

# Universal Digital Alarm Communicator/Transmitter for the 600 Series Fire Panels GW-UDACT Instruction Manual

Document 52357 06/26/09 Rev: B P/N 52357:B ECN 07-201

#### **Important Limitations**

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

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

The Manufacturer recommends that smoke and/or heat detectors be located throughout a protected premise following the recommendations of the current edition of the National Fire Protection Association, Standard 72 (NFPA 72), manufacturer's recommendations, State and local codes, and the recommendations contained in the Guide for Proper Use of System Smoke Detectors, which are made available at no charge to all installing dealers. These documents can be found at http://www.systemsensor.co/ html/applict.html. A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not go off in as many as 35% of all fires. While fire alarm systems are designed to provide early warning against fire, they do not guarantee warning or protection against fire. A fire alarm system may not provide timely or adequate warning, or simply may not function, for a variety of reasons.

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

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

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

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

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

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

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

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

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

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

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

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

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

The most common cause of fire alarm malfunction is inadequate maintenance. To keep the entire fire alarm system in excellent working order, ongoing maintenance is required per the manufacturer's recommendations, and UL and NFPA standards. At a minimum, the requirements of NFPA 72 shall be followed. Environments with large amounts of dust, dirt or high air velocity require more frequent maintenance. A maintenance agreement should be arranged through the local manufacturer's representative. Maintenance should be scheduled monthly.

#### **Installation Precautions**

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

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

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

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.

#### Survivability

Per the National Fire Alarm Code, NFPA 72, all circuits necessary for the operation of the operation of the notification appliances shall be protected until they enter the evacuation signaling zone that they serve. Any of the following methods shall be considered acceptable as meeting these requirements:

- 1) A 2-hour rated cable or cable system
- 2) A 2-hour rated enclosure
- 3) Performance alternatives approved by Authority Having Jurisdiction (AHJ).

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

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

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

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

#### This system contains static-sensitive components.

Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static suppressive packaging to protect electronic assemblies removed from the unit.

Precau-D2-8-2008

## **FCC Warning**

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

#### **Canadian Requirements**

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

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la Classe A prescrites dan le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

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### **Software Downloads**

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

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- Topic Title (for online Help)
- Page number (for printed manual)
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Send email messages to:

#### FireSystems.TechPubs@honeywell.com

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

# **Table of Contents**

Section 1: Overview	7
1.1: Introduction	7
1.2: UL 864 Compliance	7
1.2.1: Products Subject to AHJ Approval	7
1.2.2: Programming Features Subject to AHJ Approval	7
1.3: Related Documentation	7
1.4: Description	8
1.5: Features	8
1.6: Controls and Indicators	8
1.7: Compatible Panels	9
1.8: Digital Communicator	9
1.9: Circuits	10
1.9.1: Communications	10
1.9.2: Primary and Secondary Phone Lines	10
1.9.3: Communicator Fail Relay Driver	10
1.9.4: Earth Ground	10
1.10: Specifications	11
1.10.1: DC Power	11
1.10.2: Data Communications	11
1.10.3: Auxiliary Output	11
1.11: Telephone Requirements and Warnings	11
1.11.1: Telephone Circuitry	11
1.11.2: Digital Communicator	11
1.11.3: Telephone Company Rights and Warnings	12
1.12: Modes and Special Functions	12
1.12.1: Normal Mode	12
1.12.2: Program Mode	
1.12.3: Type Mode	
1.12.4: Troubleshoot Mode	
1.12.5: Lamp Test Mode	
1.12.6: Clear Function	
1.12.7: Manual Test Function	13
Section 2: Installation and Wiring	14
2.1: Panel Installation and Wiring	
2.1.1: IF 602 Panel (UL 9th)	
2.1.2: IF 632, IF 654, and IF 658 Panels (UL 8th)	
2.1.3: IF 610 Panel (UL 8th)	
2.2: GW-UDACT Installation onto Interface Board	
2.3: Telephone Connections	
2.4: Relay Driver (Auxiliary Output) Connections	
Section 3: Programming Instructions	
3.1: General	
3.3: Switch Functions	
3.4: Programming Options	
3.4.1: Primary Number Communication Format (16)	
3.4.2: Primary Number Account Code (17-20)	
3.4.3: Primary Number 24 Hour Test Time (21-24)	
3.4.4: Primary Number 24/12 Hour Test Time (21-24)	
3.4.5: Secondary Phone Number (26-41)	
3.4.6: Secondary Number Communication Format (42)	
3.4.7: Secondary Number Account Code (43-46)	
3.4.8: Secondary Number 24-Hour Test Time (47-50)	

3.4.9: Secondary Number 24/12 Hour Test Time (51)	26
3.4.10: Start Monitoring Address (52-53)	26
3.4.11: End Monitoring Address (54-55)	26
3.4.12: GW-UDACT Communication Selection (56)	26
3.4.13: Backup Reporting (57)	27
3.4.14: Touchtone/Rotary Select (58)	27
3.4.15: Make Break Ratio (59)	27
3.4.16: Address (60)	27
3.4.17: Address (61)	27
3.4.18: AC Loss Reporting Delay (62)	27
3.4.19: Host Panel ID (63)	27
3.4.20: Loop Number (64 - 65)	27
3.4.21: Device/Zone Number (66 - 68)	27
3.4.22: Programming Event Codes (69-208)	28
3.4.23: Programming the Real-Time Clock	28
3.4.24: End Programming	28
3.5: 3+1, 4+1 Express and 4+1 Standard Formats	29
3.5.1: Primary Number	29
3.5.2: Secondary Number	30
3.6: 4+2 Standard and 4+2 Express Formats	31
3.6.1: Primary Number	31
3.6.2: Secondary Number	32
3.7: Ademco Contact ID Format	
3.7.1: Primary Number	33
3.7.2: Secondary Number	34
3.8: Programming Reference Sheets	35
3.8.1: Options	35
3.8.2: Event Codes	37
3.9: Factory Default Settings	38
Section 4: Operating Instructions	40
4.1: Normal Mode	40
4.1.1: Function Keys	40
4.1.2: Displays and LEDs	41
4.1.3: Normal Mode Operation	
4.1.4: Key Report Descriptions	44
4.2: Type Mode	
4.2.1: Disabling of Zones	45
4.2.2: Zone Supervisory	
4.3: Troubleshoot Mode	
4.3.1: Telephone Line Testing	
4.4: Lamp Test Mode	47
Section 5: Reporting Formats	48
5.1: Data Reporting Structure	
5.1.1: Ademco Contact ID	
Section 6: Compatible Receivers	
6.1: UL Listed Receivers	
Appendix A: Group Assignment Worksheet	
Index	56

### **Section 1: Overview**

## 1.1 Introduction

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

## 1.2 UL 864 Compliance

## 1.2.1 Products Subject to AHJ Approval

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

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

IF 610 IF 632 IF 654 IF 658

## 1.2.2 Programming Features Subject to AHJ Approval

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

This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.

Program Feature or Option	Permitted in UL 864? (Y/N)	Possible Settings	Settings Permitted in UL 864
Host Panel ID	YES	0 = Do not use 1 = Do not use 2 = Do not use 3 = Do not use 4 = Do not use 5 = Do not use 6 = Do not use 7 = GW 600 Series panels	7 = GW IF602
		8 = Do not use 9 = Do not use	

#### 1.3 Related Documentation

The table below contains a list of document sources for supplemental information.

