# VISTA-40

2-Partition

Security System

Installation and Setup Guide

®ADEMCO

**ADDENDUM TO:**                    **VISTA-40, VISTA-50P, VISTA-50PUL**
                                     **INSTALLATION INSTRUCTIONS**

This Installation Instruction Addendum covers changes made to the above Ademco VISTA panels to support new UL985 and UL1023 requirements.

**POWER LIMITING**

All outputs are now power-limited as per UL985/UL1023. The auxiliary power and polling loop output current ratings remain unchanged. The on-board PTC circuit breaker that protects the bell output was changed to comply with the power-limiting requirement and, as a consequence, the bell current rating **must be reduced from 2.8A max to 1.7A max at 12V** to avoid false tripping of the new PTC. There are additional restrictions on bell current rating depending on the type of installation, as follows:

1. For Household Fire or Combination Household Fire/Burg Installations: The total current drawn from the auxiliary power, polling loop, and bell outputs combined must not exceed 750mA in order to comply with the battery independence requirements in UL985.

2. For UL1023 Household Burg (or VISTA-50PUL/UL609 Mercantile Burg) Only Installations: Total current drawn from the bell output may be up to 1.7A. A battery must be installed to supply combined auxiliary power, polling loop, and bell current in excess of 750mA.

**TELEPHONE OVERVOLTAGE PROTECTION**

The telephone tip and ring inputs now have overvoltage protection in accordance with UL1459, as specified in UL985/UL1023. On-board PTC circuit breakers were added to these inputs to protect against overvoltage.

**BELL SUPERVISION**

The panel now supports supervision of the bell wiring as specified in UL985. The panel will annunciate bell supervision status on system zone 98. Bell supervision is normally disabled (factory default response type for zone 98 is "00" - no response) and must be enabled for household fire or combination household fire/burg installations by assigning response type 05 to zone 98, which will provide a trouble indication regardless of whether the panel is armed or disarmed.

When supervision is enabled, the panel monitors the bell wiring for open- and short-circuit faults while the bell is inactive. The panel will provide a trouble indication when there is an open circuit in the bell wiring **that disconnects all indicating devices from the panel**, or when there is a short circuit between the Bell+ and Bell- terminal wiring (or between the Bell+ terminal wiring and earth ground, provided that the panel's earth ground Terminal 30 is connected to a proper earth ground).

When the supervision feature is used, only polarized fire-indicating devices may be wired to the panel's bell output. Non-polarized burglary-indicating devices may be used only when wired to the panel's bell output using a polarizing diode **(two 2A diodes supplied)** as shown in Diagram 1 below. Table 1 below lists some compatible indicating devices.

When the supervision feature is used, the minimum alarm load on the bell output must exceed 5mA at 12V for proper supervision operation. If using a device with a high-resistance trigger input such as a voice siren driver (e.g., 745 x 3), do not supervise the bell output. In this case, cut the blue jumper in the upper left-hand corner of the control panel PCB, and assign zone 98 a response type "00." The siren driver module must be mounted in the panel's cabinet and, for household fire installations, must independently supervise its siren speaker wiring.

On panels that support partitioning, bell supervision zone 98 is declared to exist in Partition 1 for keypad display, event logging, and dialer reporting purposes. Contact ID Code 321 will be used to report bell supervision faults.

**Diagram 1: Wiring Non-Polarized Burglary Indicating Devices**
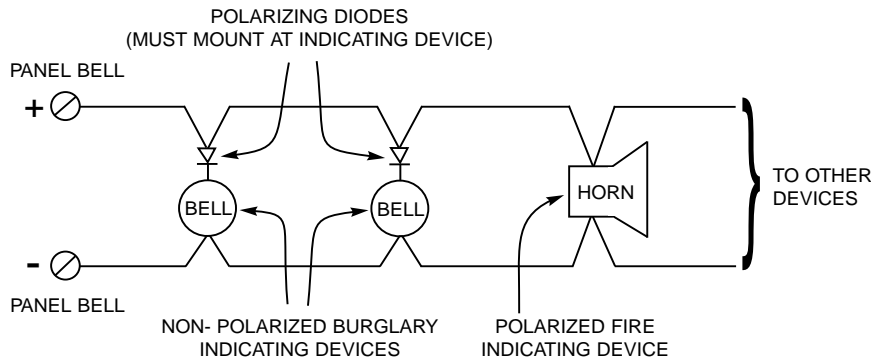


**Table 1:   Some Compatible Indicating Devices**

| Model Number | Device Type | Requires Polarizing Diode? |
|---|---|---|
| Ademco 719 | Burglary Outdoor Siren w/Built-in Driver (not UL Listed) | Yes |
| Ademco 747 | Burglary Indoor Siren w/Built-in Driver | Yes |
| Ademco AB12 | Burglary Grade A Bell in Box | Yes |
| System Sensor MA12/24D | Fire Piezo Horn | No |
| System Sensor P12575 | Fire Horn/Strobe | No |
| Wheelock AS-121575W | Fire Horn/Strobe | No |

## RF JAM DETECTION

The panel can now annunciate an RF jam condition as per UL985 when used in conjunction with a 5881 Series RF Receiver that supports RF jam detection (identified by microprocessor Part No. K3452-10 or higher). The RF jam annunciation feature can be enabled by assigning response type 05 to zone 90 for the first RF receiver and to zone 88 for the second RF receiver. This will be interpreted as a trouble regardless of whether the panel is armed or disarmed.  The RF supervisory zones are assigned to all partitions that have RF transmitters or RF keypads for keypad display, event logging, and dialer reporting purposes. Contact ID Code 344 will be used to report RF jam faults. Refer to the Installation Instructions provided with the 5881 RF Receiver for information on installing and configuring the receiver for RF jam detection.

## BATTERY TESTING

The panel now runs an extended (10-minute) battery test every 4 hours (instead of the previous 24-hour test interval) to check on the condition of the battery as per UL985. During this test, the panel PCB and external peripherals are powered from the battery, and the panel initiates a trouble indication if the battery voltage is found to be low (less than approximately 11.5V). Some panels (i.e.: VISTA-50P, VISTA-50PUL) also run a brief (5-second) battery test every 3 minutes to check if a battery is connected.

## BATTERY BACKUP

Household Fire or Combination Household Fire/Burg installations require use of a backup battery that is sized to provide 24 hours of standby time followed by 4 minutes of alarm time.  UL1023 Household Burg-only installations require use of a backup battery that is sized to provide 4 hours of standby time followed by 4 minutes of alarm time (4 hours of standby time followed by 15 minutes of alarm time for VISTA-50PUL/UL609 Mercantile Burg).  Use Tables 2, 3, and 4 (below) to determine the required backup battery capacity and battery model number. **A dual battery harness is supplied** that allows two batteries to be wired in parallel for increased capacity.

Note:  The cabinet supplied with the VISTA-40 and VISTA-50P panels can house up to 12V, 14AH batteries (two 12V, 7AH batteries wired in parallel).  The VISTA-ULKT kit provides a cabinet that can house up to 12V, 17.2AH batteries and that may be used with these panels. The cabinet supplied with the VISTA-50PUL panel can house up to 12V, 17.2AH batteries.  The total standby current drawn from the auxiliary power and polling loop outputs combined must be limited to 270mA when 14AH batteries are used; and to 390mA when 17.2AH batteries are used.

**Table 2:   Total Current Drain Table**

| Source of Current Drain | Total Standby Current | Total Alarm Current |
|---|---|---|
| Auxiliary Power Output: | | |
| Polling Loop Output: | | |
| Bell Output: | Not Applicable | |
| PCB Current: | 250mA | 330mA |
| Total Current: | | |

**Table 3:   Battery Calculation Table**

| Capacity | Formula | Calculated Value |
|---|---|---|
| Standby Capacity | *For 4-hour standby time, use following formula:*<br>Total standby load x 4 hours x 1.4 loading/contingency factor<br><br>*For 24-hour standby time, use following formula:*<br>Total standby load x 24 hours x 1.1 contingency factor | |
| Alarm Capacity | Total alarm load  x 0.06 hours   (for 4-minute alarm)<br>                            x 0.25 hours   (for 15-minute alarm) | |
| Total Capacity | Add standby and alarm capacities | |

**Table 4:   Battery Selection Table**

| Capacity | Recommended Battery | Comments |
|---|---|---|
| 4AH | Yuasa NP4-12 | |
| 7AH | Yuasa NP7-12 | |
| 12AH | Yuasa NP12-12 | Fits in large mercantile cabinet only |
| 14AH | Yuasa NP7-12 | Connect two in parallel |
| 17.2AH | Yuasa NPG18-12 | Fits in large mercantile cabinet only |

# *Recommendations for Proper Protection*

**The Following Recommendations For The Location Of Fire And Burglary Detection Devices Help Provide Proper Coverage For The Protected Premises.**

## Recommendations For Smoke And Heat Detectors

With regard to the number and placement of smoke/heat detectors, we subscribe to the recommendations contained in the National Fire Protection Association's (NFPA) Standard #72 noted below.

Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows: For minimum protection a smoke detector should be installed outside of each separate sleeping area, and on each additional floor of a multi-floor family living unit, including basements. The installation of smoke detectors in kitchens, attics (finished or unfinished), or in garages is not normally recommended.

For additional protection the NFPA recommends that you install heat or smoke detectors in the living room, dining room, bedroom(s), kitchen, hallway(s), attic, furnace room, utility and storage rooms, basements and attached garages.

In addition, we recommend the following:

- Install a smoke detector inside every bedroom where a smoker sleeps.

- Install a smoke detector inside every bedroom where someone sleeps with the door partly or completely closed. Smoke could be blocked by the closed door. Also, an alarm in the hallway outside may not wake up the sleeper if the door is closed.

- Install a smoke detector inside bedrooms where electrical appliances (such as portable heaters, air conditioners or humidifiers) are used.

- Install a smoke detector at both ends of a hallway if the hallway is more than 40 feet (12 meters) long.

- Install smoke detectors in any room where an alarm control is located, or in any room where alarm control connections to an AC source or phone lines are made. If detectors are not so located, a fire within the room could prevent the control from reporting a fire or an intrusion.



■ Smoke Detectors for Minimum Protection
✪ Smoke Detectors for Additional Protection
▲ Heat-Activated Detectors
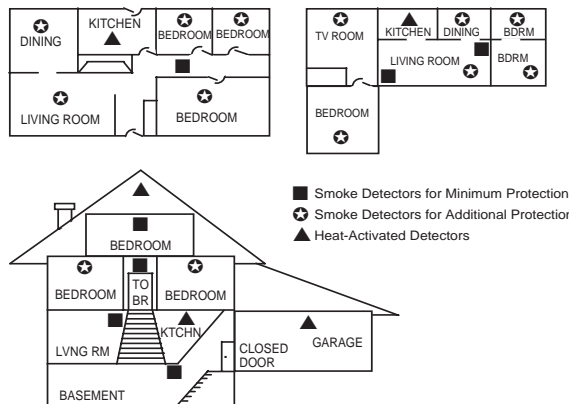
**UL** This control complies with NFPA requirements for temporal pulse sounding of fire notification devices.

## Recommendations For Proper Intrusion Protection

For proper intrusion coverage, sensors should be located at every possible point of entry to a home or commercial premises. This would include any skylights that may be present, and the upper windows in a multi-level building.

In addition, we recommend that radio backup be used in a security system so that alarm signals can still be sent to the alarm monitoring station in the event that the telephone lines are out of order (alarm signals are normally sent over the phone lines, if connected to an alarm monitoring station).

# Table of Contents

***THE LIMITATIONS OF THIS ALARM SYSTEM***

***LIMITED WARRANTY***

# List of Figures

# *How To Use This Manual*

This manual is written to accommodate both the new and the experienced installer of ADEMCO products. A general description of the entire system is located at the beginning of the manual, followed by the basics of programming. The wiring and physical setup of the hardware follows.

The sections at the core of the manual include both hardware setup and programming requirements of each device to make that specific device operational in the system. A checkout procedure is included at the end of each section. We recommend this method to ensure that each device is working properly before proceeding to the next section. It must also be used if you are making a particular addition to the system of one of these devices.

Each of the sections covering the installation of peripheral devices includes the programming for that device. If you are an experienced user of ADEMCO products, you may choose to wire and then program the entire system at once. If so, refer to *The Mechanics of Programming* section and the *Data Field Descriptions* section after the hardware setup is complete. A blank pull-out programming form is included with this manual.

Without an understanding of the programming methodology, you will not be able to successfully perform the required programming in each of these sections. We therefore urge you to read the *Mechanics of Programming* section before any programming is performed.

This manual uses various icons to denote critical notes and technical tips to assist you with the installation of this system. These are easily seen in the left-hand column of the relevant information.

# Conventions Used in This Manual

Before you begin using this manual, it is important that you understand the meaning of the following symbols (icons).

**UL**    These notes include specific information which must be followed if you are installing this system for a UL Listed application.

These notes include information that you should be aware of before continuing with the installation, and which, if not observed, could result in operational difficulties.

This symbol indicates a critical note that could seriously affect the operation of the system, or could cause damage to the system. Please read each warning carefully. This symbol also denotes warnings about physical harm to the user.

| Enter Zn Num. = Quit) |
|---|

Many system options are programmed in an interactive mode by responding to alpha keypad display prompts. These prompts are shown in a single-line box.

∗00    When programming the system, data fields are indicated by a "star" (∗) followed by the data field number.

**PRODUCT MODEL NUMBERS:** Unless noted otherwise, references to specific model numbers represent ADEMCO products.

# *General Description*

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### *In This Section*

♦ *General*

♦ *Features*

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## General

The VISTA-40 Control is a microprocessor based, programmable, partitioned system, and features EEROM memory technology (power loss does not result in the loss of programmed data).

Before installing this partitioned system, become completely familiar with the partitioning concepts, including zone distribution (each zone can be assigned to only one partition), output relay features, user code usage and authority levels, and the user-friendly menu mode of programming.

## Features

### Zones Supported

- Supports up to 9 traditional wired zones of protection.
- Expandable to 64 zones using combinations of 2-wire polling loop devices, and/or 5700 or 5800 series wireless transmitters.  Supports 4281 or 5881 (5882 in Canada) series wireless receivers.
- Zones can be distributed among 2 logical partitions of operation.
- Supports up to sixteen 2-wire smoke detectors (zone 1).
- Other zones can be fire zones using 4-wire smoke and heat detectors and/or polling loop detectors.
- Supports up to 50 latching type 2-wire glass break detectors on zone 8.

### Phone Access And Voice Response

- The VISTA-40 supports the optional 4285/4286 Phone Module. The 4285/4286 is not permissible in UL installations. This add-on accessory permits phone access to the security system for arming/disarming and for performing most function commands using the telephone keypad, with voice annunciation being provided over the phone as confirmation after any function command entered.
- `Note:` The phone module can be installed in either partition, and can be used to control the other partition using the GOTO command.

### Output Control

- Supports up to 8 output devices (optional 4204 relays or X-10 devices) that can be activated by system events. *The X-10 devices are not UL Listed for fire and burglary applications.*

**Addressable Devices**

- Supports up to sixteen addressable devices (any combination of remote keypads, RF receivers and relay output modules.

**Keypads**

- Supports the following remote keypads: Ademco 6128, 6137, 6139.

**Keyswitch**

- Supports the 4146 keyswitch.

**User Codes**

- Supports up to 70 user allocations, maximum of 69 in a given partition, each with various levels of authority.

**Keypad Panic Keys**

- Provides 3 keypad panic functions.

**Global Arming**

- Allows users to easily arm both partitions via keypad prompts.

**Quick Bypass (Forced Bypass)**

- Quick (forced) bypass feature bypasses all faulted zones with single key entry sequence.

**Memory-Of-Alarm**

- Memory-of-alarm feature, which, upon disarming the system, automatically displays all zones that were in an alarm condition while the system was armed.

**Circuit Breakers**

- Self-resetting circuit breaker protection eliminates the need to replace blown cartridge fuses.

**Built-in Users Manual**

- Built-in Users Manual (6139 only). By depressing and holding any of the function keys on the keypad for 5 seconds, a brief explanation of that function will scroll across the alpha-numeric display.

**Descriptors**

- All programmed descriptors can be displayed (one at a time) by pressing and holding the READY key for 5 seconds, then releasing the key. This serves as a check for installers to be sure all descriptors are entered properly.

**Event Logging**

- Event Logging feature keeps record of up to 100 events.

**Access Control**

- Provides user-activated access control command which pulses a relay output for controlled opening of access doors (e.g. lobby door).

**#70 End User Relay Commands**

- Allows end users to manually turn on/off relay/X-10 module outputs to control lights or other devices via keypad or phone module.

**Cabinet**

- Large cabinet with removable door for easier installations.

**Programming Features**

- Programming can be performed at the office prior to installation, or on the job site directly from the keypad.

- Can be downloaded from a remote location or at the job site (using a PC/laptop with 4100SM Serial Module) by using the Ademco's V-Link® downloading software (Rev. 4 or higher) or Ademco's Compass Windows downloading software.

- The control is pre-programmed with a set of standard values that is designed to meet the needs of many installations. These values, however, can be changed to suit the needs of any particular installation.

- The control can also be pre-programmed by the installer with one of four standard communication default programming values, thus further saving time and effort.

**Installer Code**

- Installer code override feature.  Installer code will disarm system only if it was used to arm the system.

**Prohibit Program Mode Entry**

- If desired, entry to program mode via [✶] + [#] within 30 seconds of power up can be disabled.

**Alpha Descriptors**

- All zones and partitions can be assigned descriptions.

- The letter "s" or " 's " can be added to descriptors.

**Relay Voice Descriptors**

- Separate vocabulary for annunciating relay output descriptors when using a phone module to activate relays.

**Custom Words**

- Up to 20 custom words can be added to the built-in vocabulary.

**Voice Substitute Custom Words**

- Provides a means of annunciating substitute words for the phone module whenever a custom word is used for alpha keypad displays.

**Downloading**

- Direct wire downloading can be done without a modem, by using a PC or Laptop computer and 4100SM Module.

**#93 Menu Mode**

- Easy programming of zones using the user friendly #93 Menu Mode.

**Communication**

- Ademco Low Speed, Sescoa/Radionics, Ademco Express, Ademco High Speed, Ademco Contact ID.

**Communication Fields**

- Easy programming for communication fields. Simply enter the report code for each zone.

**Communication Defaults**

- Communication defaults can be loaded anytime, and does not affect non-communication program fields.

**Zone Reports**

- All 64 zones can report to a central station using any standard reporting format.

**Callback**

- Callback defeat option for downloading.

**Real-Time Clock**

- Real-Time clock for time related functions.

NOTE: 6139 alpha keypad must be used to set clock, or it can be set using Downloader software.

**AC Loss Reporting**

- Random AC Loss and AC Restore reporting option sends report randomly from 10-40 minutes after AC loss, to help prevent central stations from receiving an overload of reports due to area blackouts.

**Test Reporting**

- Intelligent test reporting option means test reports will not be sent if any other report was sent within the programmed test report interval.

**Split/Dual Reporting**

- Split/Dual reporting communicator options available.

**Cancel Report**

- Option to allow a cancel report to be sent, even after Bell Time-out has ended.

**Voltage Triggers**

- Used to interface with LORRA or other devices.
- PC Downloader can command output voltage triggers to pulse on for 2 seconds.

**Phone Numbers**

- Primary and secondary phone number capability.
- Can program a different format for each phone number.

# Introduction To The Partitioned System

## In This Section

♦ *Theory of Partitioning*

♦ *Global Partitioning Features and Resources*

♦ *Partition Specific Features*

## Theory of Partitioning

This system provides the ability to arm and disarm up to 2 different areas, as if each had its own control.  These areas are called partitions.  Partitions are used to disarm certain areas while leaving the other area armed.  Each system user can be assigned to operate any or all partitions, and can be given a different authority level in each.

Before anything can be assigned to the partitions, you must first determine how many partitions are required (1-2).

The following lists the partitioning features of the VISTA-40 system.

### Keypads

- Flexible number of keypads per partition (up to a total of 16 in a system (exclusive of other ECP devices and auxiliary power requirements), any way you want to assign them.
- Appropriate sounds and messages to assigned keypads only (each system appears to be independent to users).
- Ability to inhibit other keypads from accessing your partition (total security in a strip mall environment).

### User Codes

- 70 User Codes assigned virtually anyway you want them (69 max. in any one partition, otherwise no restrictions).
- Multiple levels of authority per partition (allows key people in a partition to have complete control and limit system tampering by others).

### Partitions

- Any zone can be assigned to any particular partition (easy to install, allows logical assignment by the dealer).
- "GOTO" function provides access to the other partition (ideal for executive access to factory for example).
- Intelligent partition/zone menu programming help (simplifies the programming and reduces errors)
- Programmable 4-character partition name displayed on alpha keypads when needed (no need to memorize numbers – name and number are shown for you).

## Global Partitioning Features and Resources

In any system, certain physical system components and features are shared by all partitions or assigned to a specific partition. The following elements are shared or assignable to a specific partition:

|  | Shared By All Partitions | Assignable To One Partition |
|---|---|---|
| Dialer | ✔ | |
| Alarm Relay/Sounder | ✔ | ✔ (using relay outputs) |
| Power Supply | ✔ | |
| Wireless Keypad | | ✔ |
| Keyswitch Station | | ✔ |

In addition to the physical devices which are shared, the system shares some software features on a global basis as well.  These include:

Panic Code Reports .........................Common code for any partition
Low Battery Reporting ...................Reports as Partition 1
AC Power Reporting Options .........Reports as Partition 1
Test Reporting Interval ..................Global for the Panel
Download Phone Number  ..............Global for the Panel
Communication Format  .................Global for the Panel
Rotary/TouchTone  .........................Global for the Panel
Download Callback Defeat .............Global for the Panel
Installer Code  ................................Global for all Partitions

## Partition Specific Features

Many devices and functions are reserved on a partition basis to provide proper operation and flexibility for installations.  The items assignable on a per partition basis include:

- Keypads
- Entry and Exit Delays
- "Go To" Partition function
- Keypad Sound during Exit Delay
- Enable/Disable Chime Mode
- Swinger Suppression
- Primary Subscriber Number
- Secondary Subscriber Number
- Open/close for Installer Code
- Multiple Alarm Reporting
- Enable/Disable of Panic Keys
- Alarm Sounder Duration
- Burglary Alarm Comm. Delay
- Confirmation of Arming Ding
- Enable/Disable of Duress
- User Codes
- Quick Arm enable/disable
- Inhibit Bypass of one Zone

# Installing The Control

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### In This Section

♦ *Mounting the Cabinet*

♦ *Mounting the PC Board*

♦ *Installing the Lock*

♦ *Telephone Line Connections*

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## Mounting the Cabinet

The VISTA-40 is supplied with a 12.5"W x 14.5"H x 3"D cabinet suitable for use in residential and non-certified commercial burglary installations.

Mount the control cabinet to a sturdy wall using fasteners or anchors (not supplied) in a clean, dry area which is not readily accessible to the general public. The back of the control cabinet has 4 holes for this purpose.

## Mounting the PC Board

Before mounting the circuit board, be certain that the appropriate metal knockouts have been removed. **Do not attempt to remove the knockouts after the circuit board has been installed**.

1. Hang the three mounting clips on the raised cabinet tabs.  Observe proper clip orientation to avoid damage to the clip when mounting screws are tightened and to avoid problems with insertion and removal of the PC board.

2. Insert the top of the circuit board into the slots at the top of the cabinet. Make certain that the board rests in the slots as indicated in step 2 detail.

3. Swing the base of the board into the mounting clips and secure the board to the cabinet with the accompanying screws (as illustrated in step 3 detail).

Make certain that the mounting screws are reasonably tight to ensure that there is a good ground connection between the PC board and the cabinet. Also, dress field wiring away from the microprocessor (center) section of the PC board.  The cabinet provides 2 loops on its left and right sidewalls for anchoring field wiring using tie wraps.  These steps are important to minimizing the risk of panel RF interference with television reception.

DETAIL A
SIDE VIEW OF
BOARD INSERTED
INTO SLOTS

DETAIL B
SIDE VIEW OF SHORT
MOUNTING CLIPS
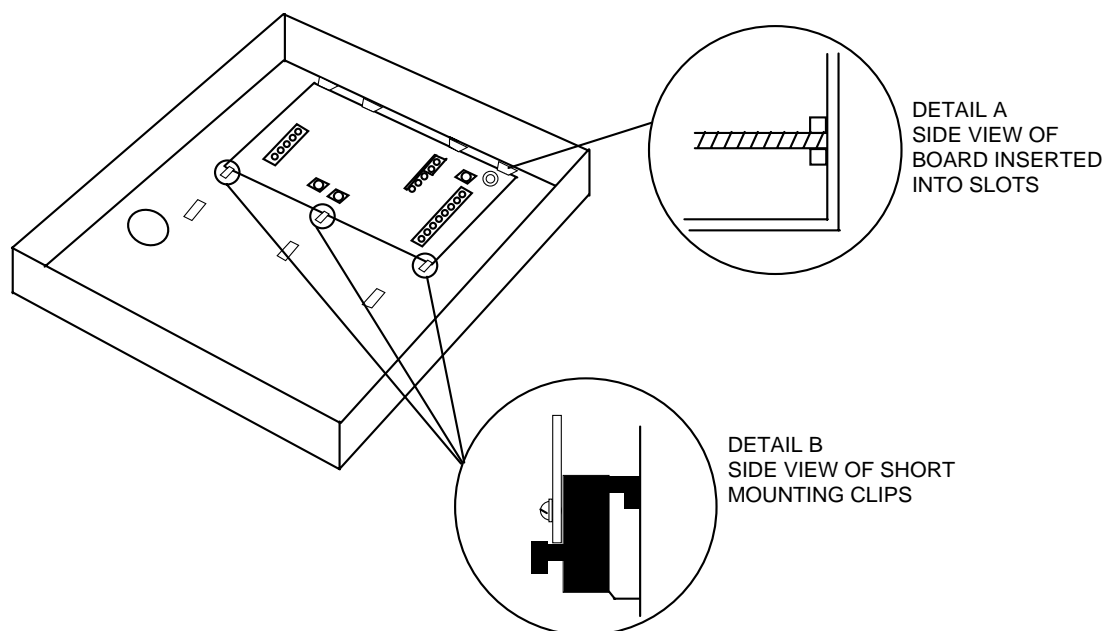
**Figure 3-1: Mounting the PC Board**

## Installing the Lock

1. Remove the lock knockout on the control cabinet cover. Insert the key into the lock. Position the lock in the hole making certain that the latch will make contact with the latch bracket when the door is closed.

2. While holding the lock steady, insert the retainer clip into the retainer slots.

3. Hold the lock steady, and insert the retainer clip into the retainer slots. Position the clip as illustrated in order to permit easy removal.



RETAINER CLIP
(NOTE POSITION)

LOCKED

RETAINER
SLOTS

RETAINER
CLIP

UNLOCKED

CABINET DOOR BOTTOM
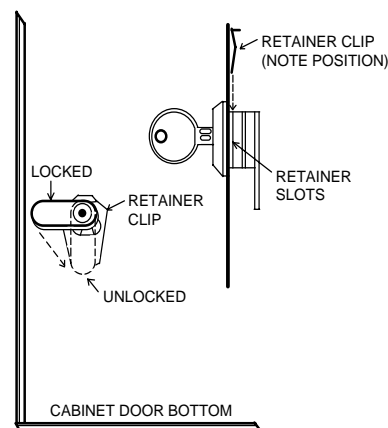
**Figure 3-2: Installing the Lock**

## Telephone Line Connections

If using a 4285/4286 Phone Module, phone connections **must** be made exactly as shown in the *4285/4286 VIP Module* section, even if the system is not programmed to communicate with a monitoring station. **The 4285/4286 Phone Module will not function unless the system is wired exactly as described.**

**UL** The telephone line inputs have overvoltage protection in accordance with UL1459 as specified in UL985/UL1023.

Incoming phone line and handset wiring is connected to the main terminal block as follows (see *Figure 3-3*):

> TB1-26:  Local Handset (TIP)
>
> TB1-27:  Local Handset (RING)
>
> TB1-28:  Incoming Phone Line (TIP)
>
> TB1-29:  Incoming Phone Line (RING)

To prevent the risk of shock, disconnect phone lines at telco jack before servicing the panel.

If you want to connect the control panel to phone lines that require ground start capability, you must use a 675 Ground Start Module.  This module is triggered by one of the outputs on the connector labeled J7 (see the *J7 Voltage Triggers* section).

**PABX**

If the communicator is connected to a telephone line inside a PABX, be sure the PABX has a back-up power supply that can support the PABX for 24 hours. Many PABXs **are not** backed up by a power supply, and connection to such a PABX will result in a communication failure if power is lost.
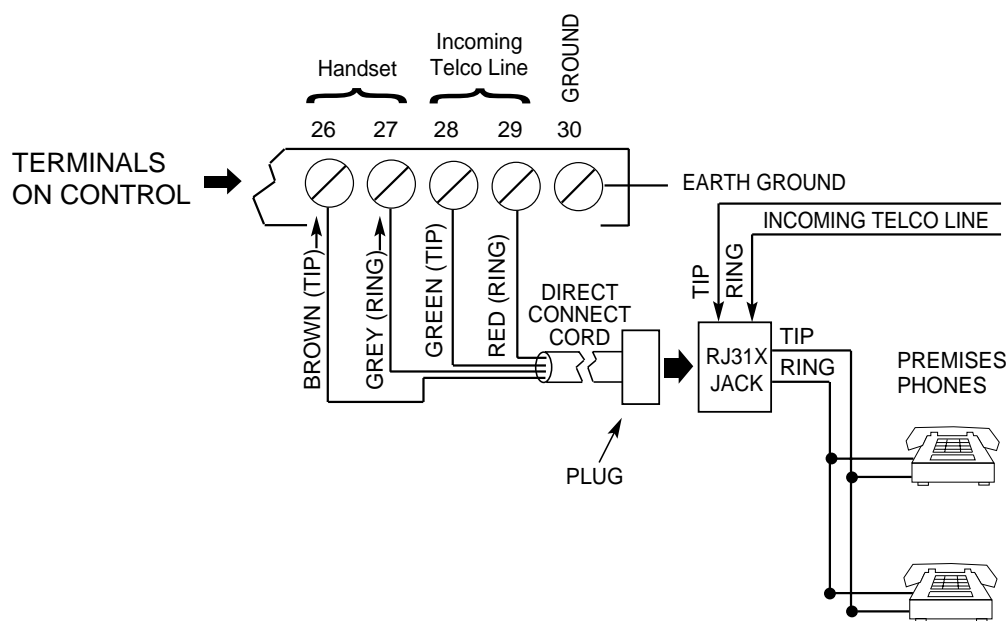


*Figure 3-3:  Standard Telephone Line Connections*

# Installing The Keypads

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## *In This Section*

♦ *General Information*

♦ *Wiring the Keypads*

♦ *Powering Additional Keypads*

♦ *Mounting the Keypads*

♦ *Programming the Keypads*

♦ *Preliminary Checkout Procedure*

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

## General Information

The control supports, independent of auxiliary power considerations, up to 16 addressable remote keypads (6128, 6137, 6139).  Note that since the maximum number of addressable devices connected to the keypad lines is 16, usage of non-keypad devices (ex. 4204, 4281, 5881) reduces the number of keypads that can be supported.

Keypads can be powered from the auxiliary power output provided that the total current drawn from this output does not exceed 750 mA.  Keep this in mind when adding remote keypads so you don't overdraw current from the panel.  This would result in a battery, which does not charge properly or possibly a tripped auxiliary solid state circuit breaker.

If the auxiliary load is determined to be greater than 750 mA, then additional keypads can be powered from a separate power supply.  Refer to the "Powering Additional Keypads" paragraph for a diagram that shows how to make connections to the separate power supply.

## Wiring the Keypads

Connect keypads to the control's keypad terminals 6–9 as shown below.

KEYPAD CONNECTOR CABLE
↓

| | |
|---|---|
| 6 | RED |
| 7 | BLACK |
| 8 | GREEN |
| 9 | YELLOW |

KEYPADS
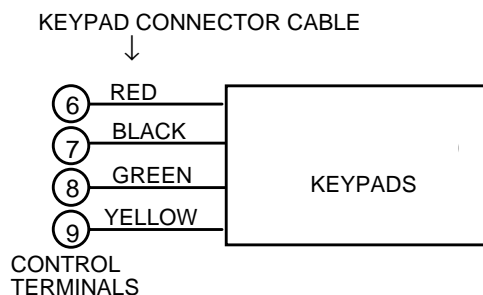
CONTROL
TERMINALS

*Figure 4-1:  Keypad Connections to the Control*

Keypads may be wired to a single wire run or individual keypads may be connected to separate wire runs. The maximum wire run length from the panel to a keypad, which is homerun back to the panel must not exceed the following:

| Wire Gauge | Maximum Length |
|:---:|:---:|
| #22 gauge | 450 feet |
| #20 gauge | 700 feet |
| #18 gauge | 1100 feet |
| #16 gauge | 1750 feet |

The length of all wire runs combined must not exceed 2000 feet when unshielded quad conductor cable is used (1000 feet if shielded cable is used.)

If more than one keypad is wired to a run, then the maximum length must be divided by the number of keypads on the run (i.e. the maximum length would be 225 feet if two keypads are wired on a #22 gauge run).

## Powering Additional Keypads

Up to five (5) 6139 keypads can be powered from the auxiliary power output provided that the 750mA rating is not exceeded. The backup battery will supply power to these keypads in the event that AC power is lost.

Additional keypads, up to the system maximum of 16, can be connected to the system by using a regulated, 12VDC power supply (e.g., AD12612 supplies 12VDC, 1.2A). Use a UL Listed, battery-backed supply for UL installations.

Connect additional keypads as shown below, using the keypad wire colors shown. Make sure to observe the current ratings for the power supply used.

