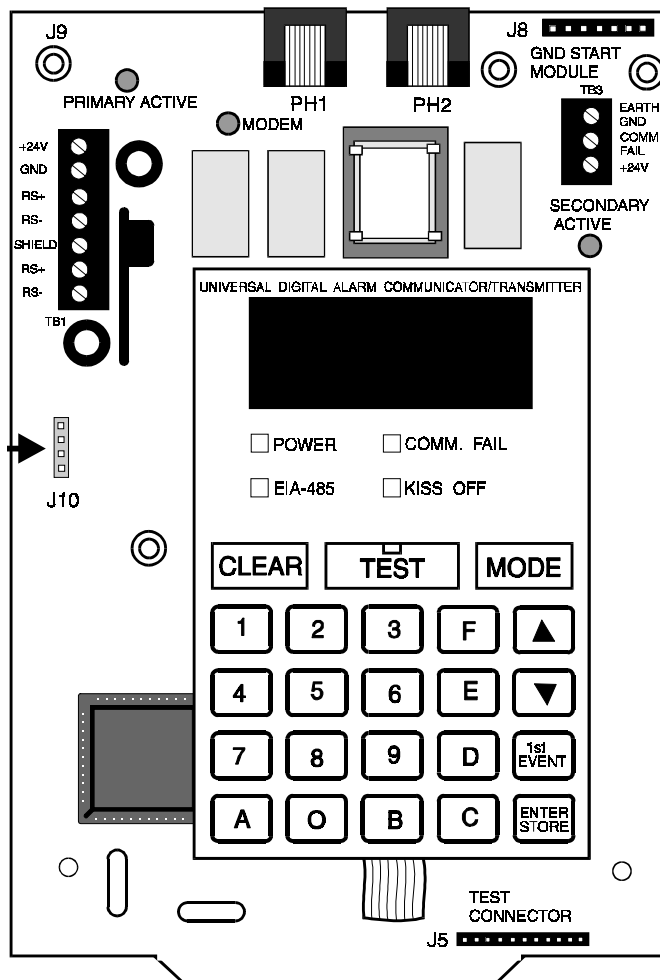
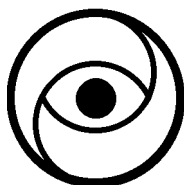


The UDACT-F

Universal Digital Alarm Communicator/Transmitter



Product Information, Installation, Programming and Operation Manual



**Fire-Lite
Alarms Inc.**
12 Clintonville Road, Northford, CT 06472

Document # 50049
5/2/97 **Rev: D**
P/N 50049:D ECN 97-173

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

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

CAUTION - *System Reacceptance Test after Software Changes:* To ensure proper system operation, this product must be tested in accordance with NFPA 72-1993 Chapter 7 after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

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

This system meets NFPA requirements for operation at 0-49° C/32-120° F and at a relative humidity of 85% RH (non-condensing) at 30° C/86° F. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a nominal room temperature of 15-27° C/60-80° F.

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

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

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

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

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

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.

Fire Alarm System Limitations

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

An automatic fire alarm system - typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control with remote notification capability can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

Any fire alarm system may fail for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in walls, or 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. Furthermore, all types of smoke detectors - both ionization and photoelectric types, have sensing limitations. No type of smoke detector can sense every kind of fire caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson.

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.

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.

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.

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

Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled.

The most common cause of fire alarm malfunctions, however, is inadequate maintenance. All devices and system wiring should be tested and maintained by professional fire alarm installers following written procedures supplied with each device. System inspection and testing should be scheduled monthly or as required by National and/or local fire codes. Adequate written records of all inspections should be kept.

FCC Warning

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

Canadian Requirements

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

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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This control panel has been designed to comply with standards set forth by the following regulatory agencies:

- Underwriters Laboratories Standard UL 864
- NFPA Standards 72-1993 Local, Remote Station and Central Station Fire Alarm Systems
- CAN/ULC - S527-M87 Standard for Control Units for Fire Alarm Systems

Before proceeding, the installer should be familiar with the following documents.



NFPA Standards, NFPA 72-1993 National Fire Alarm Code:

- Central Station Fire Alarm Systems (Automatic, Manual and Waterflow) Protected Premises Unit.
- Local (Automatic, Manual, Waterflow and Sprinkler Supervisory) Fire Alarm Systems.
- Proprietary Fire Alarm Systems (Protected Premises Unit).
- Automatic Fire Detectors
- Installation, Maintenance, and Use of Notification Appliances for Fire Alarm Systems
- Inspection, Testing and Maintenance for Fire Alarm Systems

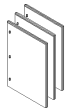


FM Approved (with Ademco 685 Receiver)



Underwriters Laboratories Documents:

- UL 38 Manually Actuated Signaling Boxes
- UL 217 Smoke Detectors, Single and Multiple Station
- UL 228 Door Closers—Holders for Fire Protective Signaling Systems
- UL 268 Smoke Detectors for Fire Protective Signaling Systems
- UL 268A Smoke Detectors for Duct Applications
- UL 346 Waterflow Indicators for Fire Protective Signaling Systems
- UL 464 Audible Signaling Appliances
- UL 521 Heat Detectors for Fire Protective Signaling Systems
- UL 864 Standard for Control Units for Fire Protective Signaling Systems
- UL 1481 Power Supplies for Fire Protective Signaling Systems
- UL 1638 Visual Signaling Appliances
- CAN/ULC - S524-M91 Standard for Installation of Fire Alarm Systems



Other:

- NEC Article 300 Wiring Methods
- NEC Article 760 Fire Protective Signaling Systems
- Applicable Local and State Building Codes
- Requirements of the Local Authority Having Jurisdiction

1.0 Product Description

The Universal Digital Alarm Communicator/Transmitter (UDACT-F) may be used with the Fire-Lite MS-9200 and Sensiscan 2000 control panels. The UDACT-F transmits system status to UL Listed Central Station Receivers via the public switched telephone network. The UDACT-F is compact in size and may be mounted inside the host control panel or may mount externally in a separate enclosure. EIA-485 annunciator communications bus and 24 volt (nominal) connections are required. The UDACT-F is capable of reporting 198 points or 56 zones when used with the MS-9200 and 56 zones when used with the Sensiscan 2000.

1.1 Product Features

- Dual telephone lines
- Dual telephone line voltage detect
- Surface mount technology
- 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 either inside control panel or in separate ABS-8RF or UBS-1F enclosure
- Communicates vital system status including:
 - ✓ Independent zone/point alarm
 - ✓ Independent zone/point trouble
 - ✓ Independent zone/point supervisory
 - ✓ AC (mains) power loss (programmable)
 - ✓ Low battery and earth fault
 - ✓ System off normal
 - ✓ 12 or 24 hour test signal
 - ✓ Abnormal test signal per new UL requirements
 - ✓ Annunciation of UDACT-F 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-F trouble.
- Real Time Clock
- Extensive transient protection
- Simple EIA-485 interface to host panel



UBS-1F

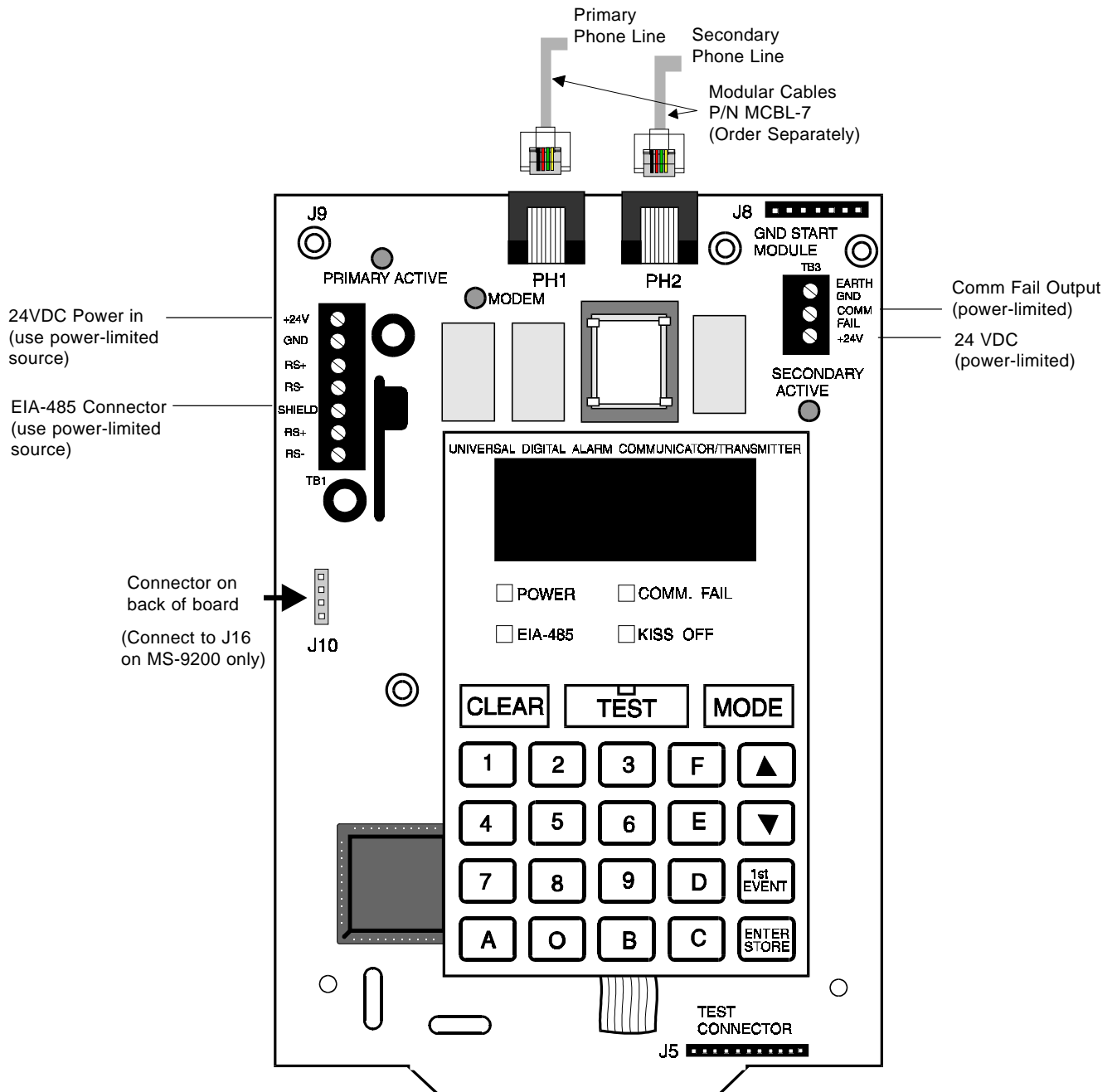


Figure 1-1: UDACT-F Assembly

1.2 Controls and Indicators

Front Panel Switches

CLEAR	Digits 0-9
TEST	A
MODE	B
Up Arrow	C
Down Arrow	D
1st EVENT	E
ENTER/STORE	F

Displays

- EIA-485 - yellow LED
- COMM. FAIL - yellow LED
- KISS OFF - green LED
- POWER - green LED
- Four, Seven Segment Displays - red
- Primary Phone Line Active - red LED
- Secondary Phone Line Active - red LED
- TEST - green LED

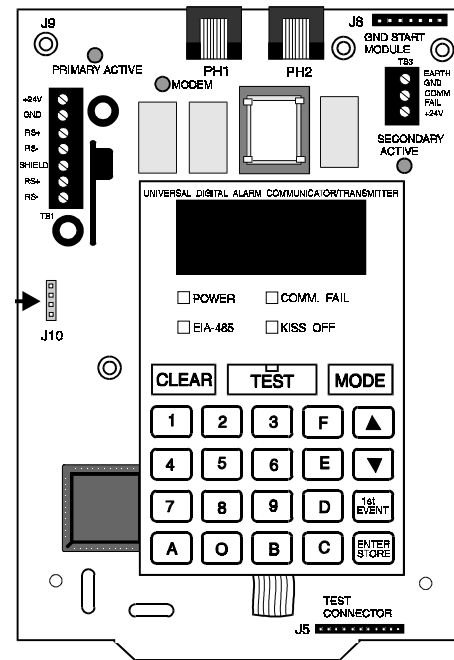


Figure 1-2: Controls and Indicators

1.3 Compatible Panels

The UDACT-F has been designed to be compatible with the following Fire-Lite control panels:

- Sensiscan 2000
- MS-9200.