Control Panels	Refer to	Part Number
IF 602	IF 602 Manual	GW72214
IF 610	IF 610 Manual	GW71810
IF 632	IF 632 Manual	GW72122
IF 654	IF 654 Manual	GW72122
IF 658	IF 658 Manual	GW72122

**Table 1.1 Related Documentation** 

Overview Description

# 1.4 Description

The Universal Digital Alarm Communicator/Transmitter (GW-UDACT) may be used with a variety of 600 Series control panels. The GW-UDACT transmits system status to UL Listed Central Station Receivers via the public switched telephone network. The GW-UDACT, which is compact in size, mounts internally in each panel's cabinet. EIA-485 annunciator communications bus and 24 volt (nominal) connections are required.

#### 1.5 Features

- Dual telephone lines
- Dual telephone line voltage detect
- Compact in size: 6.5" x 7.0"
- Built-in programmer
- Built-in four character red 7-segment LED display
- Manual test report function
- Manual master transmission clear function
- Communicates vital system status including:
  - Independent zone alarm, trouble and supervisory
  - AC (main) power loss (programmable report delay)
  - Low battery and earth fault
  - System off normal
  - 12 or 24 hour test signal
  - Abnormal test signal per UL requirements
  - Annunciation of GW-UDACT troubles including: loss of phone lines, communication failure with either Central Station, total communication failure
- Troubleshoot mode converts keypad to DTMF touchpad
- Individual LEDs for:
  - Power
  - EIA-485 loss
  - Manual Test
  - Kissoff
  - Comm Fail
  - Primary Line Seize
  - Secondary Line Seize
- Open collector relay driver for Total Communication Failure or GW-UDACT trouble.
- Real Time Clock
- Simple EIA-485 interface to host panel
- Maximum of 14 trouble messages transmitted per hour.

## 1.6 Controls and Indicators

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

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

Compatible Panels Overview

Displays are as shown below:

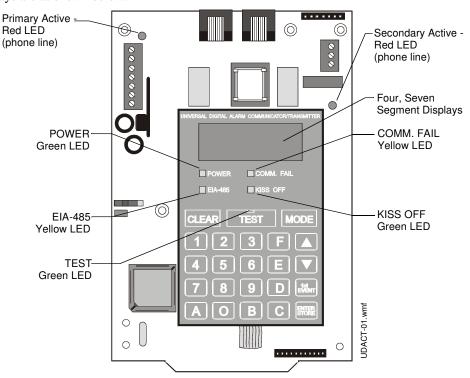


Figure 1.1 Controls and Indicators

## 1.7 Compatible Panels

The GW-UDACT has been designed to be compatible with the following Fire Alarm Control Panels.

FACP firmware with the listed part numbers or higher must be installed to allow use of the GW-UDACT with the corresponding panel.

Fire Alarm Control Panel	FACP Firmware Part Number
IF 602	V8.0
IF 610	V8.0
IF 632	V8.0
IF 654	V8.0
IF 658	V8.0

Table 1.1 Compatible FACP and Firmware

# 1.8 Digital Communicator

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

• Line Seizure - takes control of the phone lines disconnecting any premises phones.

Overview Circuits

- Off/On Hook perform on and off-hook status to the phone lines.
- Listen for dial tone 440 hertz tone typical in most networks.
- Dialing the Central Station(s) number default is Touch-Tone®, programmable to rotary.
- For tone burst or touchtone type formats: Discern proper "Ack" and "Kiss-off" tone(s) The
  frequency and time duration of the tone(s) varies with the transmission format. The GWUDACT will adjust accordingly.
- Communicate in the following formats (refer to "Compatible Receivers" on page 52 for compatible receivers):

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

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

#### 1.9 Circuits

#### 1.9.1 Communications

Communications between the GW-UDACT and the host control panel is accomplished over a two wire EIA-485 serial interface which is power-limited and supervised by the control panel and the GW-UDACT. The wiring connections are made to the RS +, RS –, and Shield terminals of TB1 on the GW-UDACT if the GW-UDACT is not mounted on a GW-UDACT interface board. If the GW-UDACT is mounted on a GW-UDACT interface board, jumper cable 75306, included with the product, must be installed from J10 on the GW-UDACT to J1 on the interface board.

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

## 1.9.2 Primary and Secondary Phone Lines

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

## 1.9.3 Communicator Fail Relay Driver

Relay driver output for Central Station communication failure is available.

#### 1.9.4 Earth Ground

An earth ground connection to the GW-UDACT is required for transient protection. One option allows connection via Earth Gnd terminal on TB3 using solid 12 AWG (3.25mm²) wire to provide lightning protection (this connection is not required when the GW-UDACT is mounted in a grounded metal enclosure via the upper right mounting hole).

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

Specifications Overview

## 1.10 Specifications

#### 1.10.1 DC Power

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

#### 1.10.2 Data Communications

EIA-485 Serial Interface, terminal block TB1 (RS+, RS-, Shield, RS+, RS-) and J10 on the Interface card, if applicable. Power-limited source must be used. The terminals marked "TERM RS+, RS-" are for future use.

#### 1.10.3 Auxiliary Output

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

## 1.11 Telephone Requirements and Warnings



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

or

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

#### 1.11.1 Telephone Circuitry

Ringer Equivalence Number (REN) = 0.6B

AC Impedance 10.0 Mega Ohm Complies with FCC Part 68

Mates with RJ31X Male Connector

Supervision Threshold: less than 4.0 volts for 2 minutes

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

## 1.11.2 Digital Communicator

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

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

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

### 1.11.3 Telephone Company Rights and Warnings

The telephone company under certain circumstances may temporarily discontinue services and/or make changes in its facilities, services, equipment or procedures which may affect the operation of this control panel. However, the telephone company is required to give advance notice of such changes or interruptions.

If the control panel causes harm to the telephone network, the telephone company reserves the right to temporarily discontinue service. Advance notification will be provided except in cases when advance notice is not practical. In such cases, notification will be provided as soon as possible. The opportunity will be given to correct any problems and to file a complaint.

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

When the control panel activates, premise phones will be disconnected.

Two separate phone lines are required. Do not connect both telephone interfaces to the same telephone line.

The control panel must be connected to the public switched telephone network upstream of any private telephone system at the protected premises.

An FCC compliant telephone cord must be used with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible RJ31X male modular plug which is Part 68 compliant.

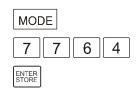
## 1.12 Modes and Special Functions

#### 1.12.1 Normal Mode



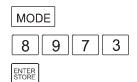
Normal Mode is the standard mode of operation. In this mode, the GW-UDACT monitors host FACP status as well as monitoring telephone line voltage. The GW-UDACT reports system status information to UL listed Central Stations. Information transmitted includes general alarm, trouble and supervisory. It also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

## 1.12.2 Program Mode



Program Mode is used to program the GW-UDACT. While the GW-UDACT is in the program mode, it cannot receive host FACP status information. Refer to "Programming Instructions" on page 22 for complete information.

## 1.12.3 Type Mode



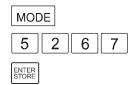
Type Mode is used to define the specific type of function of a zone. Type Mode is also used to disable the alarm report for any zone in the system.

#### 1.12.4 Troubleshoot Mode



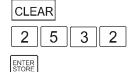
Troubleshoot Mode may be used for testing the telephone line wiring. Connection from the GW-UDACT's modular jacks, through RJ31X jacks and into the telephone network may be easily checked. In this mode, the keypad acts similar to a telephone touchpad.