Common (–) of the auxiliary power supply must connected to (–) terminal 7 of the control panel.
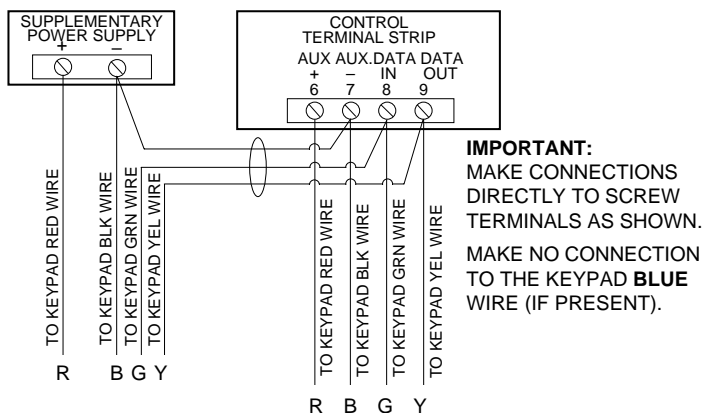


*Figure 4-2:  Powering Additional Keypads*

## Mounting the Keypads

The keypads can be either surface mounted directly to a drywall, or to a single or double gang electrical box, or flush mounted (using Trim Ring Kit 6139TRK).  Refer to the mounting instructions and template included with the keypad and/or trim ring kit for specific information.

Be sure to take the height of the users into account when mounting keypads.

## Programming the Keypads

The keypads can be set for a device address of 00–15

You **must** select a device address of 00, 01, 02, or 03 if standard defaults are to be programmed, since these are the only keypad addresses enabled by the standard default. Instructions for setting a keypad address are provided with each keypad, and in the "Setting the Keypad Address" paragraph below.

Keypads must also be programmed for type, partition number and keypad sounder suppression options.  For instructions, see *Device Programming* in the *#93 Menu Mode Programming* section.

### Setting the Keypad Address

To set the keypad's address, do the following:

1.  **Enter the address mode:** Power-up (plug-in) the keypad. Within 60 seconds of system power-up, press and hold down the [1] and [3] keys at the same time for 3 seconds.  (If unable to enter address mode, power-up and try again.)

    The current keypad address will be displayed, and the cursor will be under the "tens" digit. If 10 seconds have passed with no key entry, the keypad automatically exits address mode. You must then power down, power-up and start address mode again.

**Note:** The keypad will not enter address mode if the panel to which it is connected is in programming mode.

2.  **Set the current address to "00":** Press [0] to clear the current "tens" digit. The cursor will move to the "ones" digit position. Press [0] to clear the current "ones" digit.  The cursor will move back to the "tens" digit position.

3.  **Enter the keypad's address:** Enter the proper "tens" digit of the keypad's address. The cursor will move to the "ones" digit position. Enter the proper "ones" digit of the keypad's address.

**Note:** Address "31" sets the keypad to the nonaddressable mode.

4.  **Exit the address mode:**  Press [✶] to save the displayed address and exit address mode.

**Note:** If 10 seconds passes with no key entry, the keypad automatically exits address mode.

### Viewing the Keypad Address

1.  Press and hold down the [1] and [3] keys at the same time for about 3 seconds.  The current address will be displayed.  No key entry is allowed in this mode.

2.  Press any key to exit or wait 10 seconds to exit the viewing mode.

## Preliminary Checkout Procedure

If you want to check that the system is working before connecting field wiring from zones and devices, do the following:

1. Temporarily connect a 2000-ohm end-of-line resistor across each of the basic hardwire Zones 1–8 and a jumper wire across zone 9, as shown in the Summary of Connections diagram. Without actual zone wiring or EOL resistors connected, the keypads will not display the "READY" message.

2. Power up the system temporarily.

The keypads will not operate until they are physically addressed and enabled in *Device Programming* in the *#93 Menu Mode* section.

3. Set each keypad to an individual address (00-15) according to the keypad's instructions. Set an alpha keypad for address 00 and other keypads for higher addresses (01-03 are enabled in the system's default program). Any keypads set for address 04 and above will appear blank until they are enabled in the system's program. Each keypad must be set for a different address.

Keypads set to the Nonaddressable Mode (address 31) will interfere with other keypads (as well as other devices) connected to the keypad terminals.

4. After addresses are set, the green READY LED should light, and the words "DISARMED...READY TO ARM" should be displayed on keypads set to addresses 00-03.

5. If the "READY" message does not appear on any of the keypads in the system (in either of the partitions), or a "NOT READY" message is displayed, check the keypad wiring connections. Make sure each of the 8 basic hardwired zones has a 2000-ohm resistor connected across its terminals.

6. When the proper "READY" message is displayed on the keypad(s), the system is functioning properly.

7. Do not remove the EOL resistors until you are ready to make connections to the hardwired zones, to allow for testing described later in the manual.

If an "OC" or "OPEN CIRCUIT" message is present on the keypad, data from the control is not reaching the keypad. Please check your wiring.

# *Basic Hardwired Zones 01-09*

### *In This Section*

♦ *Common Characteristics of Hardwired Zones 1-9*

♦ *Wiring Burglary and Panic Devices to Zones 1-9*

♦ *Wiring 2-Wire Smoke Detectors to Zone 1*

♦ *Compatible 2-Wire Smoke Detectors*

♦ *Wiring 4-Wire Smoke Detectors to Zones 1-8*

♦ *Compatible 4-Wire Smoke Detectors*

♦ *Wiring 2-Wire Latching Glassbreak Detectors to Zone 8*

♦ *Compatible Glassbreak Detectors*

♦ *Checkout Procedure for Hardwired Zones*

## Common Characteristics of Hardwired Zones 1-9

- EOLR supervision (optional for zones 2-8) supporting N.O. or N.C. sensors (EOLR supervision required for fire and UL Burglary installations)
- Individually assignable to one of 2 partitions
- Up to 16 2-wire smoke detectors each on zone 1
- 4-wire smoke or heat detectors on zones 1-8 (power to 4-wire smoke detectors must be supervised with an EOL device)
- Up to 50 2-wire latching glassbreak detectors on zone 8

## Wiring Burglary and Panic Devices to Zones 1-9

1. Connect sensors/contacts to the hardwire zone terminals (10 through 23).  See *Figure 5-1*.
2. Connect N.C. devices **in series** with the high (+) side of the loop.  The 2k EOL resistor must be connected in series with the devices, following the last device.
3. Connect N.O. devices **in parallel (across)** the loop.  The 2k EOL resistor must be connected across the loop wires at the last device.

The maximum zone resistance is 100 ohms for zones 1 and 8, and 300 ohms for all other zones (excluding the 2k EOL resistor).
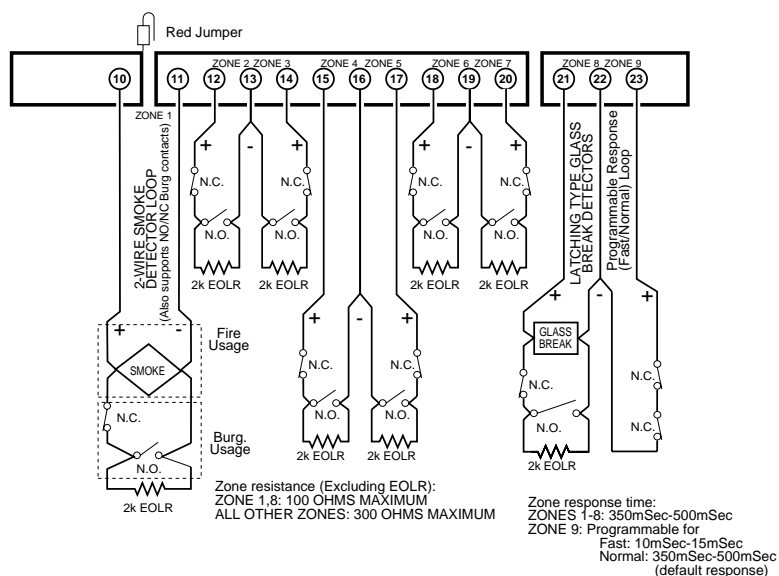
***Figure 5-1: Wiring Connections for Zones 1-9***

## Wiring 2-Wire Smoke Detectors to Zone 1

Zone 1 has the added capability of supporting 2-wire smoke detectors. The zone provides enough standby current (2mA) to power up to 16 of the smoke detectors listed below. **The zone provides only enough alarm current (20mA) to power one smoke detector in the alarmed state.** When assigned zone type 9, the second entry of a User Code + OFF sequence at a keypad will interrupt power to these zones to allow detectors to be reset following an alarm.

1. Connect 2-wire smoke detectors across zone 1 terminals (10 through 11) as shown in *Figure 5-1*. Observe proper polarity when connecting the detectors.

2. If EOL resistors are presently connected across zone 1 terminals, remove them. **The EOL resistor must be connected across the loop wires at the last detector.**

2k EOL resistors must be used on fire zones (standard, discrete 2k EOL resistors may be used on burglary and panic zones) and must be connected across the loop wires of each zone at the last detector.

The alarm current provided by zone 1 will support only one smoke detector in the alarmed state·
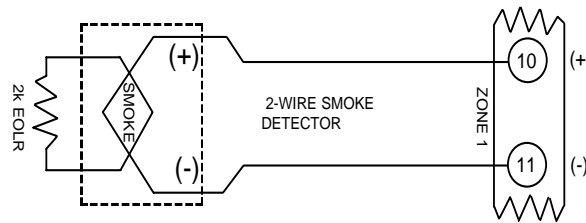
**Figure 5-2: 2-Wire Smoke Detector Connected to Zone 1.**

## Compatible 2-Wire Smoke Detectors

You may use up to 16 2-wire smoke detectors on zone 1 listed in the table below.

| DETECTOR TYPE | DEVICE MODEL # | DETECTOR TYPE | DEVICE MODEL # |
|---|---|---|---|
| Photoelectric, direct wire | System Sensor 2400 | Photoelectric duct detect. w/DH400 base | System Sensor 2451 |
| Photoelectric w/heat sensor, direct wire | System Sensor 2400TH | Ionization duct detector w/DH400 base | System Sensor 1451DH |
| Photoelectric w/B401B base | System Sensor 2451 | Ionization, direct wire | System Sensor 1100 |
| Photoelectric w/heat sensor and B401B base | System Sensor 2451TH | Ionization w/B110LP base | System Sensor 1151 |
| Ionization, direct wire | System Sensor 1400 | Photoelectric, direct wire | System Sensor 2100 |
| Ionization w/B401B base | System Sensor 1451 | Photoelectric w/heat sensor, direct wire | System Sensor 2100T |
| Photoelectric duct detect. w/DH400 base | System Sensor 2451 | Photoelectric w/B110LP base | System Sensor 2151 |

**UL** These smoke detectors are UL Listed for use with the VISTA-40 and are the **only** 2-wire smoke detectors that may be used in a UL Listed application.

## Wiring 4-Wire Smoke Detectors to Zones 1-8

When programmed for fire warning usage, zones 1-8 can monitor 4-wire smoke detectors, N.O. fire alarm initiating devices, or N.O. sprinkler system supervisory devices.

You may use as many 4-wire smoke detectors as can be powered from the panel's Auxiliary Power output without exceeding the output's rating (see the *Final Power-Up Procedure* section for auxiliary power ratings).

Auxiliary power to 4-wire smoke detectors is not automatically reset after an alarm, and therefore must be momentarily interrupted using either an external switch or a 4204 Relay Module.

**UL** Power to 4-wire smoke detectors must be supervised with an EOL device (use a System Sensor A77-716B EOL relay module connected as shown in *Figure 5-3*).
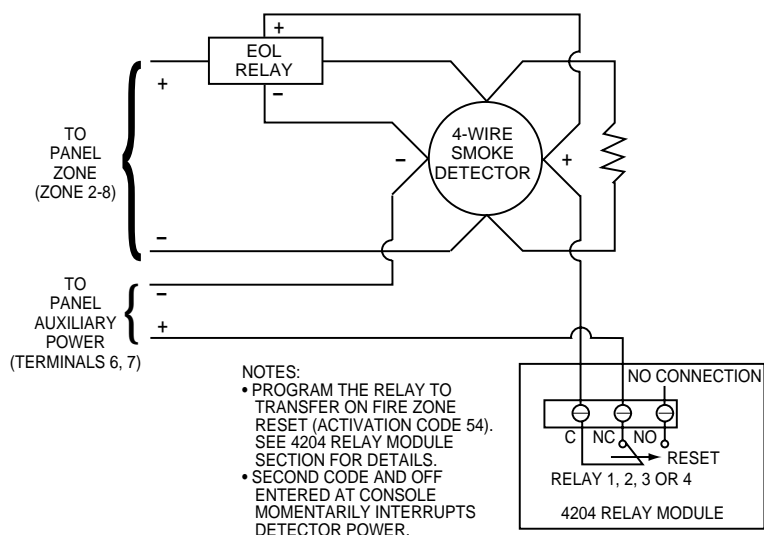
*Figure 5-3: 4-Wire Smoke Detector Connections (Zones 1-8)*

Connect detectors (including heat detectors, if used) across terminals of the zone selected. All detectors must be wired in parallel. Remove the 2000 ohm EOL resistor if connected across the selected zone terminals. ***You must connect the EOL resistor across the loop wires at the last detector***.

## Compatible 4-Wire Smoke Detectors

Use any UL Listed 4-wire smoke detector which is rated for 10-14VDC operation and which has alarm reset time not exceeding 6 seconds. Some compatible 4-wire smoke detectors are listed below.

| Photoelectric, direct wire | System Sensor 2412 |
|---|---|
| Photoelectric w/heat sensor, direct wire | System Sensor 2412TH |
| Ionization, direct wire | System Sensor 1412 |

## Wiring 2-Wire Latching Glassbreak Detectors to Zone 8

Use zone 8 for connection of compatible 2-wire latching-type glassbreak detectors. Wire as follows:

Connect all detectors in parallel across zone 8 (terminals 21 and 22). See *Figure 5-4.*

Remove the 2000 ohm EOL resistor if connected across the selected zone terminals. You must connect the EOL resistor across the loop wires at the last detector.
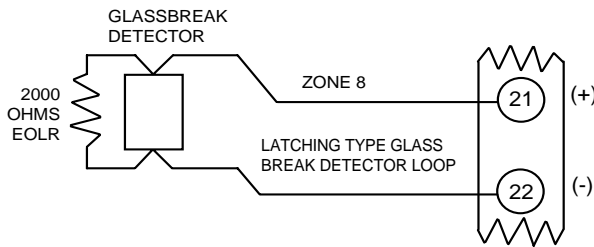
***Figure 5-4. Wiring Latching Glassbreak Detectors to Zone 8***

After an alarm, the first code + OFF turns off the siren and disarms the system; the second code + OFF clears the memory of alarm and resets the glassbreak detector.

## Compatible Glassbreak Detectors

Use detectors that meet the following ratings:

| | |
|---|---|
| Standby Voltage: | 5VDC–13.8VDC |
| Standby Resistance: | Greater than 20k ohms (equivalent resistance of all detectors in parallel) |
| Alarm Resistance: | Less than 1.1k ohms (see note below) |
| Alarm Current: | 2mA–10mA |
| Reset Time: | Less than 6 seconds |

The IEI 735L Series detectors have been tested and found to be compatible with these ratings. You can use up to 50 IEI 735L Detectors connected in parallel.

1. The alarm current provided by zone 8 supports only one glassbreak detector in the alarmed state.

2. Do not use other N.O. or N.C. contacts when using glass break detectors on zone 8. Other contacts may prevent proper glass break detector operation.

You can use detectors which exceed 1.1k ohms in alarm, provided they maintain a voltage drop of less than 3.8 volts in alarm.

## Checkout Procedure for Hardwired Zones

After installation of all hardwired zones is complete, each partition of the security system should be checked as follows:

1. Make certain that all devices and sensors connected to the hardwired zones are not in a faulted state.  Doors and windows with contacts should be closed, PIRs should be covered (use a cloth to mask them temporarily, if necessary).

2. With all hardwired zones intact, the alpha keypads connected to the system should display:

```
     DISARMED
   READY TO ARM.
```

If the following is displayed instead, press the [✱] key to display the faulted zone(s).

```
DISARMED  Press  ✱
to show faults
```

Restore any faulted zone(s) as necessary (also make sure that you have connected a 2000 ohm EOL resistor across the terminals of unused zones). When the "DISARMED...READY TO ARM" message is displayed, you can proceed to the next step.

3. Fault and then restore every contact or sensor on each zone individually to ensure that it is being monitored by the system. Each time a zone is faulted, the keypads in the partition to which the zone is assigned should display the number of the faulted zone. **Tripping fire and panic zones causes external sounders to sound and may trigger the dialer.** When each zone is restored, the "READY TO ARM" message should appear again.

If a zone or zones are not displayed at the correct partition's keypad(s), check both keypad and zone programming to verify the correct partition assignment.

When you get the proper displays on the keypad(s), the hardwired zones in the system are functioning properly.

4. Power down and continue to the next section.

# 2-Wire Polling Loop Expansion (Zones 10 through 64)

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## *In This Section*

♦ *Polling Loop Overview*

♦ *Common Characteristics of Polling Loop Zones*

♦ *Wiring/Addressing RPM Devices*

♦ *Compatible Polling Loop Devices*

♦ *Polling Loop Supervision*

♦ *Checkout Procedure for Polling Loop Zones*

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## Polling Loop Overview

You can expand the system from the basic 9 zones to up to 64 zones using the built-in 2-wire polling loop. Each device that is connected to the polling loop has the capability to communicate with the panel about its status. These devices are called RPMs (Remote Point Modules). The polling loop provides both power and data to the RPM zones, and is constantly monitoring the status of all zones enabled on the loop. The maximum current draw of all devices on the polling loop cannot total more than 64mA (unless using a 4297 Polling Loop Extender Module).

Refer to the list of compatible devices at the end of this section.

## Common Characteristics of Polling Loop Zones

Polling loop zones have the following characteristics:

• Must use RPM (Remote Point Module) devices

• Supervised by control panel

• Individually assignable to one of 2 partitions

• Polling loop smoke detector LED periodically flashes to indicate communication with the control.

## Wiring/Addressing RPM Devices

All devices on the polling loop must be wired in parallel to the [+] and [-] polling loop terminals of the control panel (24 and 25). You can wire from device to device, or have multiple branches connected directly to the control panel in a star configuration as shown in *Figure 6-1*.

Although each polling loop device is wired in parallel, each device has its own unique zone number (or group of zones if it is a zone expansion device). On some devices, this is determined by the setting of DIP switches. Other devices have a built-in unique serial number which must be "enrolled" into the control as the zone number desired. Set up the polling loop as follows:

1.  Run wires to each device on the polling loop. No individual wire run may exceed the lengths given in the table to follow. In addition, no more than 64mA may be drawn on any individual wire run. When a star configuration is used, the total length of all wire runs combined cannot exceed 4000 ft (2000 ft. if using unshielded wire in conduit or shielded wire). Twisted-pair is recommended for all normal wire runs.

### Maximum Polling Loop Wire Runs

| Wire Gauge | Max. Length |
| --- | --- |
| #22 gauge | 650 feet |
| #20 gauge | 950 feet |
| #18 gauge | 1500 feet |
| #16 gauge | 2400 feet |

When running polling loop wires, they must not be run within 6" of AC power, telephone, or intercom wiring. Since the polling loop is carrying data between the control panel and the devices, interference on this loop can cause an interruption of this communication. The polling loop can also cause outgoing interference on the intercom or phone lines. If this spacing cannot be achieved, shielded wire must be used. (Note that the maximum total wire length supported is cut in half when shielded wire is used.)
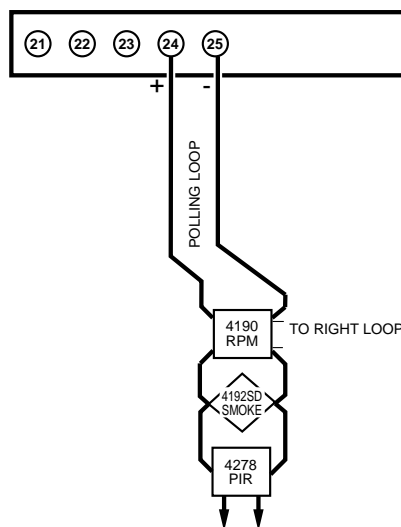


***Figure 6-1: Polling Loop Connections to the VISTA-40***

2. Wire each device to the polling loop, making sure to use correct polarity when making connections (refer to the device's instructions). **If you are using serial number devices, and intend to have the control enroll each serial number automatically, wire no more than 25 of these devices to the control at a time.** Then power up and program them before connecting the next 25. Leave previously enrolled devices connected.

If you intend to manually enter the serial numbers through the keypad or through V-LINK or Compass downloading software, all the devices may be connected before powering up to program.

3. Note the polling loop devices that have DIP switches on them. Set each device's DIP switches for the zone number you are assigning it. Refer to the device's instructions or the DIP Switch Tables at the end of this manual when setting addresses.

Certain polling loop devices have a DIP switch which can be used either to select the device's zone number or to select the enrolling of a unique, embedded serial number by the control panel. When used with VISTA-40, these devices **must** be set for the serial number mode of operation.

Be sure to include the total current drawn on the polling loop when figuring the total auxiliary load on the panel's power supply (see the *Final Power Up Procedure* section.

## Compatible Polling Loop Devices

| 4208 | 8-Zone Expander | • Accommodates up to 8 zones via the polling loop.<br>• DIP switch-programmable.<br>• The first two zones can be either normal or fast response (DIP switch selectable).<br>• All zones are EOLR-supervised (first six zones = 4.7k ohms; last two zones = 30k ohms), provided with the 4208. |
|---|---|---|
| 4190WH | 2-Zone Expander | • Accommodates up to 2 zones via the polling loop.<br>• DIP switch-programmable.<br>• The left zone can be EOLR-supervised (required in UL installations), can accept either open or closed circuit sensors, and can be set for fast response.<br>• The right zone is unsupervised and can accept closed circuit sensors only (cannot be used in UL installations). |

**Compatible Polling Loop Devices (cont'd)**

| 4278 | Quad PIR | • Quad element PIR with built-in RPM (connects directly to the polling loop).<br>• DIP switch-programmable.<br>• Includes mirrors for both wide-angle and curtain/long-range applications.<br>Features a nonsupervised auxiliary sensor loop that can accept closed circuit sensors only (cannot be used in UL installations). |
|------|----------|---|
| 4275 | Dual PIR | • Dual-element PIR with built-in RPM (connects directly to the polling loop).<br>• DIP switch-programmable.<br>• Includes mirrors for both wide-angle and curtain/long-range applications and can use the 1875PA Pet Alley mirror.<br>• Built-in selectable pulse count capability. |
| 4194 | Surface Mount Reed Contact (Wide Gap) | • Wide-gap, surface-mounted reed contact with built-in RPM (connects directly to the polling loop).<br>• DIP switch-programmable. |
| 4297 | Extender Module | • Used to increase the polling loop current (128mA), to extend the polling loop wire run length, and/or to provide individual, electrically isolated loops.<br>• Connects to the polling loop and is powered from panel's auxiliary power or by a separate power supply with battery backup. |
| 4192SD | Photoelectric Smoke Detector Devices | • One-piece photoelectric smoke detector with built-in RPM.<br>• DIP switch-programmable. |
| 4192SDT | Photoelectric Smoke Detector w/Heat Detector | • One-piece photoelectric smoke detector with 135°F (57°C) heat detector and built-in RPM.<br>• DIP switch-programmable. |
| 4192CP | Ionization Smoke Detector | • One-piece products of combustion ionization detector with built-in RPM.<br>• DIP switch-programmable. |
| 4939SN-BR<br>4939SN-GY | Serial Number Surface Mount Reed Contacts | • Compact surface-mount magnetic reed contact with built-in RPM.<br>• Serial number ID programmed by control panel. |
| 4191SN-WH | Serial Number Recessed Reed Contact | • Recessed (1/2" dia.) magnetic reed contact with built-in RPM.<br>• Serial number ID programmed by control panel. |

**Compatible Polling Loop Devices (cont'd)**

| 4959SN | **Aluminum Overhead Door Contact** | • 24-inch armored cable<br>• Serial Number ID programmed by control panel. |
|---|---|---|
| 7500 | **Single Technology Glass Break Detector** | • Glassbreak detector with built-in RPM.<br>• DIP switch programmable. |
| 9500 | **Dual Technology Glass Break Detector** | • Dual technology glass-break detector with built-in RPM<br>• DIP switch programmable. |

**UL**  Models 7500 and 9500 glassbreak detectors are not UL Listed.

## Polling Loop Supervision

A short on the polling loop is indicated by a trouble on its supervisory zone and reports as a trouble condition only. As such, a polling loop should be assigned zone type 05 if annunciation as a trouble condition is desired.

If a device on the polling loop fails (the panel cannot "see" that device), the partition or partitions that use that device will display a trouble condition for all zones associated with that device. If the panel is armed when a device fails, the zones associated with that device will cause an alarm on the corresponding partition(s).

A trouble on zone 97 (polling loop short) will not prevent a partition from being armed, as long as all polling loop zones on that partition are bypassed.

## Checkout Procedure for Polling Loop Zones

After installation of all polling loop zones is complete, each partition of the security system should be checked as follows:

1. Be sure that all devices and sensors connected to the polling loop are not in a faulted state. Doors and windows with contacts should be closed, PIRs should be covered (use a cloth to mask them temporarily, if necessary).

2. With all hardwired and polling loop zones intact, the alpha keypads connected to the system should display:

```
DISARMED
READY TO ARM.
```

3. If the keypad(s) begins beeping and display the word "CHECK" along with a zone or zone numbers, the system either *does not see* the displayed zone(s) or the tamper switches are tripped. Please check your DIP switch settings for the zone(s), your connections, and/or that the covers for units with tamper switches are in place. Once the situation has been corrected, enter the [User Code] + [OFF] sequence twice to clear the trouble.

4.  If the following is displayed, press the [✳ ] key to display the faulted zone(s):

    ```
    DISARMED  Press ✳
    to show faults
    ```

5.  Restore any faulted zone(s) as necessary. When the "DISARMED...READY TO ARM" message is displayed, you can proceed to the next step.

6.  Fault and then restore every contact or sensor on each zone individually to ensure that it is being monitored by the system. Each time a zone is faulted, the keypads in the partition to which the zone is assigned should display the number of the faulted zone. **Tripping fire and panic zones will cause external sounders to sound and may trigger the dialer.** When each zone is restored, the "READY TO ARM" message should appear again.

If a zone or zones are not displayed at the correct partition's keypad(s), check both keypad and zone programming to verify the correct partition assignment.

When you get the proper displays on the keypad(s), the polling loop zones in the system are functioning properly.

7.  Power down and continue to the next section.

# Wireless Zone Expansion

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

### In This Section

♦ *Common Characteristics of Wireless Zones*

♦ *Wireless Systems Available*

♦ *RF System Operation and Supervision*

♦ *RF System Installation Advisories*

♦ *Installation and Setup of the 4281/5881 RF Receiver*

♦ *Installing the 5800TM Module*

♦ *House ID Sniffer Mode*

♦ *5700 Series Transmitter Setup*

♦ *5800 Series Transmitter Setup*

♦ *Checkout Procedure for Wireless Zones*

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

## Common Characteristics of Wireless Zones

- Supervised by control panel for check-in signals (except certain non-supervised transmitters)
- Individually assignable to one of 2 partitions

## Wireless Systems Available

The VISTA-40 supports wireless zones that may be used exclusively or in addition to hardwire and/or polling loop zones.  The system supports two different wireless systems, which have many similarities, but notable differences in the programming of the transmitters for each system.

The following receivers may be used with this system.  Each supports the number of zones shown below:

<table>
<tr><td colspan="2" align="center">**5700 Series**</td><td></td><td colspan="2" align="center">**5800 Series**</td></tr>
<tr><td>**Recvr**</td><td>**Zones**</td><td></td><td>**Recvr**</td><td>**Zones**</td></tr>
<tr><td>4281L</td><td>up to 4</td><td></td><td>5881L</td><td>up to 8</td></tr>
<tr><td>*4281M*</td><td>up to 8</td><td></td><td>5881M</td><td>up to 16</td></tr>
<tr><td>4281H</td><td>up to 63</td><td></td><td>5881H</td><td>up to 63</td></tr>
</table>

In Canada, 5800 systems must use 5882 Series receivers: 5882L/5882H. Information in this manual relative to the 5881 Receivers applies as well to the 5882 Receivers. 5881 and 5882 Receivers can all use the same transmitters.

## RF System Operation and Supervision

- The receiver responds to status and alarm signals from wireless transmitters (at 345MHz in the USA; 315MHz in Canada) within a nominal range of 200 feet, and relays this information to the control.

- Each supervised transmitter sends a supervisory signal to the receiver every 70-90 minutes. If, after a programmed interval of time (e.g., 12 hrs), the receiver does not hear from a *particular* transmitter, the word "CHECK" will appear at the corresponding partition's keypad(s) accompanied by the zone number in question. The trouble will not prevent you from arming the panel, but the zone must first be bypassed.

- Zones 88 and 90 are used to supervise the RF reception of receivers 2 and 1, respectively. The reception is supervised for two conditions.

  1. If, within a programmed interval of time (defined by program field 1*30), the receiver does not hear from *any* of its transmitters. A "CHECK" message will appear for zones 88 (2nd receiver) or 90 (1st receiver) if response type 05 is assigned to these supervisory zones. The trouble condition will display, report to the event log and transmit to central station, if programmed, in the partitions that have RF transmitters, or RF keypad. The Contact ID event code sent to the central station is 333.

  2. If, the receiver has detected a condition that may impede proper RF reception (i.e., jamming or other RF interference). The control checks the receiver for this condition every 45 seconds. A "CHECK" message will appear for zones 88 (2nd receiver) or 90 (1st receiver) if response type 05 is assigned to these supervisory zones. The trouble condition will display, report to the event log and transmit to central station, if programmed, in the partitions that have RF transmitters, or RF keypad. The Contact ID event code sent to the central station is 344.

- The control checks the receiver connections about every 45 seconds. If the panel has lost communication with the receiver, a "CHECK" message will appear for zones 89 (2nd receiver) or 91 (1st receiver) if response type 05 is assigned to these supervisory zones and if programmed, Contact ID event code 333 is sent to the central station. The "CHECK" display may be an indication that the wiring to the receiver is incorrect, or that the DIP switches are not set for the same address the receiver was assigned to in the control's *Device Programming* in the *#93 Menu Mode*.

- Two identical receivers can be used to provide either a greater area of coverage or redundant protection.

If using two receivers, one of them must be disconnected while enrolling 5800 series transmitter serial numbers. You will not be able to enroll serial numbers if both are connected during the serial number enrolling procedure.

- Any zone from 1 to 63 can be used as a wireless zone. Zone 64 is reserved for a wireless keypad.

## RF System Installation Advisories

1. Place the receiver in a high, centrally located area for best reception. Do not place it on or near metal objects. This will decrease the range and/or block transmissions.

2. For maximum range, install the RF receiver at least 10 feet from the control panel or any keypads to avoid interference from the microprocessors in these units.

3. If dual receivers are used:

   A. Both must be at least 10 feet from each other, as well as from the control panel and remote keypads.

   B. Each receiver must be set to a different device address. The receiver set to the lower address is considered the 1st RF receiver for supervisory purposes.

   C. The House IDs must be the same.

   D. Using two receivers *does not* increase the number of transmitters the system can support.
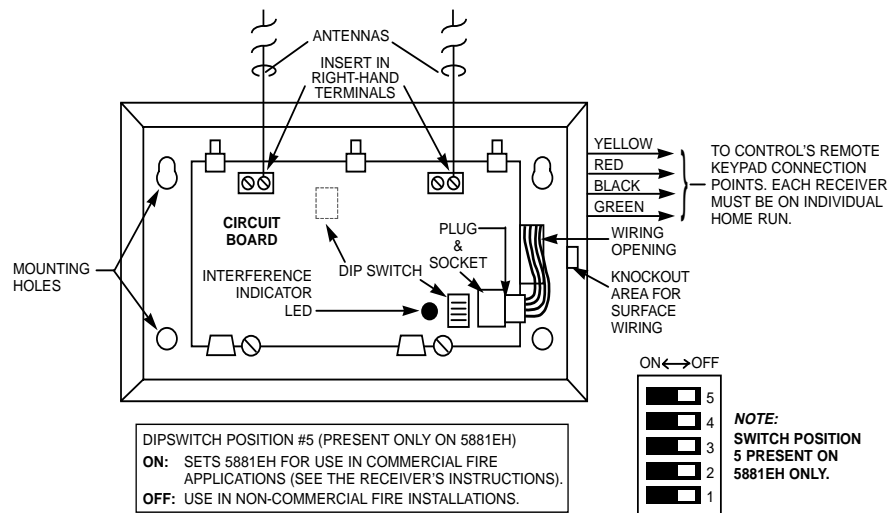


*Figure 7-1: 5881 RF Receiver (cover removed)*

## Installation and Setup of the 4281/5881 RF Receivers

1. Receivers must be mounted externally to the control and can detect signals from transmitters within a nominal range of 200 feet. Take this into consideration when determining mounting location.

2. Connect the receiver's wire harness to the Keypad 1 terminals (6, 7, 8, 9). Plug the connector at the other end of the harness into the receiver.

3. Refer to the Installation Instructions provided with the receiver for further installation procedures regarding antenna mounting, etc.

4. Set the receiver's DIP switches for an address (01-07) which is not being used by another device (i.e., keypads, relay modules, etc.).

Take note of the address you select for the RF receiver, as this address must be enabled in *Device Programming* in the *#93 Menu Mode Programming* section).

## Installing the 5800TM Module

Installation of this module is necessary only if you are using one or more Bi-directional devices (5827BD, 5804BD).

The 5800TM must be located next to the 4281 or 5881 Receiver (between one and two feet from the receiver's antennas). The 5800TM must not be installed within the control cabinet. Mount the unit using its accompanying mounting bracket.

