. If 10 total attempts to communicate are unsuccessful, the Communicator Failure output will be activated (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 28.

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.

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	20	General Alarm Restoral
2	Zone/Point Alarm #N	21	Zone/Point Alarm #N Restoral
3	General Security [*]	22	General Security Restoral [*]
4	General Supervisory	23	General Supervisory Restoral
5	Zone/Point Supervisory #N	24	Zone/Point Supervisory #N Restoral
6	General System Trouble	25	General System Trouble Restoral
7	AC Power Loss	26	AC Power Loss Restoral
8	Zone/Point Trouble #N	27	Zone/PointTrouble #N Restoral
9	Low Battery	28	Low Battery Restoral
10	Telco Primary Line Fault	29	Telco Primary Line Fault Restoral
11	Telco Secondary Line Fault	30	Telco Secondary Line Fault Restoral
12	NAC Fault Code	31	NAC Fault Code Restoral
13	Communication Trouble, Primary Number	32	Communication Trouble, Primary Number Restoral
14	Communication Trouble, Secondary Number	33	Communication Trouble, Secondary Number Restoral
15	EIA-485 Communication Bus Trouble	34	EIA-485 Communication Bus Trouble Restoral
16	System Off-Normal Code	35	System Off-Normal Code Restoral
17	System Automatic Test Report		
18	System Abnormal Automatic Test Report		
19	Manual Activated Test Report		

[*] The General Security Code applies to UL 864 9th Edition-listed Control Panels only.

Table 4.2 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 3.2 through Table 3.7. 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.

4.1.4 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 a "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".

4.2 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.

AM2020/AFP1010, NFS2-640, NFS-640, NFS-3030, NFS2-3030, NCA-2, 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.

4.2.1 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".

4.2.2 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.

4.3 Troubleshoot Mode

NOTE: 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.

4.3.1 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.
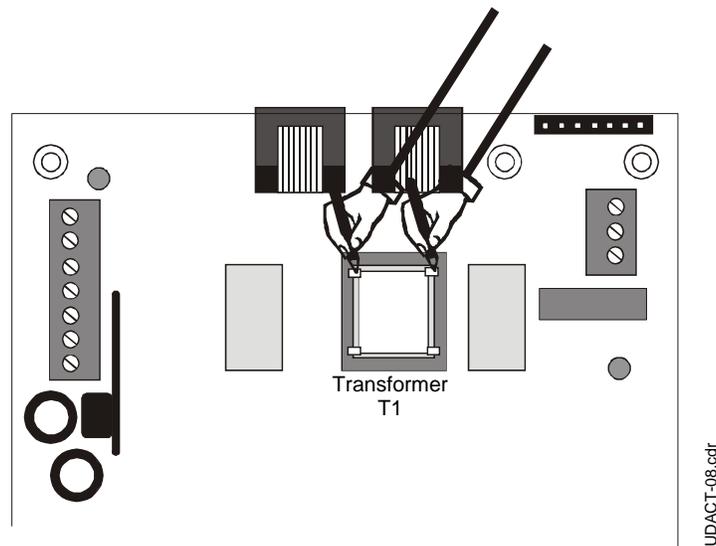
Figure 4.3 Handset/Speaker Connection

4.4 Lamp Test Mode

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

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

Section 5: Reporting Formats

5.1 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 5.2 on page 57 defines each letter code used in Table 5.1.

Table 5.3 on page 58 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 5.1 Data Reporting Structure

NOTE: Refer to Table 6 on page 61 for a list of compatible receivers.

Letter codes for Table 5.1 on page 56:

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 5.2 Letter Code Definitions

5.1.1 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 3.2 to Table 3.7)
GG	= Group or Loop number
CCC	= Device or Zone number

Table 5.3 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.

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.

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.

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

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

NFS2-640, NFS-640 = 568 points or 99 zones

NFS-320 = 318 points or 99 zones

System 500 = 56 zones

System 5000 = 120 zones

System 5000 with AIM-200 = 248 zones

AM2020/AFP1010 = 568 points

NFS-3030/NFS2-3030 = 568 points or 568 zones

NCA/NCA-2 = 568 points or 568 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 00 C009
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 5.4 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
NFS2-640/NFS-640	568
NFS-320	318
AM2020/AFP1010	568
NCA/NCA-2	568
NFS-3030/NFS2-3030	568

Table 5.5 Type Mode Maximum Address

Section 6: Compatible Receivers

6.1 UL Listed Receivers

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

Format # (Addresses 16 & 42)	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	Keltron DMP703-DR703LE (10)
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									

Table 6.1 Compatible UL Listed Receivers

NOTE:
(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.
(10) Required for Proprietary Service.

Notes

Appendix A: AFP-100 (UL 8th)

A.1 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.

A.2 Mounting

A.2.1 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.
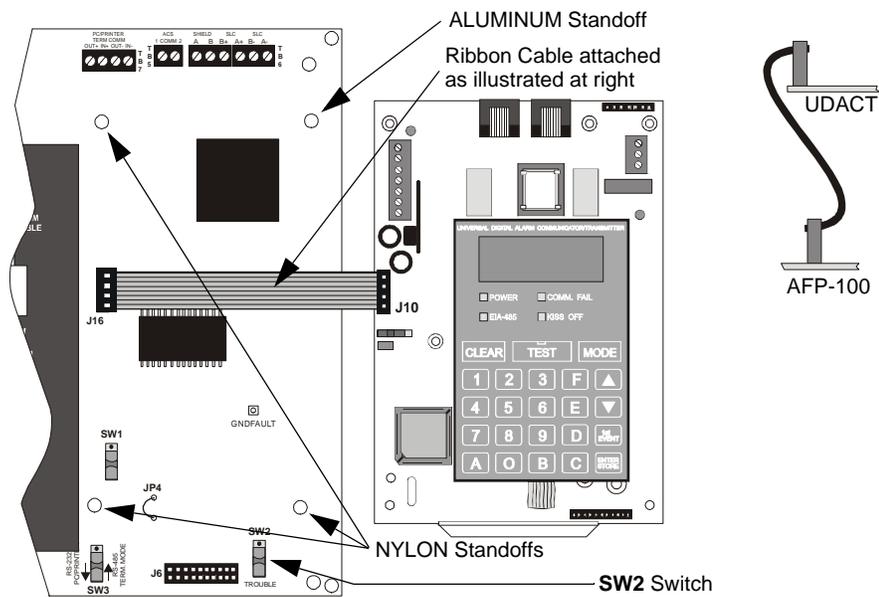
Figure A.1 UDACT Installation in AFP-100 Cabinet

A.2.2 Remote

The UDACT can also be mounted remotely using an ABS-8RB or UBS-1 enclosure placed within 6,000 feet (1,828.8 meters) of the control panel.

A.3 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.

A.3.1 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.

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.

A.3.2 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 A.2.

📄 **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.

Below is a remote installation of a UDACT with an AFP-100:
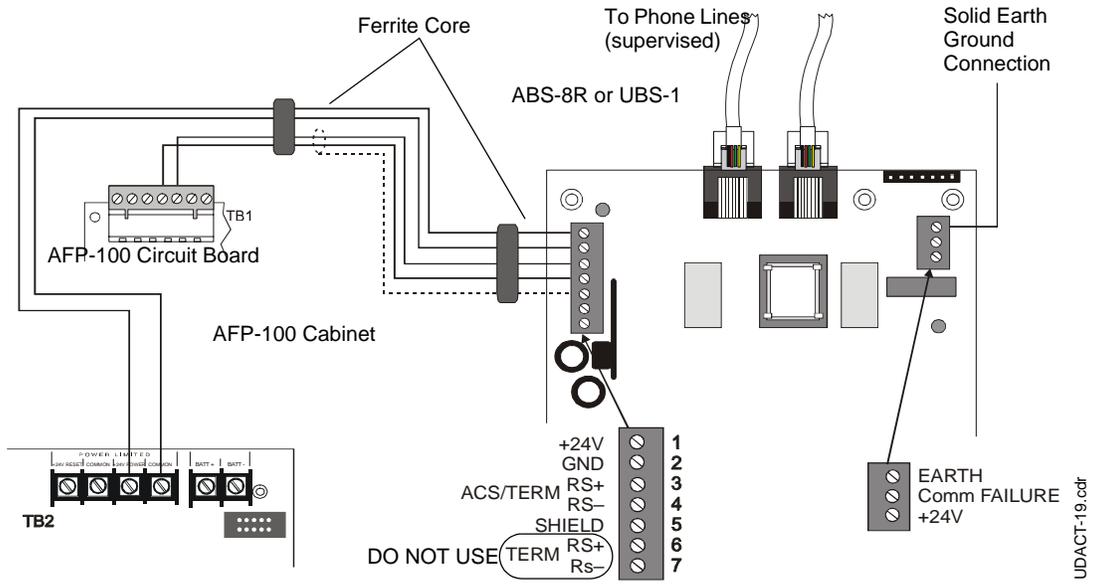
Figure A.2 UDACT and AFP-100

A.4 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 52) 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 A.1 Zone Assignments - AFP-100

A.5 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 52) to match the function of remaining zones in the system for proper reporting.