### 1.12.5 Lamp Test Mode



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

#### 1.12.6 Clear Function



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

#### 1.12.7 Manual Test Function



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

## **Section 2: Installation and Wiring**

# 2.1 Panel Installation and Wiring

The GW-UDACT is always installed internally in the FACP cabinet. This chapter covers GW-UDACT installation information for all compatible panels.

The GW-UDACT is a kit that consists of the GW-UDACT itself, the GW-UDACT Interface Board, and enough screws, standoffs and cables to connect it to any of the 600 Series panels.

The first installation step is to attach the GW-UDACT Interface Board to its panel, and wire it for power and system messaging. The following sections provide directions for each panel.

#### 2.1.1 IF 602 Panel (UL 9th)



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

To install the GW-UDACT Interface board, refer to the numbered procedures below, and to Figure 2.1 that follows.

- 1. If there is a City Tie card (p/n 31077) installed in the 602, break away the tab on the Interface board to allow clearance for the city tie card.
- 2. Attach the standoffs included in the kit to the four outer holes on the IF 602.
- 3. Align the four holes marked "MTG 602" on the Interface board over the four standoffs, and fasten with the four 6-32 screws (included in the kit).
- 4. Using 18 AWG twisted-pair wire (not included), connect TB1:+24V and TB1:GD on the Interface board to A+ and A respectively on the IF 602.
- 5. Plug the short 34-pin cable into J2 on the Interface board and into the panel's ISBX connector.
- 6. Install the GW-UDACT onto the Interface board as described in "GW-UDACT Installation onto Interface Board" on page 18.

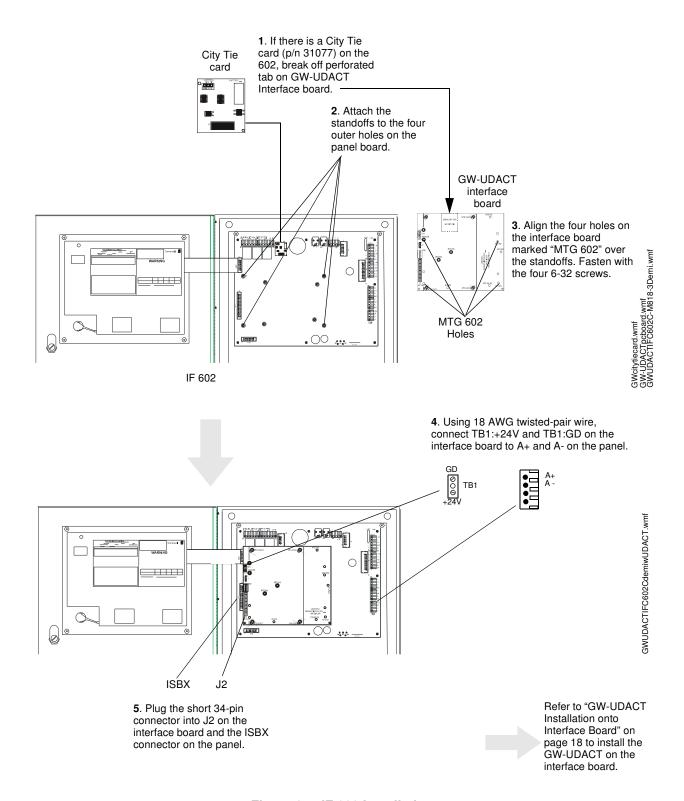


Figure 2.1 IF 602 Installation

#### 2.1.2 IF 632, IF 654, and IF 658 Panels (UL 8th)



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

To install the GW-UDACT Interface board, refer to the numbered procedures below, and to Figure 2.2 that follows.



**NOTE:** The GW-UDACT Interface board must be mounted in the upper left expansion bay of the IF 632, IF 654, or IF 658 panel. It may not be mounted in any other position.

- 1. Attach the three standoffs included in the kit to the four holes that align with the "MTG 600" holes on the Interface board.
- 2. Align the three holes marked "MTG 600" on the interface board over the standoffs in the expansion bay. Fasten with three 6-32 screws (included in the kit).
- 3. Using 18 AWG twisted-pair wire (not included), connect TB1:+24V and TB1:GD on the interface board to T1 and T2 respectively on the panel's rear Common Control card.
- 4. Plug the long 34-pin cable into J2 on the interface board and into the panel's ISBX0 connector.
- 5. Install the GW-UDACT onto the interface board as described in "GW-UDACT Installation onto Interface Board" on page 18.

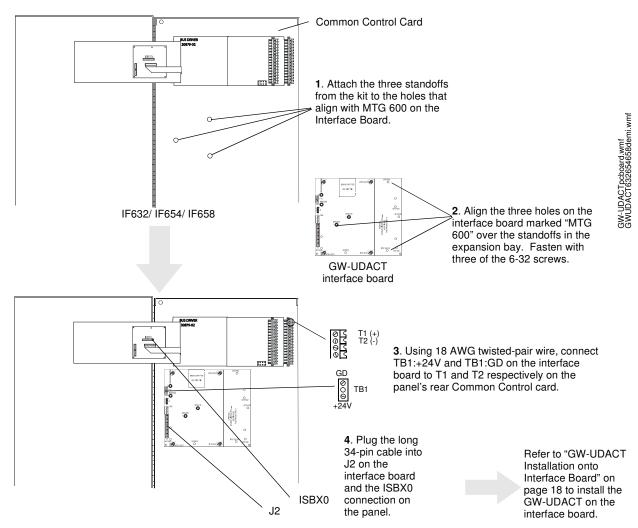


Figure 2.2 IF 632, IF 654, or IF 658 Installation

### 2.1.3 IF 610 Panel (UL 8th)



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

To install the GW-UDACT Interface board, refer to the numbered procedures below, and to Figure 2.4 that follows.

- Attach the four standoffs included in the kit to the four holes that align with the "MTG 610" holes on the Interface board.
- 2. Fasten the Interface board to the standoffs with the #6-32 screws included in the kit.
- 3. Using 18 AWG twisted-pair wire (not included), connect TB1:+24V and TB1:GD on the Interface board to TB1:A+ and TB1:A- respectively on the panel.
- 4. Plug the long 34-pin cable into J2 on the Interface board and into the panel's ISBX0 connector.
- 5. Install the GW-UDACT onto the Interface board as described in "GW-UDACT Installation onto Interface Board" on page 18.

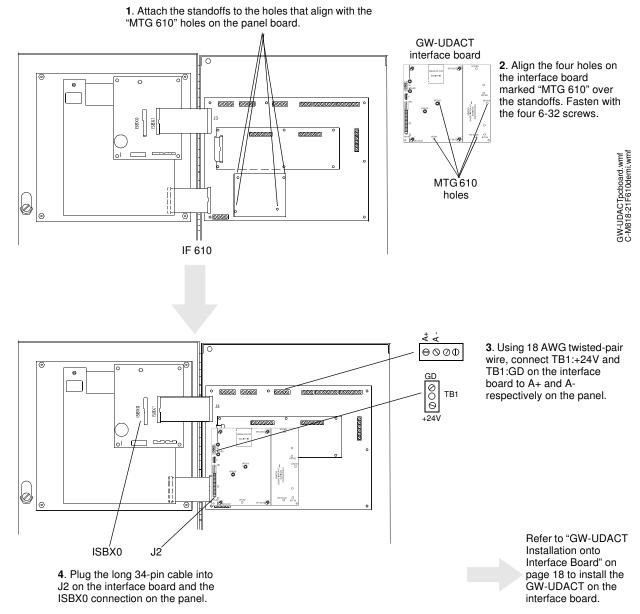


Figure 2.3 IF 610 Installation

## 2.2 GW-UDACT Installation onto Interface Board

After the GW-UDACT Interface board has been installed into its FACP cabinet and wired according to instructions, the GW-UDACT must be installed on it. Refer to the figure below for instructions.