### 5800TM Wiring Connections

Connect the 5800TM to the control panel's keypad connection terminals, using the supplied connector with flying leads, as follows:

| WIRE | TERMINAL ON CONTROL |
|------|---------------------|
| RED (+12VDC) | Terminal 6 |
| BLACK (Ground) | Terminal 7 |
| GREEN (Data to Control) | Terminal 8 |
| YELLOW (Data from Control) | Terminal 9 |
| BLUE: Not Used | |

To use a Bi-directional device on Partition 1, cut the red jumper for Address Setting 28. For Partition 2, cut the white jumper for Address 29.

For additional information, refer to the 5800TM's instructions.

## House ID Sniffer Mode

This mode applies only to 5700 Series systems, or, if you are using a wireless keypad (5827/5827BD), in a 5800 Series system.

5700 Series receivers respond only to transmitters set to the same House ID (01-31) programmed into the control panel. This prevents system interference from transmitters in other nearby systems. Use the House ID Sniffer Mode to make sure you do not choose a House ID that is in use in a nearby system. To enter this mode, proceed as follows:

1. Enter **[Installer Code] + [#] + [2].**

2. The receiver will now "sniff" out any House IDs in the area and display them. Keep the receiver in this mode for at least 2 hours to give a good indication of the House IDs being used. Use a House ID that is **not displayed**.

3. To exit the Sniffer Mode, enter your **[Installer Code] + OFF.**

4. If you need to re-program the House ID of the receiver, do so before proceeding.

Since Sniffer Mode effectively disables RF point reception, Sniffer Mode **cannot** be entered while any partition is armed.

## 5700 Series Transmitter Setup

Each 5700 Series transmitter has DIP switches to set both the transmitter's zone number (Transmitter ID) and the system House ID. The House ID will be the same for all transmitters and must match the House ID programmed into the system for the RF receiver. This can be likened to a family in which everyone has the same last name (House ID), but each person has a different first name (Transmitter ID). The zone number must then be programmed into the system using *Zone Programming* in the *#93 Menu Mode*.

**Transmitter Supervision**

- Each transmitter (except 5701 and 5727) is supervised by a check-in signal that is sent to the receiver at 70-90 minute intervals. If at least one check-in is not received from a transmitter within a certain period of time (programmed in field 1*31), the keypad will display the zone number and "CHECK."

- Each transmitter (including 5701 and 5727) is also supervised for low battery conditions, and will transmit a low battery signal to the receiver when the battery has approximately 30 days of life remaining. The keypad will display the transmitter number and "LO BAT."

**Transmitter Battery Life**

- Batteries in the wireless transmitters may last from 4 to 7 years, depending on the environment, usage, and the specific wireless device being used. External factors such as humidity, high or low temperatures, as well as large swings in temperature, may reduce the actual battery life in a given installation. The wireless system can identify a true low battery situation, thus allowing the dealer or user of the system time to arrange a change of battery and maintain protection for that given point within the system.

- Unsupervised transmitters should be periodically tested by the installer for battery life (i.e., 5701).

- After replacing a low or dead battery, activate the transmitter and enter the User Code + OFF to clear its memory of the low battery signal.

**Installing the Transmitters**

A variety of RF system transmitters can be used to make up the wireless zones. These include window/door units, smoke detectors, PIRs, and panic buttons. Zone number assignments can be from 1 to 63.

1. Set the DIP switches on each 5700 Series transmitter to the appropriate zone number and House ID. Refer to the Compatible 5700 Series Transmitters Table for zone numbers and programming information for each particular transmitter.

2. Install each transmitter in accordance with the instructions provided with the transmitter.

Before permanently mounting the transmitters, make sure reception of each transmitter's signal at the proposed mounting location is adequate. To do this, perform a Go/No Go Test, which is described later in this section.

3. Program the transmitters using the *Zone Programming* in the *#93 Menu Mode*.

**Wireless Zone Assignments for 5700 Series Transmitters**

Each RF zone can be assigned any zone response type, such as entry/exit, interior, perimeter, etc. (see the *Zone Types Definitions* section for explanations of each zone type). For 5700 Series transmitters, each response type uses a certain range of zone numbers. Each range of zone numbers is indicated below:

| Zone Type | Trans/Zone # |
|---|---|
| Entry/Exit Burglary | 1 through 47 |
| Perimeter Burglary | 1 through 47 |
| Interior Burglary | 1 through 47 |
| Fire | 48 through 63<br>48 through 55 * (use 5706) |
| 24-Hour Panic<br>(silent or audible) | 48 through 63<br>62 or 63 ** (use 5701) |
| Day/Night Burglary | 1 through 47 |
| 24-Hour Auxiliary | 1 through 47 |

Note that zones 1-63 can be used, but have the following limitations:

1. Transmitters set for zones 48-55 will transmit once every 12 seconds while the zone is faulted. Transmitters set for zones 56-63 will transmit once every 3 seconds while faulted. These two ranges of zone numbers could adversely affect transmitter battery life.

2. Transmitters set for an ID of 32 through 47 will have a 3-minute lockout between transmissions. Use this last range of zone ID numbers for sensors protecting frequently used doors or windows to conserve battery life.

   \*    Transmitter IDs 48 through 55 have highest signal priority.

   \*\*   Transmitter IDs 62 and 63 are unsupervised to allow removal of the 5701 off premises – signal priority is lower than that of fire, but higher than burglary.

**Compatible 5700 Series Transmitters**

| Model | Product | Zone Num. | Description |
|---|---|---|---|
| 5701 | Panic Transmitter | 62 or 63 | • Programmable for either silent or audible 24-hour alarm. |
| 5706<br>5707 | Photoelectric Smoke Detector | 48-55 | • One-piece smoke detectors with built-in transmitter.<br>• Built-in UL Listed 85 dB piezo-electric alarm sounder and audible low battery warning. |
| 5711 | Slimline Door/ Window Transmitter | 1-63 | • Can be used with any closed circuit sensor. |
| 5715WH | Universal Transmitter | 1-63 | • DIP switch-selectable for fast response, and open or closed sensor usage.<br>• Has a tamper-protected cover. |
| 5716<br>5716WM | Door/Window Transmitter | 1-63 | • Can be used with any open or closed circuit sensor.<br>• Features a built-in reed switch.<br>• 5716WM includes magnet. |

**Compatible 5700 Series Transmitters**

| Model | Product | Zone Num. | Description |
|-------|---------|-----------|-------------|
| 5742 | Audio Discriminator | 1-63 | • For use in unoccupied areas to detect the sound of shattering glass when a window is broken. |
| 5743 | Dual Technology Glassbreak | 1-63 | • Detects the sound *and* shock. Requires the presence of *both* to initiate an alarm condition transmission. |
| 5775 | PIR Detector | 32-47 | • Dual-element passive infrared detector with built-in selectable pulse count.<br>• *Note*: There is a 3-minute lockout between fault transmissions to conserve battery life. |
| 5727 | Wireless Keypad | House ID | • Can be used to turn the burglary protection on and off.<br>• Features the same built-in panic functions as wired keypads.<br>• Identified as zone "000" (on wired keypads) when it transmits with a low battery. |
| 5827BD | Wireless Keypad | House ID | • Requires use of 5800TM Module.<br>• Assigned to a partition in 1*48.<br>• Operates the system similarly to wired keypads.<br>• Can indicate system status via its 3 LEDs and sounder.<br>• Includes 3 panic keys.<br>• House ID must be set. |

**UL**   The 5711, 5715, and 5716 do not supervise their loop wiring.  Therefore, the loop wiring may not exceed 3 feet.

## 5800 Series Transmitter Setup

5800 Series transmitters have built-in serial numbers that must be enrolled by the system using the *# 93 Menu Mode Programming*, or input to the control via the downloader.  5800 Series transmitters (except 5827, described separately) do not have DIP switches.

Each transmitter's zone number is programmed into the system in # 93 Menu Mode.  Some transmitters, such as the 5816 and 5817, can support more than one "zone" (referred to as loops or inputs).  On the 5816, for example, the wire connection terminal block is Loop 1, the reed contact is loop 2.  Each loop must be assigned a different zone number.

For button-type transmitters (wireless keys), such as the 5804, 5804BD, 5803, and 5801, you must assign a unique zone number to each individual button used on the transmitter.  Each button on the transmitter also has a pre-designated loop or input number.

**Transmitter Supervision**

Except for some transmitters that may be carried off premises (5802, 5802CP, 5803, 5804, 5808BD, 5827, and 5827BD), each transmitter is supervised by a check-in signal that is sent to the receiver at 70–90 minute intervals. If at least one check-in is not received from each supervised transmitter within a programmed period (field 1∗31), the "missing" transmitter number(s) and "CHECK" will be displayed.

The supervision for a particular transmitter that may be carried off the premises (5801, 5802MN) may be turned off by enrolling it as a "UR" (unsupervised RF) type, as described later in this manual.

Some 5800 Series transmitters have built-in tamper protection and will annunciate a "CHECK" condition if covers are removed.

**Transmitter Input Types**

All of the transmitters have one or more unique factory-assigned input (loop) codes. Each of the inputs requires its own programming zone (e.g., a 5804's four-button inputs require four programming zones).

Transmitters can be programmed as one of the following types:

| Type | Description |
|------|-------------|
| **RF** <br> **(Supervised RF)** | Sends periodic Check-in signals, as well as Fault, Restore, and Low Battery signals. The transmitter must remain within the receiver's range. |
| **UR** <br> **(Unsupervised RF)** | Sends all the signals that the RF type does, but the control does not supervise the Check-in signals. The transmitter may therefore be carried off-premises. |
| **BR** <br> **(Unsupervised Button RF)** | These only send Fault signals. They only send Low Battery signals when they are activated (button pressed). The transmitter may be carried off-premises. |

**Transmitter Battery Life**

- Batteries in the wireless transmitters may last from 4 to 7 years, depending on the environment, usage, and the specific wireless device being used. Factors such as humidity, high or low temperatures, as well as large swings in temperature may all reduce the actual battery life in a given installation.

- The wireless system can identify a true low battery situation, thus allowing the dealer or user of the system time to arrange a change of battery and maintain protection for that given point within the system.

- Some transmitters (e.g., 5802, 5802CP, and 5803) contain long-life but nonreplaceable batteries. At the end of their life, the complete unit must be replaced (and a new serial number enrolled by the control).

- Button-type transmitters, (e.g., 5801, 5802, 5802CP & 5803), should be periodically tested by the installer for battery life.

Do not install batteries in wireless transmitters until ready to enroll. After enrolling, batteries need not be removed.

**Compatible 5800 Series Transmitters**

| Model | Product | Input Type | Description |
|---|---|---|---|
| 5801 | Wireless Panic Transmitter | UR or RF | • Has four pushbuttons, each with a unique input (loop) code.<br>• Programmable responses (e.g., Panic, Arm–Stay, Arm–Away, Disarm, etc.<br>• For arming/disarming functions, button must be assigned to a user code when "adding a user." |
| 5802<br><br>5802CP | Pendant (Personal Emergency Transmitter)<br><br>Belt Clip (Personal Emergency Transmitter) | BR Only | • Has single pushbutton.<br>• Usually be programmed for response type of 24 Hr. Audible or 24 Hr. Silent (other zone responses are possible).<br>• Contains a nonreplaceable battery. At the end of the battery's life, the entire unit must be replaced.<br>• If using for arming/disarming, the button must be assigned to a user code when "adding a user." |
| 5802MN | Miniature (Personal Emergency Transmitter) | UR or RF | • Has single pushbutton<br>• Usually programmed for a respon<br>• If using for arming/disarming, the button must be assigned to a user code when "adding a user."<br>• Contains a replaceable battery. |
| 5804 | Wireless Key Transmitter | BR Only | • Has four pushbuttons, each with a unique input (loop) code.<br>• Programmable responses (e.g., Arm–Stay, Arm–Away, Disarm, etc.).<br>• Contains a replaceable battery.<br>• If using for arming/disarming, the button must be assigned to a user code when "adding a user." |
| 5806/5807 5808 | Wireless Photoelectric Smoke Detectors | RF | • One-piece smoke detectors with built-in transmitter.<br>• 5806 and 5807 UL Listed for residential fire usage only. 5808 UL Listed for commercial fire. |
| 5816 | Door/Window Transmitter | RF | • Has two unique input (loop) codes: one for a wired closed circuit contact loop; the other for a built-in reed switch (used in conjunction with a magnet). |

**Compatible 5800 Series Transmitters (cont'd)**

| Model | Product | Input Type | Description |
|-------|---------|------------|-------------|
| 5817 | Multi-Point Universal Transmitter | RF | • Has three unique input (loop) codes: one for a "Primary" contact loop with programmable options; the others for two "Auxiliary" closed circuit contact loops. |
| 5818 | Recessed Transmitter | RF | • Reed switch magnetic contact sensor that is easily concealed in the frame and edge of a door or window.<br>• Has a single unique input (loop) code. |
| 5827 | Wireless Keypad | House ID | • Can be used to turn the burglary protection on and off.<br>• Features the same built-in panic functions as wired keypads.<br>• The keypad is identified as zone "000" on wired keypads when it transmits with a low battery. |
| 5827BD | Wireless Bi-directional Keypad | House ID | • Requires use of 5800TM Module.<br>• Assigned to a partition in 1∗48.<br>• Operates the system similarly to wired keypads.<br>• Can indicate system status via its 3 LEDs and sounder.<br>• Includes 3 panic keys.<br>• House ID must be set. |
| 5849 | Glassbreak Detector | RF | • Requires both sound and shock of breaking glass to cause alarm to be transmitted.<br>• Has unique input code. |
| 5890 | PIR Detector | RF | • Dual-element passive infrared detector/transmitter with built-in selectable pulse count.<br>• Has unique input code.<br>• *Note*: There is a 3-minute lockout between fault transmissions to conserve battery life. |

## Checkout Procedure for Wireless Zones

### Transmitter ID Sniffer Mode

Use the Transmitter Sniffer Mode to test that transmitters have all been properly programmed.

1. Enter **[Installer Code]** + **[#] + [3]**. Keypad(s) will display all zone numbers of wireless units programmed for that partition.

2. Fault each wireless zone, causing each device to transmit. As the system receives a signal from each of the transmitters, the zone number of that transmitter will **disappear** from the display.

> A transmitter not "enrolled" (5800 Series) or whose DIP switch is not set correctly (5700 Series) will not turn off its zone number.

3. To exit the Transmitter Sniffer Mode, enter **[Installer Code] + [1].**

> Be sure to perform the Transmitter Sniffer Mode Test for every partition that has wireless transmitters programmed.

### Go/No Go Test Mode

Before mounting transmitters permanently, conduct Go/No Go Tests to verify adequate signal strength and reorient or relocate transmitters if necessary.

Make sure that all partitions are disarmed when performing this test. Since the wireless receiver gain is reduced, checking in this mode assists in determining good mounting locations for the transmitters, and verifies that the RF transmission has sufficient signal amplitude margin for the installed system.

1. Enter **[Installer Code] + [5].**

**Note:** For multi-partition systems, make sure both partitions are disarmed before entering this mode.

2. Once transmitters are placed in their desired locations and the approximate length of wire to be run to sensors is connected to the transmitter's screw terminals, fault each transmitter.

**Note:** Do not conduct this test with your hand wrapped around the transmitter, as this will cause inaccurate results.

- If a single receiver is used, the keypad will beep three times to indicate signal reception. If two receivers are used, the keypad will beep once if the first receiver received the signal, twice if the second receiver received the signal, and three times if both receivers heard the signal (which is desirable for redundant configurations).

- If the keypad does not beep, reorient or move the transmitter to another location. Usually a few inches in either direction is all that is required.

3. Mount the transmitter according to the instructions provided with the transmitter.

4. Exit the mode by entering **[Installer Code] + [1]**.

# *J7 Voltage Triggers*

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## *In This Section*

♦ *General Information*

♦ *Ground Start Trigger Setup*

♦ *Remote Keypad Sounder Operation and Wiring*

♦ *Remote Keyswitch Operation and Wiring*

♦ *Audio Alarm Verification (AAV) Equipment*

♦ *Auxiliary Alarm Signaling Equipment*

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## General Information

The J7 connector, located near the lower right-hand corner of the main PCB, provides 1 input (labeled INPUT 1) and seven trigger outputs (labeled OUT 1 - OUT 7) that can be used to interface to the following:

- Ground start module
- Remote keypad sounder
- UL Listed keyswitch
- Audio alarm verification device (two-way voice)
- Auxiliary alarm signaling equipment such as an ADEMCO Long Range Subscriber Radio

The trigger output ratings are listed below.  Note that all outputs are power limited.

| | | |
|---|---|---|
| **Outputs 1, 5, 7:** | LOW: | 2k to ground |
| | HIGH: | 10-14VDC @ 20mA max. |
| **Remaining Outputs:** | LOW: | 1k to ground |
| | HIGH: | 10-14VDC through 5k |

The pin assignments for the J7 connector are shown in *Figure 8-1*.  Use a 4142TR 9-wire trigger cable (1 supplied) to interface with this connector.  The panel does not supervise field wiring connected to this connector.
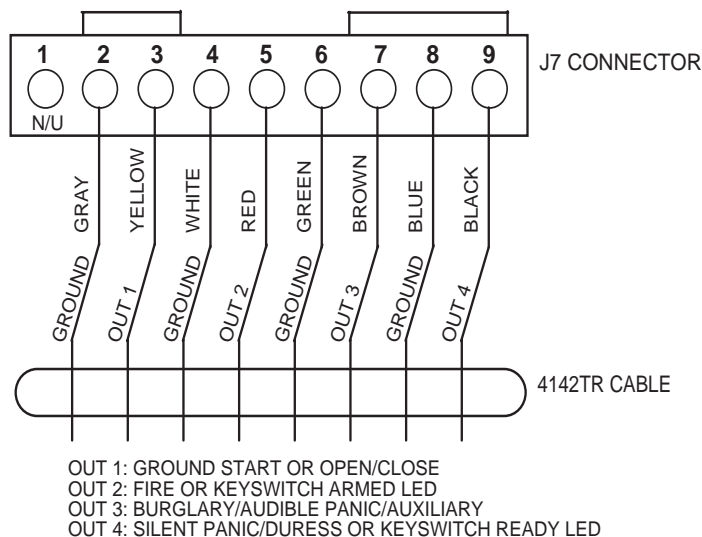
**Figure 8-1.  J7 Pin Assignments and Functions**

## Ground Start Trigger Setup

**UL**    Not intended for use in UL Listed applications.·

Output 1 may be used to trigger an optional 675 Ground Start Module for installations having telephone lines which require ground start instead of loop start operation to obtain dial tone from the telco central office.

When the panel has a message to transmit to the central station, it will seize the line, go off hook, and then trigger the 675 Module to connect the RING side of the telephone line to earth ground.  The panel will cause the module to break the connection between RING and earth ground when it obtains a dial tone.

### Ground Start Module Connections

1.  Connect the 675 Ground Start Module to the panel's J7 connector trigger output 1, to auxiliary power, and to the RING side of the telephone line as shown in *Figure 8-2*.

2.  Use the following procedure to determine which side of the telephone line is the RING side:

    a.  Connect the (+) lead of a DC voltmeter to earth ground, and the (-) lead to one side of the telephone line.

    b.  The wire which reads + 50VDC is the RING side.

**4142TR CABLE**     **J7 CONNECTOR**

675
GROUND
START
MODULE

(CUT ORANGE JUMPER)

GROUND START TRIGGER
BLUE

TO AUX. POWER TERM. 7
BLACK

TO AUX. POWER TERM. 6
VIOLET
(50mA CURRENT DRAW

BROWN     GREEN

TO TELCO RING     TO EARTH GROUND

GROUND   GRAY
OUT 1    YELLOW
GROUND   WHITE
OUT 2    RED
GROUND   GREEN
OUT 3    BROWN
GROUND   BLUE
OUT 4    BLACK

IF USED.
1. OUT 1 IS NO LONGER USABLE FOR OPEN/CLOSE (SEE FIELD 1*46).
2. OUT 2, 3, 4 CAN STILL BE USED TO PROVIDE ALARM STATUS INDICATIONS OR TO OPERATE A KEYSWITCH (SEE FIELD *15).
3. THE 675 IS NOT UL LISTED.

*Figure 8-2:  Ground Start Module Connections*

**Programming for the Ground Start Module**

1. With at least one 2-line alpha keypad (6139) wired and set to a proper address, power up the system temporarily by plugging the AC transformer into a 120VAC outlet (previously wired to the control).

2. Enter Data Field Programming Mode: **[Installer Code] + 8 0 0**

   Program the following data field:

   **1*46** AUXILIARY OUTPUT ENABLE:  Set to "0" (factory default)

3. Press **\*99** to exit Program Mode.

If you need more information about actual programming procedures, see: *The Mechanics of Programming* section.

You cannot use Output 1 for an Ground Start if using it for a Remote Keypad Sounder, Open/Close trigger, or an AAV module.

## Remote Keypad Sounder Operation and Wiring

An optional Amseco PAL 328N Piezo Sounder can be used to duplicate the sounds produced by the keypad's built-in sounder.  The panel will remote all sounds (e g.,. alarm, trouble, chime, entry/exit, etc.) produced by the keypad's built-in sounder except for the short beeps associated with keypad key depression.  One application of this feature might be to produce chime sounds at a distant location from the panel's keypads.

### Wiring for the Remote Keypad Sounder

Connect the piezo sounder to the panel's positive auxiliary power output and to Output 1 on the J7 connector as shown in *Figure 8-3*.
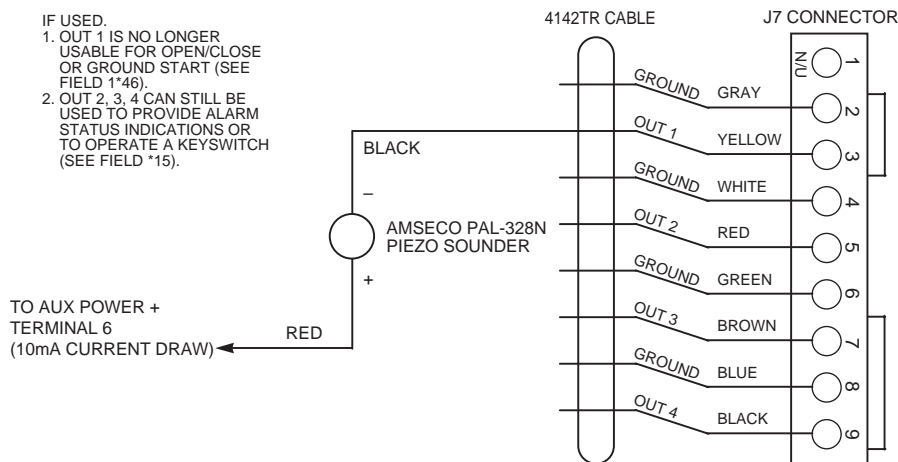


*Figure 8-3:  Remote Keypad Sounder Wiring*

### Programming for the Remote Keypad Sounder

1. With at least one 2-line alpha keypad (6139) wired and set to a proper address, power up the system temporarily by plugging the AC transformer into a 120VAC outlet (previously wired to the control).

2. Enter Data Field Programming Mode: **[Installer Code] + 8 0 0**

   Program the following data field:

   **1*46** AUXILIARY OUTPUT ENABLE:  Set to "1"

3. Press **\*99** to exit Program Mode.

## Remote Keyswitch Operation and Wiring

An optional UL-Listed remote keyswitch, such as the ADEMCO 4146, can be used for remote arming/disarming of the burglary portion of the system and for remotely silencing alarms. The keyswitch can operate in only one particular partition.

### Wiring for the Remote Keyswitch

Wire the keyswitch as shown in *Figure 8-4*.  To have the tamper switch annunciate when activated, wired the tamper switch to zone 8, and program zone 8 for day trouble/night alarm (zone type 5).  When the keyswitch is removed from the wall, the tamper switch will open, causing an alarm or trouble on zone 8, and causing the control to disable keyswitch operation until the associated partition is disarmed from a keypad.  The tamper switch need not be used for fire or UL household burglary installations.

TO AUX POWER (TERMINAL 6)

YELLOW          WHITE

RED (ARMED)     GREEN (READY)

820ohms         820ohms

RED             BLACK

TO J7/OUT 2
TO J7/OUT 4

2K EOLR

TO ZONE 6(+) (TERMINAL 18)

TAMPER SWITCH
(CONTACTS CLOSE WHEN
SWITCH DEPRESSED. SEE NOTE)

TO ZONE 6(–)/ZONE 7(– ) (TERMINAL 19)

BROWN          BROWN
LOCK SWITCH
(NORMALLY OPEN)

TO ZONE 7(+) (TERMINAL 20)

BLUE            BLUE

2K EOLR

BROKEN LINES REPRESENT
INSTALLER WIRING CONNECTIONS
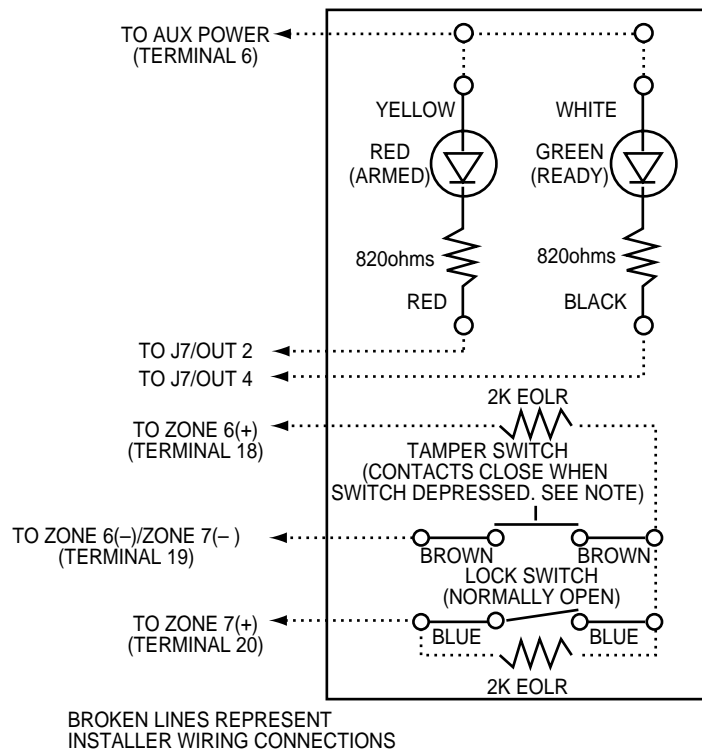
NOTE:
The tamper switch need not be used for UL Household Fire or Burglary installations. The tamper switch must be connected to an EOLR supervised zone programmed for trouble by day/alarm by night (type 05) response as shown for UL Commercial Burglary installations. When the keyswitch is removed from the wall, the tamper switch will open causing a fault (trouble or alarm) on zone 6 and causing the panel to disable keyswitch operation until the partition is disarmed from a console.

*Figure 8-4:  Remote Keyswitch Wiring*

**Programming for the Remote Keyswitch**

1.  With at least one 2-line alpha keypad 6139 wired and set to a proper address, power up the system temporarily by plugging the AC transformer into a 120VAC outlet (previously wired to the control).

2.  Enter Data Field Programming Mode: **[Installer Code] + 8 0 0**

    Program the following data fields:

    **\*15**  KEYSWITCH ENABLE:  Assign the keyswitch to a partition (1-2).  Enter 0 to disable.

    **\*40**  OPEN/CLOSE REPORT ENABLE:  Enter 1 to enable Open/Close report for the keyswitch, otherwise enter 0.

    **\*93**  ZONE PROGRAMMING:  Zone 7 must be assigned a non-zero response type.

3.  Press *\*99* to exit program mode.

The VISTA-40 allows 2 modes of keyswitch operation as follows:

**With System Disarmed and No Alarms Present:**

A momentary short across zone 7 will arm the partition in the AWAY mode, and a short held for more than 3 seconds will arm the partition in the STAY mode.  A subsequent short will disarm the partition.  The keyswitch LEDs will indicate that the partition has armed (see table that follows).

Faulted zones must either be corrected or bypassed before the system will arm.

**With Alarms Present:**

A momentary short across Zone 7 will silence alarm bell and keypad sounds, and will disarm the system if it was armed. The keyswitch LEDs provide a memory of alarm indication (see table below). A subsequent short across Zone 7 will clear the alarm memory indication and reset 2-wire smoke and glassbreak detectors (if used).

**LED indications are defined as follows:**

| GREEN | RED | MEANING |
|-------|-----|---------|
| OFF | OFF | DISARMED & NOT READY |
| ON | OFF | DISARMED & READY |
| OFF | ON STEADY | ARMED AWAY |
| OFF | SLOW FLASH | ARMED STAY |
| OFF | RAPID FLASH | ALARM MEMORY |

If Open/Close reporting for the keyswitch is enabled in field *40, the keyswitch reports as user 0.

## Audio Alarm Verification (AAV) Equipment

An Audio Alarm Verification (AAV) Module (also known as two-way voice), such as the Eagle 1250, is an add-on accessory that permits voice dialog between an operator at a central station and a person at the alarm installation, for the purpose of alarm verification. This feature is supported only if Alarm reports are programmed to be sent to the primary phone number. For a detailed explanation on the operation and wiring of the AAV, see the *Audio Alarm Verification* section.

## Auxiliary Alarm Signaling Equipment

The J7 connector can be used to provide triggers for the following conditions:

- Fire alarm
- Burglary/audible panic alarm
- Silent panic/duress alarm
- Opening/closing (arming/disarming)

These triggers may be used to trip auxiliary alarm signaling equipment such as ADEMCO's 7720, 7720ULF, and 7920SE Long Range Radios.

The open/close, fire alarm, burglary/audible panic alarm, and silent panic/duress alarm triggers are common to both partitions and must be enabled for each partition (data field 2*20). The open/close trigger is LOW when all enabled partitions are armed, and HIGH when any enabled partition is disarmed. The remaining triggers are normally LOW and go HIGH when the corresponding condition occurs in at least one enabled partition. The fire and burglary/audible panic alarm triggers remain HIGH until a [User Code] + OFF is entered in all enabled partition(s) which display these conditions. The silent panic/duress trigger works the same way, except that it is momentary when initiated by duress.

### Wiring Auxiliary Alarm Signaling Equipment

Refer to *Figures 8-5a* and *b* to make connections to the 7720, 7920SE and 7720ULF Long Range Radios.
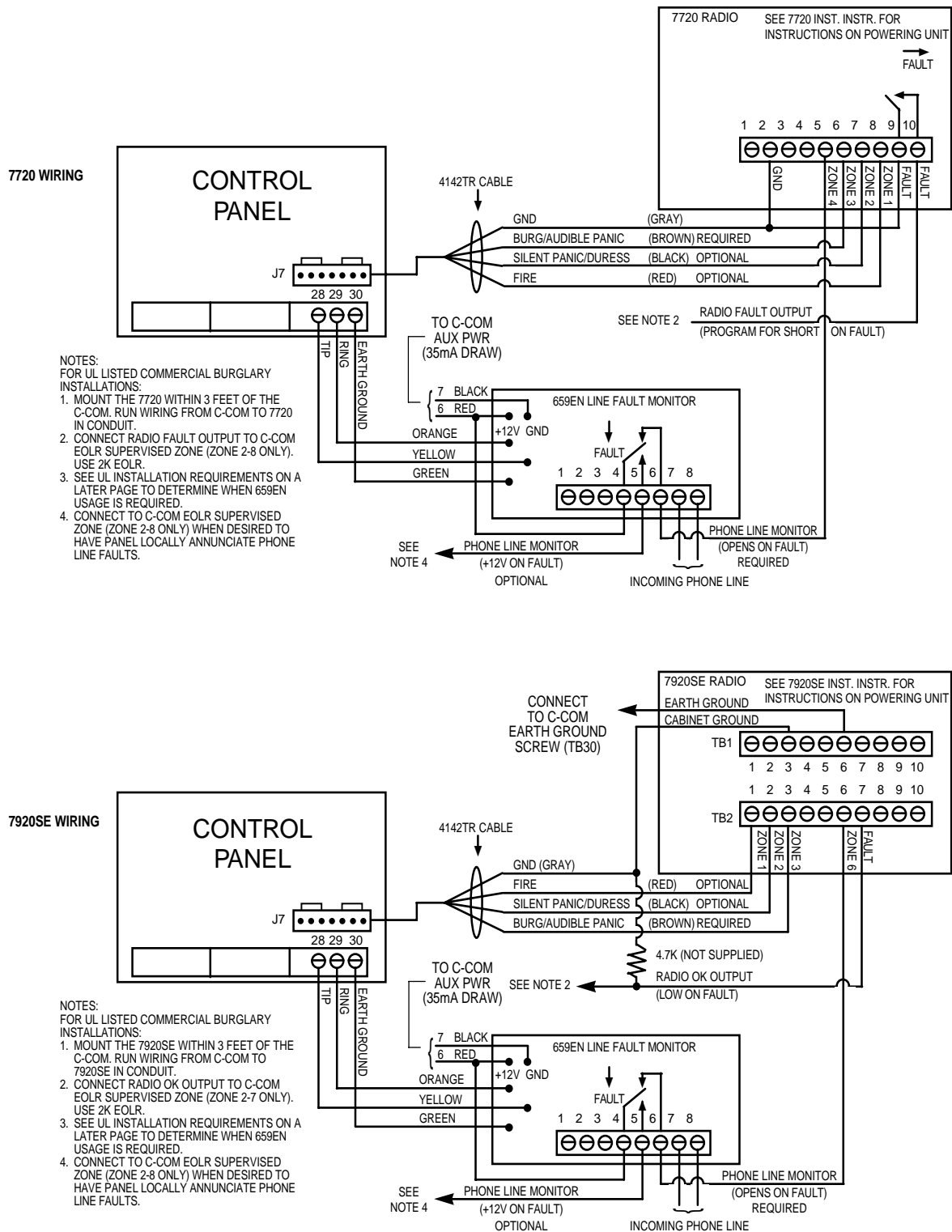
**Figure 8-5a. Connections to 7720 & 7920SELong Range Radios**

7720 ULF WIRING DIAGRAM
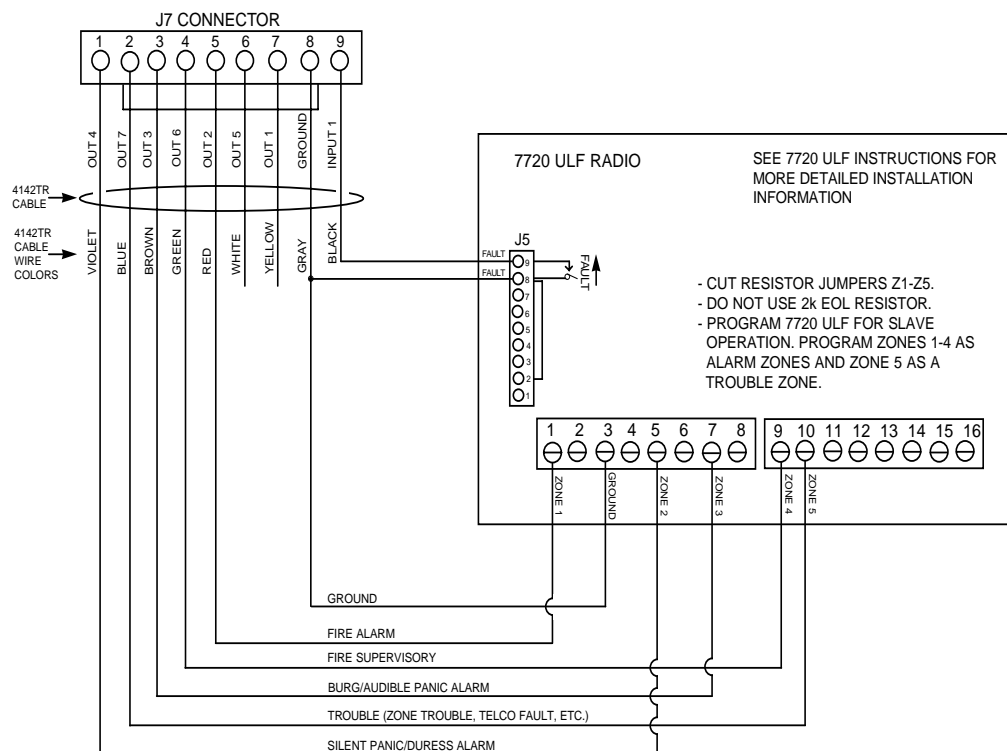


NOTES:
• MOUNT THE 7720 WITHIN 3 FEET OF THE C-COM. RUN WIRING FROM C-COM TO 7720 IN CONDUIT.