1.4 Digital Communicator

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

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

1.5

Circuits

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

1.5.1 Power Requirements

Operating voltage for the UDACT-F must be power-limited, filtered, nonresettable 21.2 to 28.2 volts. The 24 VDC nominal operating power must be supplied by the Control Panel and is connected to TB1 of the UDACT-F.

Note: If the UDACT-F is installed in an MS-9200 Control Panel, power is provided directly through UDACT-F connector J10 which plugs into the MS-9200 main circuit board.

1.5.2 Communications

Communications between the UDACT-F 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-F. The wiring connections are made to the RS+, RS- and Shield terminals of TB1 on the UDACT-F.

The EIA-485 circuit cannot be T-Tapped and must be wired in a continuous fashion from the control panel to the UDACT-F and, if installed, an annunciator. The wire must be 12AWG to 18AWG twisted shielded pair 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.

Note: If the UDACT-F is installed in an MS-9200 Control Panel, the EIA-485 data line is connected directly through UDACT-F connector J10 which plugs into the MS-9200 main circuit board.

1.5.3 Primary and Secondary Phone Lines - Modular jacks are used to interface the primary and secondary phone lines to the public telephone network.

1.5.4 Communicator Fail Relay Driver - Relay driver output for Central Station communication failure is available.

1.5.5 Earth Ground - Connect a separate earth ground wire to TB3 terminal 1 for transient protection. When mounted in the MS-9200, the UDACT-F receives an earth ground connection via a metal standoff located on the upper right corner mounting position.

1.6 Specifications

DC Power - TB1, Terminals 1 & 2

24VDC (nominal) filtered, nonresettable and power-limited. Voltage range is 21.2 to 28.2 volts. DC Power TB1 Terminals 1 (+), 2 (-) 40 mA in standby, 75 mA max. while communicating (for MS-9200 installation use connector J10) and 100 mA with the open collector output engaged and communicating.

Data Communications - TB1, Terminals 3 - 7

EIA-485 serial interface, TB1 Terminal 3 = RS+, 4 = RS-, 5 = Shield, 6 = Future use, 7 = Future use. Power-limited source must be used. (For MS-9200 installation use connector J10).

Auxiliary Output - TB3, Terminals 2 & 3

TB3-2 = Communicator Failure. Power-limited circuit. An Open Collector type output, normally high, active low which sinks up to 40 mA. TB3-3 = 21.2 to 28.2 volts, power-limited. Use UL listed relay P/N: MR-101/C or MR-201/C with this output.

Earth Ground - TB3, Terminal 1

TB3-1 = Earth Ground connection. Connect this terminal to building earth ground using solid 12 AWG wire to provide lightning protection. This connection is not required when the UDACT-F is mounted in an MS-9200 since the metal standoff used in mounting provides an earth ground connection.

1.7 Telephone Requirements and Warnings

1.7.1 Telephone Circuitry - PH1 & PH2

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's 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's 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's, contact the telephone company to determine the maximum REN for the calling area.

1.7.2 Digital Communicator:

Before connecting the UDACT-F 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 : Fire-Lite Alarms Inc.
12 Clintonville Rd.
Northford, CT 06472

Product Model Number: UDACT-F
FCC Registration Number: 1W6USA-20723-AL-E
Ringer Equivalence 0.6B

1.7.3 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.

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

DOC 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."

DOC Registration Number: 2132 6030 A

Load Number: 3

1.8 Modes and Special Functions

1.8.1 Normal Mode:

Normal mode is the standard mode of operation. In this mode, the UDACT-F monitors host FACP status as well as monitoring telephone line voltage. The UDACT-F 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. Specific system trouble conditions and specific UDACT-F troubles are also transmitted.

1.8.2 Program Mode:

Program mode is used to program the UDACT-F. While the UDACT-F is in the program mode, it cannot receive host FACP status information. See Section 3.0 for complete programming instructions.

1.8.3 Lamp Test Mode:

This mode turns on all segments of the 4 character display plus all LEDs on the UDACT-F.

1.8.4 Troubleshoot Mode:

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

1.8.5 Type Mode

Type mode is used to define the specific type of device (point) used or function of a zone. This mode is also used to disable the alarm report for any zone/point in the system. The feature which disables the zone/point alarm report must be used for zones/points programmed into the host FACP as remote silence, reset, drill or acknowledge switches.

1.8.6 Clear Function:

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

1.8.7 Manual Test Function:

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

2.0 Installation

2.1 General Mounting Options

The UDACT-F may be mounted in the control panel or mounted remotely in an ABS-8RF or UBS-1F enclosure up to 6000 feet away from the control panel. All power must be removed from the Control Panel before making any connections to prevent circuit damage. The EIA-485 serial interface is connected between the Control Panel and UDACT-F using twisted, shielded pair wire. Power should be wired from the Control Panel's 24VDC (nominal) filtered, nonresettable output to TB1 on the UDACT-F (except when mounted in the MS-9200).

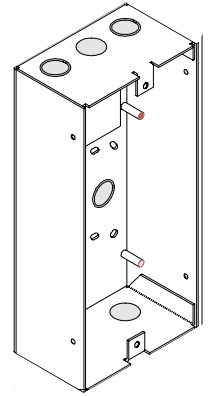


Figure 2-1: ABS-8RF

2.2 Panel Mounting

2.2.1 MS-9200

The MS-9200 must have firmware with a Part Number of 73580 or higher installed to allow use of the UDACT-F. Remove all power from the MS-9200 by disconnecting AC and batteries. Install the supplied standoffs (three nylon and one aluminum standoff) in the appropriate holes located on the right side of the MS-9200 main circuit board as illustrated in Figure 2-2. Position J10 located on the back of the UDACT-F over connector J16 which is located center right on the main MS-9200 circuit board, and carefully connect. Secure the UDACT-F to the aluminum standoff with the screw provided.

The EIA-485 circuit and 24VDC power are provided directly from connector J16 of the MS-9200. Note: A 120 ohm EOL resistor is not required on the UDACT-F EIA-485 terminals when it is installed inside the MS-9200 cabinet. The EOL resistor is required at the last device on the EIA-485 line external to the MS-9200 panel.

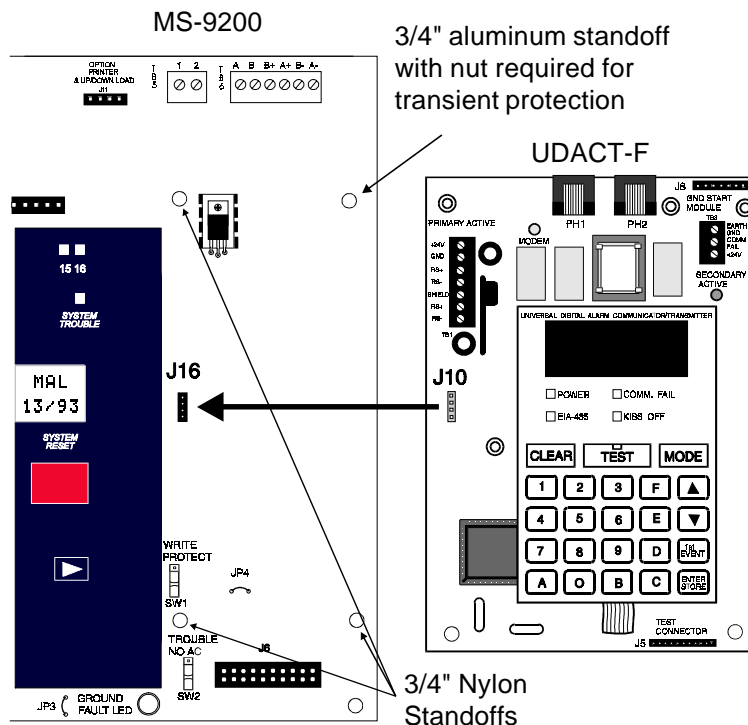
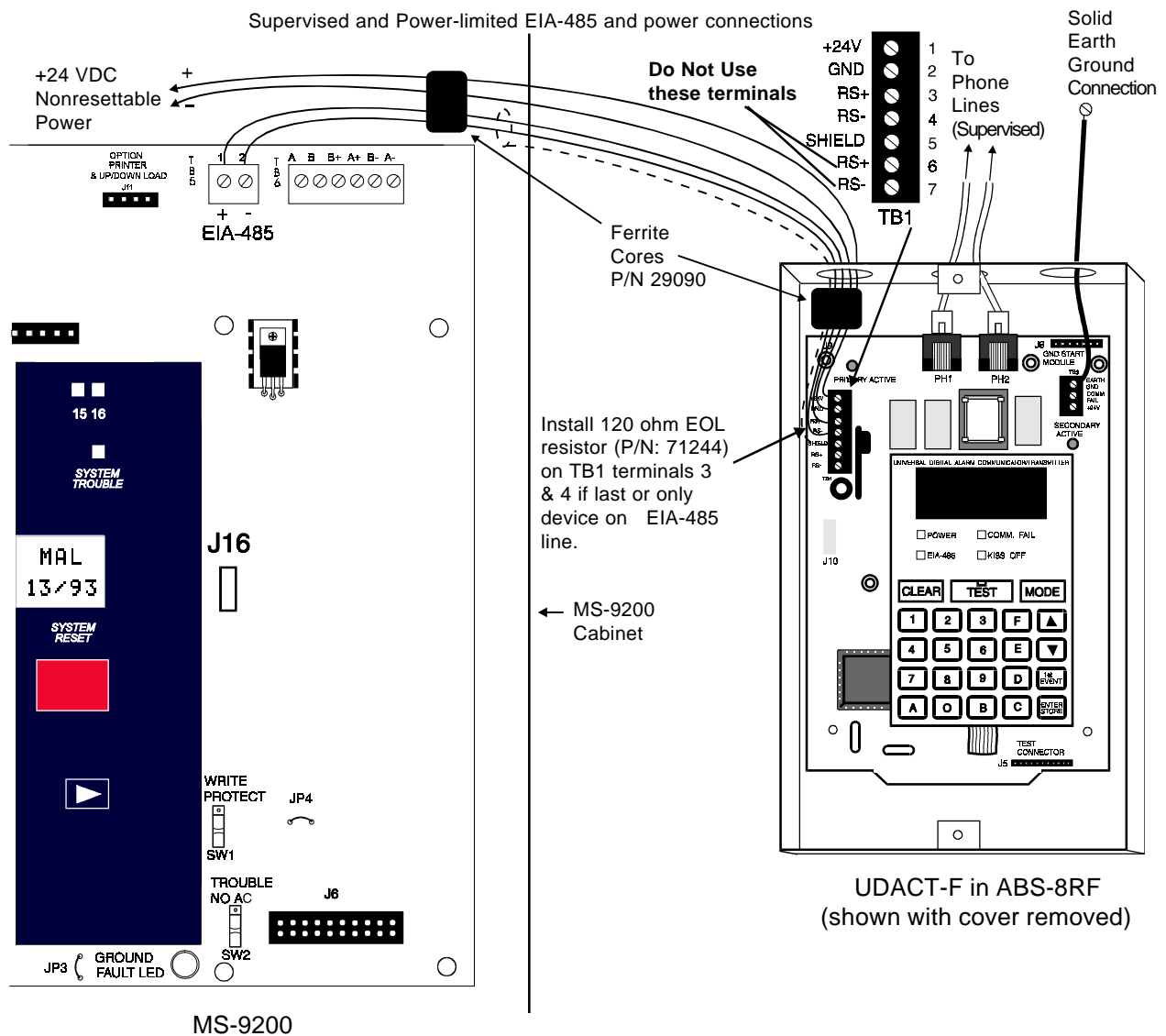