NOTE: The ACS/TERM switch must be in the "ACS" position.

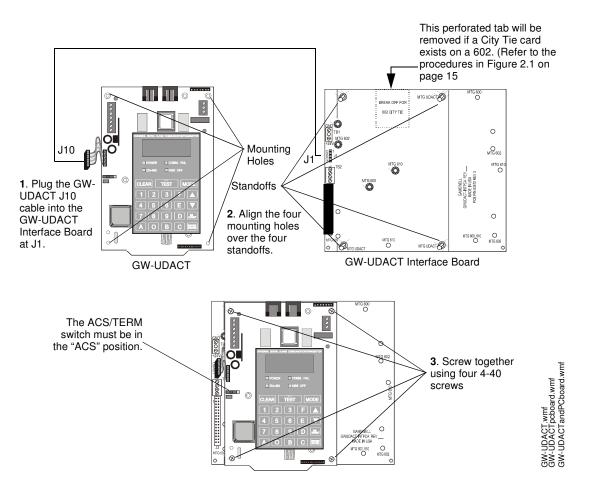


Figure 2.4 Installing the GW-UDACT on its PC Board

Telephone Connections Installation and Wiring

## 2.3 Telephone Connections

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



**NOTE:** It is critical that the GW-UDACT be located as the first device on the incoming telephone circuit to properly function.

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

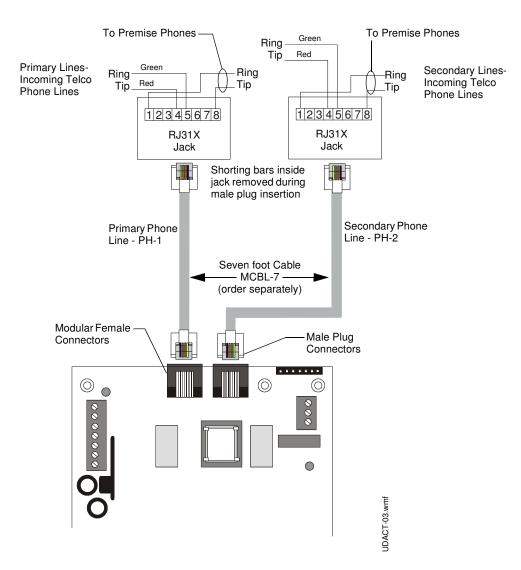


Figure 2.5 Wiring Phone Jacks

## 2.4 Relay Driver (Auxiliary Output) Connections

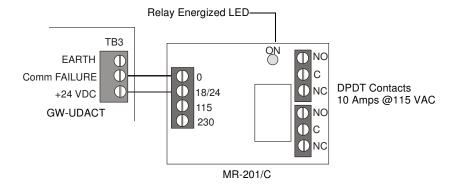
The GW-UDACT's open collector output on TB3 (Comm Fail), is provided for Communicator Failure and GW-UDACT trouble. It can be used to drive UL-listed relay MR-101/C or MR-201/C. The output is rated for 40 mA. The normal condition for the output is Off (de-energized).

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

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

When the GW-UDACT is programmed for "Receive Only" (typically this occurs when annunciators are also used and are set for "Receive/Transmit"), the relay output is used to provide a GW-UDACT trouble input to the host control panel. Use an AMM-4F module to supervise the relay closure (refer to Figure 2.7 on page 21). Program the custom label field to read "UDACT Trouble".

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



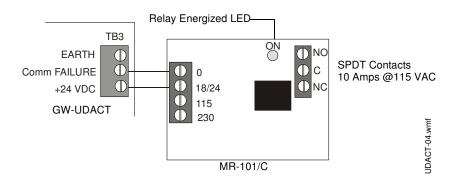
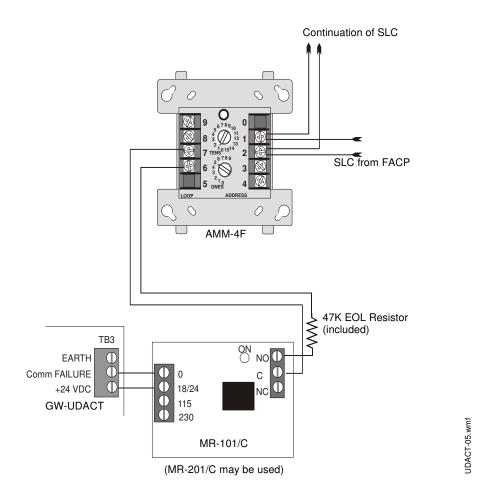


Figure 2.6 Relay Driver Connections





**NOTE:** An AMM-4F Monitor Module is used to supervise the Normally Closed output of MR-101/C. If a Trouble Condition or Communication Failure occurs on the UDACT, the MR-101/C relay contact will open, causing the AMM-4F to transmit a trouble condition to the FACP.

Figure 2.7 Monitoring for GW-UDACT Trouble

# **Section 3: Programming Instructions**

#### 3.1 General

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



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

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

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

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

# 3.2 Entering Programming Mode

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

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

Once in Programming Mode, the GW-UDACT will:

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



**NOTE:** Address 56 is factory set to = 0, GW-UDACT Communications Disabled. This setting keeps the communicator off until address 56 is changed to 1, 2, 3 or 4. Once address 56 is changed from 0 and a valid phone number is entered, transmission of the "GW-UDACT Off Normal" report will occur.

Refer to page 26 for information on program selection for address 56.

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

00\_F (address)(data)

## 3.3 Switch Functions

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

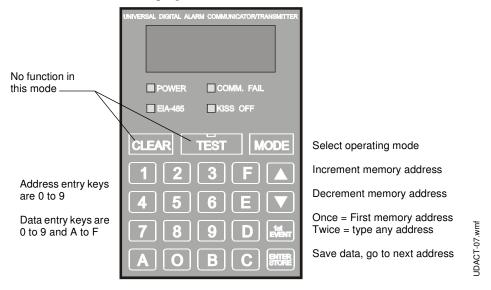


Figure 3.1 GW-UDACT Keypad

## 3.4 Programming Options

#### **Primary Phone Number (00-15)**

The first sixteen addresses, 00-15, are factory set to "F" (from 00\_F to 15\_F). Programming is typically done as follows:

If your phone number is 484-7161, type **4**, the display will read 00\_4, press ENTER/STORE to save the entry to memory and increment to the next address 01\_F.

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



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)

Programming Instructions Programming Options

#### 3.4.1 Primary Number Communication Format (16)

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

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



**NOTE:** Consult your Central Station for proper selection or consult our factory representatives. For any format chosen, the GW-UDACT automatically programs all of the event codes. See Table 3.1 through Table 3.6.



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

### 3.4.2 Primary Number Account Code (17-20)

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

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

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



NOTE: Do not use A-F.

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

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

#### 3.4.5 Secondary Phone Number (26-41)

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

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

## 3.4.6 Secondary Number Communication Format (42)

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

Programming Instructions Programming Options

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



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

#### 3.4.7 Secondary Number Account Code (43-46)

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

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

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

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

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

## 3.4.10 Start Monitoring Address (52-53)

This address is programmed to indicate the first group of zones to be monitored and reported to the Central Station. Set to 02. Enter the Host Panel ID before entering the Start Monitoring Address. See 3.4.19, "Host Panel ID (63)" for details.