**Figure 8-5b.  Connections to 7720ULF Long Range Radio**

**Programming for Auxiliary Alarm Signaling Equipment**

1.  With at least one 2-line alpha keypad 6139 wired and set to a proper address, power up the system temporarily by plugging the AC transformer into a 120VAC outlet (previously wired to the control).

2.  Enter Data Field Programming Mode: **[Installer Code] + 8 0 0**

    Program the following data fields:

    **\*15**   KEYSWITCH ENABLE:  Make sure this field is set to **0**.  The keyswitch and the auxiliary alarm signaling equipment cannot be used together.

3.  Press **\*99** to exit Program Mode.

# Relay Outputs and Powerline Carrier Devices

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

## In This Section

♦ *Relay Basics*

♦ *Wiring the 4204 Relay Module*

♦ *Wiring the 4300 Transformer*

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

## Relay Basics

Relays and Powerline Carrier devices (i.e. X-10 brand devices), used in conjunction with this control panel, are programmable switches that can be used to perform many different functions. They can be used to turn lights on and off, control sounders, and doors or for status indications. In this system, each device must be programmed as to how to act (ACTION), when to activate (START), and when to deactivate (STOP). Each of these is described later in this section.

This control supports up to 8 relays to activate and de-activate as desired. This is provided by 4204 and/or Powerline Carrier devices.

Each 4204 module provides 4 relays with Form C (normally open and normally closed) contacts.

Powerline Carrier devices are controlled by signals sent through the electrical wiring at the premises via a 4300 transformer. Therefore, if using Powerline Carrier devices, a 4300 transformer *must* be used in place of the regular system transformer.

## Wiring the 4204 Relay Module

1. Set the 4204 DIP switches for a device address between 01-15 that is not being used by another device (keypads, RF receivers, etc.).

The relay module will not operate until the device address you have chosen is enabled in *Device Programming* in the *#93 Menu Mode*.

2. Mount the 4204 Module as per the instructions provided with the module. Connect the 4204 Module to the control's keypad terminals (6-9) when mounted remotely from the control. Use the flying lead cable or the screw terminals provided with each relay module to make connections.

3.  When mounted remotely, homerun each module to the control.  The table below shows the maximum wire run lengths from the control to each 4204.

| Wire Gauge | Maximum Length |
|---|---|
| #22 | 125 feet |
| #20 | 200 feet |
| #18 | 300 feet |
| #16 | 500 feet |



| SWITCH POSITION ↓ | 4204 ADDRESS SETTINGS ("—" means "OFF") | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 2 | ON | — | ON | — | ON | — | ON | — | ON | — | ON | — | ON | — | ON | — |
| 3 | ON | ON | — | — | ON | ON | — | — | ON | ON | — | — | ON | ON | — | — |
| 4 | ON | ON | ON | ON | — | — | — | — | ON | ON | ON | ON | — | — | — | — |
| 5 | ON | ON | ON | ON | ON | ON | ON | ON | — | — | — | — | — | — | — | — |
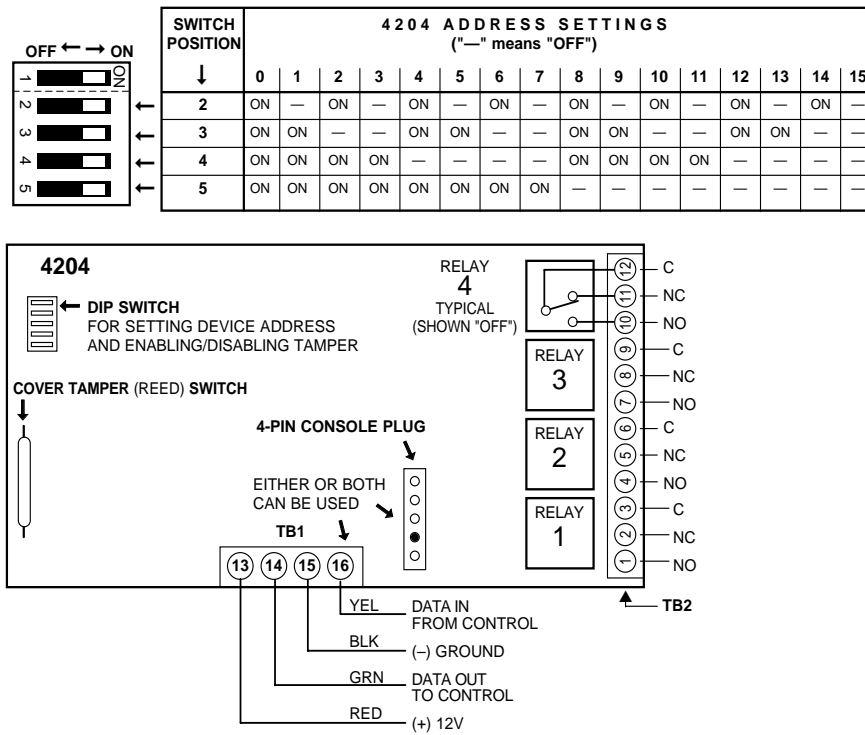


***Figure 9-1:  4204 Relay Module***

## Wiring the 4300 Transformer

Powerline Carrier devices (such as X-10, ACT, Leviton) are either plugged into standard AC outlets or wired into the AC electrical system by a licensed electrician, depending on the type of device used.  They respond to "on" and "off" commands sent from the panel, through the 4300 transformer.  Connect the 4300 transformer as follows:

1.  Run a 6-conductor cable between the 4300 interface and the panel.  Splice this cable to a 4142TR cable as shown in the diagram below. Note that the white and yellow wires of the 4142TR **must be spliced** together.
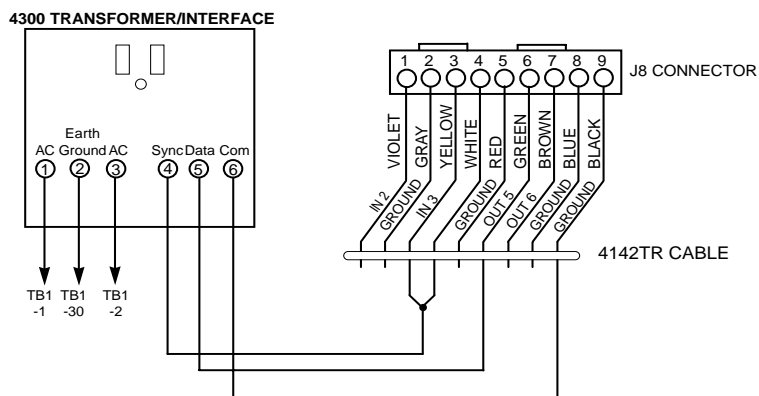


***Figure 9-3: 4300 Wiring Connections***

2.  Set the proper House and Unit Codes for each device following the instructions provided with each device.

Note each device's House and Unit Code setup, as these codes will be used to program the devices in the *Relay Programming* in the *#93 Menu Mode* section.

# 4285/4286 VIP Module

**In This Section**

♦ *General Information*

♦ *Mounting the VIP Module*

♦ *Wiring the VIP Module*

**UL**   The 4285/4286 VIP Module is not permissible for UL installations.

## General Information

The 4285/4286 VIP Module is an add-on accessory that permits access to the security system (and relays) via a TouchTone telephone, either from the premises or by calling the premises from a remote location.  Only one VIP Module can be used in a security system.  This module must be enabled as Device Address 4 in the *Device Programming* in the *#93 Menu Mode*, and must be assigned to a partition.

The 4285/4286 VIP Module offers the following features:

• Allows the user to receive synthesized voice messages over the phone regarding the status of the security system.

• Allows the user to arm and disarm the security system and perform most other commands using the telephone keypad.

• Allows the user to control relays using the telephone keypad.

• Provides voice annunciation over the phone to confirm any command that is entered.

• Announces many of the same words that would normally be displayed on an Alpha keypad under the same system conditions.  Refer to the words in bold on the Alpha Vocabulary list found in the *#93 Menu Mode Programming* section.

• Can be supervised for connection to control panel (annunciated and reported as Zone 87).

Detailed operating instructions for phone access to the security system are provided with the VIP Module.  In addition, a **Phone Access User's Guide** is supplied with the VIP Module for the user of the system.

## Mounting the VIP Module

The VIP Module may be mounted in the control cabinet if space is available, or on the side of the cabinet or adjacent to it. Pry off the VIP Module's cover prior to wiring.

1. When the VIP Module is mounted inside the control cabinet, attach it to the cabinet's interior surface with 2-faced adhesive tape.  You may leave the module's cover off if it is mounted within the cabinet.

Do not mount the VIP Module on the cabinet door or attempt to attach it to the PC board.

2. When the module is to be mounted outside the cabinet, use the screw holes at the rear to mount horizontally or vertically (2-faced adhesive tape may be used, if preferred).  You can bring wires out from the side or back (a round breakout is also available on the back). When you complete the Module's mounting and wiring, you should install the module's cover (with label affixed, as indicated next).

3. Affix the 4285/4286 connections label (supplied separately) to the inside of the VIP Module's cover if the cover is used. Otherwise, affix the label to the inside of the *control cabinet's* door.

## Wiring the VIP Module

The 4285/4286 is wired between the control panel and the premises' handset(s) (see *Figure 10-1*).  It listens for TouchTones on the phone line and reports them to the control panel. During on-premises phone access, it powers the premises phones; during off-premises phone access, it seizes the line from the premises phones and any answering machines.

1. Make 12V (+) and (–) and data-in and data-out connections from the VIP Module to the control, using the connector cable supplied with the VIP Module.  These are the same connections as for remote keypads.

2. Insert the keyed connector at the other end into the mating header on the VIP Module.

3. Connect terminals 1 through 7 on the VIP Module as shown.

### Terminal Block Connections

| 4285/4286 Terminal | Connects to: |
| --- | --- |
| **1.** Phone In (Tip) | green wire of direct connect cord |
| **2.** Phone In (Ring) | red wire of direct connect cord |
| **3.** Phone Out (Tip) | brown wire of direct connect cord |
| **4.** Phone Out (Ring) | gray wire of direct connect cord |
| **5.** No Connection | |
| **6.** Audio Out 1∗ | Speaker |
| **7.** Audio Out 1∗ | Speaker |

∗Supported by the 4286 only

**SPEAKER NOTE:** IF CONNECTING SINGLE SPEAKER, USE 8-ohm SPEAKER ONLY.
IF CONNECTING 2 SPEAKERS, USE 4-ohm or 8-ohm SPEAKERS
AND **CONNECT IN SERIES.**

**4286 VIP MODULE**

**NOTE:**
4286 DEVICE
ADDRESS IS
FACTORY SET
TO "4"

LOUDER
SPEAKER
VOLUME
CONTROL

NO
CONNECTION → KEYED
HEADER

SEE SPEAKER NOTE

GREY
BROWN

CALLER ID
UNIT

TO CONTROL PANEL
KEYPAD CONNECTIONS

TIP RING TIP RING
HANDSET INCOMING
TELCO LINE

EARTH
GROUND

GREEN
RED

YELLOW ── GREEN

4500
THERMOSTAT

YELLOW
NO CONNECTION
RED
BLACK
GREEN

INCOMING TELCO LINE

TIP RING

RJ31X
JACK

TIP
RING

PREMISES
ANSWERING
MACHINE AND
PHONES

ANSWERING
MACHINE

**IMPORTANT NOTE FOR EXISTING INSTALLATIONS:**
EXISTING WIRES CONNECTED TO THE "HANDSET"
TERMINALS ON CONTROL MUST BE MOVED FROM
THERE TO TERMINALS 3 AND 4 ON THE 4286.

U.S. PATENT No. 4791658

THIS DEVICE COMPLIES WITH FCC RULES, PART 68
FCC REGISTRATION No. AC3USA-74659-KX-N
RINGER EQUIVALENCE: 1.0B

**Figure 10-1. 4285/4286 VIP Module Connections**

Use an RJ31X Jack with the phone cable supplied with the control. Make all connections exactly as shown in *Figure 10-1.* This is essential, even if the system is not connected to a central station. **The 4285/4286 will not function properly if this is not done.** If the leads on the cable are too short to reach their assigned terminals, splice additional wires to them, as required.

If TouchTones are not present following phone access to the security system *via an on-premises phone*, try reversing the pair of wires connected to terminals 3 and 4 on the 4285/4286.

If the phone plug is disconnected from the control, the premise's phones will not operate.

# Audio Alarm Verification (AAV) Unit

●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●

### In This Section

♦ *General Information*

♦ *AAV Module Operation*

♦ *Audio Alarm Verification Module Connections*

♦ *Programming Audio Alarm Verification Module Options*

●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●  ●

**UL**   The Audio Alarm Verification (AAV) feature is not UL Listed.

### General Information

An Audio Alarm Verification (AAV) Module (also known as two-way voice), such as the Eagle 1250, is an add-on accessory that permits voice dialog between an operator at a central station and a person at the alarm installation, for the purpose of alarm verification. This feature is supported only if Alarm reports are programmed to be sent to the primary phone number.

Make connections from Eagle 1250 Module terminals 7 and 8 to the control's zone 5 terminals 16 and 17. The purpose of this connection is to silence and restore the sounders at the premises. It is also used to postpone noncritical dialer reports while the AAV session is in progress. Note that zone 5 is then no longer available as a protection zone. When using the AAV, zone 5 must be assigned a zone response type (e.g., response type 10), and field 1*60 must be enabled to silence sounders on the premises.

### AAV Module Operation

After all messages have been sent during a reporting session to the primary phone number, the control will trigger the AAV if at least one of the messages was an Alarm report. If Contact ID format is selected for the primary phone number, the control will send a Listen-in to Follow message (Event Code 606), which signals the 685 (rev. 4.6 or higher) to hold the phone connection for 1 minute.

Once triggering occurs, the control will give up the phone line to the AAV Module, without breaking connection with the central station. During the time the AAV is active, all sirens and all continuous keypad sounds in all partitions will be shut off. When the AAV indicates that the audio alarm verification session is completed, all keypad sounds will be restored. Sirens will be restored if the alarm timeout period has not expired.

As part of its fail-safe software, the control will limit all audio alarm verification sessions to 15 minutes. This is because once the session begins, the AAV Module controls the duration. If a new fire alarm should occur during a session, the control will break the phone connection and send the new Fire Alarm report, then re-trigger the AAV Mode. All other dialer

messages triggered during ongoing conversation will be held until either the AAV Module signals that it is inactive, or the 15-minute timeout occurs.

One way to trigger the AAV Module is by selecting option 3 in field 1*46 and make connections as shown in *Figure 11-1a*.  Field 1*46 can be used to set ground start, remote console sounding, long range radio, or open/close trigger.  If any one of these functions are absolutely necessary in a given installation, the alternative AAV trigger method is via the use of a 4204 Relay Module as shown in *Figure 11-1b*.  If this method is selected, program the start and stop conditions for that relay as choice 60 "Audio Alarm Verification" during *Relay Programming* in the *#93 Menu Mode*.

Some AAV Modules allow remote triggering by ring detection at the alarm installation. Please be advised that if this option is selected, it may defeat modem download and 4285/4286 VIP Module remote access capability.  The DIP switch settings shown in *Figures 11-1a, b and c* disable remote AAV Module trigger option.  The control requires the AAV Module trigger-type as falling edge, which is set in DIP switch settings shown.

1. 685 Receiver software must be rev. 4.6 or higher.  Earlier versions will not hold the phone line connection.

2. Contact ID code for "Listen-in-to-Follow" is 606.  Contact ID is the only reporting format that will send a "Listen-in-to-Follow."

## Audio Alarm Verification Module Connections

Connect the Audio Alarm Verification Module's falling edge trigger input (terminal 5 on Eagle model 1250) to J7 connector trigger output, or to a 4204 relay module, as shown in *Figures 11-1a, b and c.*

If also using a 4285/4286 VIP Module, be sure to follow the corresponding diagram when making connections.

If the phone plug is disconnected from the control, the premise's phones will not operate.
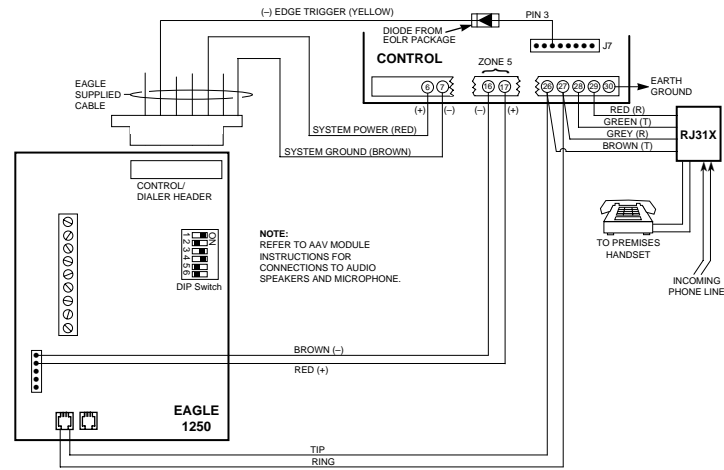
***Figure 11-1a: AAV Connections Using the J7 Trigger***
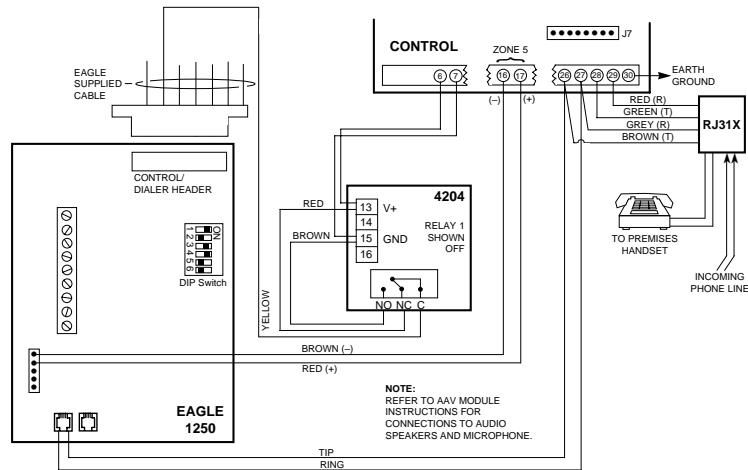


***Figure 11-1b: AAV Connections Using a 4204 Relay Module***
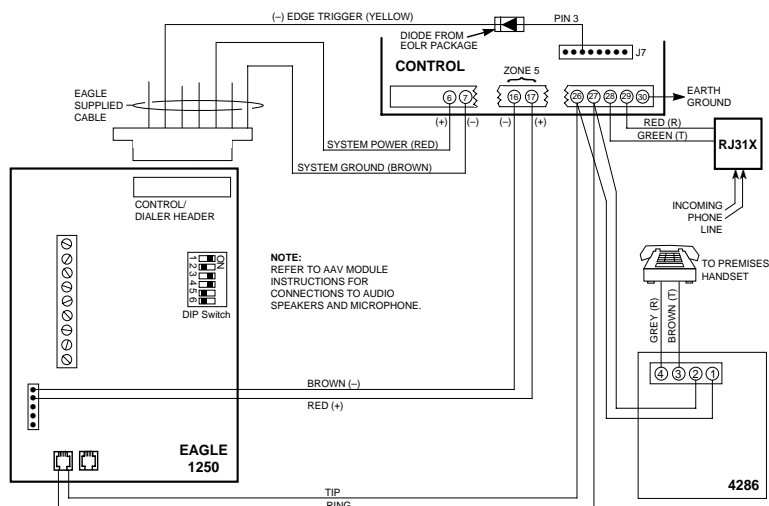


***Figure 11-1c: AAV and VIP Module Connections Using the J7 Trigger***

## Programming Audio Alarm Verification Module Options

1. With at least one 2-line alpha keypad (6139) wired and set to a proper address, temporarily apply power to the system.

2. Enter Data Field Programming Mode: **[Installer Code] + 8 0 0**.

3. Program the following data fields:

   **\*45**    PRIMARY DIALER FORMAT: Set for 1 (Contact ID).

   **1\*46**    AUXILIARY OUTPUT ENABLE: Set for 3 (unless using 4204 Relay Module).

   **1\*60**    ZONE 5/AUDIO ALARM VERIFICATION: Set for 1.

   Set CANCEL REPORT to a non-zero digit in System Group #1 in *Report Code Programming* in the *#93 Menu Mode.*

   ---

   If you need more information about actual programming procedures, see *The Mechanics of Programming* section.

   ---

4. Zone 5 must be programmed for response type 10 and **the EOLR must be removed, regardless of whether or not EOLRs have been enabled in field \*41.** Zone 5 is no longer available as a protection zone.

5. If using a 4204 relay instead of the J7 trigger, program the relay to trip on Zone Type/Sys. Op. 60 Audio Alarm Verification (see *Relay Programming* in the *#93 Menu Mode Programming* section*).*

6. Press \*99 to exit Program Mode.

# External Sounders

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## In This Section

♦ *General Information*

♦ *Alarm Output Supervision*

♦ *Wiring the Alarm Output*

♦ *Compatible Alarm Indicating Devices*

♦ *Programming the Alarm Output*

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## General Information

The VISTA-40 provides a bell circuit output for operating fire and burglary alarm notification appliances.  The alarm output is rated as follows: 10VDC - 14VDC, 1.7A max., power limited.

---

**UL**

1.  For household fire and combination household fire/burglary installations, the total current drawn from the auxiliary power, polling loop, and alarm output combined, must not exceed 750mA.

2.  For household burglary installations the total current drawn from the alarm output must not exceed 1.7A.  A battery must be installed since the combined auxiliary power, polling loop, and alarm output in excess of 750mA must be supplied by the battery.

---

The output has the following options:
*   Selectable for supervision
*   Selectable for confirmation of arming ding (1-2 sec. sounding to confirm system has armed)
*   Selectable to chime when entry/exit or perimeter zones are faulted
*   Selectable for no timeout or timeout of 2-30 minutes

---

**UL**

Burglary bell circuits must be programmed for a timeout of 16 minutes or longer.

---

## Alarm Output Supervision

When supervision is enabled, the panel monitors the alarm output wiring for open and short circuit faults while the output is inactive. The VISTA-40 will provide a trouble indication (Zone 98) when there is an open circuit in the alarm output wiring **that disconnects all indicating devices from the panel**, or when there is a short circuit between the Bell (+) and Bell (-) terminal wiring, (or between the Bell (+) terminal wiring and earth ground provided that the panel's earth ground terminal #30 is connected to a proper earth ground).

The VISTA-40 will indicate a trouble condition regardless of whether the system is armed or disarmed. The supervisory zone will display on the keypads, report to the event log, and transmit to the central station (if programmed), on Partition 1. The Contact ID event code is 321, Bell Trouble.

To use the supervision feature, do the following:

• Wire polarized fire-indicating devices to the alarm output as shown in *Figure 12-1.*

• Wire nonpolarized burglary indicating devices to the alarm output using a polarizing diode (two 2A diodes supplied), as shown in *Figure 12-2*.

• Program Zone 98 with a response type of 05 (trouble by day/alarm by night). See *Zone Programming* in the *#93 Menu Mode.*

The minimum load on the alarm output must exceed 5mA at 12V for proper supervision operation.

If a device such as a siren driver with a high resistance trigger input (drawing less than 5mA) is being used, do the following:

• Cut the blue jumper on the upper left-hand corner of the panel's PC Board.

• Program Zone 98 with a response type of 00 (no response). See *Zone Programming* in the *#93 Menu Mode.*

• Mount the siren driver in the panel's cabinet.

**UL**  If a device such as a siren driver with a high resistance trigger input (drawing less than 5mA) is being used in a UL household fire installation, the siren driver must independently supervise siren speaker wiring.

To disable the supervision feature, do the following:

• Cut the blue jumper on the upper left-hand corner of the panel's PC Board.

• Program Zone 98 with a response type of 00 (no response). See *Zone Programming* in the *#93 Menu Mode.*

# Wiring the Alarm Output

### UL985 Household Fire or Combination Household Fire/Burglary Installations

For installations, which must provide UL Listed protection, the total current drawn from the alarm output, auxiliary power output, and polling loop combined, must not exceed 750mA in order to comply with the battery independence requirements.  If, for example,  two System Sensor PA400 piezo alarm sounders, wired in parallel, are used (24mA total), then 726mA (750mA – 24mA) is available for auxiliary output and polling loop use.

Wire polarized fire-indicating devices to the alarm output as shown in *Figure 12-1.*
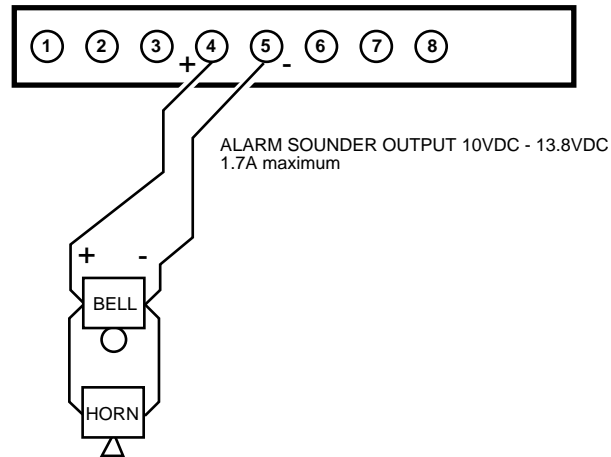


***Figure 12-1:  Wiring Polarized Fire Indicating Devices***

### UL1023 Household Burglary Installations

For household burglary installations the total current drawn from the alarm output must not exceed 1.7A.  A battery must be installed since the combined auxiliary power, polling loop, and alarm output, in excess of 750mA must be supplied by the battery.

Wire nonpolarized burglary indicating devices to the alarm output using a polarizing diode as shown in *Figure 12-2*.
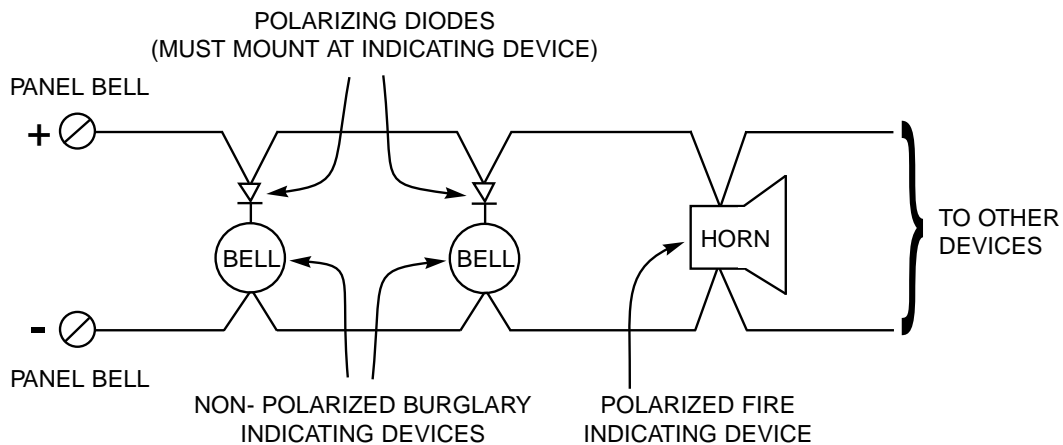


***Figure 12-2:  Wiring Nonpolarized Burglary Indicating Devices***

**UL** This control complies with National Fire Protection Association (NFPA) requirements for temporal pulse sounding of fire notification appliances.

### Non-UL Installations

For non-UL installations, the total current drawn from this output can be up to 1.7 amps.  A battery must be installed since current in excess of 750mA is supplied by the battery.  Up to two 719 sirens can be used wired in parallel.

## Compatible Alarm Indicating Devices

Compatible devices are listed below.  See *Figures 12-1* and *12-2* to make connections to the output.

**UL** Use only UL Listed sounding devices for UL installations

| Model Number | Device Type | Requires Polarizing Diode |
|---|---|---|
| **719** | **Compact Outdoor Siren (not UL Listed)** | Yes |
| **747** | **Indoor Siren** | Yes |
| **AB12** | **Grade A Bell** | Yes |
| **System Sensor MA 12/24D** | **Fire Piezo Horn** | No |
| **System Sensor P12575** | **Fire Horn/Strobe** | No |
| **Wheelock  AS-121575W** | **Fire Horn/Strobe** | No |

## Programming the Alarm Output

1.  Enter Data Field Program Mode **[Installer Code]** + **8 0 0.**
2.  Program the following data fields:
    - **\*13**     Select Timeout for Bell
    - **\*16**     Confirmation of Arming Ding for Bell
    - **\*21**     PREVENT FIRE TIMEOUT (**1**=no timeout; **0**=fire timeout
    - **\*23**     MULTIPLE ALARMS (partition-specific)
    - **1\*47**     Enable Chime for Bell
3.  Exit Program Mode by pressing **\*99**.

# Final Power-Up Procedure

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

### In This Section

♦ *Connecting the AC Transformer*

♦ *Earth Ground Connections*

♦ *Back-up Battery Calculations*

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

## Connecting the AC Transformer

Primary power to the control panel is supplied by model No. 1361 Plug-in Transformer (use 1361CN Transformer in Canadian installations), which is rated at 16.5VAC, 40VA. Use the 4300 Transformer if using Powerline Carrier Devices. Caution must be taken when wiring this transformer to the panel to guard against blowing the fuse inside the transformer (non-replaceable).

Before connecting the AC transformer, connect all zone, polling loop, keypad, auxiliary device and bell circuit wiring. Mount and wire the 1361 Transformer as follows:

1. Fill out the Polling Loop Current Draw and Auxiliary Power Current Draw Worksheets shown later in this section. Make sure that the currents drawn from these outputs do not exceed their respective ratings.

> ⚠ Failure to observe the polling loop current rating will cause a polling loop malfunction. Failure to observe the auxiliary output current rating will result in a battery, which does not charge properly or possibly a tripped circuit breaker.

2. Calculate the size of the back-up battery needed for the installation using the worksheets and tables shown later in this section.

3. Wire the transformer to terminals 1 & 2 on the control panel (before connecting the battery), as shown *Figure 13-1.*

4. Plug the transformer into a 24-hour, uninterrupted AC outlet. After a few seconds, the green READY LED on the keypad(s) should light and the keypad(s) should display DISARMED READY TO ARM (Alpha keypads), or READY (Fixed-word keypads).

5. Connect the battery to the battery tabs on the control board using the battery cables supplied (use Red for + to +, Black for – to –). See *Figure 13-1.*

## Earth Ground Connections

In order for the lightning transient protective devices in this product to be effective, the designated earth ground terminal must be terminated in a good earth ground. The following are examples of good earth grounds available at most installations:

**Metal Cold Water Pipe:** Use a non-corrosive metal strap (copper is recommended) firmly secured to the pipe to which the ground lead is electrically connected and secured.

**AC Power Outlet Ground:** Available from 3-prong, 120VAC, power outlets only. To test the integrity of the ground terminal, use a three-wire circuit tester with neon lamp indicators, such as the UL-Listed Ideal Model 61-035, or equivalent, available at most electrical supply stores.
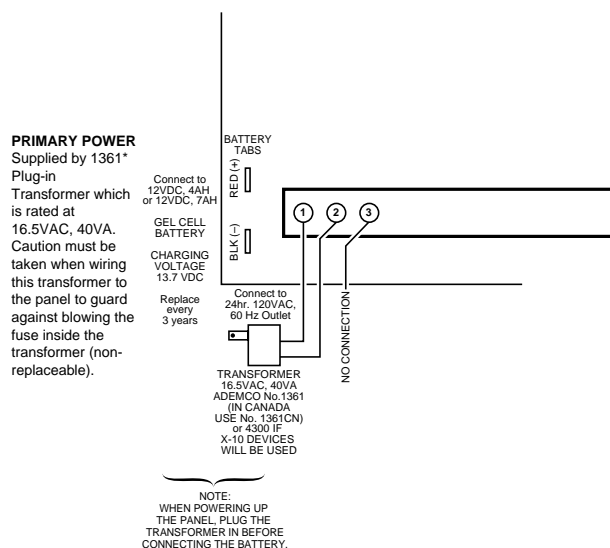


*Figure 13-1:  AC Power and Battery Connections*

## Back-Up Battery Calculations

When used in UL985 Household Fire or Combination Household Fire/Burglary installations, a back-up battery must be used to provide 24 hours of standby time followed by 4 minutes of alarm time.  When used in UL1023 Household Burglary only installations, a back-up battery must be used to provide 4 hours of standby time followed by 4 minutes of alarm time.