Point No	Type of Device Detector Loop	Point No	Type of Device Detector 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		199	
050				150			

Figure A.3 Point Assignments - AFP-100

Appendix B: AFP-200 (UL 8th)

B.1 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.

B.2 Mounting

Since the AFP-200 cannot accommodate the UDACT in the control panel enclosure, the UDACT must be mounted remotely using an ABS-8RB 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.

B.3 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.

B.3.1 Connections

Refer to Figure B.1 on page 69.

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.

B.3.2 Notes

1. Ferrite cores, PN 29090, are recommended for all applications.
2. Recommended wire is 12 AWG (3.25mm2) to 18 AWG (0.75mm2) 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 B.1.

📄 **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:
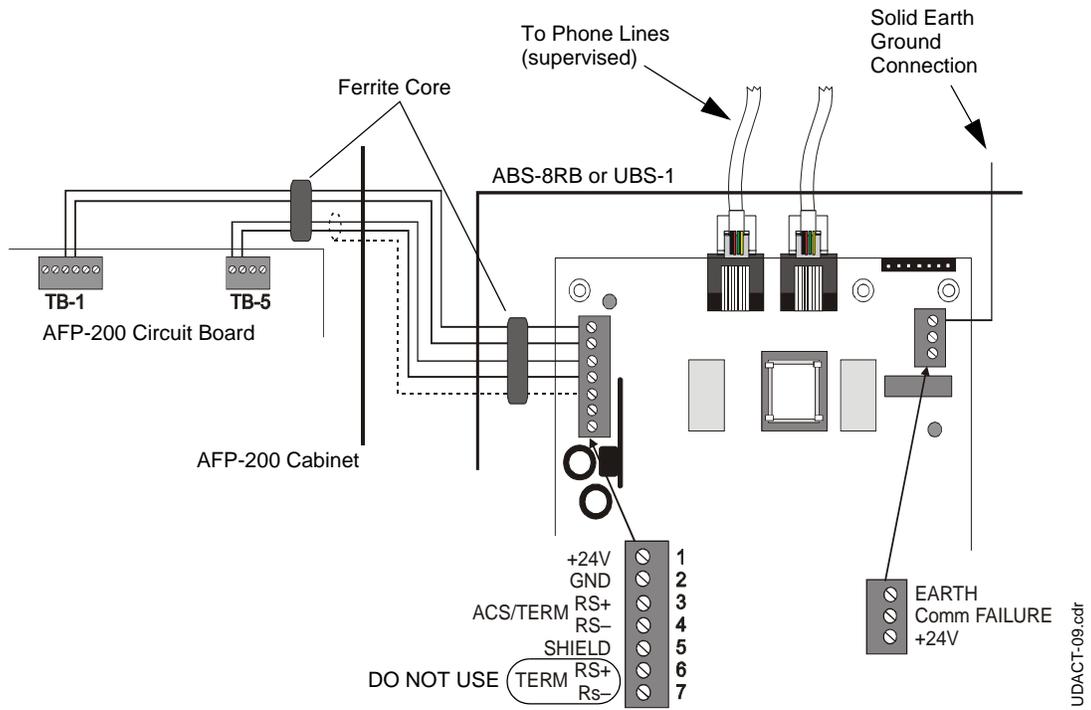
Figure B.1 UDACT and AFP-200

B.4 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 52) 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 B.1 Zone Assignments - AFP-200

Appendix C: System 500 (UL 8th)

C.1 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.

C.2 Mounting

Since the System 500 cannot accommodate the UDACT in the control panel enclosure, the UDACT must be mounted remotely using an ABS-8RB 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.

C.3 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.

C.3.1 Connections

Refer to Figure C.1 on page 72.

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-24BPCC (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

C.3.2 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 C.1.

📄 **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:
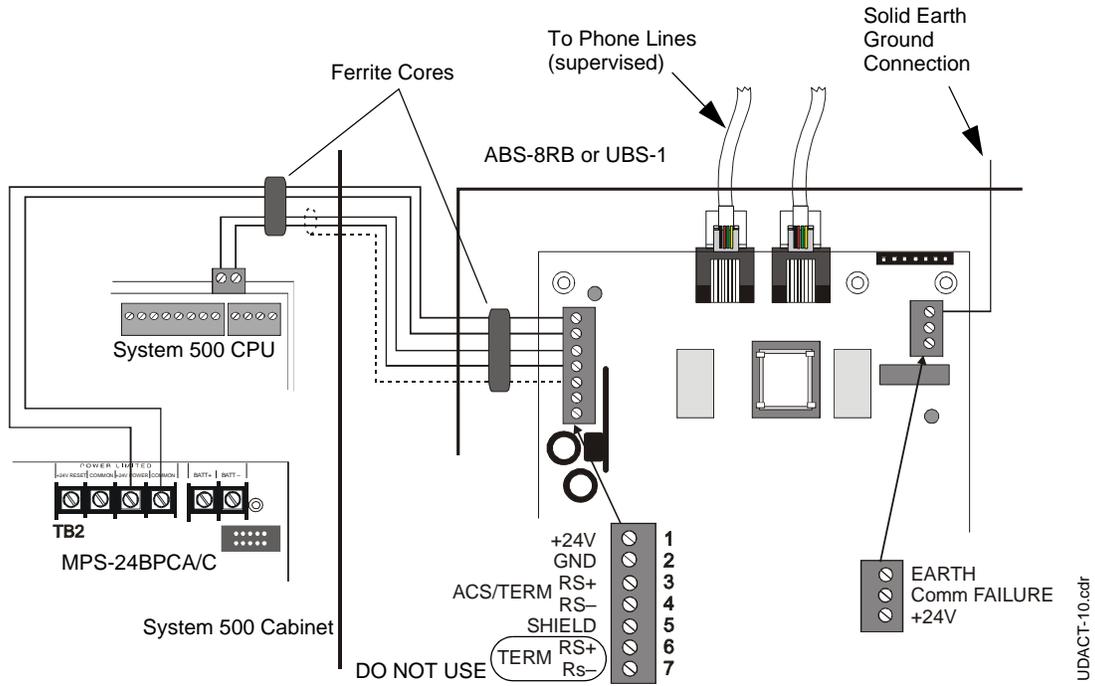
Figure C.1 UDACT and System 500

C.4 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 52) 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 C.1 Zone Assignments - System 500

Appendix D: System 5000 (UL 8th)

D.1 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.

D.2 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 D.1 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 D.2 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

D.3 Mounting

The UDACT may be mounted in the System 5000 control panel enclosure or be mounted remotely using an ABS-8RB 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 18 for installation instructions.

D.4 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.

D.4.1 Connections

Refer to Figure D.2 and Figure D.1 on page 76.

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.

D.4.2 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 D.2.