Figure 2-2: UDACT-F Mounting to MS-9200



Notes:

- 1) This arrangement allows use of the UDACT-F simultaneously with the RTM-8F module.
- 2) Ferrite cores are recommended for all applications.
- 3) Recommended wire is 12 AWG to 18 AWG twisted pair.
- 4) Shielded wire is not required (unless mandated by local AHJ).
If shielded wire is used, 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-F as shown in Figure 2-3. *NOTE: The shield end that is not connected should be insulated to prevent accidental grounding. Do not connect both ends of shield under any circumstance since a ground fault may result.*
- 5) Conduit is recommended for external wire runs. Consult local building codes.
- 6) Connect Ground Strap (supplied with ABS-8RF enclosure) from Earth Ground terminal on UDACT-F to a solid building earth ground. Conduit alone will not provide a reliable earth ground.
- 7) UDACT-F may be located up to 6000 feet away from the host control panel.
- 8) Refer to Specifications for power requirements.

Figure 2-3: External UDACT-F Mounting in ABS-8RF

Caution: Connecting a UDACT-F to an MS-9200 which also has an AFM or LDM series annunciator connected will alter the assignments of the first eight yellow LEDs on the annunciator as follows:

MS-9200		
Yellow Annunciator LED	Assignment Without UDACT-F	Assignment With UDACT-F
1	System Trouble (less AC loss)	System Trouble (less AC loss)
2	Signals Silenced	Signals Silenced
3	Not Used	Program Mode (Panel Off Normal)
4	Not Used	Supervisory
5	Supervisory	Bell Trouble
6	Prealarm	Prealarm/ Maint. Alert
7	AC Fail	Low Battery
8	Panel Trouble	AC Fail

Table 2-1: Annunciator LED Assignments - MS-9200

2.2.2 Sensiscan 2000

Remove all power from the control panel by disconnecting AC and batteries. Install the three supplied nylon support posts for the top and bottom left of the UDACT-F, one aluminum/nylon and one aluminum standoff in the CHS-4 chassis slot in which the UDACT-F is to be installed (refer to Figure 2-4). Position the UDACT-F on the standoffs and secure on aluminum standoff with a #6-32 screw. Alternatively, the UDACT-F may be mounted remotely using an ABS-8RF or UBS-1F enclosure. Ferrite cores are recommended for this application. Refer to Figure 2-3 and the accompanying Notes for wiring alternatives.

Connect the communication line between the EIA-485 terminal block on the CPU-2000 and TB-1 terminals 3 and 4 on the UDACT-F being certain to observe polarity (refer to Figure 2-5). Recommended wire is 12 AWG to 18 AWG twisted pair. If no other devices are connected to the EIA-485, install a 120 ohm EOL resistor across UDACT-F TB1 terminals 3 and 4.

Connect the supplied Ground Strap from the UDACT-F Earth Ground terminal on TB3 to the CHS-4 chassis. Connect 24VDC filtered, regulated, non-resettable power to TB-1 terminals 1 and 2 on the UDACT-F (refer to Figure 2-6).