Use the worksheets below to determine the required back-up battery capacity and battery model number.  A dual battery harness is supplied which allows two batteries to be wired in parallel for increased capacity. **Do not use Gates batteries.**

The standby battery is automatically tested every 4 hours for 10 minutes, beginning 4 hours after exiting programming mode.  In addition, entry into the test mode will cause a battery test to be initiated.

**Polling Loop Current Draw Worksheet**

| RPM Device | Current | # Units | Total Current |
|---|---|---|---|
| 998MX PIR | 1mA | | |
| 4191SN Contact | 1mA | | |
| 4194 Contact | 1 mA | | |
| 4192SD Photo Smoke | 0.4 mA | | |
| 4192SDT Smoke w/Heat | 0.4 mA | | |
| 4192CP Ionization Detector | 0.4 mA | | |
| 4275 Dual Element PIR | 1 mA | | |
| 4278Quad Element PIR | 1 mA | | |
| 4190WH 2-Zone RPM | 1 mA (LOW) | | |
| | 2 mA (HIGH) | | |
| 4208 8-Zone RPM | 16 mA | | |
| 4278EX-SN PIR | 1mA | | |
| 4939SN Contact | 1mA | | |
| 4959SN Contact | 1mA | | |
| | | | |
| | | **Total Current\*** | |

\* If the total current draw exceeds 64 mA, a 4297 Loop Extender module must be used.

**Auxiliary Power Current Draw Worksheet**

| Device | Current | # Units | Total Current |
|---|---|---|---|
| 6128 Keypad | 30mA | | |
| 6137 Keypad | 85mA | | |
| 6139 Keypad | 100mA | | |
| 675 Ground Start Module | 50 mA | | |
| 4281 RF Receiver | 35mA | | |
| 5881 RF Receiver | 60mA | | |
| 4297 Poll Loop Extender | 50mA + ext. loop† | | |
| 4204 Relay Module | 15mA standby | | |
| | 40mA per active relay | | |
| \*\* | | | |
| \*\* | | | |
| | | **Total Current**\* | |

\* For UL fire or fire/burglary installations 750mA maximum including alarm output and polling loop.

\*\* If using hardwire devices such as PIRs, refer to the specifications for that particular unit's current draw.

† Only applies if powered from control's auxiliary power.

**Alarm Output Current Draw Worksheet**

| Device | Current | # Units | Total Current |
|--------|---------|---------|---------------|
|        |         |         |               |
|        |         |         |               |
|        |         |         |               |
| **Total Alarm Output∗** | | | |

∗For UL fire or fire/burglary installations 750mA maximum including aux power and polling loop.
∗For UL burglary installations 1.7A maximum.

**Total Current Draw Worksheet**

| Output | Total Standby Current | Total Alarm Current |
|--------|----------------------|---------------------|
| Auxiliary Power Total |  |  |
| Polling Loop Total |  |  |
| Alarm Output Total |  |  |
| PC Board Current | 250mA | 330mA |
| **Total Current Draw** |  |  |

**Battery Calculation Table**

| Capacity | Formula | Calculated Value |
|----------|---------|------------------|
| Standby | For 4 hour standby time, use following formula: Total standby load x 4 hours x 1.4 loading contingency factor |  |
|  | For 24 hour standby time, use following formula: Total standby load x 24 hours x 1.1 contingency factor |  |
| Alarm | Total alarm load x 0.067 hours (for 4 minute alarm) Total alarm load x 0.25 hours (for 15 minute alarm) |  |
| **Total** | **Add standby and alarm capacities** |  |

**Battery Selection Table**

| Capacity | Recommended Battery | Comments |
|----------|---------------------|----------|
| 4AH | Yuasa NP4-12 |  |
| 7AH | Yuasa NP7-12 |  |
| 12AH | Yuasa NP12-12 | Fits in large mercantile cabinet only |
| 14AH | Yuasa NP7-12 | Connect two batteries in parallel |
| 17.2AH | Yuasa NPG18-12 | Fits in large mercantile cabinet only |

Note:The cabinet supplied with the VISTA-40 can house up to two 12V, 7AH batteries wired in parallel.

# *Event Log Options*

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

## *In This Section*

♦ *General Information*

♦ *Programming Event Log Options*

♦ *Event Logging Procedures*

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

## General Information

The VISTA-40 has the ability to record up to 100 events of various types in a history log. Each event is recorded in one of five categories with the time and date of its occurrence (if real-time clock is set).  These categories are:

- Alarm
- Supervisory/check
- Bypass
- Open/close
- System conditions

The log may be viewed (Display Mode) on an alpha keypad.

## Programming Event Log Options

1. With at least one alpha keypad (6139) wired and set to a proper address, temporarily apply power to the system.
2. Enter Data Field Programming Mode: **[Installer Code] + 8 0 0.**
3. Program the following data fields:

    **1*70** EVENT LOG TYPES (**1**=enable; **0**=disable for each type)

    **1*71** 12/24 HOUR TIME STAMP FORMAT (**0**=12 hr; **1**=24 hr)

    **1*40 & 1*41** Enter report codes for Time/Date Set and Event Log Reset.
4. Exit Program Mode by pressing **\*99**.

---

If you need more information about actual programming procedures, see *The Mechanics of Programming* section.

---

## Event Logging Procedures

In order for proper time and date stamping to occur, the system's real-time clock must be set. Refer to the *Setting the Real Time Clock* section.

| Commands | |
|---|---|
| **Display Mode:** | Installer or Master Code + [#] + [6] + [0] |
| **Clear Event Log:** | Installer or Master Code + [#] + [6] + [2] |
| **To EXIT Event Log:** | Press [∗] at any time. |

**Display:** After entering the Display Mode, the following will be displayed:

```
ENTER 0 = RECENT
1 = COMPLETE
```

The event log holds up to 100 events, and can display all events in a category (complete), or only those events in a category occurring since the last "Clear Event Log" command (recent). Note that once the event log is full, the oldest event will be erased upon the logging of any new event. Press the desired Display Mode key, 0 or 1.

```
SCAN LOG BY PART
0=NO   1-2=PART #
```

The system allows viewing of any partition's event log. Enter the partition number for the partition whose events are to be displayed. Entering 0 (NO) will display all events that occurred in the system, regardless of partition. Events are displayed in chronological order, from most recent to oldest.

For display purposes, events are stored on a partition-by-partition basis (except system events), and are grouped into five categories, as follows.

**Use the [3] & [1] keys to scroll** to the next and previous screens, respectively:

```
ALARM EVENT LOG
TYPE        CCC UUU
```

Displays time/date for zones that have either caused an alarm or have been restored in selected partition.

```
CHECK EVENT LOG
TYPE        CCC UUU
```

Displays time/date for zones that have caused a trouble or supervisory condition in selected partition.

```
BYPASS EVENT LOG
TYPE        CCC UUU
```

Displays time/date for zones that have been bypassed in selected partition.

```
OP/CL EVENT LOG
TYPE        CCC UUU
```

Displays time/date and user number for each arming and disarming of the system for the partition selected.

```
SYSTEM EVENT LOG
TYPE        CCC UUU
```

Displays time/date for system problems, such as AC loss, communication failure, etc., regardless of partition.

```
ALL EVENT LOG
TYPE        CCC UUU
```

Displays all categories of events in chronological order, from most recent to oldest.

**To display the events in a particular category, press [8]** at the desired category screen.

When Display Mode, the most recent event is displayed. Press [1] to display older events; press [3] to go forward in time.

```
P2 01/01        12:02A
BURGLARY         003
```

Shows a burglary alarm occurred in zone 3 of Partition 2, at 12:02AM on January 1.

After the last event in the selected category has been displayed (using either the [1] or [3] keys), the following will appear for a few seconds:

```
END OF EVENT LOG
TYPE        CCC UUU
```

```
CLEAR EVENT LOG
0=NO  1=YES
```

Press [1] if Event Log Clear function is to be performed. Clearing the event log does not erase any events from the system memory. All events in the log will still be displayed if the COMPLETE option is selected. Only those events occurring from the time of the CLEAR command will be displayed if RECENT display option is selected. Press [0] if event log is **not** to be cleared at this time.

If [1] is pressed, the following will appear:

```
ARE YOU SURE?
0=NO  1=YES
```

Press [1] if it is desired to clear the event log. Press [0] if event log is not to be cleared.

**SCREEN DEFINITIONS**

| | |
|---|---|
| **RECENT** | Events since last CLEAR |
| **COMPLETE** | Displays all events |
| **TYPE** | Type of event (burglary, fire, etc.) |
| **CCC** | Zone (contact) number |
| **UUU** | User number |

# *The Mechanics of Programming*

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### *In This Section*

♦ *Using Data Field Program Mode*

♦ *System and Communication Defaults*

♦ *Entering Data Field Programming Mode*

♦ *Moving from One Page of Programming to Another*

♦ *Viewing Data Fields*

♦ *Entry Errors*

♦ *Programming System-Wide Data Fields*

♦ *Programming Partition-Specific Data Fields*

♦ *#93 Menu Mode Programming*

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

## Using Data Field Program Mode

Data Field Program Mode is the mode through which many system options are programmed. The field numbers on the program form show the number of entries required for each field. When an entry is completed, the keypad beeps three times and automatically advances to the next field.  At this point, you can either make the required entry in the new field, or press [∗] + the next field number you want to program.

There are several "question and answer" modes, which we call "Menu" Modes, that can be accessed once Data Field Program Mode has been entered.  These modes prompt the user for information, and for this reason, a 2-line alpha keypad (6139) is required.

## System and Communication Defaults

* The system is shipped with a set of pre-programmed default values that are designed to meet the needs of many installations.  These can be changed by the installer to suit specific needs, if desired.

* There are four sets of pre-programmed communication defaults available, including Low Speed, 4+2 Express, ADEMCO High Speed, and ADEMCO Contact ID.  Loading one of these defaults automatically programs industry standard codes that will suit most of your needs.

* These defaults can be changed directly from the 6139 Alpha Keypad or they can be changed by using V-LINK OR COMPASS downloading software (be sure that the software version used includes the VISTA-40). Downloading can be performed either remotely from an IBM-compatible computer (using an approved modem) or at the job site (direct-wire download using the 4100SM Serial Module).

The factory-loaded defaults (*97) enable keypad addresses 00-03 only. A keypad set to one of these addresses must be used to program the system.

## Entering Data Field Programming Mode

Enter Program Mode using either method A or B:

A. Press both the [∗] and [#] keys at the same time within 30 seconds after power is applied to the control.

B. Enter the **[Installer Code] + [8] + [0] + [0]** keys.  The factory installer code can be changed once in the Program Mode (field ∗00).

Local keypad programming can be disabled through V-LINK or Compass downloading software. If this is done, programming can only be accomplished via the downloading software.

## Moving from One Page of Programming to Another

The data fields are grouped into three levels (referred to as "pages").  The first page is accessed as soon as Programming Mode is entered.

The second and third pages of data fields are indicated at the keypad by a 1, and 2, respectively, in front of the 2-digit field address.  The words "ALT PROGRAM MODE" is displayed along with a "100, or "200," depending on which page of program fields is accessed, to indicate the higher page of fields.

1. To access the next level of fields, press ∗94.

2. Then press [∗] + [XX], where XX = the last two digits of the program field, and make the desired entry.

3. To return to the previous page of fields, press ∗99.

**press *94 to move to 2nd page;     press *99 to move back to 1st page**

second page of fields
(1∗01-1∗76)

**press *94 to move to 3rd page;     press *99 to move back to 2nd page**

third page of fields
(2∗00-2∗21)

## Viewing Data Fields

To view the contents of a data field, press [#] plus the 2-digit field address. The field's entries will be displayed, but no changes can be made.

## Entry Errors

- If an address is improperly entered, the keypad will display "FC".

- If a program entry is improperly entered (for example, a larger number than that which is permitted), the keypad display will go blank.

- In either of the above cases, simply re-enter [∗] + the correct field number.

| SUMMARY OF DATA FIELD PROGRAMMING COMMANDS | |
|---|---|
| **\*91** | Select partition for programming partition-specific fields |
| **\*92** | Will display the software revision level of the control panel |
| **\*93** | Enters Menu Mode programming |
| **\*94** | Go to next page of fields |
| **\*99** | Go back to previous page of fields or exit Programming Mode with no installer code lockout |
| **\*98** | Exit Programming Mode with Installer Code lockout |

## Programming System-Wide Data Fields

Values for some programming fields are system-wide (global), and some can be different for each partition (partition-specific). Note that the partition-specific programming fields are automatically skipped when programming the global fields. If the system has only 1 partition, the partition-specific fields *will not* be automatically skipped. To program system-wide data fields, do the following:

1. Enter Program Mode: **[Installer Code] + 8 0 0.**

2. After entry into the Program Mode, the following will be displayed:

> Program Mode
> \*Fill # View -00

3. If the control has not been programmed before, **enter \*97 to load factory defaults.**

4. **Press [✶] and enter the first field number to be programmed** (for example, ✶00, Installer's Code). Make the desired entry. When the field is complete, the keypad will beep three times and will automatically advance to the next field. If you do not desire to change the next field, press [✶] and enter the next field number to be programmed.

> First Page of fields
> (\*00-\*90)

**press \*99 or \*98 to exit Program Mode**

5. If the number of digits that you enter in a data field is fewer than the maximum permitted (for example, a phone number), the keypad displays the last entry and waits. To proceed, enter [✶] + the next data field you wish to program (e.g., press ✶15).

Partition-Specific Programming Fields are skipped unless entered specifically.

6. To change to the next page of fields, press **\*94**. To return to the previous page of fields, press **\*99**.

## Programming Partition-Specific Data Fields

To program partition-specific data fields once in Program Mode, do the following:

1. Press **\*91**, which will prompt you for the partition number desired.

2. Enter a partition-specific field number (e.g., ✶09) to begin programming. When the first field's entry is completed, the next partition-specific field will automatically be displayed. When all partition-specific fields are programmed, the system returns to the global programming fields (page 1 fields). To return to the global program fields before finishing all fields, enter any global field number.

3. Repeat this procedure for each partition in the installation.

**PROGRAMMING PARTITION-SPECIFIC FIELDS**

| |
|---|
| **Press \*91 to select a partition.** |
| ↓ |
| **Enter the partition to be programmed.** |
| ↓ |
| **Enter a partition-specific field # and make entry.** |
| ↓ |
| **After partition-specific fields are programmed,** |
| **press \*91 to select next partition.** |
| |
| **Enter any global field number to return to the global fields at any time.** |
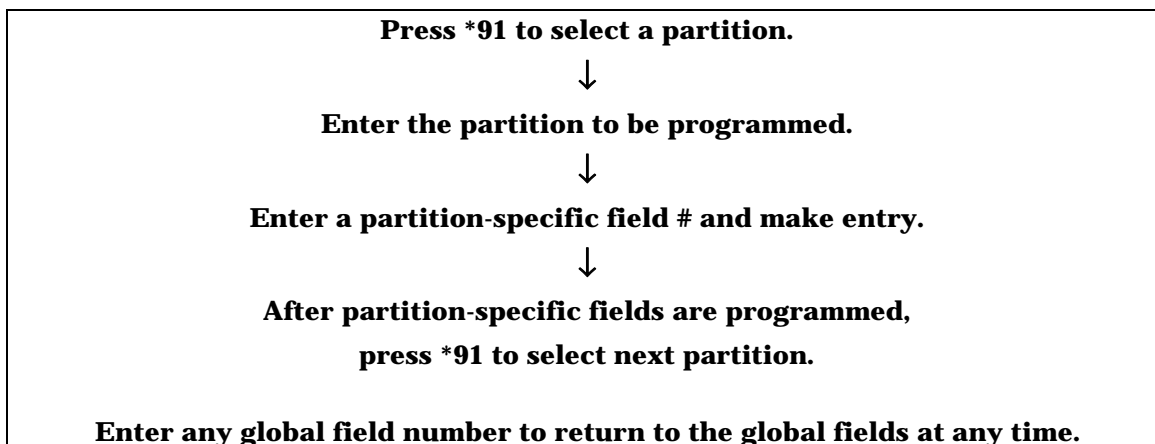
## #93 Menu Mode Programming

The #93 Menu Mode is a mode through which much of the system's programming is done. It offers main menu selections for the following:

- Zone Programming
- Sequential Mode Programming
- Alpha Programming
- Device Programming
- Relay Programming
- Relay Voice Descriptors
- Custom Index Programming (VIP Module substitute words)
- Clear Serial RF

Press 0 (NO) or 1 (YES) in response to the displayed menu selection. Pressing 0 will display the next choice in sequence. The keypad will then prompt you with questions regarding the programming of a particular zone or device. (Refer to the individual sections to program each option shown.)

The following is a list of commands used while in the Menu Mode.

### #93 Menu Mode Key Commands

| | |
|---|---|
| #93 | Enters Menu Mode. |
| [∗] | Serves as ENTER key. Press to have keypad accept entry. |
| [#] | Backs up to previous screen. |
| 0 | Press to answer NO. |
| 1 | Press to answer YES. |
| 00+[∗] | Escapes from Menu Mode, back into Data Field Programming Mode, if entered at the first prompt of each main menu option. |

# Zone Type Definitions

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### *In This Section*

♦ *Zone Number Designations*

♦ *Zone Type Definitions*

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## Zone Number Designations

The VISTA-40 supports up to 64 zones of hardwire, polling loop and/or wireless protection, distributed among up to 2 partitions. The following table lists the zone numbers and the types of sensors that can be used with each in this system, and some alternate functions the zones may be used as:

| Zone | Sensors |
|------|---------|
| 1 | 2-wire Smoke Detectors (if used) |
| 5 | Audio Alarm Verification (if used) |
| 7 | Keyswitch (if used) |
| 8 | Latching-Type Glassbreak Detectors (if used) |
| 1-9 | Traditional Hardwired Zones |
| 9 | Programmable for Fast Response |
| 1-64 | Wireless Devices |
| 10-64 | Polling Loop Devices |
| 95 | * + 1 Panic |
| 96 | # + 3 Panic |
| 99 | * + # Panic |

## Zone Type Definitions

Each zone must be assigned a zone type, which defines the way in which the system responds to faults in that zone. In addition, there are three keypad-activated zones (panic keys; see note) for each partition, a polling loop supervision zone, and four RF supervisory zones, two for each RF receiver installed. Zone types are defined below.

### Type 00: Zone Not Used

Program a zone with this zone type if the zone is not used.

### Type 01: Entry/Exit #1 Burglary

This zone type provides entry delay whenever the zone is faulted if the control is armed in the AWAY or STAY Modes. When the panel is armed in the INSTANT or MAXIMUM Mode, no entry delay is provided. Exit delay begins whenever the control is armed, regardless of the arming mode selected. These delays are programmable. This zone type is usually assigned to sensors or contacts on doors through which primary entry and exit will take place.

## Type 02: Entry/Exit #2 Burglary

This zone type provides a secondary entry delay whenever the zone is faulted if the panel is armed in the AWAY and STAY Modes. When the panel is armed in the INSTANT or MAXIMUM Mode, no entry delay is provided. Secondary exit delay begins whenever the control is armed, regardless of the arming mode selected. These delays are programmable. This zone type is usually assigned to sensors or contacts on doors through which more time is needed to get to and from the keypad.  Delay times for this zone type must be greater than zone type 01 (e.g., a garage, loading dock, or basement door).

## Type 03: Perimeter Burglary

This zone type gives an instant alarm if the zone is faulted when the panel is armed in the AWAY, STAY, INSTANT or MAXIMUM mode. This zone type is usually assigned to all sensors or contacts on exterior doors and windows.

## Type 04: Interior, Follower

This zone type gives a delayed alarm (using the programmed entry/exit time) if the entry/exit zone is faulted first. Otherwise this zone type gives an instant alarm. This zone type is active when the panel is armed in the AWAY or MAXIMUM mode. MAXIMUM mode eliminates the entry delay. **This zone type is bypassed automatically when the panel is armed in the STAY or INSTANT mode**. This zone type is usually assigned to a zone covering an area such as a foyer, lobby, or hallway through which one must pass upon entry or exit (After faulting the entry/exit zone to reach the keypad to disarm the system.)  Since this zone type is designed to provide an instant alarm if the entry/exit zone is not violated first, it will protect an area in the event an intruder hides on the premises prior to the system being armed, or gains access to the premises through an unprotected area.

## Type 05: Trouble by Day/Alarm by Night

This zone type will give an instant alarm if faulted when armed in the AWAY, STAY, INSTANT or MAXIMUM (night) mode.  During the disarmed state (day), the system will provide a latched trouble sounding from the keypad (and a central station report, if desired).  This zone type is usually assigned to a zone that contains a foil-protected door or window (such as in a store), or to a zone covering a "sensitive" area such as a stock room, drug supply room, etc.  It can also be used on a sensor or contact in an area where immediate notification of an entry is desired.

## Type 06: 24-Hour Silent Alarm

This zone type sends a report to the central station but provides no keypad display or sounding. This zone type is usually assigned to a zone containing an Emergency button.

## Type 07: 24-Hour Audible Alarm

This zone type sends a report to the central station and provides an alarm sound at the keypad and an audible external alarm. This zone type is usually assigned to a zone that has an Emergency button.

## Type 08: 24-Hour Auxiliary Alarm

This zone type sends a report to central station and provides an alarm sound at the keypad.  **(No bell output is provided.)**  This zone type is usually assigned to a zone containing a button for use in personal emergencies, or to a zone containing monitoring devices such as water sensors, temperature sensors, etc.

## Type 09: Supervised Fire (Without Verification)

This zone type provides a fire alarm on short circuit and a trouble condition on open circuit. The bell output must be programmed to pulse when this zone type is shorted. This zone type is always active and cannot be bypassed.

## Type 10: Interior with Delay

This zone type gives entry and exit delays (using the programmed entry/exit time), if tripped when the panel is armed in the AWAY mode. This zone type is also active during MAXIMUM Mode, but no entry delay is provided (alarms occur immediately if zone is tripped). **This zone type is automatically bypassed when the panel is armed in the STAY or INSTANT mode.** Delay begins whenever sensors in this zone are violated, regardless of whether or not an entry/exit delay zone was tripped first.

## Type 20: Arm-STAY*

This is a special-purpose zone type used with 5800 Series wireless transmitters, which will result in arming the system in the STAY Mode when the zone is activated.

## Type 21: Arm-AWAY*

This is a special-purpose zone type used with 5800 Series wireless transmitters, which will result in arming the system in the AWAY Mode when the zone is activated.

**Type 22: Disarm\***

This is a special-purpose zone type used with 5800 Series wireless transmitters, which will result in disarming the system when the zone is activated.

**Type 23: No Alarm Response**

This zone type can be used on a zone when an output relay action is desired, but with no accompanying alarm (e.g., for lobby door access).

∗ Note that these zone types are for use by 5800 Series devices *only!*

---

**NOTE FOR PANIC KEYS:** Keypad panic zones share the same zone response type for both partitions, but panics may be individually enabled for each partition.

---

**IMPORTANT! FAULT ANNUNCIATION**

Polling loop and RF troubles (zones 97, 88, 89, 90 & 91) will report as trouble conditions only, and as such, should be assigned zone type 05 if annunciation is desired. See *Polling Loop Supervision* in the *2-Wire Polling Loop Expansion* and *RF System Operation and Supervision* in the *Wireless Expansion* sections for more information.

# *Zone Index/Zone Type Defaults*

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## *In This Section*

♦ *Zone Index*

♦ *Zone Type Defaults*

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## Zone Index

The VISTA-40 has 64 protection zones, as well as supervisory zones for ECP devices (devices which communicate through the keypad terminals), and system troubles.  These zones are designated as follows:

| ZONE # RANGE | ZONE FUNCTION | ACTUAL ZONE | |
|---|---|---|---|
| 01 - 64 | Protection zones | As indicated | |
| 87 – 91, 97, & 98 | System Supervisory Zones | 87: | Voice Module Supervision |
| | | 88: | 2nd Wireless Receiver - not receiving signals |
| | | 89 | 2nd Wireless Receiver – not communicating with control |
| | | 90: | 1st Wireless Receiver - not receiving signals |
| | | 91 | 1st Wireless Receiver – not communicating with control |
| | | 97: | Polling Loop (short circuit) |
| | | 98: | Bell Supervision |
| 95, 96, & 99 | Keypad Panics | 95: | 1 + ∗ panic (A key) |
| | | 96: | 3 + # panic (C key) |
| | | 99: | ∗ + # panic (B key) |

Response types for zones are enabled in *Zone Programming* in the *#93 Menu Mode.*
Supervisory zones should be given a response type of 05 (Trouble by Day, Alarm by Night).

## Zone Type Defaults

Following are the zone type defaults for zones on the VISTA-40:

| Zone # | Zone Type |
|--------|-----------|
| 01 | 09 |
| 02 | 03 |
| 03 | 03 |
| 04 | 03 |
| 05 | 03 |
| 06 | 03 |
| 07 | 03 |
| 08 | 03 |
| 09 | 03 |
| 10–64 | 00 |

| Zone # | Zone Type |
|--------|-----------|
| 87 | 00 |
| 88 | 00 |
| 89 | 00 |
| 90 | 00 |
| 91 | 00 |
| 95 | 00 |
| 96 | 00 |
| 97 | 05 |
| 98 | 00 |
| 99 | 06 |

# Data Field Descriptions

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

The following is a description of all data fields provided by this control. If you have followed earlier instructions during the installation of the various devices, many of these fields will already have been programmed.

If you need more information about actual programming procedures, see *The Mechanics of Programming* section.

**\*00   INSTALLER CODE**                                                                                  (4140)  | | | |

The Installer's Code is a 4-digit code reserved for installation company use. This is the only code that can be used to enter the Program Mode from the keypad. This code cannot be used to disarm the system if not used to arm the system. This code cannot reenter Programming Mode if exited by the \*98 command.

**\*09   ENTRY DELAY #1**  (partition-specific)                                                      [02]  |

Entry delay defines the delay time which allows users to re-enter the premises through a door that has been programmed as an entry delay door and disarm the system without sounding an alarm. The system must be disarmed within this period or an alarm will occur. Enter the entry delay time (**01-15** multiplied by 15 seconds, or **00** for no delay), up to a maximum delay of 225 seconds (entry **15** multiplied by 15 seconds), for zones assigned to Zone Type 01.

**\*10   EXIT DELAY #1**  (partition-specific)                                                        [03]  |

Exit delay defines the delay period that allows users to leave the premises through a door that has been programmed as an entry/exit delay door after arming the system without setting off the alarm. Enter the exit delay time (**01-15** multiplied by 15 seconds or **00** for no delay), up to a maximum delay of 225 seconds, for zones assigned to Zone Type 01.

**\*11   ENTRY DELAY #2**  (partition-specific)                                                      [06]  |

Entry Delay #2 is used for a secondary door requiring a longer delay than those assigned to Entry Delay #1. This delay may not exceed 45 seconds for UL commercial burglary installations.

**\*12   EXIT DELAY #2**  (partition-specific)                                                        [08]  |

Exit Delay #2 is used for a secondary door requiring a longer delay than those assigned to Exit Delay #1. This delay may not exceed 60 seconds for UL commercial burglary installations.

**\*13   BELL TIMEOUT**  (partition-specific)                                                        [04]  |

Defines the length of time Bell Output 1 and the keypad's sounder will sound for all audible alarms (multiply entry 01-15 by 2 minutes for actual duration).

Must be a minimum of 16 minutes for UL commercial burglary installations.

**\*14   ZONE 9 RESPONSE TIME**                                        [0] ⬜

Enter **1** to set fast response mode (10 msec) for appropriate devices wired to zone 9.
Enter **0** for normal response (350 msec).  Must be **0** for UL.

**\*15   KEYSWITCH ASSIGNMENT**                                        [0] ⬜

Enter the partition number **1-2** in which the keyswitch is being used.  Otherwise, enter
**0.**

Requires the use of zone 7 wired loop (zone 7 is no longer available as protection zone
when used for keyswitch operation).  If the keyswitch is used, the fire and panic alarm
voltage triggers automatically become ARMING and READY status outputs for support
of the Keyswitch LEDs.

Reports openings/closing by user "0" if reporting is enabled in field *40.

**\*16   CONFIRMATION OF ARMING DING**  (part.-specific)              [0] ⬜

Enter **1** to enable 1/2 second external alarm sounding ("ding") at the end of exit delay (or
after kissoff from the central station, if sending closing reports).  Otherwise enter **0**.
Must be 1 for UL commercial burglary installations.  Bell test on arming is required in
UL commercial burglary installations.

**\*17   AC LOSS KEYPAD SOUNDING**                                     [0] ⬜

Enter **1** to enable sounding at the keypad (rapid beeping) when AC power is lost
(sounding occurs about 2 minutes after actual AC loss).

Enter **0** if no AC power loss keypad sounding is desired.

**\*19   RANDOMIZE AC LOSS REPORT**                                    [0] ⬜

Selecting this option helps prevent an overload of AC loss messages at the central
station during a community blackout.

Enter **1** to randomize AC loss reporting between 10 and 40 min. after an actual AC loss.

**\*20   VIP MODULE PHONE CODE**                          [00, 11] ⬜ | ⬜ |

If a 4285/4286Voice Module is being used, enter the 2-digit phone code used to access
the system.

Enter **01-09** for first digit, and enter **11** (for ✳) or **12** (for #) for second digit.

To disable the voice module, enter **00** for the 1st digit and enter **11** for the 2nd digit of
the code (disable code = 00,11).  Must be disabled for commercial fire and UL
commercial burglary installations.

**\*21   PREVENT FIRE TIMEOUT**                                        [0] ⬜

Enter **1** to disable (no timeout) the alarm sounder duration for any zone designated as a
fire zone, regardless of partition, so that fire sounding continues until the system is
reset.

Enter **0** if the normal burglary sounder duration (programmed in partition-specific field
*13) should apply to fire alarms.

**\*22   KEYPAD PANIC ENABLES**  (partition-specific)          [001] ⬜ | ⬜ | ⬜
                                                                   95   96   99

Enter **1** to enable the appropriate keypad panics used in this partition.

Otherwise enter **0**.

**\*23   MULTIPLE ALARMS**  (partition-specific)                    [0]

Determines whether or not more than one alarm can be sounded in a given zone during an armed period.  Note that multiple alarm soundings will not occur more frequently than allowed by the programmed alarm sounder duration.  This selection applies to local sounding and has no impact on the number of communication messages transmitted. Refer to ∗84 Swinger Suppression for limiting communication messages.  Enter **1** if this feature is desired. Enter **0** if not desired.  Must be 1 for UL installations.

**\*24   IGNORE EXPANSION ZONE TAMPER**                    [0]

Enter **1** to disable (ignore) tamper.

Enter **0** if tamper detection is desired.  Must be **0** for UL installations.

**Note:** Only applicable to certain polling loop sensors with tamper switches or 5800 Series transmitters.  This option is used to disable tamper detection on these devices.

**\*25   BURG. TRIGGER FOR RESPONSE TYPE 8**                    [1]

Enter **1** to allow optional triggering of the Burglary/Audible Panic output on J7 header to include zone response type 8 (24-hr. auxiliary).

Enter **0** if only burglary and audible panic alarms (zone type 7) will be triggered.

**\*26   INTELLIGENT TEST REPORTING**                    [0]

Enter **1** if no test report is to be sent if any other type of report was sent since the last test report.

Enter **0** if test reports are to be sent at the set intervals, regardless of whether or not other reports have been sent.  Must be **0** for UL applications.

**\*27   TEST REPORT INTERVAL**                    (024)

Enter the test reporting interval in hours, **001-199.**

Enter **000** if no test reporting is desired. If a test report is desired, enter a test code in *Report Code Programming* in the *#93 Menu Mode.*

Set first test report time in field \*83.

Max. 024 for UL commercial burglary installations.

**\*28   POWER UP IN PREVIOUS STATE**                    [1]

Enter **1** if upon power-up, after a prolonged power loss which caused the system's battery to discharge, the system will assume the system status prior to the power loss.

Enter **0** if the system is always to power up in a disarmed state.  When the system powers up armed, an alarm will occur 3 minutes after arming if a zone is faulted.  When so armed, the system reports closing as User #0 if Open/Close reporting for installer was enabled in field \*39.  Note that if the previous state was armed AWAY or STAY, the system may not respond to sensor changes for a small period of time (1-3 min.), which allows sensors such as PIRs to stabilize.

**Note:** Must be **1** for UL applications. Note that authority levels 0 or 5 cannot be used to disarm the system if the control powers up armed.

**\*29  QUICK ARM**  (partition-specific)                                      [1] ☐

Enter **1** to enable arming of the burglary system in AWAY, STAY, INSTANT or MAXIMUM modes by using the # key instead of the user code. When armed, the system reports closing as User 0 if Open/Close reporting for User #2 (typically a Master level user) was enabled for a given partition.

Enter **0** if Quick Arm is not desired. (The user code must always be used to disarm the system.) Note that if Quick Arm is used, the Installer Code and Authority Level 5 codes cannot disarm the system.

**\*30  TOUCHTONE OR ROTARY DIAL**                                           [1] ☐

Enter **1** if TouchTone service is being used.

Enter **0** if rotary phone service is used.

> If selecting TouchTone, make sure the subscriber has requested and is paying for TouchTone service.  Note that whether or not TouchTone dialing for call placement is permitted, communication by the use of DTMF signaling (ADEMCO High Speed) will still take place. See field 1\*33 for TouchTone w/Rotary backup.