📄 **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:
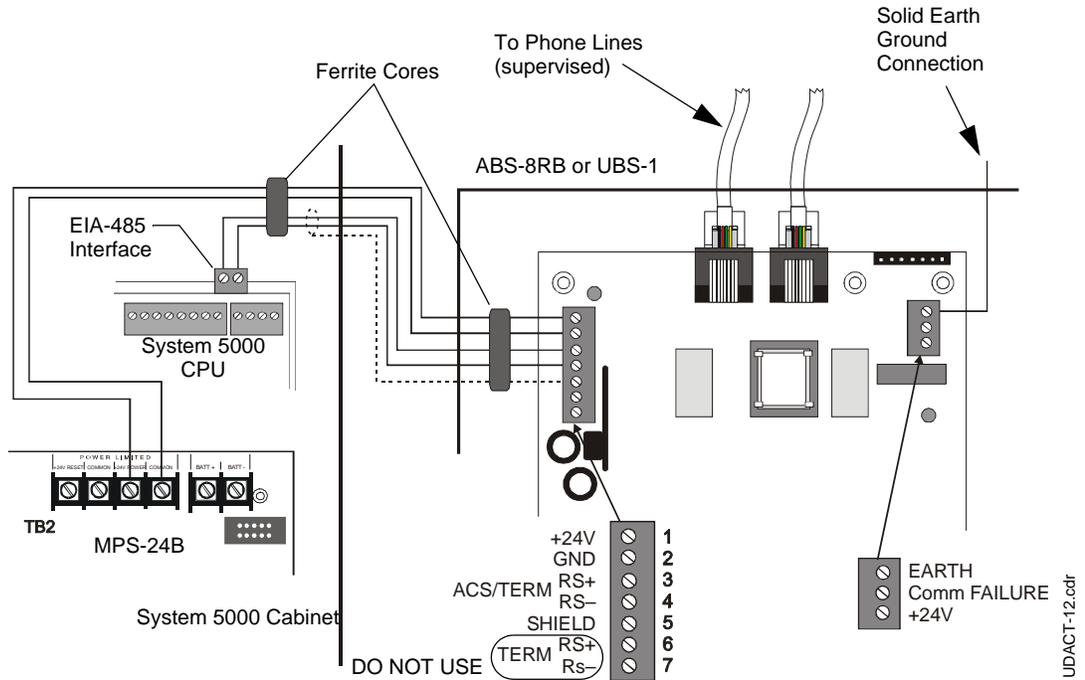
Figure D.1 UDACT and System 5000 with MPS-24B

Below is an internal installation of a UDACT with a System 5000 using an MPS-24A power supply:
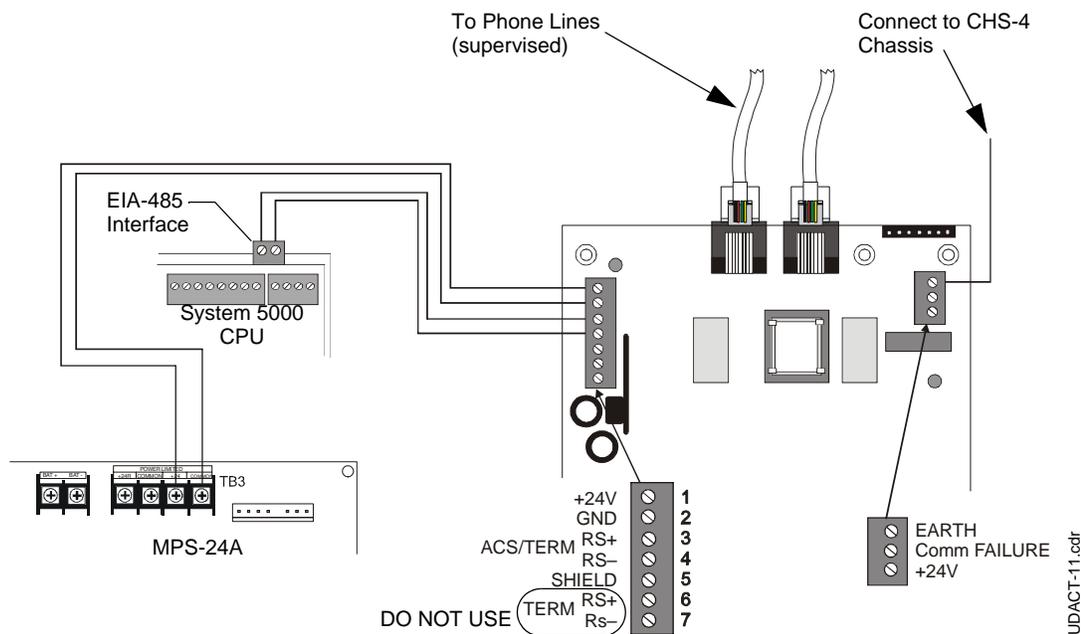
Figure D.2 UDACT and System 5000 with MPS-24A

D.5 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 52) 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 D.3 Zone Assignments - System 5000 with AIM-200, Part One

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 D.4 Zone Assignments - System 5000 with AIM-200, Table Two

D.6 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 52) 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 D.5 Zone Assignments - System 5000 without AIM-200

Appendix E: AFP-300 & AFP-400 (UL 8th)

E.1 General

E.1.1 AFP-300

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

E.1.2 AFP-400

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

E.2 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-8RB 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 18.

E.3 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.

E.3.1 Connections

Refer to Figure E.1 and Figure E.2 on page 82.

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.

E.3.2 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 E.1.

> **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:
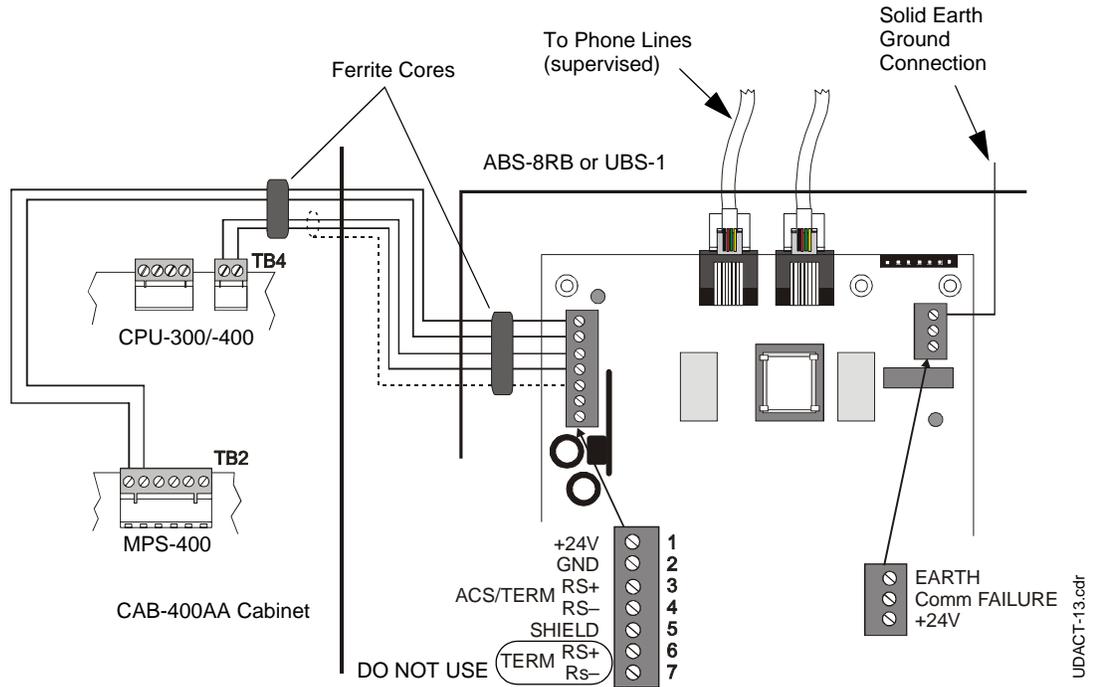
Figure E.1 UDACT and AFP-300/AFP-400 in CAB-400AA