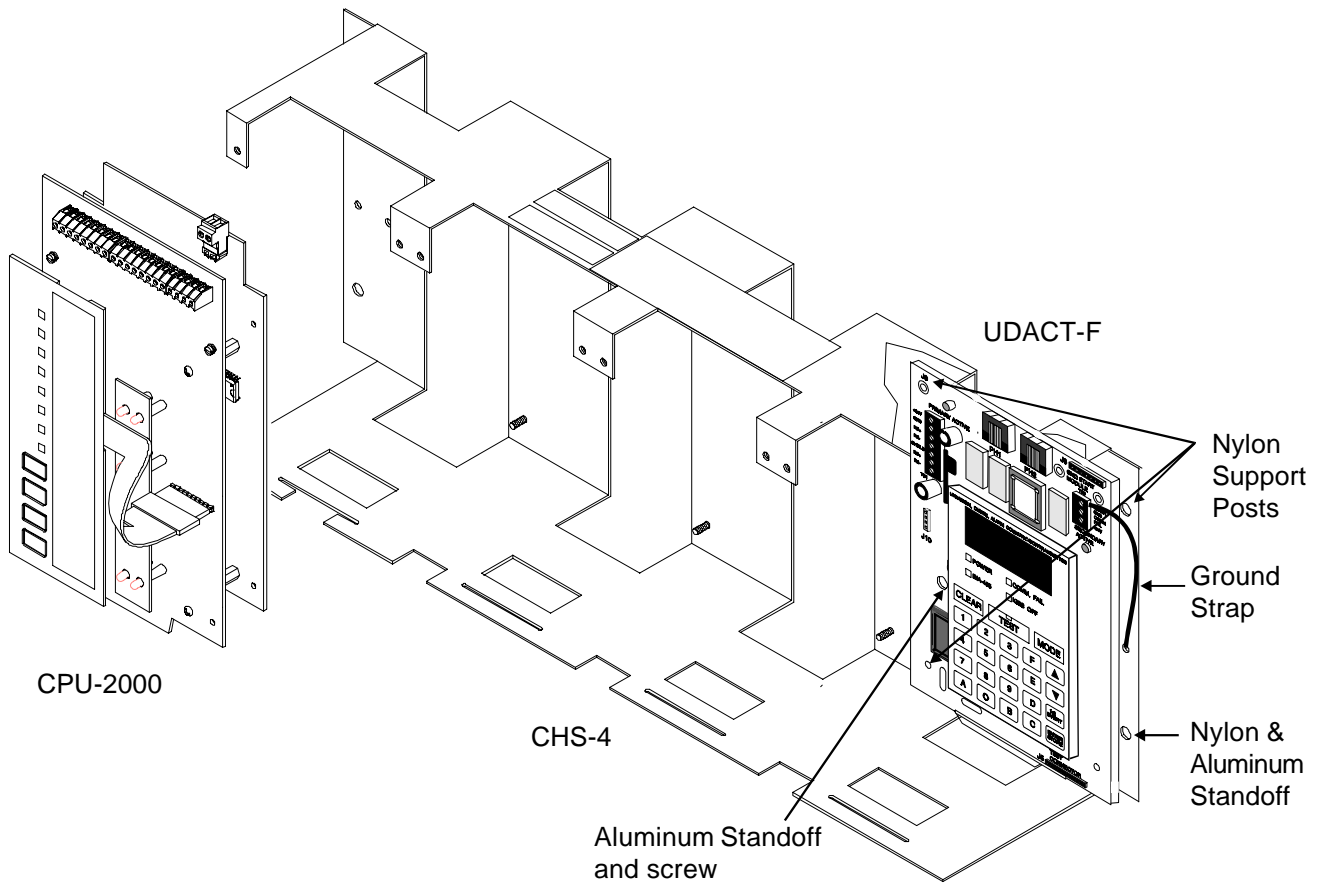


Figure 2-4: UDACT-F Mounting in CHS-4

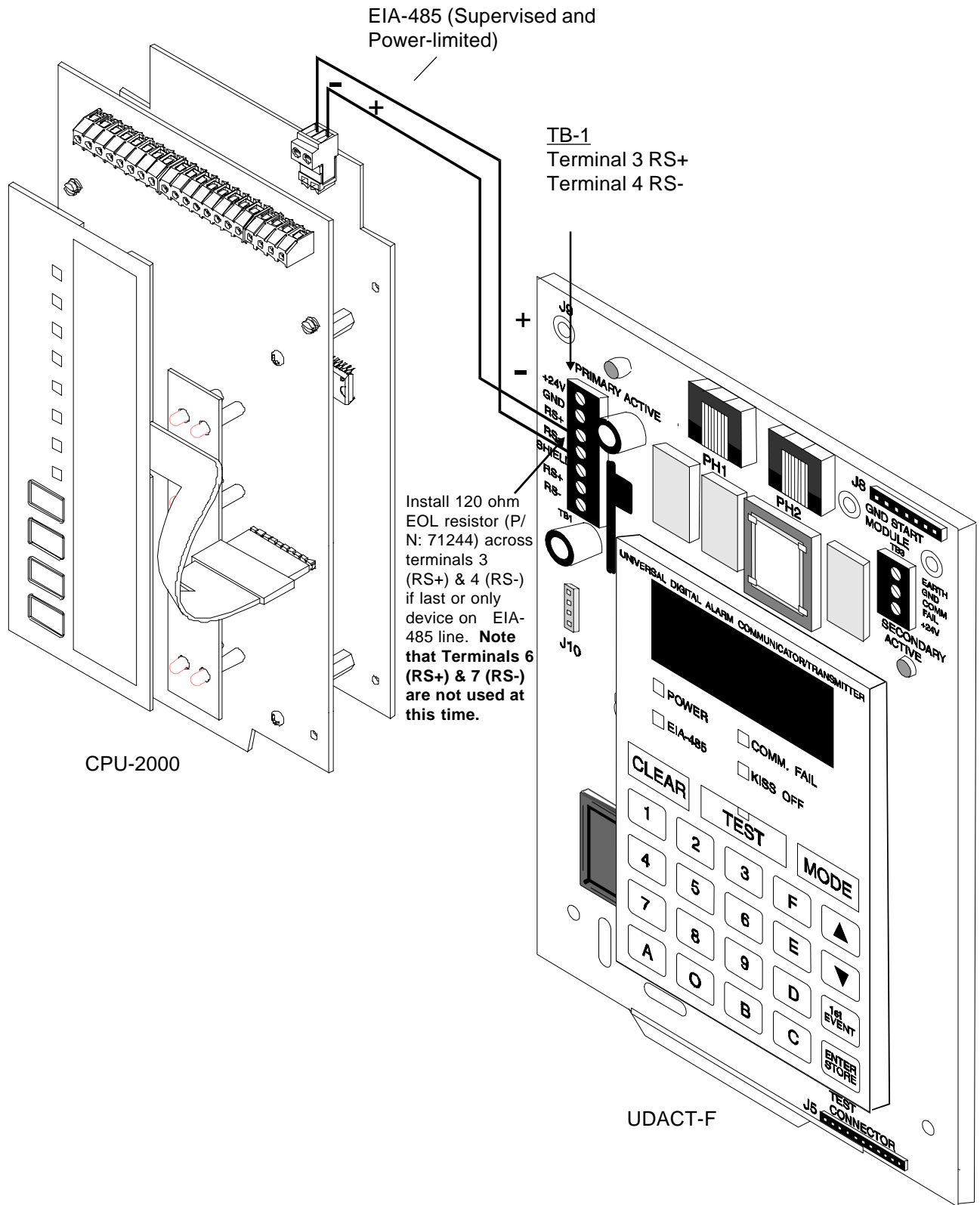
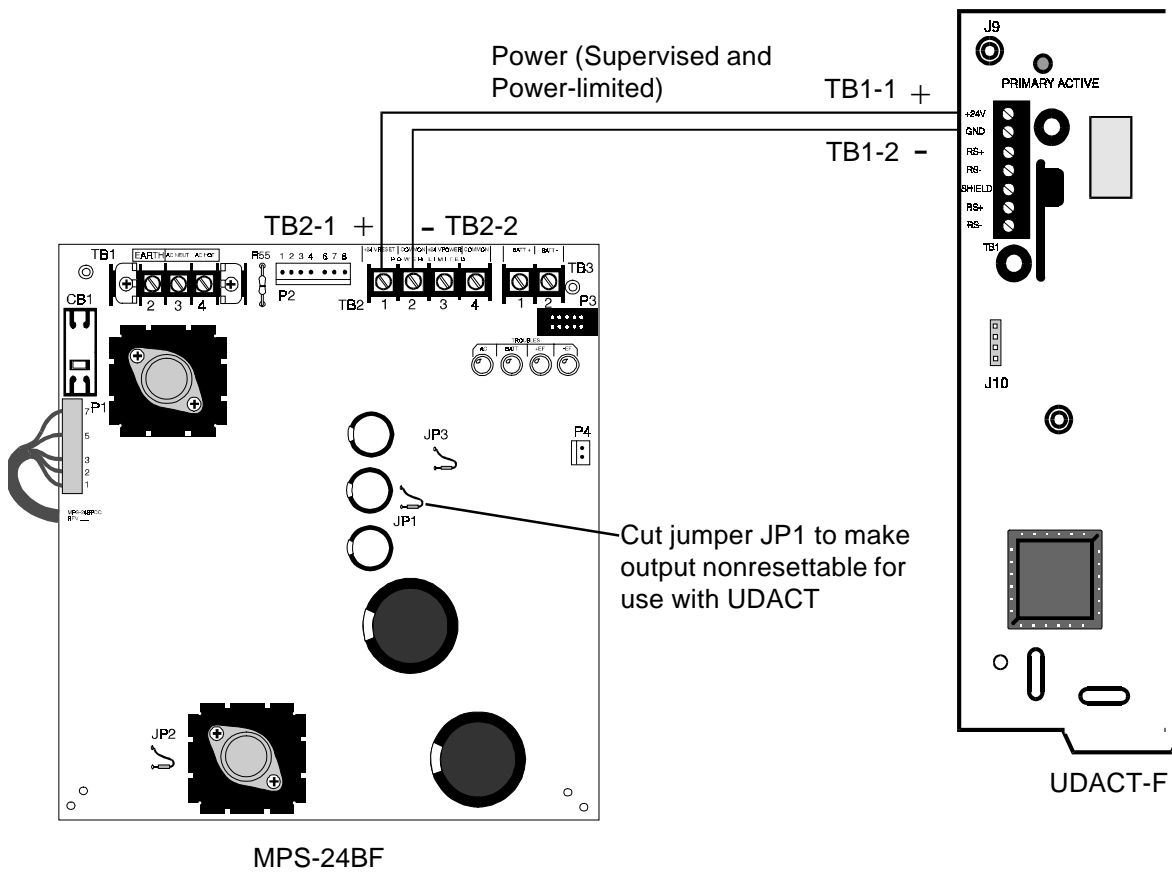
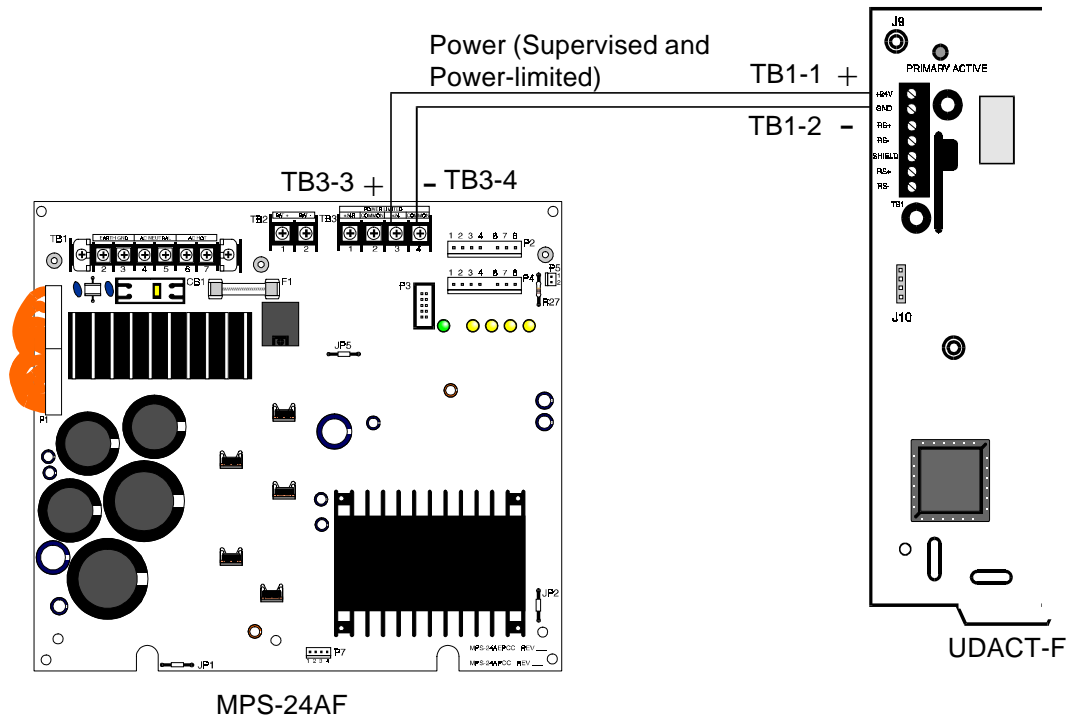


Figure 2-5: EIA-485 Connection Sensiscan 2000



Note: Power for the UDACT-F must be 24VDC filtered, regulated non-resettable.

Figure 2-6: 24VDC Power Connection to UDACT-F

Caution: Connecting a UDACT-F to a Sensiscan 2000 which also has an AFM or LDM series annunciator connected will alter the assignments of the first eight yellow LEDs on the annunciator as follows:

Sensiscan 2000		
Yellow Annunciator LED	Assignment Without UDACT-F	Assignment With UDACT-F
1	System Trouble (less AC loss)	System Trouble (less AC loss)
2	Signals Silenced	Signals Silenced
3	Not Used	Not Used
4	Supervisory	Supervisory
5	Indicating Ckt 1 Trouble	Indicating Ckt 1 Trouble
6	Indicating Ckt 2 Trouble	Indicating Ckt 2 Trouble
7	Municipal Tie Trouble	Low Battery/ Ground Fault
8	AC Fail	AC Fail

Table 2-2: Annunciator LED Assignments - S-2000

2.3 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. A typical wiring diagram for the UDACT-F is shown below.

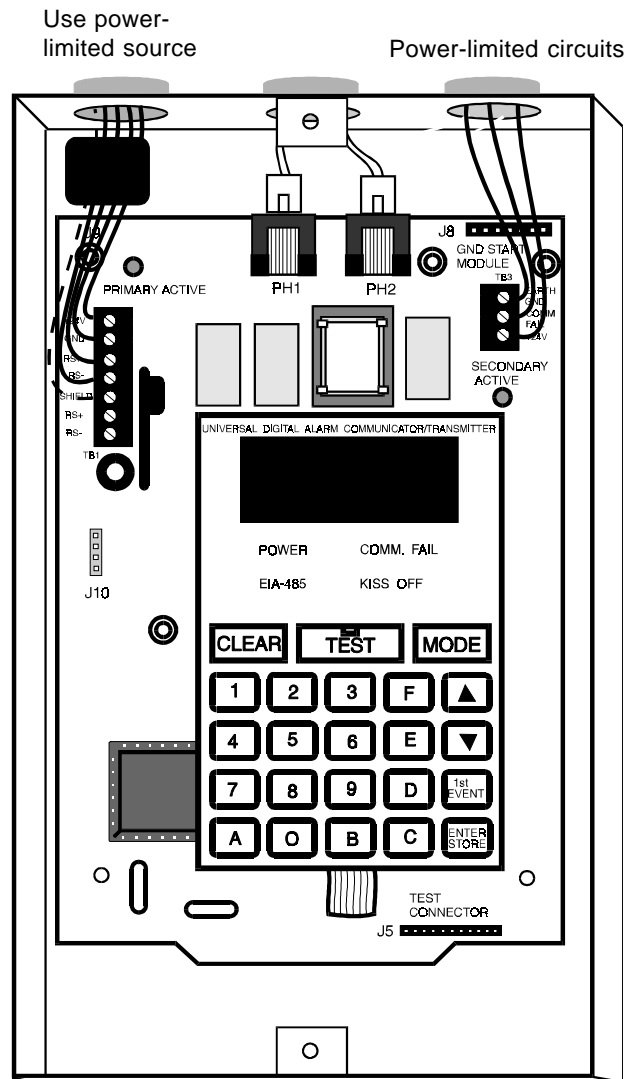


Figure 2-7: Typical Wiring Diagram for UL Power-limited Requirements

2.4 Output Circuits Telephone Circuits

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-F be located as the first device on the incoming telephone circuit to properly function.