**\*31  PABX ACCESS CODE**                              ☐ | ☐ | ☐ | ☐

This field is used to enter up to four 2-digit numbers 00-09; B-F (11-15).  If not required, enter nothing and proceed to next address; otherwise, enter prefix needed to obtain an outside telco line.

**\*32  PRIMARY SUBSCRIBER ACCT #** (partition-specific)   ☐ | ☐ | ☐ | ☐

Enter 00-09; B-F (11-15)    [15      15      15      15]

Enter a 3-or 4-digit (depending on report format) primary subscriber account number 00-09; B-F (11-15). Each number requires a 2-digit entry so as to allow entry of hexadecimal digits (B-F). If a 3-digit account number is to be used, enter data only in the first 3 locations, leaving the last one unfilled, by entering a \*.

**\*33  PRIMARY PHONE NUMBER**              ☐|☐|☐|☐|☐|☐|☐|☐|☐|☐|☐|☐

This field is used to enter the primary central station phone number, up to 12 digits, **0-9; enter #11 for \*, #12 for #, and #13 for a 2-sec. pause.**  This is the phone number the control will use to transmit Alarm and status messages to the central station.  Do not fill unused spaces.

**Note:** Backup reporting is automatic only if a secondary phone number is entered.

**\*34  SECONDARY PHONE NUMBER**           ☐|☐|☐|☐|☐|☐|☐|☐|☐|☐|☐|☐

This field is used to enter the secondary phone number, up to 12 digits, **0-9; enter #11 for \*, #12 for #, and #13 for a 2**-sec. pause.**  The secondary phone number is used if communication on the primary number is unsuccessful, or if split/dual reporting is desired.  Do not fill unused spaces.  If this field is programmed, a secondary subscriber account number (field \*90) *must* also be programmed (can be the same as the primary account number).

**\*35  DOWNLOAD PHONE NUMBER**            ☐|☐|☐|☐|☐|☐|☐|☐|☐|☐|☐|☐

This field is applicable only if downloading will be utilized.

Enter the downloading phone number, up to 12 digits, **0-9**; **enter #11 for \*, #12 for #, and #13 for a 2-sec. pause.**  Do not fill unused spaces.

**\*36  DOWNLOAD ID NUMBER**

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|

Enter eight digits, 00-09; A-F (10-15). Only applicable if downloading will be utilized. Make entries as 2-digit numbers as follows:

00=0   02=2   04=4   06=6   08=8   10=A   12=C   14=E

01=1   03=3   05=5   07=7   09=9   11=B   13=D   15=F

**\*37  DOWNLOAD COMMAND ENABLES**

| Dialer Shutdown | System Shutdown | Not Used | Remote Bypass | Remote Disarm | Remote Arm | Upload Program | Download Program |
|---|---|---|---|---|---|---|---|

Each of the various remote functions can either be enabled or disabled through V-LINK or Compass downloading software.  Disabling a function means that you will not be able to perform that function from the V-LINK or Compass.

Enter **1** to enable a function, enter **0** to disable.  See field 1\*53 to disable the download callback option.  For UL commercial burglary installations, all entries must be **0**.

**\*38  PREVENT ZONE XX BYPASS**  (partition-specific)                    [00] | |

Entering a zone number **(01-64)** prevents that zone from being bypassed by the user.

Enter **00** if this feature is not desired (all zones can be bypassed).

**\*39  ENABLE OPEN/CLOSE REPORT FOR INSTALLER CODE**(partition-specific)    [0] | |

Enter **1** if Open/Close reporting for the installer is desired.

Otherwise enter **0**.

**\*40  OPEN/CLOSE REPORTING FOR KEYSWITCH**                    [0] | |

Enter **1** to enable Open/Close reporting for the keyswitch.

Enter **0** if reporting is not desired.

**\*41  NORMALLY CLOSED OR EOLR (ZONES 2-8)**                    [1] | |

Enter **0** if end-of-line resistors are to be used.

Enter **1** if end-of-line resistors are not to be used, in which case only **normally closed** devices must be used.

Must be **0** for UL installations.

**\*42  DIAL TONE PAUSE**                    [0] | |

This field sets the time the system will wait for dial tone before dialing.  Applies if true dial tone is not selected in field \*43.

Enter the desired wait time for dial tone detection as follows:

Enter single digit: **0** = 5 seconds; **1** = 11 seconds; or **2** = 30 seconds.  Must be **0** for UL installations.

**\*43   DIAL TONE DETECTION**                                             [1] ☐

Determines whether the control will wait for a true dial tone before dialing, or if it will wait for a predetermined delay before dialing (delay is programmed in Dial Tone Pause field \*42). The latter may be necessary in high-noise environment telco networks where noise can be confused with dial tone, resulting in premature dialing.

Enter **1** for true dial tone wait. If no dial tone is detected, will dial at end of pause programmed in field \*42.

Enter **0** to pause for seconds entered in field \*42, then dial.

**\*44   RING DETECTION COUNT**                                          [00] ☐

Only applicable if using a 4285/4286VIP Module and/or if station-initiated downloading will be used.

Enter **00** to disable ring detection.

Enter **01-14** for ring counts of 1-14.

Enter **15** to select Answering Machine Defeat Mode, which allows the system to receive calls even when a telephone answering machine is connected to the same phone line.  In the Answering Machine Mode, the caller should let the phone ring once, then hang up, and call again within 30 seconds. The system, upon hearing one ring followed by nothing, will not answer the first call, but will ready itself to pick up on the first ring of the next incoming call that is received within 30 seconds (i.e., the downloader calling again).  Must be **00** for UL commercial burglary installations.

**Note:** Do not enter 00 if a 4285/4286is installed.

**\*45   PRIMARY FORMAT**                                                 [0] ☐

This field selects the reporting format for use on the primary telephone number.

Enter the appropriate number for the primary format as follows: **0**=Low Speed; **1**=Contact ID; **2**=ADEMCO High Speed; **3**=ADEMCO Express

**\*46   LOW SPEED FORMAT (PRIMARY)**                                     [0] ☐

Enter the appropriate value: **0**=ADEMCO Low Speed; **1**=Sescoa/Radionics

**\*47   SECONDARY FORMAT**                                              [0] ☐

This field selects the reporting format for the secondary telephone number.

Enter the appropriate number for the secondary format as follows: **0**=Low Speed; **1**=Contact ID; **2**=ADEMCO High Speed; **3**=ADEMCO Express

**\*48   LOW SPEED FORMAT (SECONDARY)**                                   [0] ☐

Enter the appropriate value: **0**=ADEMCO Low Speed; **1**=Sescoa/Radionics

**\*49   CHECKSUM VERIFICATION**                                       [0,0] ☐ ☐

Enter **1** for either or both primary/secondary formats to send a verification digit to validate the message at the receiver without having to send two message rounds. Selection is valid for 3+1, 4+1, and 4+2 reports.

Enter **0** if not desired.

**\*50   SESCOA/RADIONICS SELECT**                                 [0] ☐

Enter **0** if Radionics format is to be used with hexadecimal 0-9, B-F reporting.  Enter **1** if Sescoa format is to be used with only numeric reporting (0-9). Note that selection applies to both primary and secondary phone numbers.

**\*51   DUAL REPORTING**                                          [0] ☐

This field allows all reports to be sent to both primary and secondary phone numbers.

Enter **1** if all reports are to be sent to both primary and secondary phone numbers.  If used with Split Reporting option **1** (1\*34), Alarms go to both primary and secondary numbers, while all other reports go to secondary only.  If used with Split Reporting option **2**, Alarms go to both lines, Open/Close and Test messages go to secondary only, while all other reports go to primary.

**\*52   STANDARD/EXPANDED REPORT PRIMARY**

☐ ☐ ☐ ☐ ☐ ☐
Alm   Rst   Byp   Trbl   Opn/Cls   Low Batt

Enter **0** [default] for standard or **1** for expanded reporting for the primary phone number; default is **0**.

**Note:** Expanded overrides 4+2 format.

**\*53   STANDARD/EXPANDED REPORT SECONDARY**

☐ ☐ ☐ ☐ ☐ ☐
Alm   Rst   Byp   Trbl   Opn/Cls   Low Batt

Enter **0** [default] for standard or **1** for expanded reporting for the secondary phone number; default is **0**.

**Note:** Expanded overrides 4+2 format.

**\*54 - \*78   REPORT CODES FOR ZONES 1-64, 87-99**

Enter the appropriate report codes for each zone used in the system.

**\*79   ZONE TYPE RESTORES FOR ZONE TYPES 1-8**

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
1   2   3   4   5   6   7   8

Enter **1** to enable Restore reporting for individual zone types.

Enter **0** [default] if no Restore report is desired for a zone type.

**\*80   ZONE TYPE RESTORES FOR TYPES 9/10**

☐ ☐
9   10

Enter **1** to enable Restore reporting for individual zone types.

Enter **0** [default] if no Restore report is desired for a zone type.

**\*81 - \*82   NON-ALARM REPORT CODES**

Enter the appropriate report codes as indicated on the program form.

**\*83   FIRST TEST REPORT TIME**               (00 12 00)   | | | | | |

Enter the day (**00-07**) and time (**00-23 hours/00-59 min.**) that the first Test report shall be transmitted.

Enter **00** in all locations if the Test report is to be sent immediately upon exiting.

Enter **00** in the day location if the report is to be sent at the next occurrence of the time that is set.

**Note:** that day 01=Monday. See *Report Code Programming* (System Group 1) in the *#93 Menu Mode Programming* section for assigning the Test Report Code.

**\*84   SWINGER SUPPRESSION**  (partition-specific)               [03]  |  |

This option limits the number of messages (alarms or troubles) sent for a specific channel in an armed period (Swinger Suppression). Enter **01-15**. If **00** is selected, all alarm or trouble codes are reported.

Must be **00** (disabled) for UL installations.

**\*85   ENABLE DIALER REPORTS FOR PANICS & DURESS**       [0] ☐ ☐ ☐ ☐

(partition-specific)                                                95   96   99   Duress

Enter **1** for each panic/duress for which reporting is desired.

**Note:** Non-zero report code must be assigned to zone 92 (duress) to enable Duress reporting.

**\*86   4208 MODULE ZONE ASSIGNMENT**                           [0] ☐

Entering **1** allows a single 4208 to be set to zone numbers 10-17 (see table), but precludes the use of any other polling loop expansion.

Enter **0** for all other configurations, such as no 4208, more than one 4208 or other polling loop expansion present.

**Note:** The addresses must match the table below.

4208 Zone #s available when:

| ✶86 = 1 | ✶86 = 0 |
|---|---|
| 10-17 | 10-16 |
| Precludes use of any other polling loop expansion. | 17-32 |
| | 33-40 |
| | 41-48 |
| | 49-56 |
| | 57-64 |

Note: When ✶86 =1 4208 DIP switches must be set to:

| With word "OFF" | With word "ON" |
|---|---|
| sw 2 =  ON | sw 2 =  OFF |
| sw 3 =  ON | sw 3 =  OFF |
| sw 4 =  ON | sw 4 =  OFF |
| sw 5 =  OFF | sw 5 =  ON |

**\*87   ENTRY WARNING**  (partition-specific)                      [1] ☐

Enter **0** for 3 short beeps, or **1** for slow beeps that continue for the entire entry delay period.

**\*88   BURG. ALARM COMM. DELAY**  (partition-specific)            [0] ☐

Enter **0** for no delay on burglary alarm communication. Enter **1** for 16-second delay (no delay on 24-hour reports). Must be **0** for UL installations.

**\*89  RESTORE REPORT TIMING** [0]

Enter **0** for instant Restore report as zone restores.

Enter **1** for reporting after bell timeout if zone restored.  Enter **2** for Restore report when system is subsequently disarmed.  Must be **2** for UL commercial burglary installation.

**\*90  SECONDARY SUBSCRIBER ACCT #**

(partition-specific)          Enter 00-09; B-F (11-15)    [15    15    15    15]

Enter the 3-or 4-digit number (depending on report format) for the secondary subscriber account: 00-09; B-F (11-15).  Each number requires a 2-digit entry to allow entry of hexadecimal digits (B-F). If a 3-digit number is to be used, enter data only in the first 6 locations, leaving the last two unfilled. Default=15 15 15 15.  Erase the field by entering \*90\*. NOTE: This field *must* be programmed if a secondary phone number is used (field \*34). This account number can be the same as the primary account number.

**1\*28  RF TX LOW BATTERY SOUND** [0]

Enter **0** if audible beep and display annunciation upon RF transmitter low battery condition is desired only in disarmed state.

Enter **1** if audible beep and display is desired in both armed and disarmed states.

Must be 1 for UL.

**1\*29  RF TX LOW BATTERY REPORTING** [0]

Enter **1** if a trouble message for RF transmitter low battery conditions is to be sent to the central station.

Enter **0** if no report for transmitter low battery is desired. Note that a trouble message will be sent for a transmitter supervision failure independent of this selection.

Must be 1 for UL.

**1\*30  RF RCVR SUPERVISION CHECK-IN INTERVAL** [06]

Enter the check-in monitoring interval in 2-hour increments.

Enter 02-15 times 2 hours (4-30 hours).

Failure of a receiver to receive any RF signal within the time entered will result in activation of the response type programmed for zone 90 for the first receiver and zone 88 for the second receiver and their related communication reports.

Enter 00 to disable receiver supervision.

Max. "2" (4 hr) for UL.

**1\*31  RF TRANSMITTER CHECK-IN INTERVAL** [12]

Enter the check-in monitoring interval in 2-hour increments;

Enter 02-15 times 2 hours (4-30 hours).

Failure of an individual transmitter to send a supervision signal within the time entered will result in a trouble response and related communication report.  Entry 00 disables transmitter supervision.

Max. "2" (4 hr) for UL.

**1*32 RF RECEIVER TYPE** [0]

Enter **0** if no receiver is being used.

Enter 1 if using 4281 series receivers.

Enter **2** if using 5881 series receivers.

**1*33 TOUCH-TONE W/ROTARY BACKUP** [0]

Enter **1** to enable Rotary back-up dialing if communicator is not successful on dialing using touch-tone DTMF on first attempt.

Enter **0** if this option is not desired.

**1*34 COMM. SPLIT REPORT SELECTION** [0]

This field allows certain reports to be directed to either the primary or secondary phone number.

Enter **0, 1, or 2,** in accordance with the following:

**0** = split reporting disabled;

**1** = alarm, alarm restore & cancel reports sent to primary telco number, all others to secondary telco number;

**2** = open/close & test reports sent to secondary telco number and all other reports to primary;

See *51 for split/dual reporting combinations.

**1*40 - 1*41   ARM STAY & TIME SET REPORT CODES**

Enter the appropriate report codes as indicated on the program form.

**1*43 PERMANENT KEYPAD DISPLAY BACKLIGHTING** (partition-specific) [0]

Enter **1** if it is desired that backlighting for the keypad display remain on at all times.

Enter **0** if the display should remain unlit unless a key is pressed. The backlighting then turns off again after a period of keypad inactivity. Note that when a key is pressed, display backlighting turns on for **all** keypads in that partition.

**1*44 WIRELESS KEYPAD TAMPER DETECT** [0]

Enter **1** to enable tamper detection on wireless keypad.

Enter **0** if tamper detection is not desired.  If this feature is enabled, any attempt to tamper by means of many trial entries at a wireless keypad will be blocked by the control panel.  If more than 40 key depressions are received without a valid sequence (arm, disarm, etc.), the control panel will disable the wireless keypad.  The inhibit is removed once a valid key sequence is received from a wired keypad.

**1*45 EXIT DELAY SOUNDING**  (partition-specific) [0]

Enter **1** if beeping from the keypads during exit delay is desired.  Enter **0** for no keypad sound during exit delay.

**1*46  AUXILIARY OUTPUT MODE**                                [0] ☐

Enter **0** if ground start output is required.

Enter **1** if the auxiliary output will be used to produce an open/close trigger (produced only if ALL partitions are armed).

Enter **2** if the auxiliary output will be used to produce keypad-like sounding at an auxiliary sounder (ex. 706-12).  This option applies only to the partition enabled in field *15.

Enter **3** if AAV module is being used.

**NOTE:** Only one of the above options may be active within the system.

**1*47  CHIME ON EXTERNAL SIREN**  (partition-specific)        [0] ☐

Enter **1** for chime annunciation using the external alarm sounder. If not desired, enter **0**.

**1*48  WIRELESS KEYPAD ASSIGNMENT**                           [0] ☐

Enter the partition in which RF keypad is used, **1-2.**
Enter **0** if no RF keypad is used.

**1*49  SUPPRESS TX SUPERVISION SOUND**                        [0] ☐

Enter **1** to disable trouble sounding for transmitter check-in failure.
Enter **0** if audible trouble sounding is desired.
Must be "0" for UL.

**1*52  SEND CANCEL IF ALARM + OFF** (partition-specific)      [0] ☐

Enter **1** if cancel reports to be sent when the system is disarmed after an alarm, regardless of how much time has gone by.

Enter **0** if cancel reports are to be sent within Bell Timeout period only.

**1*53  DISABLE DOWNLOAD CALLBACK**                            [0] ☐

Enter **1** to disable the callback requirement for downloading.
Enter **0** to require a callback.
Must be **0** for UL Commercial Burglary installations.

**1*57  ENABLE 5800 RF BUTTON GLOBAL ARM**                     [0] ☐

Enter **1** to have the system arm/disarm in accordance with the button's user's global arming settings.
Enter **0** if the button is not to be used to global arm the system (however, home partition arming will still occur).

**1*58  ENABLE 5800 RF BUTTON FORCE ARM**                      [0] ☐

Enter **1** to allow the RF Button user to force a bypass of all faulted zones when arming the system.  When attempting to arm the system, the keypad will beep once after pressing the button if any faulted zones are present.  If this feature is enabled, the user should then press the button again within 4 seconds to force bypass those zones and arm the system.

Enter **0** if RF button force bypass is not desired.

**1*60 ZONE 5 AUDIO ALARM VERIFICATION** [0] ☐

Enter **1** if 2-Way Audio (AAV) is being used.

Enter **0** if AAV is not being used. Must be 0 for UL installations.

**1*66 SILENCE BELLS DURING AAV** [0] ☐

Enter **1** if alarm sounders are silenced during the AAV session and resume after the AAV session ends (unless sounder timeout has occurred).

Enter **0** if alarm sounders continue to sound during AAV session. Must be 0 for UL installations.

**1*70 EVENT LOG TYPES** ☐ ☐ ☐ ☐ ☐ ☐

Alm   Chck  Byps  O/C  Systm Test

Enter **1** for each type of event for which event logging is desired.

Otherwise enter **0**.

**1*71 12/24 HOUR TIME STAMP FORMAT** [0] ☐

Select the type of time stamping desired:

0=standard 12 hour; 1= 24 hour format.

**1*74 RELAY TIMEOUT XXX MINUTES** [000] | |

Enter the relay time-out, **000-127** in multiples of 2 minutes, desired for #80 Menu Mode time driven event relay command numbers "04/09" and *Relay Programming* in the *#93 Menu Mode Programming* output command "56" (refer to *#93 and #80 Menu Mode* sections in this manual).

**1*75 RELAY TIMEOUT YYY SECONDS** [000] | |

Enter the relay time-out, **000-127** seconds, desired for #80 Menu Mode time driven event relay command numbers "05/10" *Relay Programming* in the *#93 Menu Mode Programming* command "57" (refer to *#93 and #80 Menu Mode* sections in this manual.

**1*76 ACCESS RELAY # #** (partition-specific) [00] | |

The system can be programmed to provide user activated access control. If enabled, the assigned relay will pulse for 2 seconds when the user enters his code and presses "0". Enter the relay number (**00-08**) for the relay that will be used for access control. Enter **00** if not used in this partition. This function has not been UL Listed for use with the VISTA-40 control. Must be **00** for UL installations.

**2*00 NUMBER OF PARTITIONS** [1] ☐

Enter the number of partitions (**1-2**) to be used in the system.

**2*01 DAYLIGHT SAVINGS TIME START/END MONTH** [04,10] | | | |

Enter the months **00-12** in which daylight savings time starts and ends.

Enter **00, 00** if daylight savings time does not apply to the user's region. Standard setting for U.S. is 04,10.

**2*02 DAYLIGHT SAVINGS TIME START/END WEEKEND** [1,5] ☐ ☐

Enter the start and end weekends for daylight savings time as follows: 1=first; 2=second; 3=third; 4=fourth; 5=last; 6=next to last; 7=third from last.  Standard setting for U.S. is 1,5.

**2*17  NUMBER OF CODES PER PARTITION**                    [69,01] | | | |

Enter **01-69** for each partition used in the system. Enter 01 for an unused partition. Total number of user codes in the system must be less than or equal to 70.

**Note** that one user number is automatically assigned (installer code) to each partition, regardless of whether that partition has been enabled.

**2*18  ENABLE GOTO FOR THIS PARTITION** (partition-specific)          [0] □

Enter **1** if this partition is to be accessed from another partition's keypad using the GOTO command. Otherwise enter **0**.

**2*19  USE PARTITION DESCRIPTOR**                                      [1] □

Enter **1** if partition descriptors will be programmed. If enabled, the normal keypad display will include a partition number and four-digit descriptor).

Enter **0** to cause the keypads to display a non-partitioned system type of display (no partition number will appear).

**2*20  ENABLE J7 TRIGGERS FOR PARTITION** (partition-specific)         [1] □

**2*21  SUPERVISION PULSES FOR LRR**                    [00000] | | | |
                                                                F   B   P

Used for supervised connection to 7920SE.

Enter **1** to enable pulses for each type of LRR trigger (Fire, Burglary/Audible Panic, Silent Panic/Duress.  This option causes the control to send periodic short pulses on the J7 radio triggers These pulses are used by the 7920SE to determine that its connection to the control is still intact.

Enter **0** if not desired.

Must be **1** for Commercial Burglary and UL.

# #93 Menu Mode Programming

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

## In This Section

♦ *#93 Main Menu Options*

♦ *Zone Programming*

♦ *Sequential Mode Programming*

♦ *Alpha Descriptors Programming*

♦ *Device Programming*

♦ *Relay Programming*

♦ *Zone List Programming*

♦ *Relay Voice Descriptors*

♦ *Custom Word Substitutes for VIP Module Annunciation*

♦ *RF Serial Number Clear Mode*

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

## #93 Main Menu Options

> The following fields should be programmed before beginning: 2*00: Number of Partitions; 1*32: RF Receiver Type.

After programming all system-related programming fields in the usual way, press #93 while still in Programming Mode to display the first choice of the menu-driven programming options, which are as follows:

```
ZONE PROG?
0=No     1=Yes
```

For programming the following:

- Zone number
- Zone response type
- Partition number for zone
- Dialer Report Code for zone
- Input device type for zone (whether RF, polling loop, etc.)

Enrolling serial numbers of 5800 Series transmitters and serial polling loop devices into the system (all other zone characteristics must be pre-programmed).

| SEQUENTIAL LEARN? | | For programming the following: |
| --- | --- | --- |
| 0=No | 1=Yes | |

- Input device type for zone (whether RF, polling loop, etc.)
- Enrolling serial numbers of 5800 Series transmitters and serial polling loop devices into the system (all other zone characteristics must be pre-programmed).

| ALPHA PROG? | | For entering alpha descriptors for the following: |
| --- | --- | --- |
| 0=No | 1=Yes | |

- Zone descriptors
- Installer's message
- Custom words
- Partition descriptors
- Relay descriptors

| DEVICE PROG? | | For defining the following device characteristics for addressable devices, including keypads, RF receivers (4281/5881), 4204 Output Relay Modules, and 4285/4286VIP Module: |
| --- | --- | --- |
| 0=No | 1=Yes | |

- Device address
- Device type
- RF House ID

| RELAY PROG? | | For defining output relay functions. |
| --- | --- | --- |
| 0=No | 1=Yes | |

| RLY VOICE DESCR? | | For entering voice descriptors for relays to be used with the 4285/4286VIP Module. |
| --- | --- | --- |
| 0=No | 1=Yes | |

| CUSTOM INDEX ? | | For creating custom word substitutes for VIP Module annunciation. |
| --- | --- | --- |
| 0=No | 1=Yes | |

| CLEAR RF SERIAL#? | | For deleting all RF serial numbers presently enrolled in the system. |
| --- | --- | --- |
| 1=Yes | 0=No | |

Press **0** (NO) or **1** (YES) in response to the displayed menu selection.  Pressing 0 will display the next choice in sequence.  Refer to the *Zone Programming* part of this section for instructions on how to program zone characteristics; the *Device Programming* part if this section for instructions on how to program addressable devices; and the *Alpha Programming* part of this section for programming alpha descriptors.

The following is a list of commands used while in the Menu Mode.

**#93 Menu Mode Key Commands**

| #93 | Enters Menu mode |
|------|------------------|
| [✱] | Serves as ENTER key. Press to have keypad accept entry. |
| [#] | Backs up to previous screen. |
| **0** | Press to answer NO |
| **1** | Press to answer YES |
| **01–99** | All entries are 2-digit entries. |
| **00** | Returns to the QUIT MENU MODE? prompt. |

## Zone Programming

Enter Programming Mode **[Installer Code] + 8 0 0**.  The following fields should be programmed before beginning:

- **2\*00:** Number of Partitions.
- **1\*32**: RF Receiver Type.

Also, before programming wireless zones, the RF receiver must be enabled in *Device Programming* (see later in this section).

Then press #93 to display "ZONE PROG?".

| ZONE PROG?<br>1=Yes  0=No |
|---|

Press **1** to enter Zone Programming. The following screens will appear. Press [*] to display the next screen. Press # to display a previous screen.

---

If the system has been set up to use 5800 Series RF, and a program tool has not been programmed, the following "PROGRAM TOOL" prompt will be displayed.  If the system has not been set up to use 5800 Series wireless or a program tool has already been programmed, the system will advance to the "ENTER ZN NO." prompt.

---

| PROGRAM TOOL?<br>0 = NO, 1 = YES   0 |
|---|

If a program tool is being used, enter **1**.  If not using a tool, enter **0**.  When a 0 is entered, the system will advance to the "ENTER ZN NO." prompt.

| 00 INPUT S/N: L<br>   Axxx-xxxx |
|---|

If 1 is entered, the system will prompt for the unit's serial number.  Enter the program tool's serial number using one of the following methods:

    a)  Enter the 7-digit serial number for the transmitter.

      Or

    b)  Press any button on the transmitter. The keypad should beep three times and display the serial number of the tool.

```
┌─────────────────────────┐
│ 00  PROG AS BR: 3       │
│   A123-4567          3  │
└─────────────────────────┘
```

In this example, the serial number is A123-4567. Once enrolled, the upper left-hand button of the program tool can be pressed to ready the system for enrolling a device into the system.

The serial number for the program tool will only remain in the system until the programming mode is exited. (Entering ✶97 will not delete the tool.)

Press [*] to continue or press the [#] key to back the system up to the "PROGRAM TOOL? " prompt.

```
┌─────────────────────────┐
│ ENTER ZN NO.            │
│   00 = QUIT         10  │
└─────────────────────────┘
```
Zone 10 entered ↑

Enter the 2-digit zone number that you wish to program. As an example, zone 10 is shown here.

Press [*] to continue.

```
┌─────────────────────────┐
│ 10   ZT  P  RC  IN:L    │
│     00 –  ── ── –       │
└─────────────────────────┘
```

A display will appear, showing a summary of that zone's programming. ZT=Zone Type, P=Partition, RC=Report Code, IN=the input type of device, and L=the device's loop number to which the sensor is connected. Some devices can support more than one zone by means of individual loops (for example 5801, 5804, 5816, 5817, etc.). If the zone is not programmed, the display will appear as shown here. If checking a zone's programming, and it is programmed satisfactorily, press [#] to back up one step and enter another zone number, if desired.

Otherwise, press [*] to continue.

---

Do not install batteries in wireless transmitters until ready to enroll. After enrolling, batteries need not be removed.

---

↓ Zone Number

```
┌─────────────────────────┐
│ 10 ZONE RESPONSE        │
│ Perimeter           03  │
└─────────────────────────┘
```
Zone Type 03 entry shown

Each zone must be assigned a zone type, which defines the way in which the system responds to faults in that zone. Refer to the *Zone Type Definitions* section for detailed definitions of each zone type. Enter the zone type desired (or change it, if necessary). Available zone types are listed below.

| | |
|---|---|
| 00 = Assign for Unused Zones | 08 = 24-Hr. Auxiliary |
| 01 = Entry/Exit #1, Burglary | 09 = Fire Without |
| 02 = Entry/Exit #2, Burglary |     Verification |
| 03 = Perimeter, Burglary | 10 = Interior Delay, Burglary |
| 04 = Interior Follower, Burglary | 20 = Arm Stay† |
| 05 = Trouble Day/Alarm Night | 21 = Arm AWAY† |
| 06 = 24-Hr. Silent Alarm | 22 = Disarm† |
| 07 = 24-Hr. Audible Alarm | 23 = No Alarm Response |
| |     (e.g., relay activation) |

† These are special zone types used with 5800 Series Wireless Pushbutton Units which will result in arming the system in the STAY or AWAY mode, or disarming of the system, depending on the selection made.

Press [*] to continue.

```
10  PARTITION

                    2
```

Enter the partition number **(1–2)** you are assigning this zone to.

Press [*] to continue.

```
10 REPORT CODE
1st 03 2nd 12    3C
```

Enter the report code. The report code consists of 2 hexadecimal digits, each in turn consisting of 2 numerical digits. For example, for a report code of "3C," enter 03 for 3 and 12 for C.

(Refer to the *System Communication* section for more information about report codes and report code formats.)

Press [*] to continue.

```
10  INPUT TYPE
RF Xmitter          3
```

Note that input types 4 & 5 are valid for certain 5800 Series transmitters only (e.g., 5801, 5802, 5802CP & 5803). When using 5700 Series transmitters, always set the input type to 3 (RF).  The zone number of the transmitter identifies whether or not supervision is required (e.g., 5700 wireless zone number 63 is not supervised).

Enter the input device type as follows:

    00 = not used

    01 = hardwired

    03 = supervised RF transmitter (RF type)

    04 = unsupervised RF transmitter (UR type)

    05 = RF button-type transmitter (BR type)

    06 = serial number polling loop device (SL type)

    07 = DIP switch-type polling loop device

    08 = right loop of DIP switch-type device.

Right loops refer to the use of the right loop on a 4190WH Zone Expander Module and/or 4278 PIR, which allow hardwired devices to be monitored by the polling loop.

If programming hardwired, DIP switch polling loop, or 5700 Series devices, the summary display appears after completing this entry.

Press [*] to continue.

```
10  LOOP #

                    1
```

The cursor should now be flashing on the loop number.  The default is 1.  To accept this, press [*].  If a different loop number is being used on this device, enter the loop number (1-4) and press [*] to continue.  (The loop designations for various RF transmitters are shown in *Figure 19-1*.)  **The loop number must be entered here, whether using *Zone Programming* or *Sequential Mode* to "enroll" serial numbers.**  If you want to delete the serial number, enter **0** and press [*].  The system will then prompt, "DELETE S/N?"  Press **1** (YES) to complete the delete sequence.  This process deletes the serial number only, ***not*** the loop number.  The assumption is that the proper loop number was programmed, but the wrong serial number was enrolled.
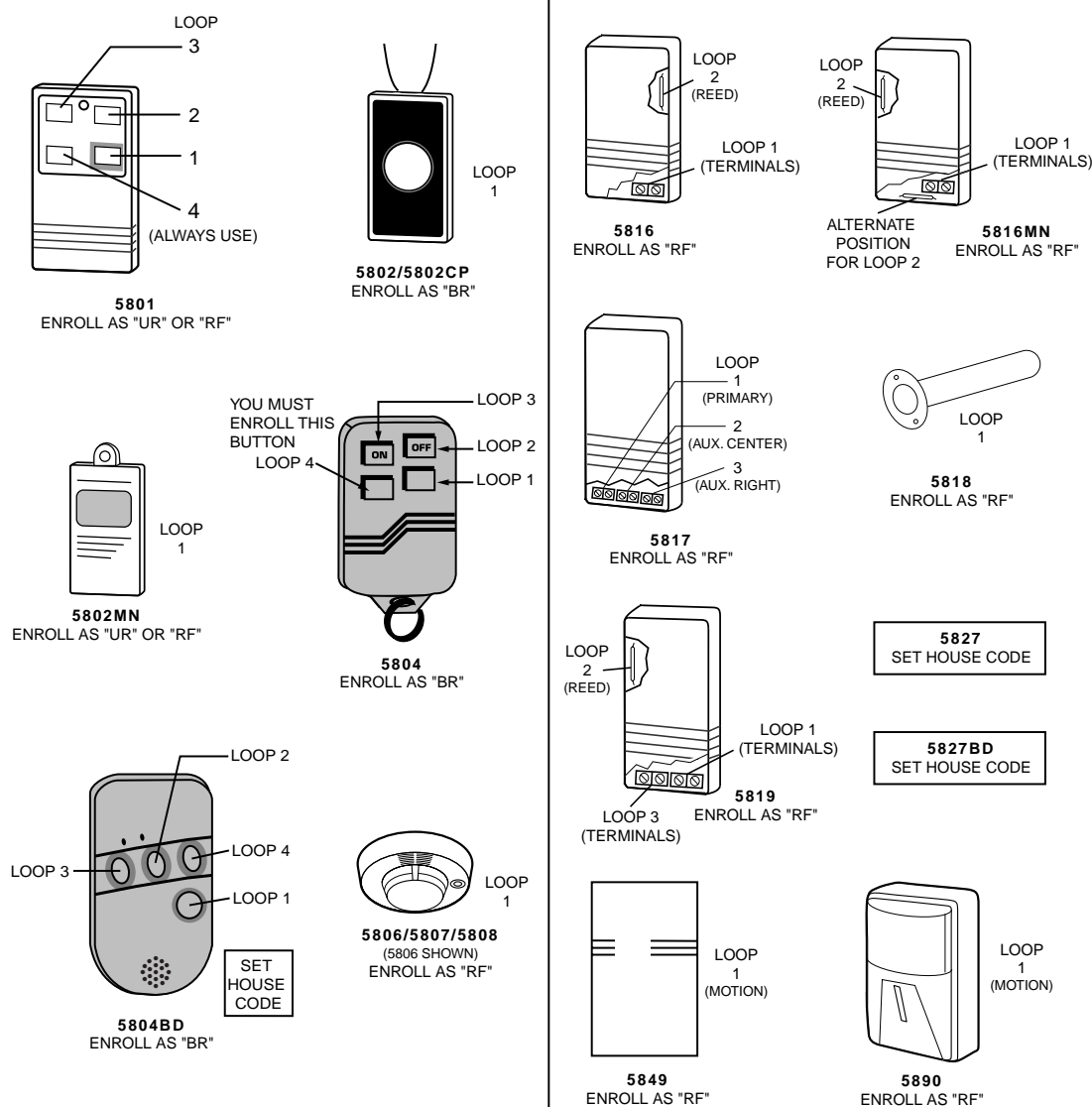
*Figure 19-1: RF Transmitter Loop Designations*

```
10  LEARN S/N?
1 = YES,  0 = NO        1
```

If the device's serial number has not been previously "enrolled," you may enter the enrollment mode now by either entering **1** (YES) *or* by pressing the upper left-hand button of the program tool. **If using the program tool, move to the physical location of the device to be enrolled before pressing the button.** A single short beep will verify that the button has been pressed. The system will respond to the first serial number transmitted after the 1 key on the keypad or the button of the program tool is pressed. Enter **0** (NO) to enroll later. (If 0 is entered, the system will advance to the summary screen prompt.)

```
10 INPUT S/N
    Axxx-xxxx
```

This prompt is displayed if 1 (YES) is entered in response to the "LEARN S/N?" prompt. The serial number may be enrolled by one of two methods:

   a) Enter the 7-digit serial number printed on the device using an alpha keypad.

      or

   b) Activate the device by faulting *or* restoring the input you wish to use for that zone (e.g., press a button, open or close a door, etc.).

```
10  INPUT S/N
    A022-4064
```

The system will enroll the serial number of the first device heard.