Below is an internal installation of a UDACT with an AFP-300/AFP-400:
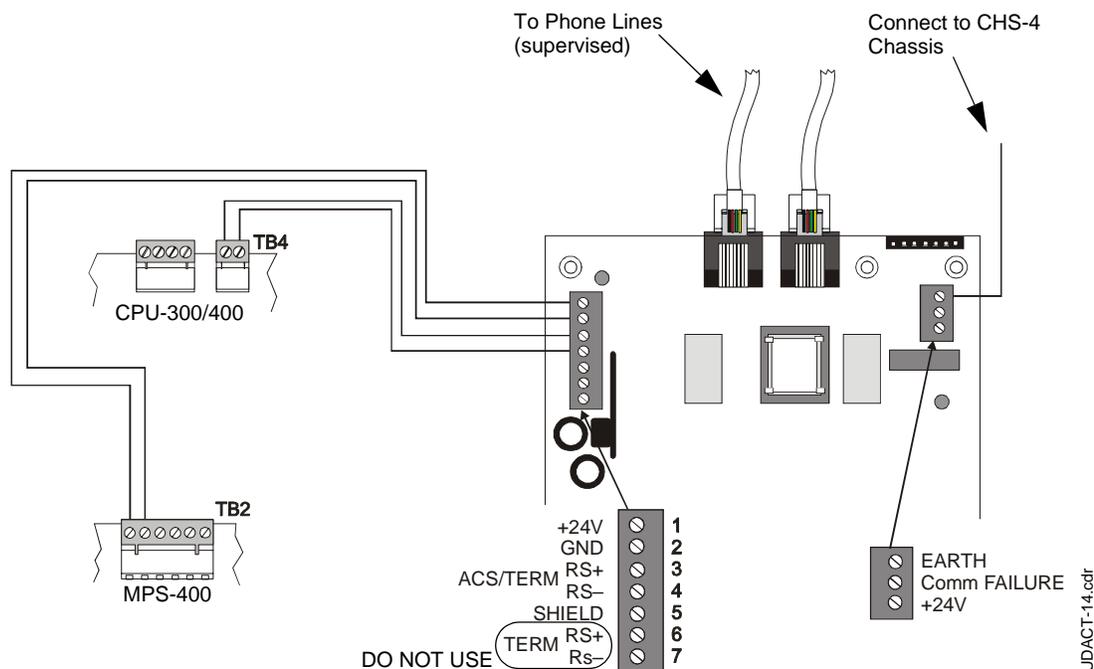
Figure E.2 UDACT and AFP-300/AFP-400 in CAB-3/4

E.4 Type Mode Programming

To disable or identify a zone or point in Type Mode (refer to "Type Mode" on page 52), the following Entries/Addresses are used:

E.4.1 For Zone Identification:

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

E.4.2 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.

E.5 Event Code/Report Transmission

Via Ademco Contact ID Format Only

E.5.1 For Zone Reporting:

Zones 1 - 99 report as zone numbers 01 - 99

E.5.2 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 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 <u>last connectors on the module slot cable</u>.

E.6 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 52) 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 E.1 Zone Assignments - AFP-300/AFP-400

E.7 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 52) 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 Program	148		198	Do Not Program
049		099		149		199	
050		100		150		200	

Table E.2 Point Assignments - AFP-300/AFP-400, Part One

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	Do Not Program	347		397	Do Not Program
248		298		348		398	
249		299		349		399	
250		300		350		400	

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

Table E.3 Point Assignments - AFP-300/AFP-400, Part Two

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							

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 D.

Table E.4 Point Assignments - AFP-300/AFP-400, Part Three

Appendix F: NFS2-640, NFS-320, (UL 9th) and NFS-640 (UL 8th)

F.1 General

The UDACT is capable of reporting a maximum of 99 zones or 636 points when used with the NFS2-640 or NFS-640, and a maximum of 99 zones and 318 points when used with the NFS-320.

F.2 Mounting

If the UDACT is not mounted within the cabinet that contains the NFS2-640, NFS-640, or NFS-320, then it must be mounted remotely in an ABS-8RB or UBS-1 enclosure placed within 6000 feet (1828.8 meters) of the control panel. This is the recommended installation for use with the NFS2-640. For mounting instructions see "Remote Installation" on page 22.

If the UDACT is mounted within the cabinet that contains the NFS-640, then it may be mounted to a CHS-M2, CHS-4, or CHS-4MB chassis within the CAB-3/4 backbox. If the UDACT is mounted within the cabinet that contains the NFS-320, then it must be mounted to the NFS-320 chassis and programmed before installing the KDM2-R2 keypad. If the UDACT is mounted within the cabinet that contains the NFS2-640, then it many be mounted to the NFS2-640 Chassis, CHS-4, or CHS-4MB chassis within the CAB-3/4 backbox. If mounted on the NFS2-640 Chassis, the UDACT must be mounted in the rear position of the fourth column with no other option boards in front. For mounting instructions see "Internal Installation" on page 18.

F.3 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.

F.3.1 Connections

Refer to Figure F.1, Figure F.2, Figure F.3, and Figure F.4 on page 89 to 91.

To the NFS2-640 and NFS-320

Connect the communication line between the EIA-485 terminal block TB11 on the CPU2-640/CPU-320 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 CPU2-640/CPU-320 TB10 to TB1 terminals 1 and 2 on the UDACT.

To the NFS-640

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.

F.3.2 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 F.1.

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 NFS2-640/NFS-320:
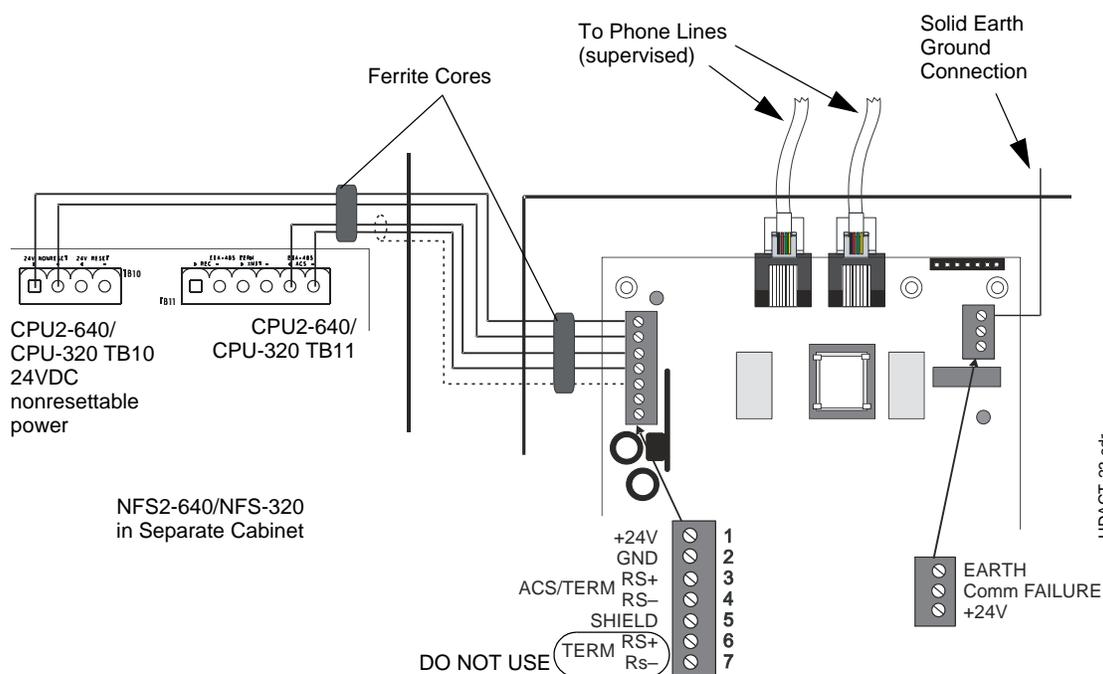
Figure F.1 UDACT and NFS2-640/NFS-320 in Separate Cabinets

Below is an internal installation of a UDACT with NFS2-640/NFS-320:
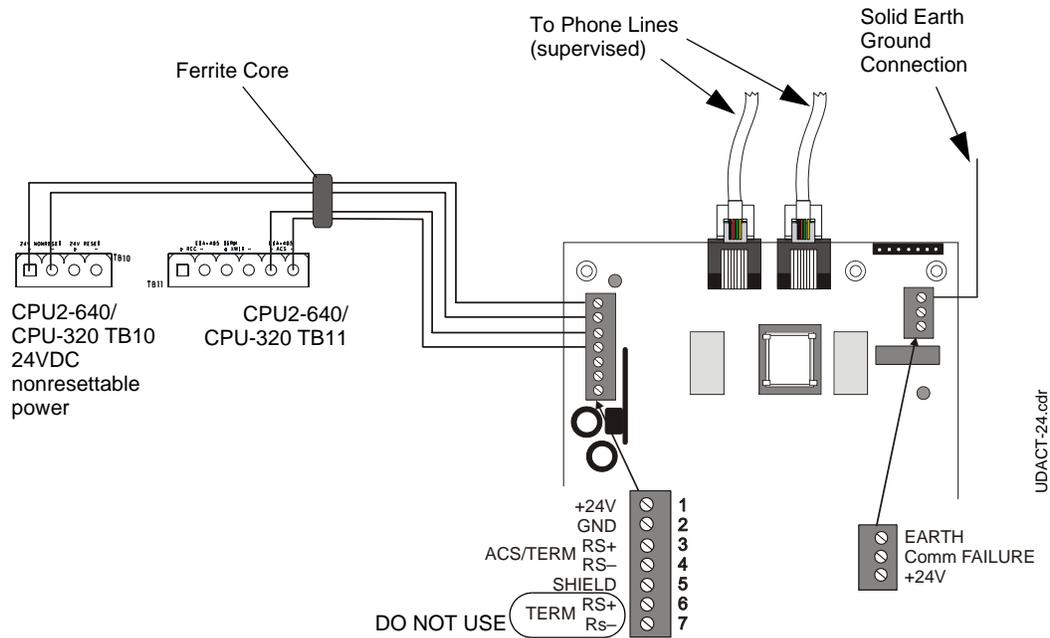
Figure F.2 UDACT and NFS2-640/NFS-320 in the Same Cabinet