## 3.4.11 End Monitoring Address (54-55)

This address is programmed to indicate the last group of zones to be monitored and reported to the Central Station. Set to 06. Enter the Host Panel ID before entering the End Monitoring Address. See 3.4.19, "Host Panel ID (63)" for details.

## 3.4.12 GW-UDACT Communication Selection (56)

Leaving address 56 at "0" disables communications to the Central Station(s). Enter "2" for zone reporting, receive/transmit. See "Type Mode" on page 44 for additional information on detailed reporting.

#### 3.4.13 Backup Reporting (57)

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

#### 3.4.14 Touchtone/Rotary Select (58)

A "0" programmed in this address by the factory triggers touchtone dialing over both telephone lines.

Select "1" for rotary dialing.

#### **3.4.15 Make Break Ratio (59)**

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

#### 3.4.16 Address (60)

Leave default of "0".

#### 3.4.17 Address (61)

Leave default of "0".

## 3.4.18 AC Loss Reporting Delay (62)

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



**NOTE:** The 600 Series panels have a built-in two hour AC Loss Delay. Any value programmed here would be in addition to the inherent two hour delay.

## 3.4.19 Host Panel ID (63)

Enter "7". When the Host Panel ID (address 63) value is changed, the Start Monitoring and End Monitoring addresses (52 - 55) are reset to default values. Enter the Host Panel ID before entering the Start and End Monitoring addresses.

## 3.4.20 Loop Number (64 - 65)

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

## 3.4.21 Device/Zone Number (66 - 68)

For Contact ID format only. These entries apply to the general reports only, i.e. general alarm, general trouble, general supervisory. Factory default is "000". Maximum value is "999". Refer to "Reporting Formats" on page 48 for additional information.

Programming Instructions Programming Options

#### 3.4.22 Programming Event Codes (69-208)

The type of reports and "event codes" that are sent to the Central Station are in Table 3.1 through Table 3.6. The selections made for the Primary Central Station Number Communication Format (address 16) and the Secondary Central Station Number Communication Format (address 42) automatically program addresses 69-208 with factory default selections.

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

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

#### 3.4.23 Programming the Real-Time Clock

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

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

#### 3.4.24 End Programming

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

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

## 3.5.1 Primary Number

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

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



**Table 3.1 Event Codes, Primary Number** 

## 3.5.2 Secondary Number

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

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



**Table 3.2 Event Codes, Secondary Number** 

# 3.6 4+2 Standard and 4+2 Express Formats

## 3.6.1 Primary Number

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

Address	Description	Setting
69-70	Primary # General Alarm Code	11
71-72	Primary # Zone Alarm Code	00
73-74	Primary # General Supervisory Code	81
75-76	Primary # Zone Supervisory Code	00
77-78	Primary # General Fault Code	F1
79-80	Primary # AC Fault Code	F6
81-82	Primary # Zone Fault Code	00
83-84	Primary # Low Battery Fault Code	F8
85-86	Primary # Telco Primary Line Fault Code	FA
87-88	Primary # Telco Secondary Line Fault Code	FB
89-90	Primary # NAC Fault Code	FC
91-92	Primary # Comm. Trouble Primary # Code	FD
93-94	Primary # Comm. Trouble Secondary # Code	FE
95-96	Primary # 485 Comm. Trouble Code	FE
97-98	Primary # System Off Normal Code	FF
99-100	Primary # GW-UDACT Off Normal Code	FF
101-102	Primary # General Alarm Restore Code	E1
103-104	Primary # Zone Alarm Restore Code	00
105-106	Primary # General Supervisory Restore Code	E2
107-108	Primary # Zone Supervisory Restore Code	00
109-110	Primary # General Fault Restore Code	E3
111-112	Primary # AC Fault Restore Code	E6
113-114	Primary # Zone Fault Restore Code	00
115-116	Primary # Low Battery Fault Restore Code	E8
117-118	Primary # Telco Primary Line Fault Restore Code	EA
119-120	Primary # Telco Secondary Line Fault Restore Code	EB
121-122	Primary # NAC Fault Restore Code	EC
123-124	Primary # Comm.Trouble Primary Number Restore Code	ED
125-126	Primary # Comm. Trouble Secondary Number Restore Code	EE
127-128	Primary # 485 Comm. Trouble Restore Code	EE
129-130	Primary # System Off Normal Restore Code	EF
131-132	Primary # GW-UDACT Off Normal Restore Code	EF
133-134	Primary # System 24 Hour Test	99
135-136	Primary # System 24 Hour Test w/active event	91
137-138	Primary # Manual Test	92



**Table 3.3 Event Codes, Primary Number** 

## 3.6.2 Secondary Number

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

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



Table 3.4 Event Codes, Secondary Number

## 3.7 Ademco Contact ID Format

## 3.7.1 Primary Number

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

Address	Description	Setting <sup>1</sup>	Group #	Sensor #
69-71	Primary# General Alarm Code	110	00	000 <sup>2</sup>
72-74	Primary # Zone Alarm Code	110 <sup>3</sup>	00	Note <sup>4</sup>
75-77	Primary # General Supervisory Code	200	00	000 <sup>2</sup>
78-80	Primary # Zone Supervisory Code	200	00	Note <sup>4</sup>
81-83	Primary # General Fault Code	300	00	
84-86	Primary # AC Fault Code	301	00	
87-89	Primary # Zone Fault Code	380	00	Note <sup>6</sup>
90-92	Primary # Low Battery Fault Code	302	00	
93-95	Primary # Telco Primary Line Fault Code	351	00	
96-98	Primary # Telco Secondary Line Fault Code	352	00	
99-101	Primary # NAC Fault Code	321	00	
102-104	Primary # Comm. Trouble Primary # Code	354	00	
105-107	Primary # Comm. Trouble Secondary # Code	354	00	
108-110	Primary # 485 Comm. Trouble Code	300	00	
111-113	Primary # System Off Normal Code	308	00	
114-116	Primary # GW-UDACT Off Normal Code	350	00	
117-119	Primary # System 24 Hour Test	602	00	
120-122	Primary # System 24 Hour Test w/active event	608	00	
123-125	Primary # Manual Test Message	601	00	
126-128	Primary # General Security Code <sup>5</sup>	130	00	000 <sup>2</sup>

- 1 Zero entries prevent the transmission of the report to the Central Station.
- 2 Refer to Contact ID program locations 64 68.
- 3 The factory default event code is 110 and reprogrammable. The factory setting of report code 111 is fixed for addressable smoke detectors and cannot be changed.
- 4 The identification of the zone-device number is automatically transmitted by the GW-UDACT and is added to the main event code.
- 5 The General Security Code applies to UL 864 9th Edition-listed Control Panels only.