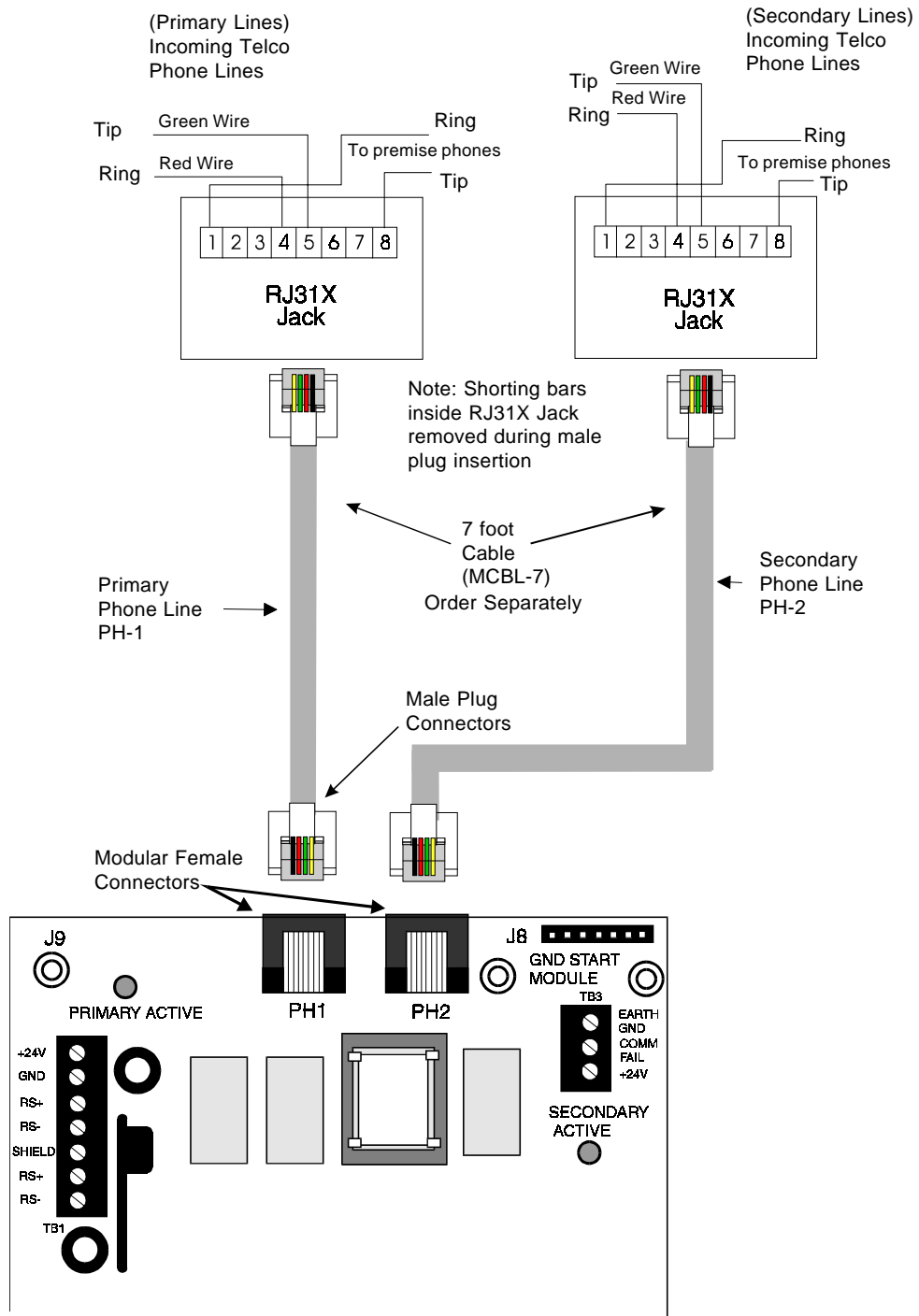


Figure 2-8: Wiring Phone Jacks

Relay Driver

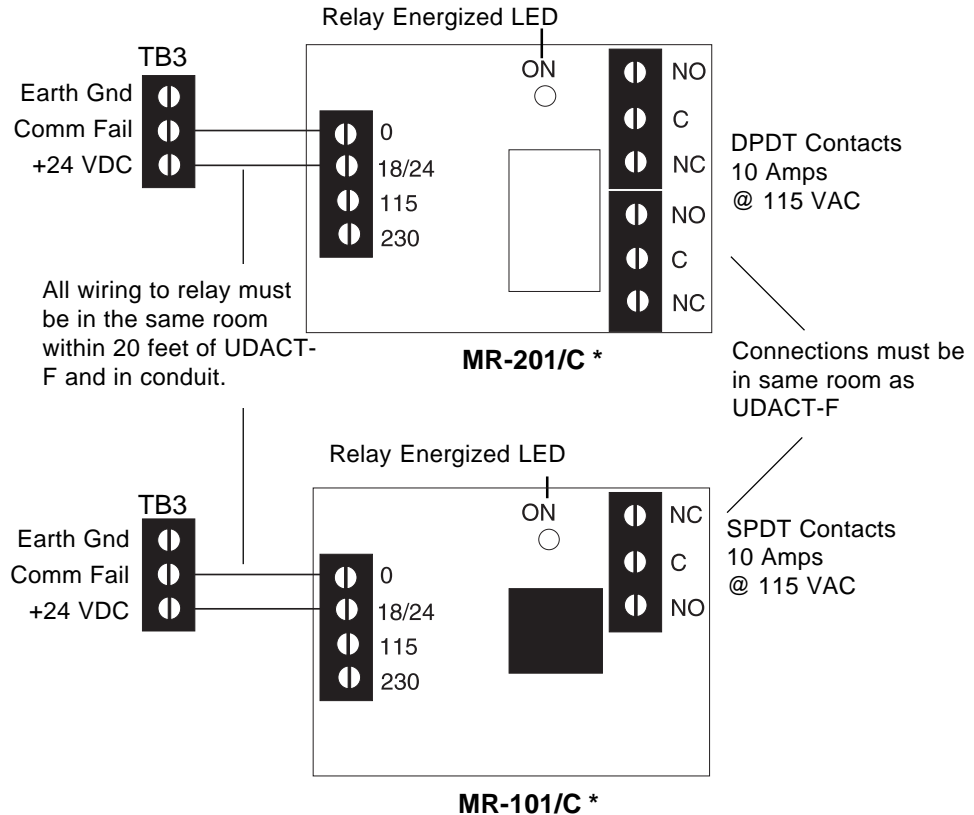
The UDACTF's open collector output on TB3, terminal 2 is provided for Communicator Failure and UDACT-F trouble. It can be used to drive UL listed relay MR-101/C or MR-201/C. The output is rated for 40 mA. The normal condition for the output is Off (deenergized).

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-F 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 or total communication failure.

Wiring from the UDACT-F 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 also remain in the same room as the UDACT-F.

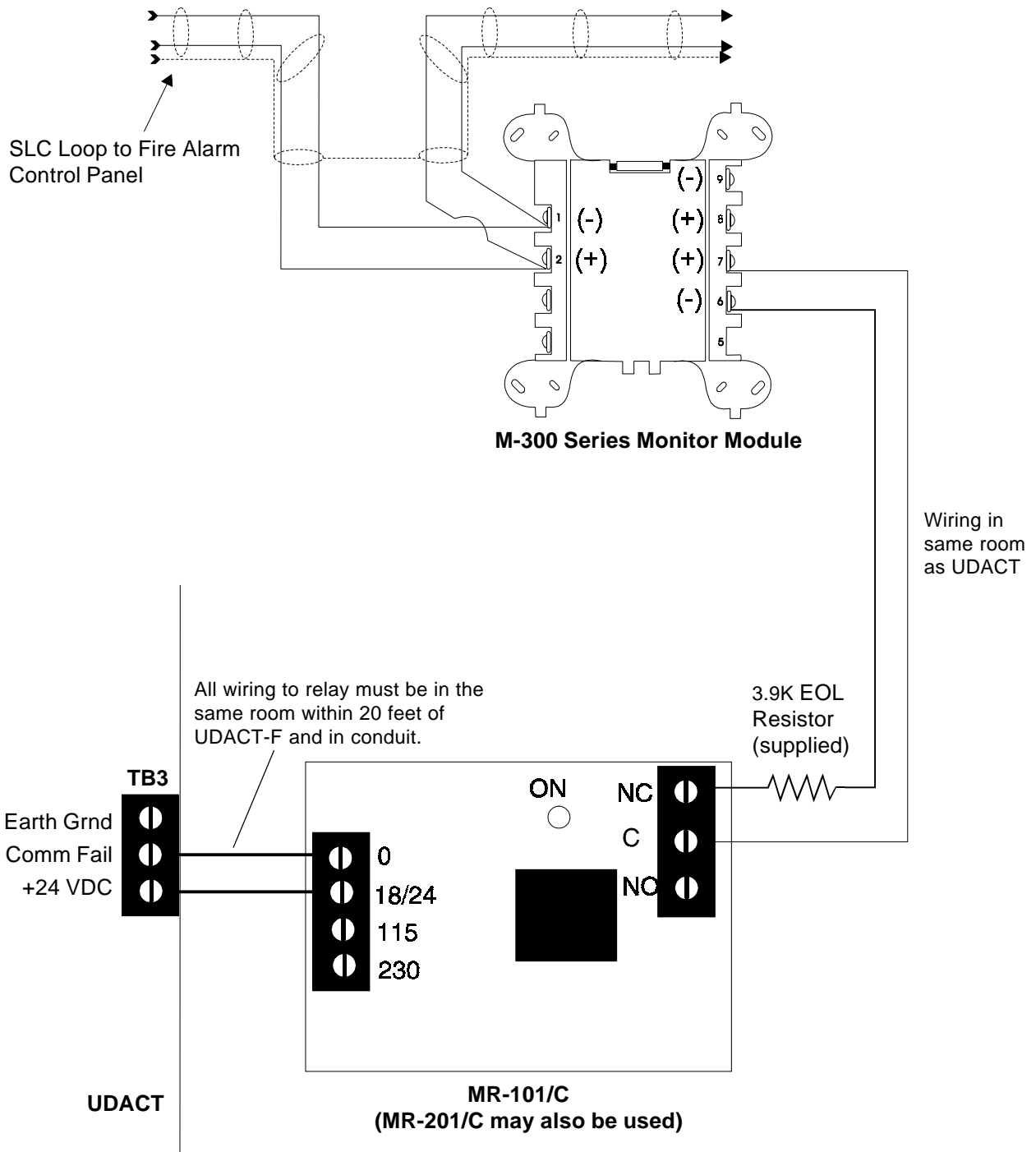
When the UDACT-F is programmed as 'Receive Only' (typically this occurs when annunciators are also used and are set for 'Receive/Transmit'), the relay output is used to provide a UDACT-F trouble input to the host control panel. For MS-9200 applications, use a monitor module to supervise the relay closure. Refer to Figure 2-9. Program the adjective and noun fields for 'UDACT Trouble'. For Sensiscan 2000 applications, wire the relay output to the annunciator trouble input circuit or use the relay to trigger zone trouble.

When the UDACT-F is programmed as 'Receive/Transmit', EIA-485 supervision and UDACT-F trouble status are automatically handled by the host control panel.



* Note: The MR-101/C and MR-201/C include an enclosure.

Figure 2-9: Relay Driver Connections



Note: 1) M-300 Series Monitor Module is used to supervise Normally Closed output of MR-101/C. On UDACT trouble and Comm Fail, MR-101/C relay contact will open causing M-300 to transmit trouble condition to FACP.

Figure 2-10: Monitoring for UDACT Trouble

3.0 Programming Instructions

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

The UDACT-F 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-F has a built-in programmer. All programming selections are stored in nonvolatile Electrically-Erasable Programmable Read-Only Memory (EEPROM). This ensures that the UDACT-F will retain all entries made in programming mode even if power is 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. The UDACT-F comes with factory chosen options/features already programmed. Other options/features may be programmed if desired. If all factory default settings are acceptable, programming is complete.

3.1 Entering Program Mode

To enter the Program Mode, press the **MODE** key once, (the display will go blank) you then have ten seconds to start entering the code (**7764**).

☛ **7764** spells PROG on a Touch-Tone® phone

If an incorrect key is entered, reenter the proper 4-digit code **before** pressing the **[ENTER/STORE]** key

—7
—77
—776
7764

Note that as you enter information into the UDACT-F, the digits will scroll across the display from right to left

You are allowed a pause of up to 10 seconds in between each number while entering the code. After pressing the **[ENTER/STORE]** key, the UDACT-F 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-F 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.