Below is a remote installation of a UDACT with an NFS-640:
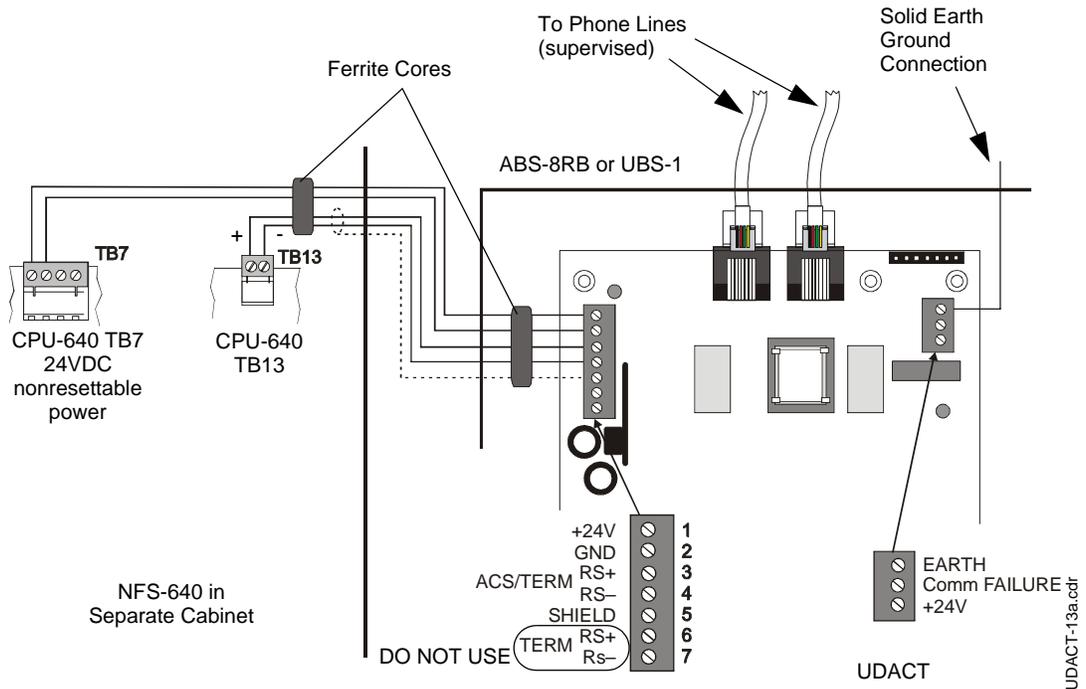
Figure F.3 UDACT and NFS-640 in Separate Cabinets

Below is an internal installation of a UDACT with an NFS-640:
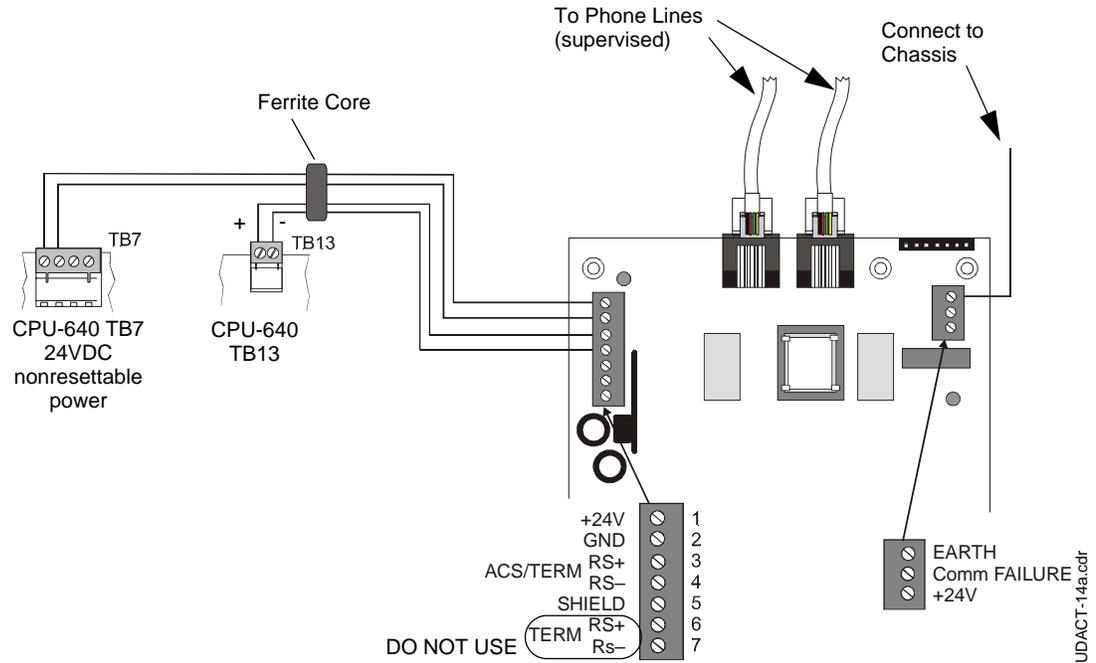
Figure F.4 UDACT and NFS-640 in the Same Cabinet

F.4 Type Mode Programming

To disable or identify a zone or point in Type Mode (refer to "Type Mode" on page 52), the following Entries/Addresses are used:

F.4.1 For Zone Identification:

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

F.4.2 For Point Identification:

NOTE: Loop 2 Programming is only available for the NFS2-640 and NFS-640.

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

F.5 Event Code/Report Transmission

Via Ademco Contact ID Format Only

F.5.1 For Zone Reporting:

Zones 1 - 99 report as zone numbers 01 - 99

F.5.2 For Point Reporting:

NOTE: Loop 2 Reporting is only available for the NFS2-640 and NFS-640.

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)

Use Table F.1 through Table F.7 as worksheets for the NFS2-640, NFS-640, and NFS-320.

F.6 Zone Assignments

Use the following chart to carefully identify the 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 52) 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 F.1 Zone Assignments, NFS2-640, NFS-640, and NFS-320

F.7 Point Assignments

Use the following 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 52) to match the function of remaining zones in the system for proper reporting.
Remember that the NFS-320 does not have the same point capability as the NFS2-640 or NFS-640.

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 F.2 Point Assignments, NFS2-640, NFS-640, and NFS-320, Part One

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 F.3 Point Assignments, NFS2-640, NFS-640, and NFS-320, Part Two

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	

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

Table F.4 Point Assignments, NFS2-640, NFS-640, and NFS-320, Part Three

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	

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

Table F.5 Point Assignments, NFS2-640, NFS-640, and NFS-320, Part Four

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

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

Table F.6 Point Assignments, NFS2-640, NFS-640, and NFS-320, Part Five

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 F.7 Point Assignments, NFS-640 Only, Part Six

Appendix G: NCA-2 (UL 9th) and NCA (UL 8th)

G.1 General

The UDACT is capable of reporting a maximum of 568 zones or 2040 points when used with the NCA or NCA-2. The first 568 points can be programmed using the Type Mode feature (refer to "Type Mode" on page 52). 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.

G.2 Mounting

If the UDACT is not mounted in the same cabinet that contains the NCA or NCA-2, it must be mounted remotely in an ABS-8RB 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 or NCA-2 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 18.

G.3 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.

G.3.1 Connections

Refer to Figure G.1 and Figure G.2 on page 101.

Connect the communication line between the EIA-485 terminal block TB3 on the NCA or TB7 on the NCA-2 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 TB1 on the NCA or TB6 on the NCA-2 to TB1 terminals 1 and 2 on the UDACT. Power can also be supplied from TB6 on an AMPS-24/E when using an NCA-2.