Table 3.5 Ademco Contact ID, Primary Number

Programming Instructions Ademco Contact ID Format

## 3.7.2 Secondary Number

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

Address	Description	Setting <sup>1</sup>	Group #	Sensor #
139-141	Secondary# General Alarm Code	110	00	000 <sup>2</sup>
142-144	Secondary # Zone Alarm Code	110 <sup>3</sup>	00	Note <sup>4</sup>
145-147	Secondary # General Supervisory Code	200	00	000 <sup>2</sup>
148-150	Secondary # Zone Supervisory Code	200	00	Note <sup>4</sup>
151-153	Secondary # General Fault Code	300	00	
154-156	Secondary # AC Fault Code	301	00	
157-159	Secondary # Zone Fault Code	380	00	Note <sup>4</sup>
160-162	Secondary # Low Battery Fault Code	302	00	
163-165	Secondary # Telco Primary Line Fault Code	351	00	
166-168	Secondary # Telco Secondary Line Fault Code	352	00	
169-171	Secondary # NAC Fault Code	321	00	
172-174	Secondary # Comm. Trouble Primary # Code	354	00	
175-177	Secondary # Comm. Trouble Secondary # Code	354	00	
178-180	Secondary # 485 Comm. Trouble Code	300	00	
181-183	Secondary # System Off Normal Code	308	00	
184-186	Secondary # GW-UDACT Off Normal Code	350	00	
187-189	Secondary # System 24 Hour Test	602	00	
190-192	Secondary # System 24 Hour Test w/active event	608	00	
193-195	Secondary # Manual Test Message	601	00	
196-198	Secondary # General Security Code <sup>5</sup>	130	00	000 <sup>2</sup>

- 1 Zero entries prevent the transmission of the report to the Central Station.
- 2 Refer to Contact ID program locations 64 68.
- 3 The factory default event code is 110 and reprogrammable. The factory setting of report code 111 is fixed for addressable smoke detectors and cannot be changed.
- 4 The identification of the zone-device number is automatically transmitted by the GW-UDACT and is added to the main event code.
- 5 The General Security Code applies to UL 864 9th Edition-listed Control Panels only.

Table 3.6 Ademco Contact ID, Secondary Number

# 3.8 Programming Reference Sheets

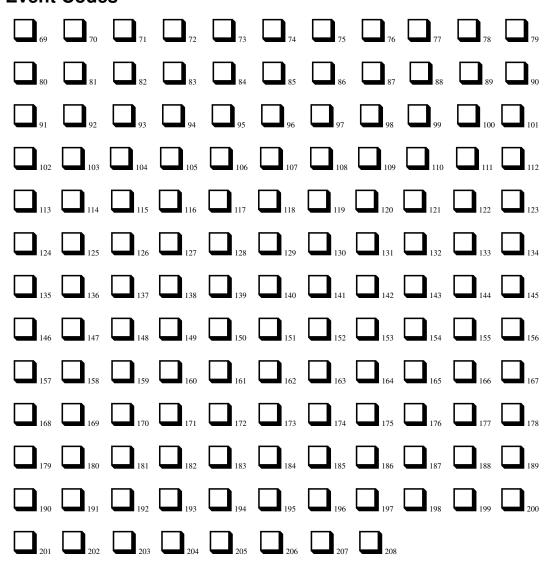
# 3.8.1 Options

To enter Programming, press MODE, then 7764, then ENTER/STORE.
00 01 02 03 04 05 06 07 08 09 01 10 11 12
13 14 15 <b>Primary Phone Number:</b> Enter 'F' to represent the end of the number.
16 <b>Primary Communication Format:</b> Enter 0 - F.
17 18 19 20 <b>Primary Account Code:</b> Valid keys are 0-F.
PM).
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 <b>Secondary Phone Number:</b> Enter "F" to represent the end of the number.
2 Secondary Communication Format: Enter 0-F.
43 44 45 46 <b>Secondary Account Code:</b> Valid keys are 0-F.
PM). Secondary 24-Hour Test Time: Enter military time (1400 for 2
Secondary Number Test Time Interval: Enter "0" for 24-hour; "1" - 12-hour.
52 53 Start Monitoring Address: Valid entries are 01 through 32.
55 End Monitoring Address: Valid entries are 01 through 32.
56 UDACT Communication Selection: Enter "0" to disable GW-UDACT communication;
"1" for zone reporting receive only communication; or "2" for zone reporting receive/transmit communication.
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.
Touchtone/Rotary Select: Enter "0" for touchtone dialing; "1" for rotary dialing.

Continued on the next page...

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.
Leave default of 0.
61 Leave default of 0.
62 AC Loss Reporting Delay: Enter "0" for no time delay after AC loss; "1" for 1 hour
delay; "2" for 2 hour delay (factory default); "3" for 6 hour delay; "4" for 7 hour delay; "5" for 8 hour delay; "6" for 9 hour delay; "7" for 10 hour delay; "8" for 11 hour delay; "9" for 15 hour delay; "A" for 16 hour delay; "B" for 17 hour delay; "C" for 20 hour delay; "D" for 21 hour delay: "E" for 22 hour delay; or "F" for 23 hour delay.
Host Panel ID: Enter "7".
64 Loop Number: Factory set to "00". Valid entries are 00 through 97
66 Device/Zone Number for General Reports: Factory set to "000". Valid
entries are 000 through 999.

## 3.8.2 Event Codes



# 3.9 Factory Default Settings

### **Primary Phone Number:**

00	01	02	03	04	05	06	07	80	09	10	11	12	13	14	15
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F

**Primary Communication Format:** 

	<b>Primary</b>	Account	Code
--	----------------	---------	------

16
Е

17	18	19	20
0	0	0	0

**Primary 24-Hour Test Time:** 

Primary	Number	<b>Test Time</b>	Interval:

21	22	23	24
0	0	0	0



**Secondary Phone Number:** 

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

**Secondary Communication Format:** 

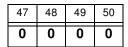
**Secondary Account Code:** 



43	44	45	46		
0	0	0	0		

**Secondary 24-Hour Test Time:** 

**Secondary Number Test Time Interval:** 





**Start Monitoring Address:** 

**End Monitoring Address:** 



54	55
0	1

**UDACT Communication Selection:** 

**Backup Reporting:** 





Touchtone/Rotary Select:

Make/Break Ratio:





Leave default of 0.

Leave default of 0.





**AC Loss Reporting Delay:** 

**Host Panel ID:** 





**Loop Number:** 

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

64	65
0	0

66	67	68
0	0	0

Factory Default Settings Programming Instructions

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

# **Section 4: Operating Instructions**

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

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

### 4.1 Normal Mode

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

## 4.1.1 Function Keys

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



Figure 4.1 GW-UDACT Keypad

#### Clear

The Clear function will cause the GW-UDACT to:

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



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

#### **Test**

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

Normal Mode Operating Instructions

#### Mode

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



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

### 1st Event

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

#### **Down Arrow**

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

### **Up Arrow**

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

#### **Enter/Store**

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

## 4.1.2 Displays and LEDs

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

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

**Table 4.1 Normal Mode Messages** 

Normal Mode Operating Instructions

> Primary Active Red LED Secondary Active -(phone line) Red LED (phone line) Four, Seven Segment Displays **POWER** COMM. FAIL Yellow LED Green LED COMM. FAI KISS OFF EIA-485 Green LED Yellow LED TEST Green LED

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

Figure 4.2 Display and LEDs

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

0

Comm. Fail - This yellow LED lights to indicate the loss of both telephone lines or that the maximum number of attempts to communicate with both Central Stations has been unsuccessful. Note: During a comm fail, the display will show either a "PH 1" and "PH 2" or "no 1" and "no 2".

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

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

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

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

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

## 4.1.3 Normal Mode Operation

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

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

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

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

JDACT-01.cdr

. . . . . . . . . . . .

Normal Mode Operating Instructions

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

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

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

A maximum of 14 trouble messages are transmitted per hour. This will prevent the Central Station from being overloaded with trouble messages in the event an SLC is removed.