Once in Programming Mode, the UDACT-F will:

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

Location 56 is factory set to = 0, *UDACT-F communications disabled. This keeps the communicator off until location 56 is changed to 1, 2, 3, 4, 5 or 6. Refer to program selection for address 56 in this section. Once location 56 is changed from 0 to 1, 2, 3, 4, 5 or 6 and a valid phone number is entered, transmission of the "UDACT off Normal" report will occur.*

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

00_F
(address)(data)

3.2 Switch Functions

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

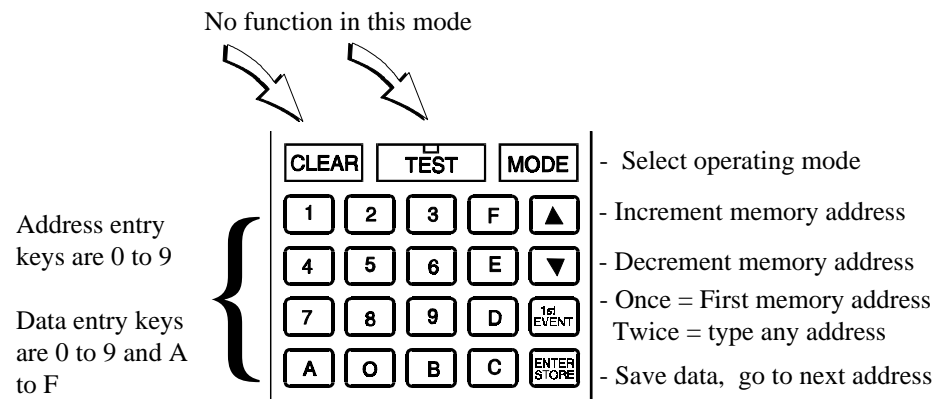


Figure 3-1: UDACT-F Keypad

3.3 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 # 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
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 .

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

A= * on a Touchtone phone keypad

B= # on a Touchtone phone keypad

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

D= 3-second pause

E= 5-second pause

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

Primary Number Communication Format (16)

One location is needed to select the Communication Format to the primary phone number. Address 16 is used for this purpose. The default (factory setting) for this address is **16_A**, 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]**. 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

F: Not Used

Note: Consult your Central Station for proper selection or consult our factory representatives. For any format chosen, the UDACT-F automatically programs all of the event codes. See Tables 3-2, 3-3, 3-4, 3-5, 3-6 and 3-7.

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

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

Use military time when entering the 24 hour 'test' time. The 24 hour test report to phone number 1 takes up four locations, from addresses 21-24. The default is 00:00 (12:00 midnight). The limits for each location are as follows: 21: enter 0, 1 or 2; 22: enter 0-9; 23 : enter 0-5; 24: enter 0-9. Note: Do not use A-F.

Primary Number 24/12 Hour Test Time Interval (25). The test report sent to the Primary phone number may be sent every 12 or 24 hours. If the message is to be sent every 24 hours, leave the factory default entry of zero. If 12 hour test report time is needed, enter 1=12 hours.

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

Secondary Number Communication Format (42). Programming is the same as the primary number's Comm Format at address 16. Default entry is 'A', 4+2 Standard. Choose one entry from the list below:

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

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

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

Secondary Number 24/12 Hour Test Time (51) The test message sent to the Secondary 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 a 12 hour test report time is needed, enter 1=12 hours.

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

Start Monitoring Address (52-53) is programmed to indicate the first group of zones or points to be monitored and reported to the Central Station. Default is '01'. Valid entry is '01'. See Table 3-1.

End Monitoring Address (54-55) is programmed to indicate the last group of zones or points to be monitored and reported to the Central Station. Default is '01'. Valid entries are '01' and '04'. See Table 3-1.

Zone Reporting (Factory Default)		
	START Addr. 52-53	END Addr. 54-55
MS-9200	01 ¹	01
S2000	01 ²	01
1 = Report status of 56 software zones 2 = Report status of 56 zones		

Point Reporting		
	START Addr. 52-53	END Addr. 54-55
MS-9200	01 ¹	04 ¹
S2000	N/A	N/A
1 = Report status of 198 points		

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

Table 3-1: Start and End Monitoring Address

UDACT-F 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 consecutive point reporting, receive only, '4' for consecutive point reporting, receive/transmit, '5' for code wheel matching point reporting, receive only or '6' for code wheel matching point reporting, receive/transmit. See Type Mode Section 4.2 for additional information on code wheel match reporting. *Note: Use receive only selections 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 entries when annunciators are not installed or when the UDACT-F receive/transmit function is to be used to supervise the EIA-485 communication bus. For additional information on the receive/transmit function, refer to annunciator technical manuals.*

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

Touchtone/Rotary Select (58) A '0' programmed in this address by the factory triggers Touchtone dialing over both phone lines. Select '1' for rotary dialing.

Make Break Ratio (59) Set this address only if address 58 is set to '1'. Address 59 is factory set to '0' which is a 67/33 ratio, but may be changed to '1' which is 62/38.

Address (60) Leave default of 0.

Address (61) Leave default of 0.

AC Loss Reporting Delay (62) '1' is factory default which causes a 6 hour time delay for AC loss reporting. Valid entries are '0' to '9' and 'A' to 'F' corresponding to the following reporting delay times: '1' = 6 hours; '2' = 7 hours; '3' = 8 hours; '4' = 9 hours; '5' = 10 hours; '6' = 11 hours; '7' = 15 hours; '8' = 16 hours; '9' = 17 hours; 'A' = 18 hours; 'B' 19 hours; 'C' = 20 hours; 'D' = 21 hours; 'E' = 22 hours; and 'F' = 23 hours. '0' entry causes immediate reporting of AC loss.

Host Panel ID (63)

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

- 0 = MS-9200
- 1 = Do not use
- 2 = Sensiscan 2000
- 3 = Do not use
- 4 = Do not use
- 5 = Do not use
- 6 = Do not use
- 7 = Do not use
- 8 = Do not use
- 9 = Do not use

Loop Number (64 - 65)

For Contact ID format only. Factory default is '00'. See Appendix A.

Sensor Number (66 - 68)

For Contact ID format only. Factory default is '000'. See Appendix A.

Programming Event Codes (69-208)

The type of reports and 'event codes' that are sent to the Central Station are in Tables 3-2 through 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 new UL DACT requirements. This report is generated in place of the normal test report when an alarm and/or trouble condition exists at the time the test report is due to be sent.

Programming the Real-Time Clock

Entering an address greater than 209 will cause a display of the current time. On initial 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.

Hours and Minutes, Year, Month and Day

To set the hour, 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. Next, select the year, month and day in a similar fashion.

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]. During Program Mode, if no key is pressed within 10 minutes, the UDACT-F will revert to normal mode.

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

<u>Address</u>	<u>Description</u>	<u>Setting</u>
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-F 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-F 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

4+2 Standard and 4+2 Express Formats

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.

<u>Address</u>	<u>Description</u>	<u>Settings</u>
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 Number Code	FD
93 - 94	Primary # Comm. Trouble Secondary Number Code	FE
95 - 96	Primary # 485 Comm. Trouble Code	FE
97 - 98	Primary # System Off Normal Code	FF
99 - 100	Primary # UDACT-F 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 # Restore Code	ED
125 - 126	Primary # Comm. Trouble Secondary # 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-F Off Normal Restore Code	EF
133 - 134	Primary # System 24 Hour Test	99
135 - 136	Primary # System 24 Hour Test w/active events	91
137 - 138	Primary # Manual Test	92

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

Table 3-3: Event Codes, Primary Number

Ademco Contact ID Format

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.

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

Notes:

- 1) Note: Zero entries prevent the transmission of the report to the Central Station.
- 2) Refer to Contact ID program locations 64 - 68.
- 3) The identification of the zone/sensor number is automatically transmitted by the UDACT-F and is added to the main event code. See Appendix A-3 for more information.
- 4) Factory default for this report is 110 (110 is transmitted for modules, however, 111 will automatically be transmitted for smoke detectors). Use Type Mode (refer to Section 4.2) to change this report per zone or point.

Table 3-4: Ademco Contact ID, Primary Number

3+1, 4+1 Express or 4+1 Standard Formats

If '0, 2, 4, 6 or 8' are entered for address 42, the following is automatically programmed for the Secondary phone number event codes. Enter a '0' for the data setting to disable the report.

<u>Address</u>	<u>Description</u>	<u>Setting</u>
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-F 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 # Restore Code	E
167	Secondary # Comm. Trouble Secondary # Restore Code	E
168	Secondary # 485 Comm. Trouble Restore Code	E
169	Secondary # System Off Normal Restore Code	E
170	Secondary # UDACT-F 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 3-5: Event Codes, Secondary Number

4+2 Standard and 4+2 Express Formats

If '1, A or C' are entered for address 42, the following is automatically programmed for the Secondary phone number event codes. Enter a '0' for the data setting to disable the report.

<u>Address</u>	<u>Description</u>	<u>Setting</u>
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 Number Code	FD
163 - 164	Secondary # Comm. Trouble Secondary Number Code	FE
165 - 166	Secondary # 485 Comm. Trouble Code	FE
167 - 168	Secondary # System Off Normal Code	FF
169 - 170	Secondary # UDACT-F 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 # Restore Code	ED
195 - 196	Secondary # Comm. Trouble Secondary # 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-F Off Normal Restore Code	EF
203 - 204	Secondary # System 24 Hour Test	99
205 - 206	Secondary # System 24 Hour Test w/active events	91
207 - 208	Secondary # Manual Test	92

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

Table 3-6: Event Codes, Secondary Number

Ademco Contact ID Format

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.

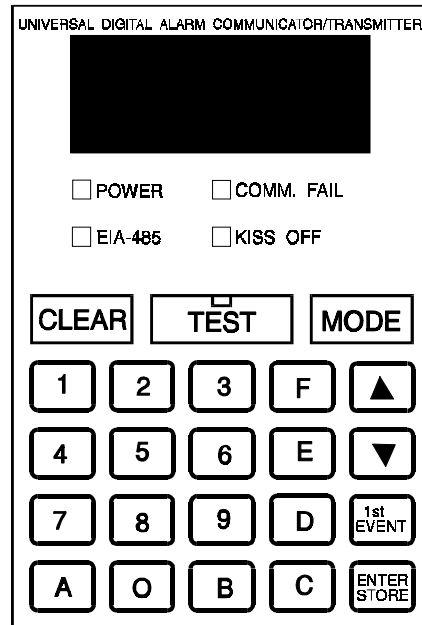
<u>Address</u>	<u>Description</u>	<u>Setting</u> ¹	<u>Sensor Number</u>
139 - 141	Secondary # General Alarm Code	110	000 ²
142 - 144	Secondary # Zone/Point Alarm Code	110 ⁴	Note ³
145 - 147	Secondary # General Supervisory Code	200	000 ²
148 - 150	Secondary # Zone/Point Supervisory Code	200	Note ³
151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

Notes:

- 1) Note: Zero entries prevent the transmission of the report to the Central Station.
- 2) Refer to Contact ID program locations 64 - 68.
- 3) The identification of the zone/sensor number is automatically transmitted by the UDACT-F and is added to the main event code. See Appendix A-3 for more information.
- 4) Factory default for this report is 110 (110 is transmitted for modules, however, 111 will automatically be transmitted for smoke detectors). Use Type Mode (refer to Section 4.2) to change this report per zone or point.

Table 3-7: Ademco Contact ID, Secondary Number

4.0 Operating Instructions



4.1 Normal Mode

The UDACT-F has five Modes of operation; Normal, Type Mode, Program, Lamp Test, and Troubleshoot. *Upon initial power up, the system will be in Normal Mode. This section discusses operation of the UDACT-F in the Normal Mode.*

4.1.1 Keys: Below is a description of the function keys in Normal Mode:

CLEAR The Clear function will cause the UDACT-F to:

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

To perform the Clear function, press the Clear Key followed by 2, 5, 3, 2, then press the [ENTER/STORE] key.

TEST If the Test Key is pressed three times in rapid succession the UDACT-F will transmit a test message to both Central Stations. The message reported is the same as the automatic test message for all formats except Ademco Contact ID.