G.3.2 Notes

1. Ferrite cores, PN 29090, are recommended for all applications regarding the NCA.
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 G.1.

📄 **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.

Use Table H.1 through Table H.3 in Appendix H as worksheets for the NCA or NCA-2.

Below is a remote installation of a UDACT with an NCA:
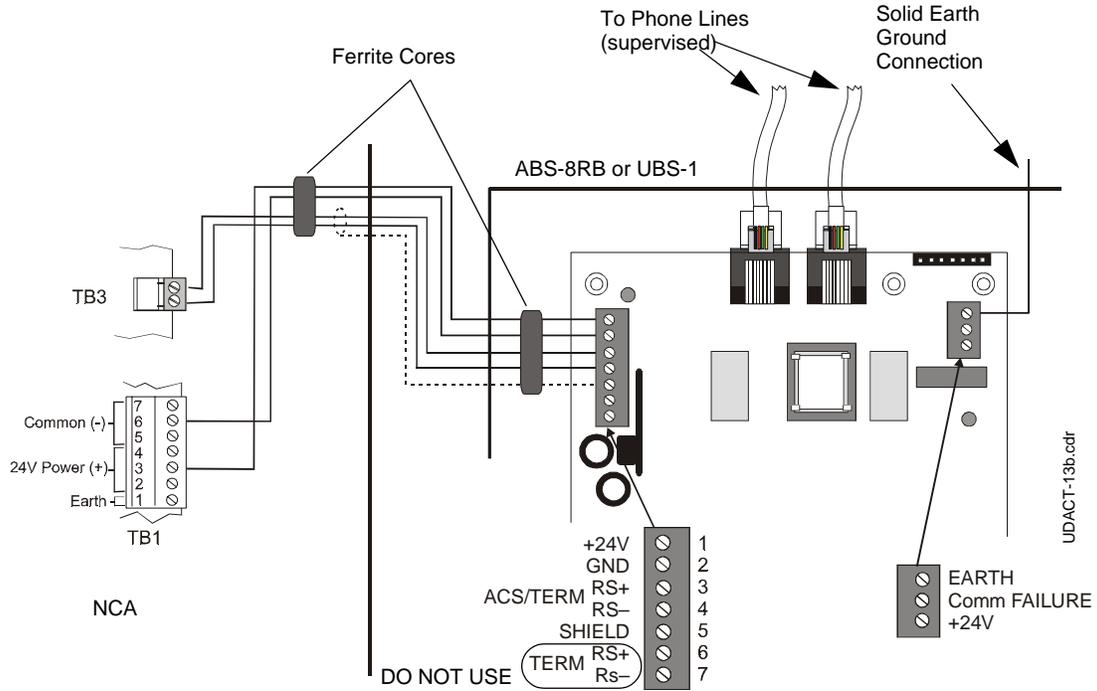
Figure G.1 UDACT and NCA in Separate Cabinets

Below is an internal installation of a UDACT with an NCA:
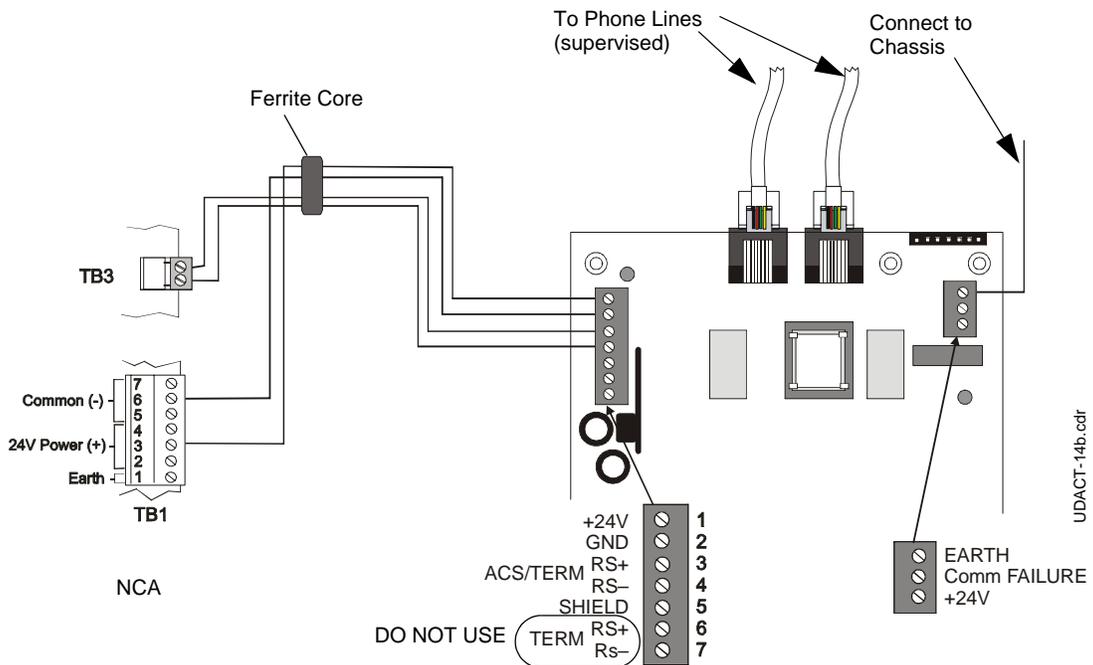
Figure G.2 UDACT and NCA in the Same Cabinet

Below is a remote installation of a UDACT with an NCA-2 using power supplied by the control panel:
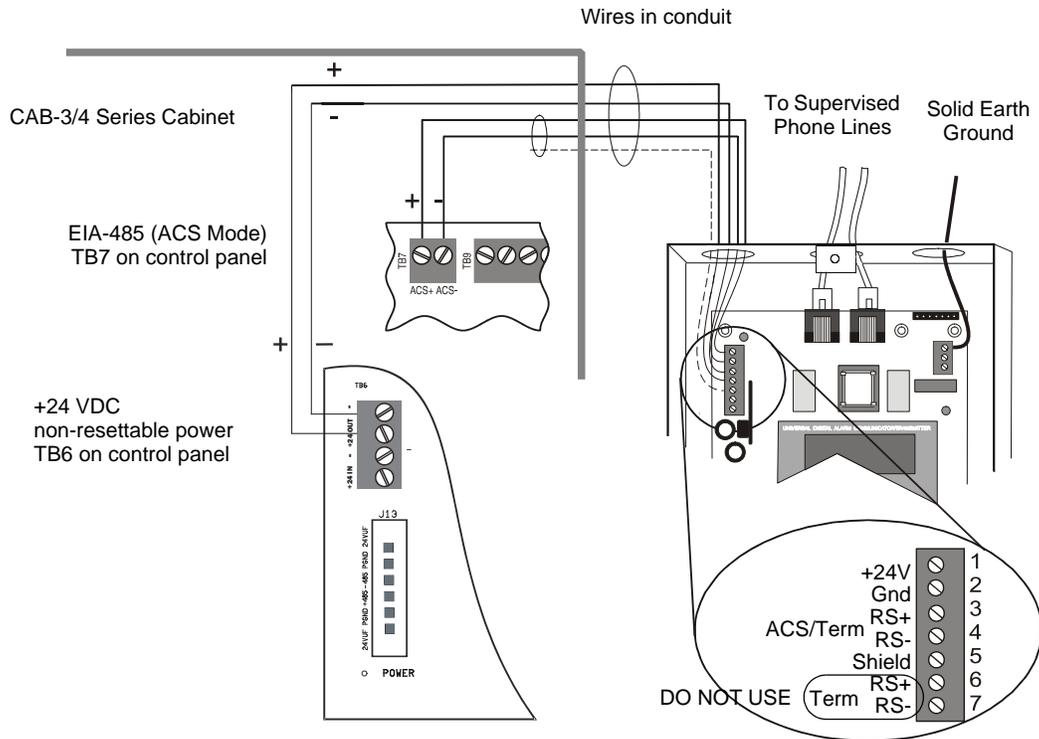
Figure G.3 UDACT and NCA-2