If the serial and loop number combination is already present in the system, the keypad will sound a single long beep and display the word "DUPLICATE" along with the serial number, and the number of the zone containing the serial/loop number combination.

The system will then enter an optional confirmation mode so that the operation of the actual programmed input can be confirmed. Activate the loop input or button that corresponds to this zone. **We recommend that you confirm the programming of every device before proceeding to the next zone.**

```
10  CONFIRM  RF:1
    A022-4064      1
```

When the system sees activity on the appropriate input, it will beep three times and display the confirmation message.

At any time during this step, you may press the [*] key on the keypad or the upper left-hand button of the program tool if you are satisfied with the serial and loop number combination that has been enrolled, regardless of whether or not the enrolled input has been "confirmed."

If the incorrect device has been enrolled, press the [#] key on the keypad or upper right-hand button on the program tool to delete the serial number and return to the "LEARN S/N" prompt. A single long beep will be heard from the keypad to verify pressing of the upper right-hand button. Then, press **1** (Yes) or press the upper left-hand button of the program tool (a single short beep will verify the system is ready for enrolling) and re-activate the proper device loop input.

```
10  ZT  P  RC   IN: L
  s  03  2  3C  RF:1
```

The summary screen for the zone will appear. Note that an "s" indicates that a serial number has, in fact, been enrolled. Press [*] to accept the zone information.

If you want to delete the serial number, press [#]. This will bring you back to the "INPUT TYPE" prompt. Press [*] to change input type, loop number, and serial number.

When you have finished programming all zones, test each using the system's Test Mode. Do not use the Transmitter ID Sniffer Mode for this, as it will only check for transmission of one zone on a particular transmitter, NOT the zones assigned to each additional loop, and will not verify polling loop type zones.

## Sequential Mode Programming

Usually, serial numbers are enrolled during *Zone Programming*. If not, use #93 Menu Mode to enroll serial numbers (for example, if all other programming was done via downloading).

> Use this mode only after all other zone information has been programmed, including transmitter loop numbers.

1. Enter Data Field Programming Mode: [Installer Code] + **8 0 0**.
2. From Data Field Programming Mode, press **#93** to display the "ZONE PROG?" prompt.
3. Press **0** (NO) repeatedly until the "SEQUENTIAL LEARN?" prompt appears.

| SEQUENTIAL LEARN? |
| :--- |
| 0=no  1=yes |

To enroll or delete a device's serial number, enter **1** (yes). Enter **0** to skip to the next main menu option.

> If the system has been set up to use 5800 Series RF, and a program tool has not been programmed, the following "PROGRAM TOOL" prompt will be displayed. If the system has not been set up to use 5800 Series RF or a program tool has already been programmed, the system will advance to the "TECHNOLOGY TYPE" prompt.

| PROGRAM TOOL? |
| :--- |
| 0 = NO, 1 = YES   0 |

If a program tool is being used, enter **1**. If not using a tool, enter **0**. When a 0 is entered, the system will advance to the "TECHNOLOGY TYPE" prompt.

| 00 INPUT S/N: L |
| :--- |
| Axxx-xxxx |

If **1** is entered, the system will prompt for the unit's serial number. Enter the program tool's serial number using one of the following methods:

    a) Enter the 7-digit serial number for the transmitter.

        or

    b) Press any button on the transmitter. The keypad should beep three times and display the serial number of the tool.

| 00  PROG AS BR: 3 |
| :--- |
| A123-4567          3 |

In this example, the serial number is A123-4567. Once enrolled, the upper left-hand button of the program tool can be pressed to ready the system for enrolling a device into the system.

**The serial number for the program tool will only remain in the system until the Programming Mode is exited. (Entering ✶97 will not delete the tool.)**

Press [✶] to continue or press the [#] key to back the system up to the "PROGRAM TOOL ?" prompt.

| TECHNOLOGY TYPE |   |
|---|---|
| WIRELESS | 0 |

Default ↑

Enter the type of device(s) to be enrolled as follows:

**0** = Wireless (Default)

**1** = Polling Loop

**2** = Both

Press [∗] to continue.

| ENTER ZN NO. |   |
|---|---|
| (00 = QUIT) | 10 |

Zone Number Entered        ↑

Enter the first zone number to be enrolled (e.g., zone 10).

Press [∗] to continue.

The system will, starting with this zone number, search for the first device which has **all** of the following attributes pre-programmed in *Zone Programming*:

    a) **An input type of RF, UR, BR, or SL (if serial polling loop devices enabled) programmed**

    b) **A loop number programmed**

    c) **No serial number programmed**

---

If the first zone number entered does **not** have **all** of the above attributes, the system will search its database for the first zone that does and will display it on the next screen.

---

| 010  INPUT S/N |
|---|
| Axxx xxxx |

This prompt is displayed when the system has found the next zone which needs to be enrolled.  The system will respond to the first serial number transmitted.  A serial number may be enrolled by one of two methods:

    a) Enter the 7-digit serial number printed on the device.

       or

    b) Activate the device by faulting or restoring the input you wish to use for that zone (e.g., press a button, open or close a door, etc.).

---

If you do **not** wish to enroll the zone displayed, press [#] on the keypad or the upper right-hand button on the program tool (a long beep will be heard to verify).  The following prompt will appear:

---

| 10 LEARN S/N? |   |
|---|---|
| 0 = NO, 1 = YES | 0 |

To enroll now, enter **1** (YES).  If **0** (NO) is entered, the following prompt will appear:

| ENTER ZN NUM. |   |
|---|---|
| (00 = QUIT) | 10 |

Zone Number Entered  ↑

Enter the next zone number to be enrolled (e.g., zone 10).  The system will search for that zone and will display the "ENTER ZONE NO." prompt.

If you wish to exit the enrollment mode completely, enter **00** and press [∗].

```
┌─────────────────────┐
│ 10  INPUT S/N       │
│   A 022-4064        │
└─────────────────────┘
          ↑
       Serial #
```

The system will enroll the first serial number heard, display the serial numbers, and cause the keypad to beep twice.

✓ If the serial and loop number combination is already present in the system, the keypad will sound a single long beep and display the word "DUPLICATE" along with the serial number, and the number of the zone containing the serial/loop number combination.

The system will then enter an optional confirmation mode so that the operation of the actual programmed input can be confirmed. Activate the loop input or button that corresponds to this zone. **We recommend that you confirm the programming of every device before proceeding to the next zone.**

```
┌─────────────────────┐
│ 10 CONFIRMED  SL:1  │
│   A022-4064         │
└─────────────────────┘
```

When the system sees activity on the appropriate input, it will beep three times and display the confirmation message. Press [∗] or the upper left-hand button of the program tool when you are ready to enroll the next serial number device.

✓ At any time during this step, you may press [∗] on the keypad or the upper left-hand button of the program tool if you are satisfied with the serial and loop number combination that has been enrolled, regardless of whether or not the enrolled input has been "confirmed." This will ready the system to enroll the next serial number device.

If the incorrect device has been enrolled, press [#] on the keypad or the upper right-hand button of the program tool to delete the serial number and return to the "LEARN S/N?" prompt. A single long beep will be heard from the keypad to verify pressing of the upper right-hand button. Then, press **1** (Yes) or press the upper left-hand button of the program tool (a single short beep will verify the system is ready for enrolling) and re-activate the proper device or device loop input.

The system will search for the next zone that does not have a serial number associated with it. If one is found, the system will return to the "INPUT S/N" prompt for the remaining zones.

After all zones have been displayed, whether enrolled or not, the "ENTER ZN NO." prompt will appear. Enter **000** to exit the Sequential Mode and return to Data Field Programming Mode.

✓ When you have finished programming all zones, test each using the system's Test Mode. Do not use the Transmitter ID Sniffer Mode for this, as it will only check for transmission of one zone on a particular transmitter, NOT the zones assigned to each additional loop, and will NOT verify polling loop type.

## Alpha Descriptors Programming

### General Information

- You can program a user-friendly English language description/location for all protection zones, relays, keypad panics, polling loop short, and RF receiver supervision troubles.

- Each description can be composed of a combination of words (up to 3) that are selected from a vocabulary of 244 words stored in memory, and any word can have an "s" or " 's " added to it.

- In addition, up to 20 installer-defined words can be added to those already in memory. Thus, when an alarm or trouble occurs in a zone, an appropriate description for the location of that zone will be displayed at the keypad.

- A custom installer's message can be programmed for each partition which will be displayed when the system is "Ready" (e.g., THE PETERSON'S).

1. To program alpha descriptors, enter Programming mode, then press **#93** to display "ZONE PROG?"

2. Press **0** (NO) twice to display "ALPHA PROG?".

3. Press **1** to enter *Alpha Programming*.

   There are 6 sub-menu selections that will be displayed one at a time.

   Press **1** to select the mode desired.

   Press **0** to display the next mode available. The alpha menu selections are:

   | ZONE DESCRIP? |      for entering zone descriptors.

   | DEFAULT SCREEN? |      for creating custom message; displayed when system ready.

   | CUSTOM WORD? |      for creating custom words for use in descriptors.

   | PART DESCRIP? |      for creating 4-character partition names.

   | EXIT EDIT MODE? |      Press **1** to exit back to #93 Menu Mode.

4. Refer to the sections that follow for procedures for adding alpha descriptors.

### Zone Descriptors

1. **Select ZONE DESCRIPTOR mode.**

   The keypad keys perform the following functions:

   [3]   Scrolls both alphabet and actual words in ascending alphabetical order.

   [1]   Scrolls both alphabet and actual words in descending alphabetical order.

   [2]   Adds or removes an "s" or " 's " to a vocabulary word.

   [6]   Switches between alphabet and actual word list; used to accept entries.

   [8]   Saves the zone description in the system's memory.

   [#]   [#] plus zone number displays the description for that zone.

2. **Enter the zone number to which you want to assign a descriptor.**

   For example key **[∗]01** to begin entering the description for Zone 1, (key **[∗]02** for Zone 2, **[∗]03** for Zone 3 etc.). The following will be displayed: * ZN 01 A.

   Note that the first letter of the alphabet appears after the zone number, and that the zone number is automatically included with the description.

3. **Enter the descriptor for that zone**.

   Use one of two methods as follows:

   *(Assume, for example, that the desired description for Zone 1 is BACK DOOR)*

   a) Press **[#]** followed by the 3-digit number of the first word from the fixed dictionary shown later in this section (e.g., [0][1][3] for BACK).

      Press **6** in order to accept the word and proceed, or press **8** to store the complete descriptor and exit;

        or

   b) Select the first letter of the desired description (note that "A" is already displayed). Use the **3** key to advance through the alphabet and the **1** key to go backward.

      Press **3** key repeatedly until "B" appears (press **1** to go backwards if you happen to pass it), then press **6** to display the first available word beginning with B.

      Press **3** repeatedly to advance through the available words until the word BACK is displayed.

---

To add an "s" or " 's," if you need to, press **2**. The first depression adds an "s," the second depression adds an " 's, " the third depression displays no character (to erase the character), the fourth depression adds an "s," etc.

---

4. **Accept the word.**

   To accept the word, press **6**, which switches back to the alphabet list for the next word, or press **8** to store the complete descriptor and then exit.

5. **Select the next word.**

   For selection of the next word (DOOR), repeat step 3a (word #057) or 3b, but selecting the word "DOOR."

   To accept the word, press **6**, which again switches back to alphabet list.

6. **Store the descriptor.**

   When all desired words have been entered, press **8** to store the description in memory.

   To review the zone descriptors, key [#] plus zone number (e.g., #01).

   To edit zone descriptors, key [∗] plus zone number (e.g., *01)

7. **Exit Zone Description Mode: enter 00.**

**Custom Words**

Up to 20 installer-defined words can be added to the built-in vocabulary.  Each of the 20 "words" can actually consist of several words, but bear in mind that a maximum of 10 characters can be used for each word string.

1. Select CUSTOM WORD Mode. The keys perform the following functions:

    [3]   Advances through alphabet in ascending order.

    [1]   Advances through alphabet in descending order.

    [6]   Selects desired letter; moves the cursor 1 space to the right.

    [4]   Moves the cursor one space to the left.

    [7]   Inserts a space at the cursor location, erasing any character at that location.

    [8]   Saves the new word in the system's memory.

    [*]   Returns to Description Entry Mode.

2. Enter the custom word number (01-20) you want to create.

    For example, if you are creating the first word (or word string), enter **01**; when creating the second word, enter **02**, and so on. A cursor will now appear at the beginning of the second line.

3. Type the word using one of two methods as follows:

    a)  Press [#], followed by the 2-digit entry for the first letter you would like to display (e.g., **6 5** for "A").

       When the desired character appears, press **6** to select it. The cursor will then move to the right, in position for the next character. Press [#] plus the 2-digit entry for the next letter of the word.

             or

    b)  Press **3** to advance through the list of symbols, numbers, and letters. Press **1** to move back through the list.

       When you have reached the desired character, press **6** to select it. The cursor will then move to the right, in position for the next character.

4. Repeat step 3 to create the desired custom word (or words).
    Press **4** to move the cursor to the left if necessary.
    Press **7** to enter a blank (or to erase an existing character).
    Each word or word string cannot exceed 10 characters.

5. Save the word by pressing **8**.

    This will return you to the "CUSTOM WORD?" display.  The custom word (or string of words) will be automatically added to the built-in vocabulary at the end of the group of words beginning with the same letter.

    Custom words are retrieved as word numbers 250 to 269 for words 1 to 20, respectively, when using method 3a to enter alpha descriptors.

    When using method 3b to enter alpha descriptors, each word will be found at the end of the group of words that begin with the same letter as it does.

6. Repeat steps 2 through 6 to create up to a maximum of 20 custom words (or word strings).

7. Exit Custom Word Mode by entering **00** at the "CUSTOM WORD" prompt.

**Partition Descriptors**

1.  Select "Part DESCRIPT." Mode. The system will ask for the partition number desired. Enter the number as a single-key entry **1-2**.

2.  Follow the same procedure as for custom words, except that partition descriptors are limited to 4 characters (e.g., WHSE for warehouse).

**Custom Message Display (Installer's Message)**

Normally, when the system is in the disarmed state, the following display is present on the keypad.

```
****DISARMED****
  READY TO ARM
```

Part or all of the above message can be modified to create a custom installer message for each partition. For example, "****DISARMED****" on the first line or "READY TO ARM" on the second line could be replaced by the installation company name or phone number for service. Note that there are only 16 character spaces on each of the two lines. To create a custom display message, proceed as follows:

1.  Select Default Screen Mode.

    The keypad will ask for the partition number for this message.

    Enter the partition number. Press [∗] to accept entry.

    The following will appear:

    ```
    ****DISARMED****
      READY TO ARM
    ```

    A cursor will be present at the extreme left of the first line (over the first "star"). Press **6** to move the cursor to the right and **4** to move the cursor to the left. Press **7** to insert spaces or erase existing characters.

2.  Create the message.

    For example, to replace "READY TO ARM" with the message "SERVICE 424-0177," proceed as follows:

    Press **6** to move the cursor to the right, and continue until the cursor is positioned over the first location on the second line.

    Press **3** to advance through the alphabet to the first desired character (in this case, "S"). Press **1** to go backward, when necessary. When the desired character is reached, press **6**.

    The cursor will then move to the next position, ready for entry of the next character (in this example, "E"). When the cursor reaches a position over an existing character, press **3** or **1** to advance or back up from that character in the alphabet.

    Proceed in this manner until all characters in the message have been entered.

3.  Save the message.

    Store the new display message in memory by pressing **8**.

4.  The system will ask for a new partition number.

    Enter **0** to quit or **1-2** for a new partition number.

## ALPHA VOCABULARY

For Entering Alpha Descriptors. To select a word, press [#] followed by the word's 3-digit number.

Bulleted words in **bold face type** are those that are also available for use by the 4285/4286 phone module. If using a phone module, and words other than these are selected for alpha descriptors, the phone module will not provide annunciation of those words.

**NOTE: This vocabulary is not to be used for relay voice descriptors.** See the vocabulary listed in the RELAY VOICE DESCRIPTORS section when programming relay voice descriptors.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 000 | *(Word Space)* | • 052 | **DETECTOR** | 102 | INTERIOR | 151 | POLICE | 202 | TRANSMITTER |

| | | | | |
|---|---|---|---|---|
| 000 *(Word Space)* | • 052 **DETECTOR** | 102 INTERIOR | 151 POLICE | 202 TRANSMITTER |
| • 001 **AIR** | • 053 **DINING** | 103 INTRUSION | 152 POOL | 203 TRAP |
| • 002 **ALARM** | 054 DISCRIMINATOR | | • 153 **POWER** | |
| 003 ALCOVE | 055 DISPLAY | 104 JEWELRY | | 204 ULTRA |
| 004 ALLEY | 056 DOCK | • 105 **KITCHEN** | 154 QUAD | • 205 **UP** |
| 005 AMBUSH | • 057 **DOOR** | | | • 206 **UPPER** |
| • 006 **AREA** | 058 DORMER | • 106 **LAUNDRY** | 155 RADIO | • 207 **UPSTAIRS** |
| • 007 **APARTMENT** | • 059 **DOWN** | • 107 **LEFT** | • 156 **REAR** | • 208 **UTILITY** |
| 008 ART | • 060 **DOWNSTAIRS** | 108 LEVEL | 157 RECREATION | 209 VALVE |
| • 009 **ATTIC** | 061 DRAWER | • 109 **LIBRARY** | 158 REFRIG | 210 VAULT |
| 010 AUDIO | • 062 **DRIVEWAY** | • 110 **LIGHT** | 159 REFRIGERATION | 211 VIBRATION |
| 011 AUXILIARY | 063 DRUG | 111 LINE | 160 R F | 212 VOLTAGE |
| | • 064 **DUCT** | 112 LIQUOR | • 161 **RIGHT** | |
| • 012 **BABY** | | • 113 **LIVING** | • 162 **ROOM** | 213 WALL |
| • 013 **BACK** | • 065 **EAST** | • 114 **LOADING** | 163 ROOF | 214 WAREHOUSE |
| • 014 **BAR** | 066 ELECTRIC | 115 LOCK | | 215 WASH |
| 015 BARN | 067 EMERGENCY | 116 LOOP | 164 SAFE | • 216 **WEST** |
| • 016 **BASEMENT** | 068 ENTRY | 117 LOW | 165 SCREEN | • 217 **WINDOW** |
| • 017 **BATHROOM** | • 069 **EQUIPMENT** | • 118 **LOWER** | 166 SENSOR | 218 WINE |
| • 018 **BED** | 070 EXECUTIVE | | • 167 **SERVICE** | • 219 **WING** |
| • 019 **BEDROOM** | • 071 **EXIT** | • 119 **MACHINE** | • 168 **SHED** | 220 WIRELESS |
| 020 BELL | 072 EXTERIOR | 120 MAGNETIC | 169 SHOCK | 221 WORK |
| • 021 **BLOWER** | | 121 MAIDS | • 170 **SHOP** | |
| • 022 **BOILER** | • 073 **FACTORY** | 122 MAIN | 171 SHORT | 222 XMITTER |
| 023 BOTTOM | 074 FAILURE | • 123 **MASTER** | 172 SHOW | |
| 024 BOX | 075 FAMILY | 124 MAT | • 173 **SIDE** | 223 YARD |
| 025 BREAK | • 076 **FATHERS** | • 125 **MEDICAL** | 174 SKYLIGHT | |
| • 026 **BUILDING** | • 077 **FENCE** | 126 MEDICINE | 175 SLIDING | 224 ZONE (No.) |
| 027 BURNER | 078 FILE | 127 MICROWAVE | • 176 **SMOKE** | • 225 **ZONE** |
| | • 079 **FIRE** | 128 MONEY | 177 SONIC | |
| 028 CABINET | • 080 **FLOOR** | 129 MONITOR | • 178 **SONS** | • 226 **0** |
| • 029 **CALL** | 081 FLOW | • 130 **MOTHERS** | • 179 **SOUTH** | • 227 **1** |
| 030 CAMERA | 082 FOIL | • 131 **MOTION** | 180 SPRINKLER | • 228 **1ST** |
| 031 CAR | • 083 **FOYER** | 132 MOTOR | 181 STAMP | • 229 **2** |
| 032 CASE | 084 FREEZER | 133 MUD | • 182 **STATION** | • 230 **2ND** |
| 033 CASH | • 085 **FRONT** | | 183 STEREO | • 231 **3** |
| 034 CCTV | 086 FUR | • 134 **NORTH** | 184 STORE | • 232 **3RD** |
| 035 CEILING | 087 FURNACE | 135 NURSERY | • 185 **STORAGE** | • 233 **4** |
| 036 CELLAR | | | 186 STORY | • 234 **4TH** |
| • 037 **CENTRAL** | 088 GALLERY | • 136 **OFFICE** | 187 STRESS | • 235 **5** |
| 038 CIRCUIT | • 089 **GARAGE** | 137 OIL | 188 STRIKE | • 236 **5TH** |
| 039 CLIP | • 090 **GAS** | • 138 **OPEN** | 189 SUMP | • 237 **6** |
| • 040 **CLOSED** | 091 GATE | 139 OPENING | 190 SUPERVISED | • 238 **6TH** |
| 041 COIN | • 092 **GLASS** | • 140 **OUTSIDE** | 191 SUPERVISION | • 239 **7** |
| 042 COLD | 093 GUEST | 141 OVERFLOW | 192 SWIMMING | • 240 **7TH** |
| 043 COATROOM | 094 GUN | 142 OVERHEAD | 193 SWITCH | • 241 **8** |
| 044 COLLECTION | | | | • 242 **8TH** |
| 045 COMBUSTION | • 095 **HALL** | 143 PAINTING | 194 TAMPER | • 243 **9** |
| • 046 **COMPUTER** | • 096 **HEAT** | • 144 **PANIC** | 195 TAPE | • 244 **9TH** |
| 047 CONTACT | 097 HIGH | 145 PASSIVE | 196 TELCO | 250 Custom Word 1 |
| | 098 HOLDUP | • 146 **PATIO** | 197 TELEPHONE | to |
| • 048 **DAUGHTERS** | 099 HOUSE | 147 PERIMETER | 198 TELLER | 269 Custom Word 20 |
| 049 DELAYED | | • 148 **PHONE** | • 199 **TEMPERATURE** | |
| • 050 **DEN** | 100 INFRARED | 149 PHOTO | 200 THERMOSTAT | |
| 051 DESK | • 101 **INSIDE** | 150 POINT | • 201 **TOOL** | |

**\*Note:** This factory-provided vocabulary of words is subject to change.

### CHARACTER (ASCII) CHART **(For Adding Custom Words)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 | (space) | 42 | * | 52 | 4 | 62 | > | 72 | H | 82 | R |
| 33 | ! | 43 | + | 53 | 5 | 63 | ? | 73 | I | 83 | S |
| 34 | " | 44 | , | 54 | 6 | 64 | @ | 74 | J | 84 | T |
| 35 | # | 45 | - | 55 | 7 | 65 | A | 75 | K | 85 | U |
| 36 | $ | 46 | . | 56 | 8 | 66 | B | 76 | L | 86 | V |
| 37 | % | 47 | / | 57 | 9 | 67 | C | 77 | M | 87 | W |
| 38 | & | 48 | 0 | 58 | : | 68 | D | 78 | N | 88 | X |
| 39 | ' | 49 | 1 | 59 | ; | 69 | E | 79 | O | 89 | Y |
| 40 | ( | 50 | 2 | 60 | < | 70 | F | 80 | P | 90 | Z |
| 41 | ) | 51 | 3 | 61 | = | 71 | G | 81 | Q | | |

## Device Programming

This menu is used to program keypads, receivers and relay modules.

From Data Field Programming mode, press **#93** to display "ZONE PROG?". Press **0** repeatedly to display "DEVICE PROG?".

```
DEVICE PROG?
1=YES  0=NO
```

Press **1** to enter DEVICE PROGRAMMING mode.

```
DEVICE ADDRESS
01-15, 00=QUIT
```

The device address identifies the device to the control.  Enter the 2-digit device address number to match the device's physical address setting (01-15).

Press ⬚✳ to accept entry.

**Note:** Device Address 04 must be used for the 4285/4286Voice Module, if one is utilized.  If not, it can be used for another device type.

Device Address **00** is always set as an alpha keypad assigned to Partition 1 with no sounder suppression options and these settings cannot be changed.

```
DEVICE TYPE
```

Select the type of addressable device as follows:

> 0 = device not used
>
> 1 = alpha keypad (6139)
>
> 2 = fixed keypad (6128, 6137)
>
> 3 = RF receiver (4281/5881)
>
> 4 = output relay module (4204)
>
> 5 = voice (VIP) module (4285/4286)

Press ⬚✳ to accept entry.

### Keypads

```
CONSOLE PART.
```

If device type 1 (Alpha Keypad) or 2 (Fixed Keypad) is selected, this prompt will appear.  Enter the addressable device's default partition number (01 to maximum number of partitions programmed for system in field 2*00). This is the primary partition for which the device is intended to be used.

Press ⬚✳ to accept entry.

| | |
|---|---|
| SOUND OPTION | If device type 1 (Alpha Keypad) or 2 (Fixed Keypad) is selected, this prompt will appear.  Keypads can be individually programmed to suppress arm/disarm beeps, entry/exit beeps and chime mode beeps. This helps prevent unwanted sounds from disturbing users in other areas of the premises. |

Enter a number **00-03** for the keypad sounding suppression options desired for the keypad as follows:

> **00** = no suppression.
>
> **01** = suppress arm/disarm & entry/exit beeps.
>
> **02** = suppress chime mode beeps only.
>
> **03** = suppress arm/disarm, entry/exit **and** chime mode beeps.

Press ⊛ to accept entry

### RF Expander

| | |
|---|---|
| RF EXPANDER<br>HOUSE ID    XX | If device type 3 (RF Receiver) is selected, this prompt will appear.  Enter the 2-digit House ID (**00-31**).  This is required if you are using 5700 Series wireless or using a wireless keypad (5827/5827BD) with a 5800 series system. |

Press ⊛ to accept entry.

### VIP Module

| | |
|---|---|
| MODULE PART. | If device type 5 (VIP module) is selected, this prompt will appear.  Enter the partition number 1-2 in which the module is located. |

Press ⊛ to accept entry.

Press **00** + ⊛ to exit Menu Mode.

Press *99 to exit program mode.

## Relay Programming

The system supports up to 8 relay outputs.  Relays can be used to perform many different functions and actions.  Each relay must be programmed to begin one of four types of ACTIONS at a designated START event, and end that ACTION at a designated STOP event.  The options used to start and stop these devices are described below, followed by the actual screen prompts and available entries.

The letter(s) in parentheses after each function described below, such as (A) after ACTION, are those that appear in the various summary displays of programmed data during programming.

### ACTION (A)

The "ACTION" of the device is how the device will respond when it is activated by the "START" programming.  You may want the device to activate momentarily, to pulse on and off continuously, or to remain activated until some other event occurs to stop it.  There are five different choices of actions:

- ACTIVATE for 2 SECONDS and then reset.

- ACTIVATE and REMAIN ACTIVATED until stopped by some other event.

- PULSE ON and OFF until stopped by some other event.

- NO RESPONSE when the device is not used.

**START (STT)**

The "START" programming determines when and under what conditions the device will be activated.  The following START options are available:

1) **EVENT (EV)** is the condition (Alarm, Fault, Trouble) that must occur to a zone or group of zones (zone list) in order to activate the device. These conditions apply *only* when a zone list is used.  The different choices for "EVENT" are listed below and in "Programming Relays" later in this section.

- ALARM  Relay action begins upon any alarm in an assigned zone in the zone list.

- FAULT   Relay action begins upon any opening of an assigned zone in the zone list.

- TROUBLE Relay action begins upon any trouble condition in an assigned zone in the zone list.

- NO RESPONSERelay action is not dependent upon one of the above events.

    **ZONE LIST (ZL)** is a group of zones to which the "EVENT" applies in order to activate a particular device.  Note that there are a total of 4 zone lists that can be programmed; when the selected EVENT (Alarm, Fault or Trouble) occurs in **any** zone in the selected "Start" ZONE LIST (1-4), activation of the selected device will START.

2) **ZONE TYPE/SYSTEM OPERATION (ZT).**  If all zones to be used to start the device have the same response type, and there are no other zones of this type which are **not** to activate this device, then "ZONE TYPE" may be used instead of using a "ZONE LIST" and "EVENT" to activate the device.

    If a System Operation, such as "DISARMING" or "ANY FIRE ALARM," is to activate the device, the appropriate choice would also be entered under the "ZONE TYPE" option.

    ***The "ZONE TYPE/SYSTEM OPERATION" option functions independently of the "EVENT/ZONE LIST" combination.***

    If a specific "ZONE TYPE" is chosen, any zone of that response type going into alarm, trouble, or fault will cause the device to activate as selected in "ACTION." If the same "ZONE TYPE" is also chosen for the STOP programming, any zone of that type that *restores* will de-activate the device.

    If a "SYSTEM OPERATION" is chosen, that operation will cause the device to activate as selected in "ACTION."  The different choices for "ZONE TYPE" and "SYSTEM OPERATION" are listed in "Programming Relays" later in this section, and on the Programming Form.

3) **PARTITION No. (P).** The device's "Start" ZONE TYPE/SYSTEM OPERATION may be limited to an occurrence on one partition (1-8), or any partition (0).

**STOP (STP):**

The "STOP" programming determines when and under what conditions the device will be de-activated. The following options are available:

1). **RESTORE ZONE LIST (ZL)**. If a "ZONE LIST" is used as the "Stop" event, the device will de-activate when **all** the zones in that list restore from a previous fault, trouble, or alarm condition.  This will occur regardless of what is programmed to "START" the device; therefore, a "RESTORE ZONE LIST" would normally only be used when a "ZONE LIST" is used to start the device.

2). **ZONE TYPE/SYSTEM OPERATION (ZT).** Instead of using a "RESTORE ZONE LIST", a specific zone (response) type or system operation action can be selected to de-activate the device.

    If a specific "ZONE TYPE" is chosen, any zone of that response type that restores from a previous alarm, trouble, or fault condition will cause the device to de-activate.

If a "SYSTEM OPERATION" is chosen, that operation will cause the device to de-activate. The different choices for "ZONE TYPE" and "SYSTEM OPERATION" are listed in "Programming Relays" later in this section, and in the Programming Form.

3) **PARTITION No. (P).** The device's "Stop" Zone Type/System Operation may be limited to an occurrence on one partition (1-8), or any partition (0).

***The "ZONE TYPE/SYSTEM OPERATION" option functions independently of the "EVENT/ZONE LIST" combination.***

**Relay Output Devices Programming**

From data field programming mode, press **#93** to display the "ZONE PROG?" prompt. Press **0** (NO) to each menu option until the "RELAY PROG?" prompt appears. Press **1** (YES).

While in this mode, press ✳ to advance to next screen. Press # to backup to the previous screen.

| ENTER RELAY NO. |
|---|
| (00=QUIT)      01 |

Enter the relay (output device) identification number **01-08**. This is a reference number only, used for identification purposes. The actual module address and relay number on the module are programmed in the last two prompts.

Press ✳ to continue.

| 02 A EV ZL ZT P |
|---|
| STT 0 0  0  00 |

The keypad will display a summary START screen.

Press ✳ to continue.

| 02   A  ZL ZT P |
|---|
| STP  0   0  00 |

The keypad will display a summary STOP screen.

Press ✳ to continue.

| 02  RELAY ACTION |
|---|
| NO RESPONSE |

The Relay Action is the way in which the relay will respond when activated by the "start" event. Enter the desired action for this relay as follows:

**0**=not used; **1**=close for 2 secs.; **2**=stay closed; **3**=pulse on/off.

| 02  START EVENT |
|---|
| NOT USED |

A relay may be activated either by an Event used in conjunction with a Zone List, **and/or** by a Zone Type/System Operation. If using an Event/Zone List combination, enter the event code as follows:

**0**=not used; **1**=alarm; **2**=fault; **3**=trouble

If not using a Zone List to activate the relay, enter **0.**

Press ✳ to continue.

| 02 START: ZN LIST |
|---|
| NO LIST |

A Zone List is a set of zones that can be used to initiate the start or stop relay action. If a zone list is being used to start this relay action, enter the Zone List number **1-4**. If a zone list is not being used, enter **0**.