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

☛ To enter normal mode from any other mode press **MODE** then **6676** [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-F 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 UDACT-F fault events (older) that have occurred and are active - not cleared yet.
- UP ARROW** Use the Up Arrow key to view other UDACT-F fault events (newer), that have occurred and are active - not cleared yet.
- [ENTER/STORE]** See individual mode descriptions in other sections.

4.1.2 Displays: Four 7-segment red LED characters provide visual annunciation of UDACT-F trouble conditions. A list of messages that may appear on the display in normal mode is shown below:

PH_1 Primary Number Communication Fault
PH_2 Secondary Number Communication
no_1 Fault
no_2 Primary Phone Line Fault
 Secondary Phone Line Fault

Individual LEDs are provided for:

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

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

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

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

Test—A green LED that turns on to indicate that a manual test message is being transmitted.

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.

Modem—A green LED that stays on steady during modem types of communications.

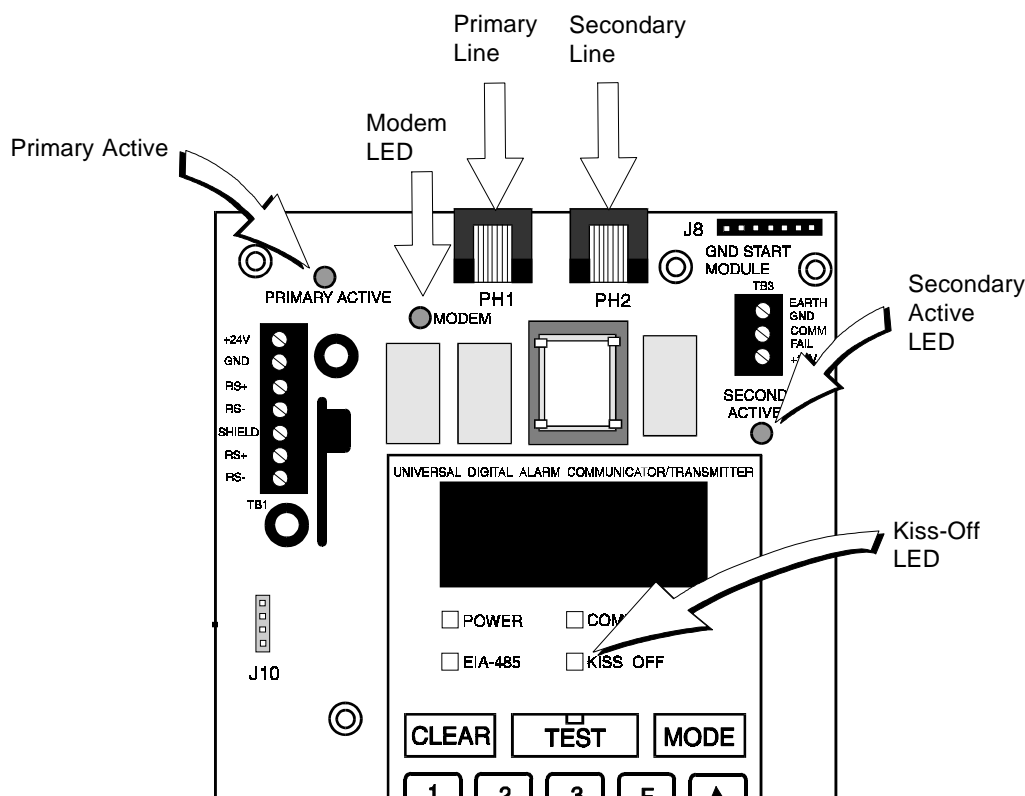


Figure 4-1: UDACT-F Phone Connectors and LEDs

4.1.3 Normal Mode Operation: Normal mode is the standard mode of operation. In this mode, the UDACT-F monitors host FACP status, power input, EIA-485 communications and 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-F trouble conditions in the normal mode.

The UDACT-F 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-F to the telephone lines.

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

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

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

Two phone numbers must be programmed, the Primary phone number and the Secondary phone number. All system reports will be transmitted to the primary phone number. Reports will automatically be sent to the secondary phone number if attempts to transmit to the primary phone number are unsuccessful. If 10 total attempts to communicate are unsuccessful, the Communicator Failure output will be turned on (TB3, terminal 2). Note that as an option, *all* reports may also be sent to the secondary phone number. Refer to Section 3.0 Programming Instructions.

The UDACT-F 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-F will transmit higher priority events before sending the lower priority events. Priorities are as follows:

Event Activations

1. General Alarm
2. Zone/Point Alarm #N
3. General Supervisory
4. Zone/Point Supervisory #N
5. General System Trouble
6. AC Power Loss
7. Zone/Point Trouble #N
8. Low Battery
9. Telco Primary Line Fault
10. Telco Secondary Line Fault
11. NAC Fault Code
12. Communication Trouble, Primary Number
13. Communication Trouble, Secondary Number
14. EIA-485 Communication Bus Trouble
15. System Off-Normal Code
16. System Automatic Test Report
17. System Abnormal Automatic Test Report
18. Manual Activated Test Report

Event Restorals

19. General Alarm Restoral
20. Zone/Point Alarm #N Restoral
21. General Supervisory Restoral
22. Zone/Point Supervisory #N Restoral
23. General System Trouble Restoral
24. AC Power Loss Restoral
25. Zone/Point Trouble #N Restoral
26. Low Battery Restoral
27. Telco Primary Line Fault Restoral
28. Telco Secondary Line Fault Restoral
29. NAC Fault Code Restoral
30. Communication Trouble, Primary Number Restoral
31. Communication Trouble, Secondary Number Restoral
32. EIA-485 Communication Bus Trouble Restoral
33. System Off-Normal Code Restoral

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 Tables 3-2, 3-3, 3-4, 3-5, 3-6 and 3-7. When Ademco Contact ID format is used, the actual zone or point activated is identified in the report.

The UDACT-F 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-F OFF Normal Report

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

Panel OFF Normal Report

The UDACT-F will report a "System off normal" report when the host FACP temporarily shuts down the EIA-485 communications bus during various aspects of system programming or during Walktesting. When the host FACP is returned to normal, restoring the fire protection, the UDACT-F will report a 'system off normal restoral' report.

System Test Report

The UDACT-F will transmit a test message 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-F 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-F supervises the integrity of the information received from the FACP via the EIA-485 communications bus. Should the communications bus malfunction, the UDACT-F transmits the report '485 comm trouble.' When the communications bus returns to proper operation, the UDACT-F will report '485 comm trouble restoral.'

4.2 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. Factory default for all zones/points is Fire Alarm. Use Type Mode to identify the function of each zone or point as follows:

- General fire alarm
- Supervisory
- Pull stations
- Heat detectors
- Waterflows
- Duct detectors
- Flame sensor
- Smoke zone

To access Type Mode, press the **MODE** key followed by the 4-digit code **8973** and then press the **[ENTER/STORE]** key. The UDACT-F 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 pullstation
- 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 M302 modules monitoring conventional smoke detectors. In point reporting, addressable detectors automatically report as detectors eliminating the need for Type Mode entry).

Factory default is all zones or points set to 0 for fire alarm. 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, select 2 to 8 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 56 zones or 198 points (refer to Appendices D & E), similar to the method described in the programming section of this manual. For MS-9200 applications, when address 56 is programmed as a 3 or 4 for point reporting, detectors are reported as points 001 to 099 and modules are reported as points 101 to 199. When address 56 is programmed as a 5 or 6 for code wheel matching point reporting, detectors and modules report as 001 - 099 (the actual device address).

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 while in point type of annunciation. The UDACT-F 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-F. Disabling of the zone or point does not affect the reporting of the zone or point trouble condition.

4.2.2 Zone or Point Supervisory

A zone or point must be defined as supervisory to allow the UDACT-F 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 Appendices D, E and F to enter point and zone definitions. *Note that the UDACT-F fire protection and reporting capabilities are inactive while in Type Mode.*

4.3 Troubleshoot Mode

To get into the Troubleshoot Mode, press **MODE 8768** and **[ENTER/STORE]**.

☛ **8768** spells TROU on a Touch-Tone® phone.

Once in this mode, the UDACT-F 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 Arrow key**, **Down Arrow key** and **1st EVENT** keys do not function in this mode.

Telephone Line Testing

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

The UDACT-F 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 in Figure 4-2. The handset, when connected across T1, may be used only as an amplifier/speaker or telephone with the UDACT-F used for number dialing.

4.4 Lamp Test Mode

To perform a Lamp Test, press **MODE** then **5267** followed by **[ENTER/STORE]**. This will test all system LEDs. The LEDs will stay on for five seconds, then the UDACT-F will return to normal mode.

☛ **5267** spells LAMP on a Touch-Tone® phone.

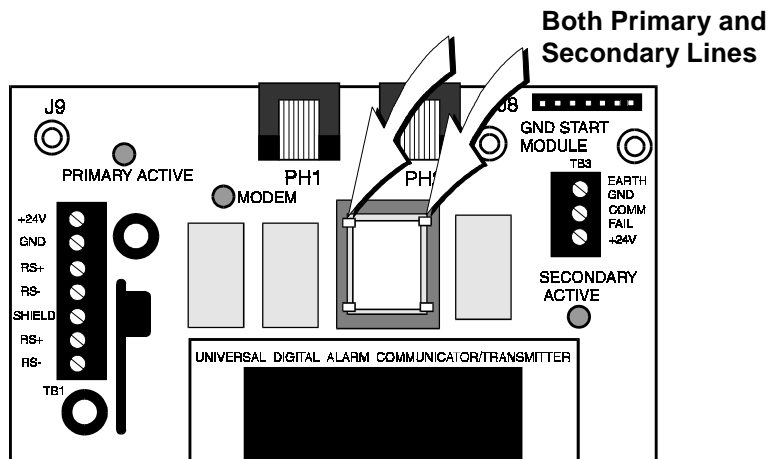


Figure 4-2: Handset/Speaker Connection

Appendix A: Reporting Formats

Table A-1 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 A-2 defines each letter code used in Table A-1. Table A-3 describes the data reporting structure used for Ademco Contact ID format.

	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 A-1: Data Reporting Structure

Refer to Table A-2 for an explanation of each letter code in Table A-1.
Refer to Table B-1 for a list of compatible receivers.

Where:

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	= Abnormal Test Report (1st digit)
XA2	= Abnormal Test Report (2nd digit)

Table A-2: Letter Code Definitions

(Refer to Table A-1)

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

SSSS 18 QXYZ GG CCC

where

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
 E = New Event
 R = New Restore
 XYZ = Event code (shown in Tables 3-4 and 3-7)
 GG = Group number or Loop number
 CCC = Zone or Sensor number

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 = Sensor number (CCC) for General Alarm, Fault or Supervisory messages (factory default is 000).

Table A-3: Ademco Contact ID Reporting Structure

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

<u>Time</u>	<u>Date</u>	<u>Rcvr/ Line ID</u>	<u>SSSS</u>	<u>QXYZ</u>	<u>GG</u>	<u>CCCC</u>	
11:28	03/25	11	7777	E110	00	CCCC	- general alarm
11:28	03/25	11	7777	E110	00	C046	- alarm SD46
11:28	03/25	11	7777	E300	00	CCCC	- general trouble
11:28	03/25	11	7777	E380	00	C046	- trouble SD46
11:28	03/25	11	7777	R110	00	CCCC	- general alarm restore
11:28	03/25	11	7777	R110	00	C046	- alarm SD46 restore
11:28	03/25	11	7777	R300	00	CCCC	- general trbl restore
11:28	03/25	11	7777	R380	00	C046	- trouble SD46 restore

Notes:

- 1) In the sample report, SD46 refers to smoke detector at address 46 or on zone 46. Refer to the charts on the following page as well as Appendices D and E for further clarification.
- 2) 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.
- 3) 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.