Below is a remote installation of a UDACT with an NCA-2 using power supplied by an AMPS-24/E:
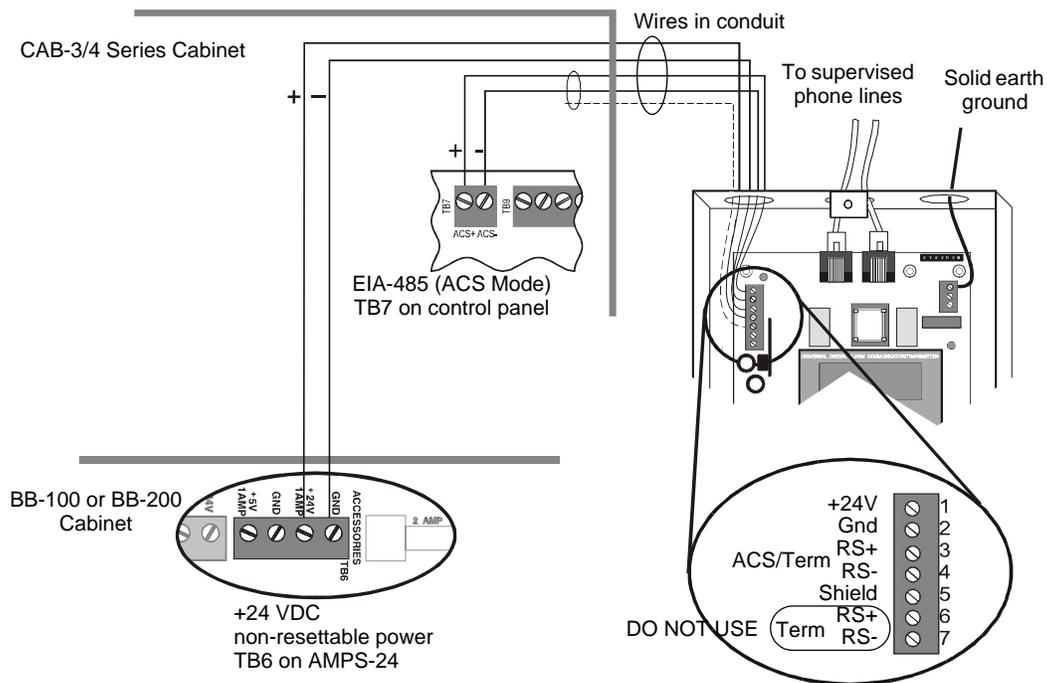
Figure G.4 UDACT and NCA-2 powered by AMPS-24/E

Appendix H: AM2020/AFP1010 (UL 8th)

H.1 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 52). 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.

H.2 Mounting

The UDACT may be mounted in the AM2020/AFP1010 control panel enclosure or be mounted remotely using an ABS-8RB 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 18.

H.3 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.

H.3.1 Connections

Refer to Figure H.1 and Figure H.2 on page 105.

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.

H.3.2 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 H.1.

> **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/AFP1010using an MPS-24A main power supply:
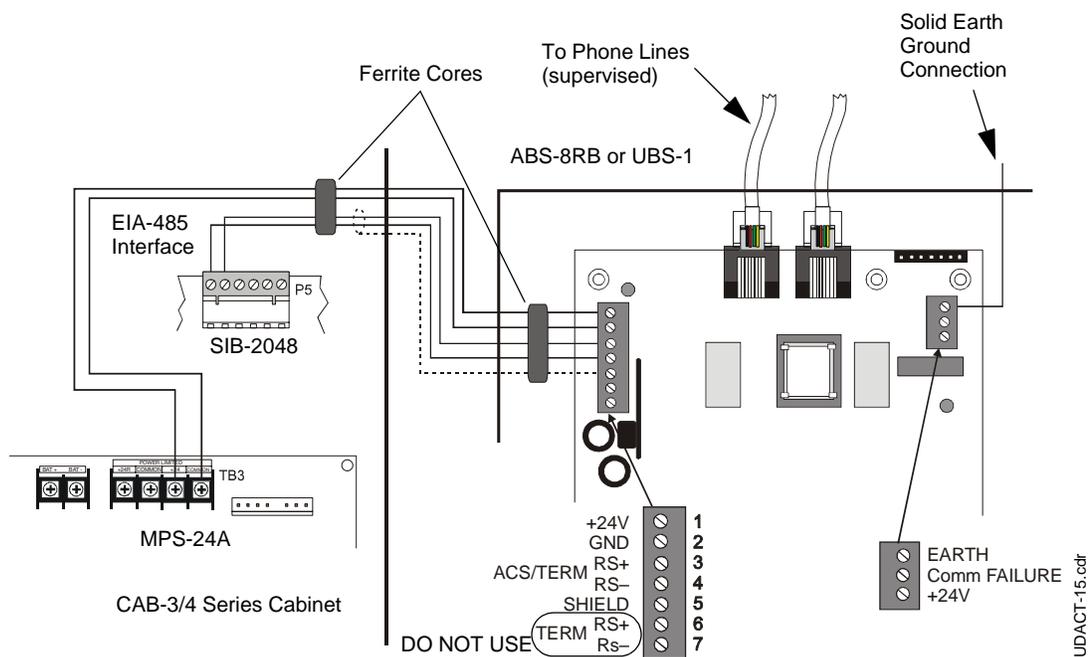
Figure H.1 UDACT and AM2020/AFP1010 with MPS-24A

Below is an internal installation of a UDACT with an AM2020/AFP1010 using an MPS-24B main power supply:
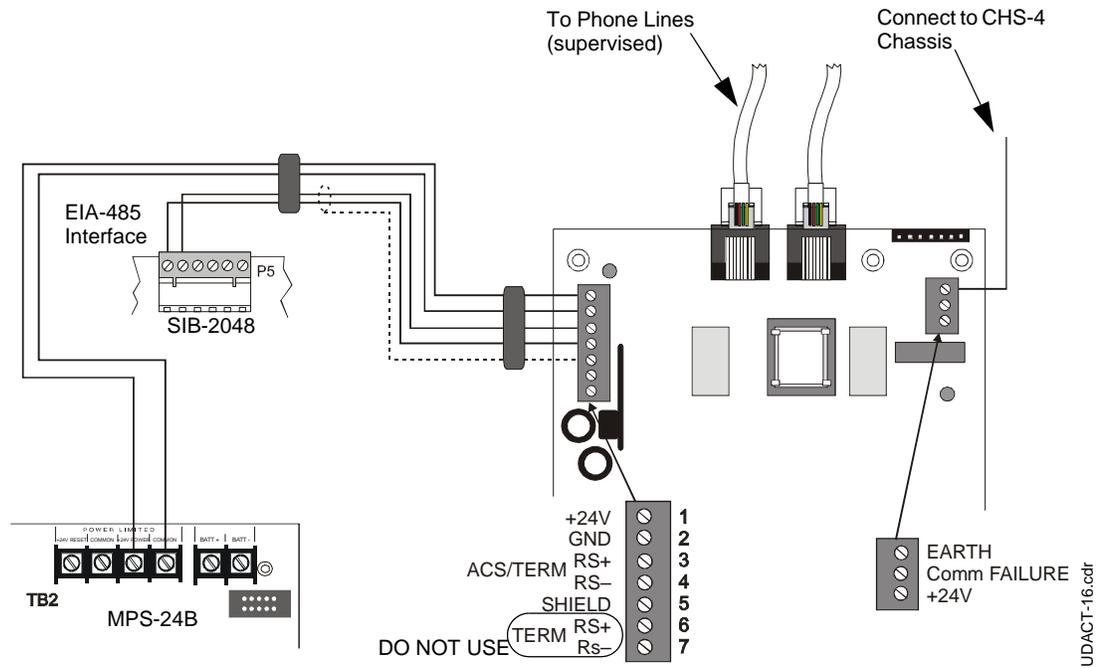
Figure H.2 UDACT and AM2020/AFP1010 with MPS-24B

H.4 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 52) 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 H.1 Point Assignments - AM2020/AFP1010, Part One

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 H.2 Point Assignments - AM2020/AFP1010, Part Two

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 H.3 Point Assignments - AM2020/AFP1010, Part Three

Appendix I: NFS2-3030 (UL 9th) and NFS-3030 (UL 8th)

I.1 General

The UDACT is capable of reporting up to 2,040 points when used with the NFS2-3030/NFS-3030. The first 568 points can be programmed using the Type Mode feature (refer to "Type Mode" on page 52). 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/NFS2-3030. Refer to the *NFS-3030 Installation Manual* and the *NFS2-3030 Installation Manual* for additional restrictions and more information.

I.2 Mounting

The UDACT may be mounted in the NFS2-3030/NFS-3030 control panel enclosure or be mounted remotely using an ABS-8RB 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 18.