Two phone numbers must be programmed, the Primary phone number and the Secondary phone number. All system reports will be transmitted to the primary number. Reports will automatically be sent to the secondary number if attempts to transmit to the primary number are unsuccessful. If 10 total attempts to communicate are unsuccessful, the Communicator Failure output will be activated (TB3 - comm fail). Note that as an option, *all reports may also be sent to the secondary phone number*. Refer to "Programming Instructions" on page 22.

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

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

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

<sup>\*</sup> The General Security Code applies to UL 864 9th Edition-listed Control Panels only.

**Table 4.2 Event Activations and Restorals** 

Operating Instructions Type Mode



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

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

For all pulsed formats and both Ademco Express formats, the zone report is repeated per the total number of zones activated once factory default entries of zero are removed. See Table 3.1 through Table 3.6. When Ademco Contact ID format is used, the actual zone activated is identified in the report.

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

### 4.1.4 Key Report Descriptions

### **GW-UDACT OFF Normal Report**

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

### **Panel OFF Normal Report**

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

### **System Test Report**

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

### **EIA-485 Communications Trouble Report**

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

## 4.2 Type Mode



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

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

General fire alarm Burglary

Supervisory 24 hour non-burglary Pull stations High temperature

Type Mode Operating Instructions

Heat detectors

Waterflows

Duct detectors

Flame sensor

Smoke zone

Low temperature

Low water pressure

Low water level

Pump failure



**NOTE:** The Gamewell-FCI mode restricts Type Mode programming to a maximum of 256 zones. A zone corresponds to an FACP input group. To access Type Mode press MODE, then **8973**, then ENTER/STORE. 8973 spells TYPE on a Touch-Tone<sup>®</sup> phone.

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

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

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

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

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

To define all zones as fire alarm (return to original factory default settings): enter zone **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

This feature is primarily used when system zones have been defined as remote reset, acknowledge, silence or drill switches. Refer to the FACP technical manual for additional information. Activation of remote switches appear as alarms on the EIA-485 bus. The GW-UDACT will report

Operating Instructions Troubleshoot Mode

these as fire alarms unless disabled in the Type Mode. Disabling zones also prohibits the activation (shorted or alarm activated condition) from being reported by the GW-UDACT. Disabling of the zone does not affect the reporting of the zone trouble condition.

## 4.2.2 Zone Supervisory

A zone must be defined as supervisory to allow the GW-UDACT to identify the correct report to transmit to the central station. Follow the programming instructions in the FACP manual to program a zone as supervisory. Next, program the zone as a code 2 for supervisory.

### 4.3 Troubleshoot Mode



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

Once in this mode, the GW-UDACT will:

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

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

### 4.3.1 Telephone Line Testing

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

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

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

Lamp Test Mode Operating Instructions

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

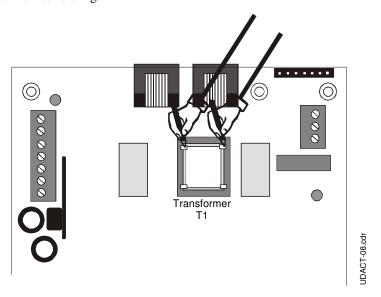


Figure 4.3 Handset/Speaker Connection

# 4.4 Lamp Test Mode

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



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

# **Section 5: Reporting Formats**

## 5.1 Data Reporting Structure

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

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

Table 5.2 on page 49 defines each letter code used in Table 5.1.

Table 5.3 on page 50 describes the data reporting structure used for Ademco Contact ID format.

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

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

Table 5.1 Data Reporting Structure



NOTE: Refer to Table 6 on page 52 for a list of compatible receivers.

Data Reporting Structure Reporting Formats

Letter codes for Table 5.1 on page 48:

SSS or SSSS	= Subscriber ID
Α	= 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)
Р	=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)
Х	=Test Report (1st digit)
X2	=Test Report (2nd digit)
XA	=Test Report Restore (1st digit)
XA2	=Test Report Restore (2nd digit)

**Table 5.2 Letter Code Definitions** 

Reporting Formats Data Reporting Structure

### 5.1.1 Ademco Contact ID

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

### SSSS 18 QXYZ GG CCC

SSSS	= Four digit Subscriber ID (addresses 17 - 20 and 43 - 46)
18	= Identifies transmission as Contact ID to the receiver at the Central Station
Q	= Event Qualifier; 1 = New Event, 2 = New Restore
XYZ	= Event Code (shown in Table 3.1 to Table 3.6)
GG	= Group or Loop number
CCC	= Device or Zone number

**Table 5.3 Ademco Contact ID Reporting Structure** 



**NOTE:** For general reports (alarm, trouble and supervisory), the GG and CCC fields are transmitted as 00 and 000 unless changes to addresses 64-65 and 66-68 are made.

64 - 65 = Loop number (GG), (factory default is 00)

66 - 68 = Device/Zone number (CCC) for General Alarm, Fault or Supervisory messages (factory default is 000).

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

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



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

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

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

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

Data Reporting Structure Reporting Formats

By using the Type Mode feature, identification of zone types is possible. The maximum number of zones reported for the 600 Series panels is 256.

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

**Table 5.4 Type Mode Reporting Codes** 

# **Section 6: Compatible Receivers**

### 6.1 UL Listed Receivers

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

	Format # (Addresses 16 & 42)	Ademco 685 (1)	Silent Knight 9000	ITI CS-4000 (3)	FBI CP220FB	Osborne Hoffman Quick Alert Models 1 & 2	Radionics 6000/65000 (5)	Linear/Sescoa 3000R (7)	Surguard MLR-2 (9)
0	4+1 Ademco Express	~			/				~
1	4+2 Ademco Express	~		~	~	<b>√</b> (8)			~
2	3+1/Standard/1800/2300	~	<b>✓</b> (2)	~	<b>√</b> (4)	~	(5, 6)	~	~
3	Not Used								
4	3+1/Standard/1900/1400	~	<b>✓</b> (2)		<b>✓</b> (4)	~		~	~
5	Not Used								
6	4+1/Standard/1800/2300	~	<b>✓</b> (2)	~	<b>✓</b> (4)	~	<b>√</b> (5)	~	~
7	Not Used								
8	4+1/Standard/1900/1400	~	<b>✓</b> (2)		<b>✓</b> (4)	~		~	~
9	Not Used								
Α	4+2/Standard/1800/2300	~	<b>√</b> (2)	~	<b>✓</b> (4)	~	<b>✓</b> (5)	~	~
В	Not Used								
С	4+2/Standard/1000/1400		<b>√</b> (2)		<b>✓</b> (4)			~	~
D	Not Used								
Е	Ademco Contact ID	~			~	~			~
F	Not Used								



#### NOTE

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

Table 6.1 Compatible UL Listed Receivers

UL Listed Receivers Compatible Receivers

# Notes

# **Appendix A: Group Assignment Worksheet**

Use the following chart to carefully identify the function of each group in the system. Take special precaution with any supervisory groups in the system. For the GW-UDACT to report a supervisory group to the central station, both the FACP and the GW-UDACT must have the group/zone programmed as supervisory. Failure to program the panel or GW-UDACT correctly will result in a fire alarm signal being transmitted to the central station. Use Type Mode (see "Type Mode" on page 44) to match the function of groups in the system for proper editing.