Point Reporting

By using the Type Mode feature with address 56 set to 3, 4, 5 or 6, identification of each type of activated device is possible. Note that addressable detectors report as code 111. It should also be noted that the meaning of the first digit of the three digit zone/sensor number will depend on the Type Mode programmed in Address 56. (i.e. Type 2, Device address 1 in the tables below, when 5 or 6 is programmed in address 56, C001 will be reported for both modules and detectors. When 3 or 4 is programmed in address 56, C101 will be reported for modules while C001 will be reported for detectors). Module points are programmable.

The following table provides examples of reporting structures for addressable modules.

TYPE ID#	ACTIVATED DEVICE	MODULE POINT #	REPORT Address 56 = 5 or 6	REPORT Address 56 = 3 or 4
2	Supervisory Alarm	1	E200 00 C001	E200 00 C101
8	Smoke Zone Alarm ¹ (Conventional)	2	E111 00 C002	E111 00 C102
3	Pull Station Alarm	3	E115 00 C003	E115 00 C103
4	Heat Sensor Alarm	4	E114 00 C004	E114 00 C104
5	Waterflow Alarm	5	E113 00 C005	E113 00 C105
6	Duct Detector Alarm ¹ (Conventional)	6	E116 00 C006	E116 00 C106
7	Flame Sensor Alarm	7	E117 00 C007	E117 00 C107
..... through				
8	Smoke Zone Alarm ¹ (Conventional)	99	E111 00 C099	E111 00 C199

¹Use of M302 Monitor Module for conventional smoke and duct detectors.

The following table provides an example of the reporting structure for addressable smoke detectors.

TYPE ID	ACTIVATED DEVICE	ADDRESSABLE DETECTOR POINT #	REPORT Address 56 = 3, 4, 5 or 6
Automatically set to smoke detector (8)	300 Series Detectors	001 to 099	E111 00 C001 to E11 00 C099

Zone Reporting

By using the Type Mode feature with address 56 set to 1 or 2, identification of the function of each software zone is possible. The following table provides examples of zone reporting structures.

TYPE ID #	ZONE FUNCTION	ZONE #	REPORT
8	Smoke Zone	1	E111 00 C001
5	Waterflow Zone	2	E113 00 C002
2	Supervisory Zone	3	E200 00 C003
3	Pull Stations	4	E115 00 C004
..... through			
5	Waterflow Zone	56	E113 00 C056

Appendix B: Compatible Receivers

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

Format # (Addresses 16 & 42)	Ademco 685 (1)	Silent Knight 9000	ITI CS-4000 (3)	FBI CP220FB	Osborne Hoffman Quick Alert Models 1 & 2	Radionics 6000/6500 (5)	Linear/Sescoa 3000R (7)	Surguard MLR-2 (9)
0 4+1 Ademco Express	✓			✓				✓
1 4+2 Ademco Express	✓			✓	✓(8)			✓
2 3+1/Standard/1800/2300	✓	✓ (2)	✓	✓ (4)	✓	✓(5,6)	✓	✓
3 Not Used								
4 3+1/Standard/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
5 Not Used								
6 4+1/Standard/1800/2300	✓	✓ (2)	✓	✓ (4)	✓	✓ (5)	✓	✓
7 Not Used								
8 4+1/Standard/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
9 Not Used								
A 4+2/Standard/1800/2300	✓	✓ (2)	✓	✓ (4)	✓	✓ (5)	✓	✓
B Not Used								
C 4+2/Standard/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
D Not Used								
E Ademco Contact ID	✓			✓	✓			✓
F Not Used								

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

Table B-1: Compatible UL Listed Receivers

Appendix C: Programming Reference Sheets

--- To enter Programming, press Mode: 7 7 6 4, Enter

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

Addresses 00 to 15 store the Primary Phone Number. Enter 'F' to represent the end of the number.

₁₆ Primary Comm 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

Addresses 26-41 store the Secondary Phone Number. Enter 'F' to represent the end of the number.

₄₂ Secondary Comm 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 (i.e. 1400 for 2 PM).

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

₅₂ ₅₃ Start Monitoring Address.

₅₄ ₅₅ End Monitoring Address.

₅₆ UDACT-F Communication Selection. Enter '0' to disable UDACT-F communication; '1' for zone reporting receive only communication; '2' for zone reporting receive/transmit communication; '3' for point reporting receive only communication; '4' for point reporting receive/transmit communication; '5' for code wheel matching point reporting, receive only; or '6' for code wheel matching point reporting, receive/transmit.

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

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

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

₆₀ Leave default of 0.

₆₁ Leave default of 0.

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

₆₃ Host Panel ID. Enter '0' for MS-9200; or '2' for SENSISCAN 2000; all other entries are invalid.

₆₄ ₆₅ Loop Number for General Reports. Factory set to '00'.

₆₆ ₆₇ ₆₈ Sensor Number for General Reports. Factory set to '000'.

Programming Reference Sheet

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			

Programming Reference Sheet Factory Default Settings

--- To enter Programming, press Mode: 7 7 6 4, Enter

F₀₀ **F**₀₁ **F**₀₂ **F**₀₃ **F**₀₄ **F**₀₅ **F**₀₆ **F**₀₇ **F**₀₈ **F**₀₉ **F**₁₀ **F**₁₁ **F**₁₂ **F**₁₃ **F**₁₄ **F**₁₅

Addresses 00 to 15 store the Primary Phone Number. Enter 'F' to represent the end of the number.

A₁₆ Primary Comm Format: (4+2 Standard 1800/2300).

0₁₇ **0**₁₈ **0**₁₉ **0**₂₀ Primary Account Code.

0₂₁ **0**₂₂ **0**₂₃ **0**₂₄ Primary 24-Hour Test Time. 0000 = 12:00 midnight.

0₂₅ Primary Number Test Time Interval. '0' for 24-hour.

F₂₆ **F**₂₇ **F**₂₈ **F**₂₉ **F**₃₀ **F**₃₁ **F**₃₂ **F**₃₃ **F**₃₄ **F**₃₅ **F**₃₆ **F**₃₇ **F**₃₈ **F**₃₉ **F**₄₀ **F**₄₁

Addresses 26-41 store the Secondary Phone Number. Enter 'F' to represent the end of the number.

A₄₂ Secondary Comm Format: (4+2 Standard 1800/2300).

0₄₃ **0**₄₄ **0**₄₅ **0**₄₆ Secondary Account Code.

0₄₇ **0**₄₈ **0**₄₉ **0**₅₀ Secondary 24-Hour Test Time. 0000 = 12:00 midnight.

0₅₁ Secondary Number Test Time Interval. '0' for 24-hour.

0₅₂ **1**₅₃ Start Monitoring Address

0₅₄ **1**₅₅ End Monitoring Address

0₅₆ UDACT-F Communication Selection. '0' for UDACT-F Communication disabled.

0₅₇ Backup Reporting. '0' for backup.

0₅₈ Touchtone/Rotary Select. '0' for Touchtone.

0₅₉ Make/Break Ratio. '0' for 67/33 make/break ratio.

0₆₀ Leave default of zero.

0₆₁ Leave default of zero.

1₆₂ AC Loss reporting delay. '1' for 6 hour delay.

0₆₃ Host PANEL ID. '0' for MS-9200.

0₆₄ **0**₆₅ Loop Number. For Ademco Contact ID, only loop number = '00'.

0₆₆ **0**₆₇ **0**₆₈ Sensor Number. For Ademco Contact ID, only sensor number = '000'.

Programming Reference Sheet Factory Default

1 69	1 70	0 71	0 72	8 73	1 74	0 75	0 76	F 77	1 78	F 79	6 80	0 81
0 82	F 83	8 84	F 85	A 86	F 87	B 88	F 89	C 90	F 91	D 92	F 93	E 94
F 95	E 96	F 97	F 98	F 99	F 100	E 101	1 102	0 103	0 104	E 105	2 106	0 107
0 108	E 109	3 110	E 111	6 112	0 113	0 114	E 115	8 116	E 117	A 118	E 119	B 120
E 121	C 122	E 123	D 124	E 125	E 126	E 127	E 128	E 129	F 130	E 131	F 132	9 133
9 134	9 135	1 136	9 137	2 138	1 139	1 140	0 141	0 142	8 143	1 144	0 145	0 146
F 147	1 148	F 149	6 150	0 151	0 152	F 153	8 154	F 155	A 156	F 157	B 158	F 159
C 160	F 161	D 162	F 163	E 164	F 165	E 166	F 167	F 168	F 169	F 170	E 171	1 172
0 173	0 174	E 175	2 176	0 177	0 178	E 179	3 180	E 181	6 182	0 183	0 184	E 185
8 186	E 187	A 188	E 189	B 190	E 191	C 192	E 193	D 194	E 195	E 196	E 197	E 198
E 199	F 200	E 201	F 202	9 203	9 204	9 205	1 206	9 207	2 208			

Appendix D: Point Assignments (Address 56 = 3 or 4)

Point No.	Type of Device (Detectors)	Point No.	Type of Device (Detectors)	Point No.	Type of Device (Modules)	Point No.	Type of Device (Modules)
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			

Note: Use chart to carefully identify all points in the system. Leading zero in point number signifies detectors and leading one signifies modules. Take special precaution with any supervisory points and remote switches in the system. Use Type Mode (refer to Section 4.2 Type Mode) to match the function of remaining points in the system for proper reporting.

Appendix E: Code Wheel Matching Point Assignments (Address 56 = 5 or 6)

Point No.	Type of Device (Detectors)	Point No.	Type of Device (Detectors)	Point No.	Type of Device (Modules)	Point No.	Type of Device (Modules)
01		51		01		51	
02		52		02		52	
03		53		03		53	
04		54		04		54	
05		55		05		55	
06		56		06		56	
07		57		07		57	
08		58		08		58	
09		59		09		59	
10		60		10		60	
11		61		11		61	
12		62		12		62	
13		63		13		63	
14		64		14		64	
15		65		15		65	
16		66		16		66	
17		67		17		67	
18		68		18		68	
19		69		19		69	
20		70		20		70	
21		71		21		71	
22		72		22		72	
23		73		23		73	
24		74		24		74	
25		75		25		75	
26		76		26		76	
27		77		27		77	
28		78		28		78	
29		79		29		79	
30		80		30		80	
31		81		31		81	
32		82		32		82	
33		83		33		83	
34		84		34		84	
35		85		35		85	
36		86		36		86	
37		87		37		87	
38		88		38		88	
39		89		39		89	
40		90		40		90	
41		91		41		91	
42		92		42		92	
43		93		43		93	
44		94		44		94	
45		95		45		95	
46		96		46		96	
47		97		47		97	
48		98		48		98	
49		99		49		99	
50				50			

Note: 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 Section 4.2 Type Mode) to match the function of remaining points in the system for proper reporting.

Appendix F: Zone Assignments

Zone No.	Zone Function	Zone No.	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	

Note: 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 Section 4.2 Type Mode) to match the function of remaining zones in the system for proper reporting.

Limited Warranty

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Fire-Lite® ALARMS
INCORPORATED

12 Clintonville Road, Northford, CT 06472
Phone: (203) 484-7161
FAX: (203) 484-7118