I.2.1 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.

I.2.2 Connections

Refer to Figure I.1, Figure I.2, and Figure I.3.

Connect the communication line between the EIA-485 terminal block on the CPU2-3030/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 CPU2-3030/CPU-3030 or AMPS-24/E (Main Power Supply) to TB1 terminals 1 and 2 on the UDACT.

I.2.3 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 I.1.

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:
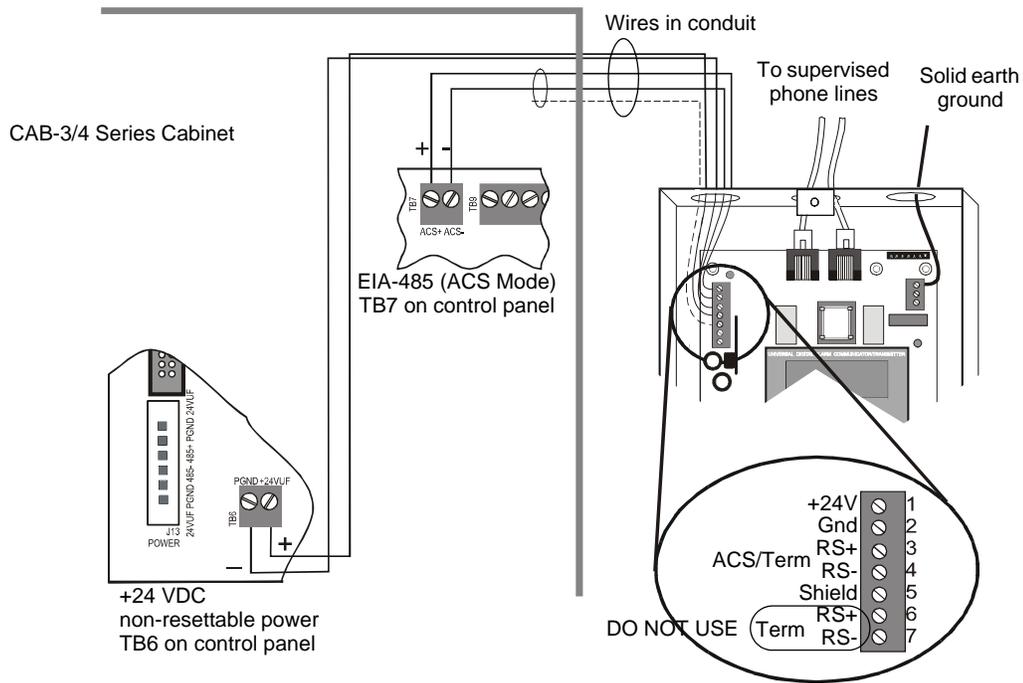
Figure I.1   UDACT and NFS-3030

Below is a remote installation of a UDACT with an NFS2-3030 using power supplied by the control panel:
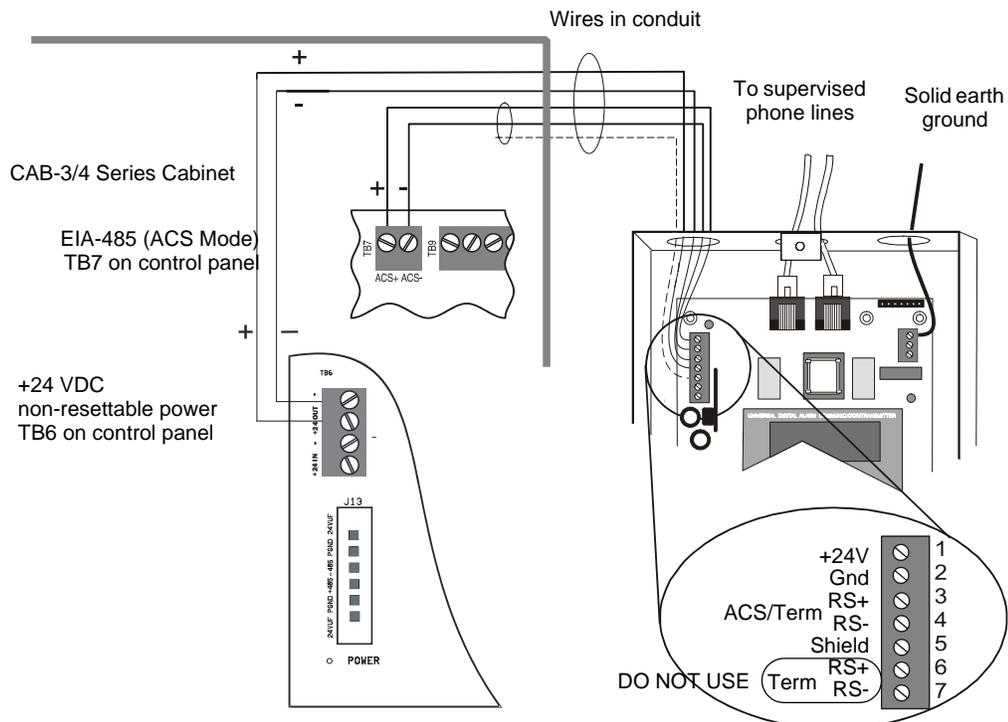
Figure I.2   UDACT and NFS2-3030

Below is a remote installation of a UDACT with an NFS-3030/NFS2-3030 using an AMPS-24/E main power supply:
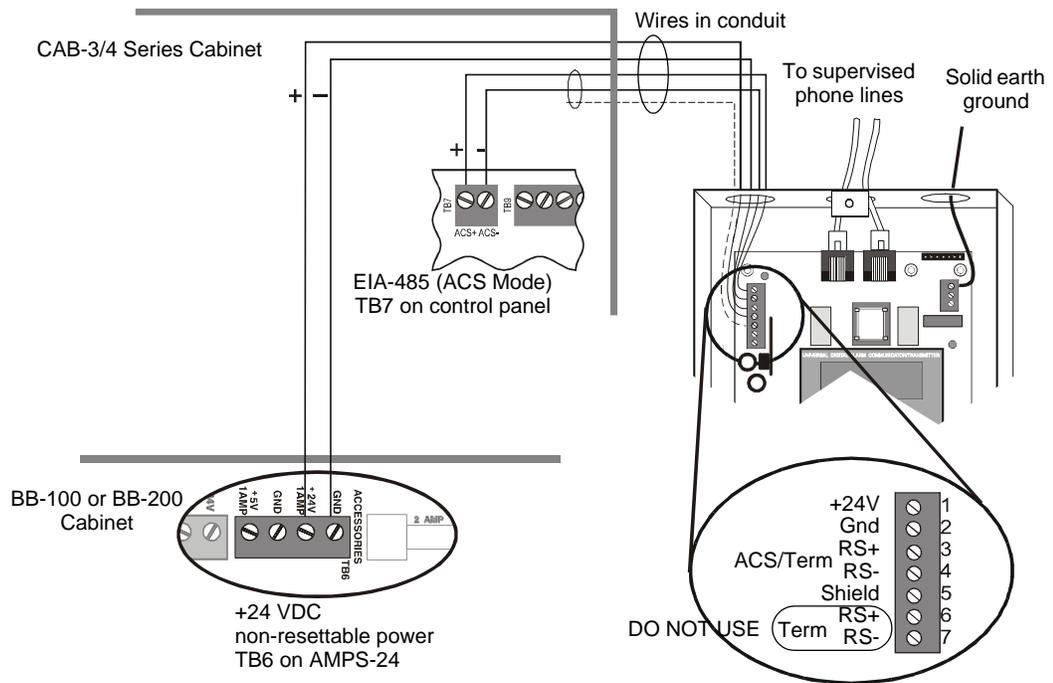
Figure I.3 UDACT and NFS-3030/NFS2-3030 powered by AMPS-24/E

I.3 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 52) 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	
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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 I.1 Point Assignments - NFS-3030/NFS2-3030, Part One

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 I.2 Point Assignments - NFS-3030/NFS2-3030, Part Two

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 I.3 Point Assignments - NFS-3030/NFS2-3030, Part Three

Appendix J: Annunciators

J.1 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:

J.1.1 AFP-100, AFP-200, and AFP-300/AFP-400

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

J.1.2 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

J.1.3 AM2020/AFP1010

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, the first Red LED on an annunciator is used to annunciate alarms while LEDs 2 through 8 are not used.

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