Group	Function	Group	Function	Group	Function	Group	Function
001		046		091		136	
002		047		092		137	
003		048		093		138	
004		049		094		139	
005		050		095		140	
006		051		096		141	
007		052		097		142	
800		053		098		143	
009		054		099		144	
010		055		100		145	
011		056		101		146	
012		057		102		147	
013		058		103		148	
014		059		104		149	
015		060		105		150	
016		061		106		151	
017		062		107		152	
018		063		108		153	
019		064		109		154	
020		065		110		155	
021		066		111		156	
022		067		112		157	
023		068		113		158	
024		069		114		159	
025		070		115		160	
026		071		116		161	
027		072		117		162	
028		073		118		163	
029		074		119		164	
030		075		120		165	
031		076		121		166	
032		077		122		167	
033		078		123		168	
034		079		124		169	
035		080		125		170	
036		081		126		171	
037		082		127		172	
038		083		128		173	
039		084		129		174	
040		085		130		175	
041		086		131		176	
042		087		132		177	
043		088		133		178	
044		089		134		179	
045		090		135		180	

Group	Function	Group	Function
181		219	
182		220	
183		221	
184		222	
185		223	
186		224	
187		225	
188		226	
189		227	
190		228	
191		229	
192		230	
193		231	
194		232	
195		233	
196		234	
197		235	
198		236	
199		237	
200		238	
201		239	
202		240	
203		241	
204		242	
205		243	
206		244	
207		245	
208		246	
209		247	
210		248	
211		249	
212		250	
213		251	
214		252	
215		253	
216		254	
217		255	
218		256	

# Index

A	D
Ademco 52	DC Power 11
Contact ID 10, 24, 25, 28, 40, 44	delay 43
Contact ID Format 50	dial tone 10, 23, 46
Contact ID Reporting Structure <b>50</b>	document sources 7
Express 10, 25 Express formats 44, 48	_
Express Standard 24	E
Alarm Code 29, 30	earth ground 10
amplifier/speaker 47	EEPROM 22
annunciator 10, 20	EIA-485 <b>10</b>
	enter/store
В	Caution! <b>24</b> , <b>26</b>
_	key 22, 23, 24, 28, 35, 40, 41, 45, 46
burglary 44, 51	event 22
	Event Activations 43
C	event codes 24, 28, 29, 30, 31, 32, 33, 34
cabinet 10	events
FACP <b>14</b>	priorities 43
Cable	Exit 28  Expansion have CW LIDACT installation in 16
jumper 10	Expansion bay, GW-UDACT installation in 16
long 34-pin cable <b>16</b> , <b>17</b>	Express formats 28, 48
short 34-pin cable <b>14</b>	_
Central Station 10, 20, 22, 24, 25, 26, 28, 42,	F
44, 46, 48	factory default 22, 25, 26, 27, 28, 44, 45
characteristic impedance 10	factory programmed 44
City Tie card 14	fault
clear function 8, 13, 40	detection of 43
Code	on EIA-485 <b>42</b>
Alarm <b>29</b>	Fault Code 29, 30
Fault <b>29</b> , <b>30</b>	fault conditions 41
Off Normal 29	fault events 41
Off Normal Code 30	fault message 44
Restore 29, 30	FBI 52 Features 8
Supervisory 29, 30 Trouble 29, 30	front panel 8
Code Alarm 30	function keys <b>40</b>
Common Control card <b>16</b>	Tunction keys 40
Communication Fault 41	•
Communication Format 24, 25, 28	G
Communications 10, 11	General Security Code (UL 9th Edition panels
disabled 22	only) <b>33</b> , <b>34</b>
failure 8	GW-UDACT Interface Board 10, 11, 14
Communicator Failure 20	GW-UDACT kit 14
compatible	
FACPs 9	Н
Firmware 9	handset 47
Receivers <b>52</b>	host panel 8, 10, 12, 20, 27, 42, 44
connections 8, 10	• • • • • • • • • •
relay driver 20	1
telephone 19	idla tima 22
telephone line 42	idle time 22
	IF 602 Manual 7

J–S Index

IF 610 Manual 7 IF 632 Manual 7 IF 654 Manual 7 IF 658 Manual 7 Interface Board for GW-UDACT 10, 11, 14 ISBX connector 14 ISBX0 connector 16, 17 ITI 52	MR-201/C 11, 20  N  New Event 50  New Restore 50  NFPA 72 43  Normal Mode 12, 22, 28, 40, 41, 42, 44, 47
jack modular 13 RJ31X 11, 12, 13, 19 telephone 19 jacks modular 9	Off Normal 22, 44, 46 Off Normal Code 29, 30 Open Collector 11 open collector output 20 Osborne Hoffman 52
Jumper cable 10	P
K Keys  1st event 41 clear 40 Down Arrow 41 enter/store 41 mode 41 test 40 Up Arrow 41 Kit, GW-UDACT 14  L Lamp Test 13, 47 letter codes 48, 49 Line Seizure 9 Linear/Sescoa 52	Panel ID 27 phone line     primary 46     secondary 46 Phone Line Fault 41 phone number     Central Station 28     primary 22, 23, 27, 29, 31, 33, 43     secondary 22, 25, 27, 30, 32, 34, 43 power-limited 11 primary phone line 46 printout 50 Priorities 43 Program Mode 12, 13, 22, 28, 44 programming 22     exit 28     options 23 pulsed formats 44, 48
	_
Manual Test 29, 30, 31, 32 manual test function 13 Manual Test Message 33, 34, 42 Memory Read-Only 22 memory address 22 messages 13, 35, 41, 50 military time 25, 28 Mode Lamp Test 47 Normal 40 Program 28 Troubleshoot 46 Type 44 mode key 22 Modes 40	Radionics 52 Receive Only 35 programmed for 20 Receive/Transmit 26, 35 programmed for 20 Receivers 52 Reference Sheets 35 Reporting Codes 51 reporting structure 50 resistance 10 Restorals 43, 44 Restore Code 29, 30 Ringer Equivalence Number (REN) 11 RJ31X 11, 12, 13, 19 rotary dialing 27, 36, 46
modular jacks <b>9</b> , <b>13</b> MR-101/C <b>11</b> , <b>20</b>	S secondary phone line 46

Index T–Z

Seizure 46	Type Mode 12, 44, 45, 51
double line 19	Reporting Codes 51
Line 9	
seizure capability 43	V
Signaling Service	-
Central Station 43	voltage
Remote Station 43	telephone line 12, 20, 42
Silent Knight 52	
Standard Carrier 24, 25	W
Supervisory Code 29, 30	Wiring 14
Surguard 52	wiring
switch function 23	Relay Driver <b>20</b>
switches	rional Briver 20
acknowledge 45	7
drill <b>45</b>	Z
membrane 8	zone <b>26</b> , <b>48</b> , <b>51</b>
remote reset 45	zone number 45
silence 45	zone reporting <b>26</b>
Т	
telephone company 11	
handset 47	
jacks <b>19</b>	
line testing 13	
line voltage 12, 20, 42	
lines 9, 19, 27, 43	
network 11, 13, 42	
touchpad 13, 46	
test	
lamp 47	
manual 13	
report 44	
telephone line <b>46</b>	
Test Key 40	
test message 40, 42	
test report 25, 26	
24 hour <b>22</b> , <b>25</b>	
system abnormal 28	
Test Time <b>25</b> , <b>26</b>	
time	
current 22, 28	
idle <b>22</b>	
military 25, 28	
time delay 27	
time-out 22	
touchtone	
dialing <b>27</b> , <b>46</b>	
keypad 23	
transformer 47	
Trouble Code 29, 30	
trouble conditions 12, 20, 41, 42	
Troubleshoot Mode 13, 44, 46	
T-Tapped 10	
twisted-pair	
18 AWG <b>14</b> , <b>16</b> , <b>17</b>	

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