Press ✳ to continue.

| 02 START: ZN TYPE |
|---|

A Zone Type/System Operation can be used **instead** of or **in addition** to an Event/Zone List combination to start the relay action. If a Zone Type/System Operation is being used, enter the 2-digit code as listed below.

Press ✳ to continue.

**Choices For Start/Stop Zone Types:** **Choices For Start/Stop System Operation:**

00 = No Response (Not Used)
01 = Entry/Exit #1
02 = Entry/exit #2
03 = Perimeter
04 = Interior Follower
05 = Trouble Day/Alarm Night
06 = 24 Hr Silent
07 = 24 Hr Audible
08 = 24 Hr Aux
09 = Fire Alarm or Trouble
10 = Interior w/Delay
23 = No alarm response
   (for output relay activation, such
   as for access control purposes)

20 = Arming-Stay
21 = Arming-Away
22 = Disarming (Code + Off)
31 = End of Exit Time
32 = Start of Entry Time
33 = Any Burglary Alarm
34 = Code + # + 71 Key Entry
35 = Code + # + 72 Key Entry
36 = At Bell Time-out **
37 = 2 Times Bell Time-out**
38 = Chime
39 = Fire Alarm
40 = Bypassing
41 = AC Power Fail
42 = System Battery Low
43 = Communication failure
44 = RF low battery

45 = Polling Loop Failure
51 = RF Receiver Failure
52 = Kissoff
54 = fire zone reset
55 = Disarm + 1 Minute
56 = XX minutes (enter XX in field
   1✳74;
   stop condition only)
57 = YY seconds (enter YY in field 1✳75;
   stop condition only)
58 = Duress
60 = Audio Alarm Verification **(must
   be selected for both START
   and STOP operation).**

** Or at Disarming, whichever occurs
  earlier

If using options 57 and/or 58 (usually as the STOP Zone Type), data fields 1*74 and 1*75 for the respective relay time-outs for minutes and seconds must be programmed.

| 02 START PART |
|---|

If the starting event will be limited to occurring on a specific partition, enter the partition number (**1**-**2**) in which the start event will occur. Enter **0** for any partition.

Press ✳ to continue.

| 02 STOP: ZN LIST |
|---|
| NO LIST |

If a zone list is being used to stop this relay action, enter the zone list number **1**-**4**. The **restore** of a zone on the Zone List will stop the relay. If a zone list is not being used, enter **0**.
Press ✳ to continue.

| 02 STOP: ZN TYP |
|---|

If a Zone Type/System Operation is being used to stop the relay action, enter the 2-digit code as listed in the start Zone Type/System Operation prompt paragraph.

Press ✳ to continue.

| 02 STOP PART |
|---|

This is the partition to which the stop condition will be limited. Enter **0** for any partition. Enter **1**-**8** for specific partition number.

Press ✳ to continue.

RESTRICTION
1=YES 0=NO

The system may have some devices, which are not intended to be under end user control, such as relays activating fire doors or machinery. Enter **1** if the end user will be restricted from accessing this relay group.

Press ✳ to continue.

RELAY TYPE

Enter **1** for relay modules (4204). Enter **2** for Powerline Carrier devices.

ECP ADDRESS

If **1** was selected for relay modules (4204), enter the actual relay module's address (01-15) as set by its DIP switches. Up to 2 modules can be installed in a system.

MODULE RELAY #

For 4204 relay outputs, enter the specific relay number on that module (**1-4**).

Press ✳ to continue.

The keypad will display the Start and Stop summary screens again.

Press ✳ to continue.

HOUSE CODE

If **2** was selected for Powerline Carrier devices, enter the numerical equivalent of the House Code of the device as follows:

| | | | |
|---|---|---|---|
| A=00 | E=04 | I=08 | M=12 |
| B=01 | F=05 | J=09 | N=13 |
| C=02 | G=06 | K=10 | O=14 |
| D=03 | H=07 | L=11 | P=15 |

UNIT CODE

Enter the numberical unit code of the Powerline Carrier device (00-15).

Press ＊ to continue.

The keypad will display the Start and Stop summary screens again.

Press ＊ to continue.

When all relays have been programmed, enter **00** at the "ENTER RELAY NO." prompt.

If defining a Zone List, continue to the next section. If not, enter **00** + ✳ at the next two prompts. You will then be asked "Quit Menu Mode?" Enter 1 for "Yes," 0 for "No." Then enter **\*99** to exit programming completely.

## Zone List Programming

After all relays have been programmed, upon entering **00** at the "ENTER RELAY NO." prompt, you will be asked to enter a Zone List. If a Zone List number was used to start or stop a relay, you must define the zones belonging to that list as follows:

```
Enter Zone  LIST
00=QUIT    00
```

Enter the zone list number **01**-**04**. Enter **00** to quit.

```
01  Enter Zn Num.
00=QUIT   00
```

Using 2-digit entries, enter each zone to be included in this zone list. Press ✳ after each zone number is entered.

When all zones have been entered, enter 00.

Press ✳ to continue.

```
01  Del Zn LIST?
0=No    1=Yes
```

Enter **0** to save the zone list entered. Enter **1** to delete that zone list.

```
01 Delete Zone?
0=No    1=Yes
```

Enter **1** to delete one or more zones in that zone list. Enter **0** if no changes are necessary. If 1 is entered, the following screen will appear, otherwise the "Enter Zone List" prompt will reappear.

```
01  Zn to Delete?
00=QUIT      00
```

Enter each zone number to be deleted from the zone list, pressing ✳ after each number.

```
View Zn LIST
00=QUIT        00
```

This will appear if **00** is pressed at the ENTER ZONE LIST prompt. Enter the zone list number that you wish to view. Press ✳ to continue.

```
XX Assigned  Zone
00=QUIT          00
```

Press ✳ to scroll through all zones in that list. Enter **00** + ✳ to quit.

Press *99 to exit program mode.

## Relay Voice Descriptors

If using the 4285/4286 VIP Module, voice descriptors can be programmed for each of the 8 relays used in the system. These descriptors will be announced by the voice module when accessing the relays via the # 70 relay access mode via telephone.

Each voice descriptor can consist of up to 3 words selected from the relay voice descriptor vocabulary list, (found later in this section).

The index numbers from this vocabulary list are to be used for relay voice descriptors only. For normal system voice annunciation (e.g. alarms, troubles, status), use the highlighted words in the alpha vocabulary list found in the *Alpha Programming* section.

To enter relay voice descriptors, do the following:

1.  From data field programming mode, press **#93** to display the "ZONE PROG?" prompt.
2.  Press **0** (NO) to each menu option until the "RLY VOICE DESCR?" prompt is displayed. Follow the instructions below.  While in this mode, press ✳ to advance to next screen.

    Press # to backup to previous screen.

| |
|---|
| RLY VOICE DESCR? |
| 0=no    1=yes |

Press **1** to program voice descriptors for relays.

| |
|---|
| ENTER RELAY NO. |
| 00=QUIT      01 |

Enter the 2-digit relay number (**01-08**) for the relay desired, or enter **00** to quit relay voice descriptor programming mode. Press ✳

| |
|---|
| 01 ENTER DESC  d1 |

From the relay voice descriptor vocabulary list, enter the 3-digit index number for the first word of the relay descriptor phrase.

Press ✳ to accept entry.

| |
|---|
| 01 ENTER DESC  d2 |

From the relay voice descriptor vocabulary list, enter the 3-digit index number for the second word of the relay descriptor phrase. If second word is not desired, press **000**.

Press ✳ to accept entry.

| |
|---|
| 01 ENTER DESC  d3 |

From the relay voice descriptor vocabulary list, enter the 3-digit index number for the third word of the relay descriptor phrase. If third word is not desired, press **000**.

Press ✳ to accept entry.

The ENTER RELAY NO. prompt will appear. Enter the next relay number to be programmed.  When all output devices have been programmed, enter **00** to quit.

Enter *99 to exit program mode.

# Relay Voice Descriptors and Custom Word Substitutes Vocabulary

| Word | Index | Word | Index | Word | Index | Word | Index | Word | Index |
|---|---|---|---|---|---|---|---|---|---|
| Air | 116 | Daughter's | 208 | Front | 087 | No | 165 | Side | 153 |
| Alarm | 255 | Den | 052 | | | North | 146 | Six | 075 |
| And | 067 | Detector | 128 | Garage | 023 | Not | 012 | Sixth | 219 |
| Apartment | 117 | Device | 060 | Gas | 138 | | | Smoke | 024 |
| Appliances | 161 | Dim | 163 | Glass | 139 | Off | 011 | Son's | 223 |
| Area | 118 | Dining | 031 | | | Office | 147 | South | 155 |
| Attic | 119 | Door | 016 | Hall | 050 | On | 058 | Stairs | 006 |
| | | Down | 008 | Heat | 010 | One | 070 | Station | 156 |
| Baby | 120 | Downstairs | 184 | | | Open | 148 | Storage | 157 |
| Back | 121 | Driveway | 130 | Inside | 209 | Outside | 210 | Sun | 154 |
| Bar | 122 | Duct | 131 | | | | | System | 062 |
| Basement | 021 | | | Kitchen | 022 | Panic | 013 | | |
| Bathroom | 051 | East | 132 | | | Partition | 090 | Temperature | 158 |
| Battery | 053 | Eight | 077 | Laundry | 140 | Patio | 149 | Third | 159 |
| Bed | 092 | Eighth | 221 | Left | 027 | Phone | 061 | Three | 072 |
| Bedroom | 015 | Equipment | 133 | Library | 141 | Power | 063 | Tool | 213 |
| Blower | 123 | Exit | 004 | Light | 019 | Pump | 166 | Two | 071 |
| Boiler | 124 | | | Living | 030 | | | | |
| Bright | 162 | Factory | 134 | Loading | 142 | Rear | 088 | Up | 025 |
| Building | 125 | Father's | 211 | Lower | 094 | Right | 028 | Upper | 187 |
| Burglary | 039 | Fence | 135 | | | Room | 018 | Upstairs | 183 |
| | | Fifth | 218 | Machine | 143 | | | Utility | 185 |
| Call | 009 | Fire | 040 | Master | 144 | 's | 007 | | |
| Central | 089 | First | 136 | Medical | 014 | Second | 056 | West | 215 |
| Chime | 054 | Five | 074 | Mother's | 212 | Service | 150 | Window | 017 |
| Closed | 126 | Floor | 029 | Motion | 145 | Seven | 076 | Wing | 216 |
| Computer | 127 | Four | 073 | | | Seventh | 220 | | |
| Console | 066 | Fourth | 217 | Nine | 078 | Shed | 151 | Zero | 069 |
| | | Foyer | 137 | Ninth | 222 | Shop | 152 | Zone | 002 |

## Custom Word Substitutes for VIP Module Annunciation

A substitute word can be programmed for each of the 20 custom words used in your alpha zone descriptions.  This substitute word will be announced by the VIP module in place of the custom word that is displayed on the alpha keypad. For example, an alarm display of "John's Bedroom" could be announced as "Son's Bedroom," since there is no annunciation for the custom word "John."  Note that if a substitute word is not assigned, the VIP module will not annunciate the zone descriptor at all, but will only annunciate the zone number.

To enter custom words substitutes, do the following:

1.  From data field programming mode, press **#93** to display the "ZONE PROG?" prompt.

2.  Press **0** (NO) to each menu option until the "CUSTOM INDEX ?" prompt is displayed.

| |
|---|
| CUSTOM  INDEX ?<br>0=no          1=yes |

Enter **1** at this prompt.

| |
|---|
| CUSTOM WORD NO.<br>00=QUIT |

Enter the custom word number (**01--20**) for which a voice substitute is desired.  Enter **00** to quit this programming mode.  Press ⊞ to accept entry.

| |
|---|
| 01  ENTER INDEX # |

Enter the 3-digit substitute word index number from the relay voice descriptor and custom word substitutes vocabulary list.

Press ⊞ to accept entry.

The "CUSTOM WORD NO." prompt will be displayed.  Enter the next custom word number to be substituted or enter **00** to quit.

## RF Serial Number Clear Mode

This mode may be used in the event that an undesired transmitter has been enrolled during sequential enrolling, causing each subsequent serial number to be assigned to an incorrect zone.  Performing this operation will delete all RF serial numbers, leaving all other zone information intact.  You may then return to Sequential mode to re-enroll wireless transmitters.

The RF Serial Number Clear mode will *not* delete polling loop serial numbers.

To clear all RF wireless serial numbers, do the following:

1.  Enter data field programming mode: installer code + **8 0 0**.

2.  From data field programming mode, press **#93** to display the "ZONE PROG?" prompt.

3.  Press **0** (NO) repeatedly until the "CLEAR RF SERIAL #?" prompt appears.

| |
|---|
| CLEAR RF SERIAL#?<br>1 = YES, 0 = NO     0 |

Enter "1" to clear all RF wireless serial numbers.  The "ARE YOU SURE?" prompt is displayed as follows:

| |
|---|
| ARE YOU SURE?<br>1 = YES, 0 = NO    0 |

Enter "1" to clear all RF serial numbers.  Re-enter the Sequential mode to enroll wireless transmitters.

# System Communications

## In This Section

♦*General Information*

♦ *Telephone Line Connections*

♦*A Successful Transmission*

♦ *Reporting Formats*

♦ *Loading Communication Defaults*

## General Information

The VISTA-40 provides one main built-in dialer for communication to the central station. The communicator will make up to 8 attempts to transmit a report to one or both telephone numbers, depending upon the report routing option programmed.  The control panel will transmit reports in the following order: alarms (fire, medical/panic, and burglary), remaining types of messages.

## Telephone Line Connections

Connect the main dialer output to telephone company service using the RJ31X cables supplied as shown in *Figure 20-1.*
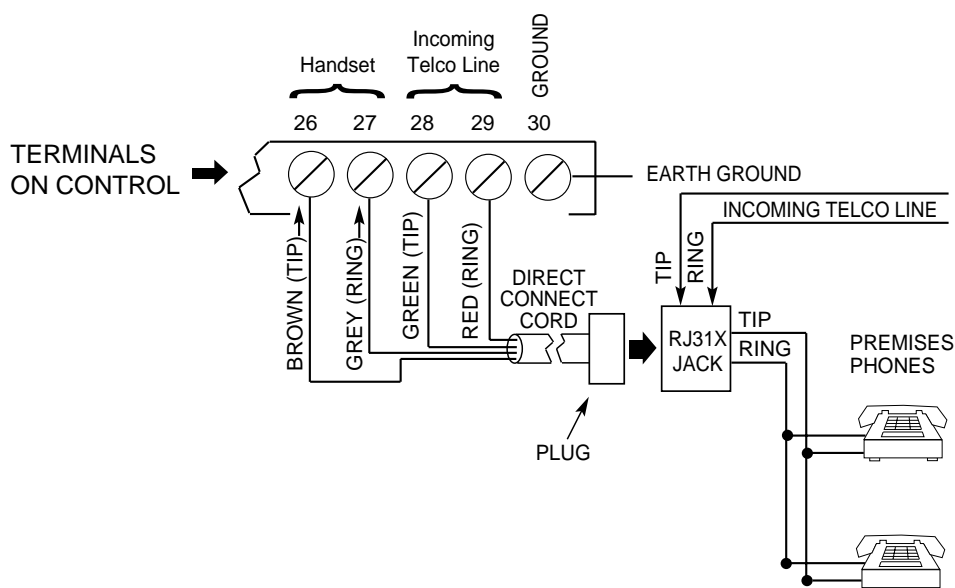
*Figure 20-1:  Standard Telephone Line Connections*

1. To prevent the risk of shock, disconnect phone lines at telco jack before servicing the panel.

2. If the communicator is connected to a telephone line inside a PABX, be sure the PABX has a back-up power supply that can support the PABX for 24 hours (Central Station usage) or 60 hours (Remote Station usage). Many PABXs are *not* power backed up and connection to such a PABX will result in a communication failure if power is lost.

## A Successful Transmission

When a control panel calls the central station receiver, it waits to hear a "handshake" frequency from the receiver to confirm that the receiver is on-line and ready to receive its message. Once the panel hears the handshake it is programmed to listen for, it sends its message. The panel then waits for a "kissoff" frequency from the receiver acknowledging that the message was received and understood.

Once the handshake frequency is received and understood by the panel, the panel will send its message. If there is an error in the transmission (the receiver does not receive a "valid" message), the central station receiver will not give the kissoff frequency.

The panel will make a number of attempts to the primary telephone number and a number of attempts to the secondary telephone number (if programmed) to get a valid message through. The number of attempts that are made to each number is set to 8 for each phone number. If the panel is not successful after its numerous attempts, the keypad will display "Comm Failure."

## Reporting Formats

The following chart defines the three sets of (handshake/kissoff) frequencies that the panel supports and the different formats that can be sent for each.

| FORMAT TIME | HANDSHAKE | TRANSMITS DATA | KISSOFF | TRANSMIT |
|---|---|---|---|---|
| ADEMCO Low Speed<br><br>3+1<br><br>4+1<br><br>4+2 | 1400Hz | 1900Hz (10PPS) | 1400Hz | Under 15 secs.<br><br>(Standard report) |
| Sescoa/Radionics<br><br>3+1<br><br>4+1<br><br>4+2 | 2300Hz | 1800Hz (20PPS) | 2300Hz | Under 10 secs.<br><br>(Standard report) |
| ADEMCO Express 4+2 | 1400–2300Hz | DTMF (10 cps) | 1400Hz | Under 3 secs. |
| ADEMCO High Speed | 1400–2300Hz | DTMF (10 cps) | 1400Hz | Under 5 secs. |
| ADEMCO Contact ID | 1400–2300Hz | DTMF (10 cps) | 1400Hz | Under 3 secs. |

**ADVISORY:** Ademco's Contact ID reporting is capable of uniquely reporting all 64 zones of information, as well as openings and closings for all 70 users, to central stations equipped with the Ademco 685 receiver using software level 4.4 or higher. Must be level 4.7 or higher to fully support all new VISTA-40 report codes. 685 software levels below 4.4 cannot support Contact ID reporting. If you need to update your 685 receiver, contact your distributor.

*The following describes each format in greater detail.*

| | |
|---|---|
| **3+1 and 4+1 Standard Formats** | Comprised of a 3- (or 4-) digit subscriber number and a single digit report code (e.g. Alarm, Trouble, Restore, Open, Close, etc.). |
| **3+1 and 4+1 Expanded Formats** | Comprised of a 3- (or 4-) digit subscriber number, and a two-digit report code. The first digit is displayed on the first line, followed by a second line where the first digit is repeated 3 (or 4) times and followed by the second digit. This is the "expanded" digit. |
| **4+2 Format** | Comprised of a 4-digit subscriber number and 2-digit report code. |
| **Ademco Contact ID Reporting Format** | Comprised of a 4-digit subscriber number, 1-digit event qualifier ("new" or "restore"), 3-digit event code, 2-digit Partition No., and 3-digit zone number, user number, or system status number. |
| **Ademco High Speed** | Comprised of 13 digits as follows: A 4-digit account number + eight channels of zone information (1-8 or duress plus 9-15) + one status channel, which identifies the type of events being reported in the eight zone locations. |

| Report | 3+1/4+1 Standard | 3+1/4+1 Expanded | 4+2 Low Spd or Express |
|---|---|---|---|
| Alarm | SSS(S) A | SSS(S) A<br>AAA(A) Z | SSSS AZ |
| Trouble | SSS(S) T | SSS(S) T<br>TTT(T) t | SSSS Tt |
| Bypass | SSS(S) B | SSS(S) B<br>BBB(B) b | SSSS Bb |
| AC Loss | SSS(S) E | SSS(S) E<br>EEE(E) $A_C$ | SSSS $EA_C$ |
| Low Batt | SSS(S) L | SSS(S) L<br>LLL(L) $L_B$ | SSSS $LL_B$ |
| Open | SSS(S) O | SSS(S) O<br>OOO(O) U | SSSS OU |
| Close | SSS(S) C | SSS(S) C<br>CCC(C) U | SSSS CU |
| Test | SSS(S) G | SSS(S) G<br>GGG(G)g | SSSS Gg |

| Restore | SSS(S) R | SSS(S) R | SSSS RZ |
|---|---|---|---|
| Alarm | | RRR(R) Z | |
| AC Restore | SSS(S) $R_A$ | SSS(S) $R_A$ | SSSS$R_A$ $A_c$ |
| | | $R_A R_A R_A (R_A) A_c$ | |
| LoBat Res. | SSS(S) $R_L$ | SSS(S) $R_L$ | SSSS $R_L L_B$ |
| | | $R_L R_L R_L (R_L) L_B$ | |
| Trouble Res. | SSS(S) $R_T$ | SSS(S) $R_T$ | SSSS $R_T$ t |
| | | $R_T R_T R_T (R_T) t$ | |
| Bypass Res. | SSS(S) $R_B$ | SSS(S) $R_B$ | SSSS $R_B$ b |
| | | $R_B R_B R_B (R_B) b$ | |

***Where:***

| | | | | |
|---|---|---|---|---|
| SSS or | SSSS = | Subscriber ID | C = | Close Code-1st Digit |
| | A = | Alarm Code-1st digit | U = | User Number (1st & 2nd digits) |
| | Z = | Typically Zone Number*-2nd digit | Gg = | Test Code (1st & 2nd digits) |
| | Tt = | Trouble Code (1st & 2nd digits) | R = | Restore Code (Alarm) 1st & 2nd digits |
| | Bb = | Bypass Code (1st & 2nd digits) | $R_T$t = | Restore Code (Trbl) 1st & 2nd digits |
| | $EA_C$ = | AC Loss Code (1st & 2nd digits) | $R_B$b = | Restore Code (Byps) 1st & 2nd digits |
| | $LL_B$ = | Low Battery Code(1st & 2nd digits) | $R_A A_C$ = | Restore Code (AC) 1st & 2nd digits |
| | O = | Open Code-1st Digit | $R_L L_B$ = | Restore Code (Bat) 1st & 2nd digits |

**\*Zone numbers for:** [✳] + [#], or [B] = 99; [3] + [#], or [C] = 96;

[1] + [✳], or [A] = 95; Duress = 92

**Ademco Contact ID Reporting** takes the following format:

CCCC QEEE GG ZZZ

| | | |
|---|---|---|
| where: CCCC = | Customer (subscriber) ID | |
| Q = | Event qualifier, where: | |
| | E = new event, and R = restore | |
| EEE = | Event code (3 hexadecimal digits) | |
| GG = | Partition Number (system messages show "00") | |
| ZZZ = | Zone/contact ID number reporting the alarm, or user number for open/close reports. System status messages (AC Loss, Walk Test, etc.) contain zeroes in the ZZZ location. | |

**Ademco High Speed Reporting** events by channel:

Channels 1 through 8 could have one of the following conditions:

1 = NEW EVENT

2 = OPENING (Status Channel Always = 2)*

3 = RESTORE

4 = CLOSING (Status Channel Always = 4)*

5 = NORMAL, NO EVENT TO REPORT

6 = PREVIOUSLY REPORTED, NOT YET RESTORED

* NOTE: Channel 1 will contain the user ID 1-9, A-F if Open/Close reporting is enabled.

The status channel might have one of the following conditions:

1 = DURESS (For Duress Plus Channels 9-15 Only)

2 = OPENING

3 = BYPASS (For Channels 1-8 Only)

4 = CLOSING

5 = SUPERVISORY/TROUBLE (For Channels 1-8 Only)

6 = SYSTEM STATUS:

- AC LOSS in Channel 1
- LOW BATTERY in Channel 2
- TIME SET in Channel 3
- LOG CLEAR in Channel 3
- LOG 50% FULL in Channel 3
- LOG 90% FULL in Channel 3
- LOG OVERFLOW in Channel 3
- POWER ON RESET in Channel 4
- WALK TEST START, END in Channel 8

7 = NORMAL ALARM STATUS  (Channels 1-8 Only)

9 = TEST REPORT

Explanation of Channels 9-15:

If there is a 1 in the status channel, and:

1 in the 1st location = Duress

1 in Channels 9-15 = Zone alarm on those channels

3 in Channels 9-15 = Restore on those channels

6 in Channels 9-15 = Previously reported alarm–not restored.

A typical high speed report may look as follows:

1234 5115 5555 7 (Acct #1234 with alarms on channels 2 and 3)

1234 5555 1555 1 (Acct #1234 with alarm on channel 12)

**LIMITATIONS**

1. When using Ademco high speed, remember there are only 15 channels available, plus a duress channel. If more than 15 zones are being used, they will have to share channels.

2. With Ademco High Speed reporting, channels 9-15 cannot report troubles or bypasses. Use these channels for zones that will not report these conditions.

3. Only user numbers 1-15 can be uniquely reported with open/close reports in Ademco High Speed.

## TABLE OF CONTACT ID EVENT CODES

| Code | Definition |
|------|------------|
| 110 | Fire Alarm |
| 121 | Duress |
| 122 | Silent Panic |
| 123 | Audible Panic |
| 131 | Perimeter Burglary |
| 132 | Interior Burglary |
| 134 | Entry/Exit Burglary |
| 135 | Day/Night Burglary |
| 150 | 24 Hour Auxiliary |
| 301 | AC Loss |
| 302 | Low System Battery |
| 305 | System Reset |
| 306 | Program Tamper |
| 309 | Battery Test Fail |
| 332 | Poll Loop Short-Trouble |
| 333 | Addressable Device Failure |
| 344 | RF Jam |
| 373 | Fire Loop Trouble |
| 380 | Trouble (global) |

| Code | Definition |
|------|------------|
| 381 | Loss of Supervision - RF |
| 382 | Loss of RPM Supervision |
| 383 | RPM Sensor Tamper |
| 384 | RF Transmitter Low Battery |
| 401 | O/C By User |
| 403 | Power-Up Armed |
| 406 | Cancel by User |
| 407 | Remote Arm/Disarm (Download) |
| 408 | Quick Arm |
| 409 | Keyswitch O/C |
| 411 | Call back Requested |
| 441 | Armed STAY |
| 570 | Bypass |
| 602 | Periodic Test |
| 606 | AAV (Listen-in-to-Follow) |
| 607 | Walk Test Mode, 2-Way Audio Test |
| 621 | Event Log Reset |
| 625 | Time/Date Reset |
| 626 | Time/date inaccurate |

## COMMUNICATION PROGRAMMING GUIDE

| Field # | Low Speed | Contact ID | High Speed | Express |
|---------|-----------|------------|------------|---------|
| *46, *48 | Choose transmission speed and frequency | No effect | No effect | No effect |
| *52, *53 | Send as either 4+2 or expanded | No effect | No effect | No effect |
| *79, *80 | Enables alarm restores | Enables alarm restores | Enables alarm restores | Enables alarm restores |
| *49 | Add checksum digit | No effect | Add checksum digit | No effect |
| *81, *82 | Define codes and selects 4+1 or 4+2 | 1st digit enables report if it is non-zero | 1st digit enables report if it is non-zero | Define codes and selects 4+1 or 4+2 |
| *54, *56, *59, *61, *64, *66, *69, *71, *74, *76 | Defines alarm event code | Enables reports | Assigns reporting channel for all reports from this zone. Enables alarm reporting. | Defines alarm event code |
| *55, *57, *60, *62, *65, *67, *70, *72, *75, *77 | Defines code and selects 4+1 or 4+2 | No effect | No effect | Defines code and selects 4+1 or 4+2 |
| *58, *63, *68, *73, *78 event | Enables report and selects code. NOTE: No restores if event not sent. | Enables report | Enables report NOTE: Alarm channel **must** be programmed. (01-15) | Enables report and selects 1st digit of the 2-digit code. NOTE: No restores if event not sent. |
| *50 | Sescoa/Radionics; Selects fixed digit time instead of fixed interdigit. | No effect | No effect | No effect |
| **NOTES** | NOTE: Low Speed will **not** send 3+2 messages. Zone ID digit is suppressed. | | | |

## Loading Communication Defaults

To help expedite the installation, the system provides 4 different communication defaults (Low Speed, Ademco Express, Ademco High Speed & Ademco's Contact ID

You may load communications defaults at any time. However, it is recommended that the panel be defaulted first (*97) **only if no other programming has been done**. If other programming has already been done, there is no need to default the panel.

To load communication defaults, do the following:

Enter program mode [Installer Code] + 8 0 0. Once the Programming mode is entered, first press **\*94** and then enter one of the following field numbers:

### TABLE OF DEFAULT PROGRAMMING COMMANDS

| PRESS | TO LOAD THIS DEFAULT PROGRAM SET |
|-------|----------------------------------|
| **\*80** | Low Speed communication defaults |
| **\*81** | Ademco 4 + 2 Express communication defaults |
| **\*82** | Ademco High Speed communication defaults |
| **\*83** | Contact ID communication defaults |

**Loading communication defaults results in the following:**

**Low Speed**
**(\*94\*80)**
- Selects low speed, standard format, with no checksum, for both phone numbers.
- Assigns the following report codes:
  - 03 for zones 02-47, 56-61, 64
  - 01 for zones 01, and 48-55 (fire zones)
  - 02 for zones 62,63 (panic transmitter), & 95, 96, 99 (keypad panics)
  - 09 for all alarm restores
- Enables all zone type restores.
  For "expanded" reporting, enable fields *52 and *53.

**ADEMCO Express**
**(\*94\*81)**
- Selects Ademco express reporting format, with checksum, for both phone numbers.
- Report codes for zones 01-64, RF receiver, and keypad panics are sent as their respective zone ID numbers. Duress is sent as "DD". Alarm restore is "E" + 2nd digit.
  Enables all zone type restores.

**ADEMCO High Speed**
**(\*94\*82)**
- Selects Ademco High Speed format with no checksum, for both phone numbers.
- Zone reporting is assigned to channels as described later in this section.
- Enables all zone type restores.
  Enables Duress to be sent.

**ADEMCO Contact ID**
**(\*94\*83)**
- Selects Ademco Contact ID format for both phone numbers.
- Reporting is enabled for all zones.
- Enables all zone type restores.
- Refer to the Table of Contact ID Event Codes to follow.

### COMMUNICATION DEFAULTS for LOW SPEED FORMAT (✶94 then ✶80

| | | | |
|---|---|---|---|
| *45 PRIMARY FORMAT | [0] Ademco Low Speed | *48 LOW SPEED FORMAT (Sec.) | [0] Ademco Low Speed |
| *46 LOW SPEED FORMAT (Primary) | [0] Ademco Low Speed | *49 CHECKSUM VERIFICATION | [0]  [0] No checksum |
| *47 SECONDARY FORMAT | [0] Ademco Low Speed | | Primary   Secondary |

| *50 SESCOA/RADIONICS SELECT [0] Radionics | *51 DUAL REPORTING [0] no |

*52 STANDARD/EXPANDED REPORT FOR PRIMARY

| [0] | [0] | [0] | [0] | [0] | [0] | standard |
|-----|-----|-----|-----|-----|-----|----------|
| Alarm | Rstr | Bypass | Trbl | Opn/Cls | Low Bat | |

*53 STANDARD/EXPANDED REPORT FOR SEC.

| [0] | [0] | [0] | [0] | [0] | [0] | standard |
|-----|-----|-----|-----|-----|-----|----------|
| Alarm | Rstr | Bypass | Trbl | Opn/Cls | Low Bat | |

### ALARM REPORT CODE & ID DIGITS FOR ZONES 1-32 & SUPERVISORY & RESTORE CODES

| *54 CODE | *55 ID | *56 CODE | *57 ID | *58 | *59 CODE | *60 ID | *61 CODE | *62 ID | *63 |
|---|---|---|---|---|---|---|---|---|---|
| 1 [0,1] | [0,0] | 9 [0,3] | [0,0] | [0,9] Alrm Rst. | 17 [0,1] | [0,0] | 25 [0,3] | [0,0] | [0,9] Alrm Rst. |
| 2 [0,3] | [0,0] | 10 [0,3] | [0,0] | [0,0] Trouble | 18 [0,3] | [0,0] | 26 [0,3] | [0,0] | [0,0] Trouble |
| 3 [0,3] | [0,0] | 11 [0,3] | [0,0] | [0,0] Trble Rst. | 19 [0,3] | [0,0] | 27 [0,3] | [0,0] | [0,0] Trble Rst. |
| 4 [0,3] | [0,0] | 12 [0,3] | [0,0] | [0,0] Bypass | 20 [0,3] | [0,0] | 28 [0,3] | [0,0] | [0,0] Bypass |
| 5 [0,3] | [0,0] | 13 [0,3] | [0,0] | [0,0] Byp Rst. | 21 [0,3] | [0,0] | 29 [0,3] | [0,0] | [0,0] Byp Rst. |
| 6 [0,3] | [0,0] | 14 [0,3] | [0,0] | | 22 [0,3] | [0,0] | 30 [0,3] | [0,0] | |
| 7 [0,3] | [0,0] | 15 [0,3] | [0,0] | | 23 [0,3] | [0,0] | 31 [0,3] | [0,0] | |
| 8 [0,3] | [0,0] | 16 [0,3] | [0,0] | | 24 [0,3] | [0,0] | 32 [0,3] | [0,0] | |

### ALARM REPORT CODE & ID DIGITS FOR ZONES 33-64 & SUPERVISORY & RESTORE CODES

| *64 CODE | *65 ID | *66 CODE | *67 ID | *68 | *69 CODE | *70 ID | *71 CODE | *72 ID | *73 |
|---|---|---|---|---|---|---|---|---|---|
| 33 [0,1] | [0,0] | 41 [0,3] | [0,0] | [0,9] Alrm Rst. | 49 [0,1] | [0,0] | 57 [0,3] | [0,0] | [0,9] Alrm Rst. |
| 34 [0,3] | [0,0] | 42 [0,3] | [0,0] | [0,0] Trouble | 50 [0,3] | [0,0] | 58 [0,3] | [0,0] | [0,0] Trouble |
| 35 [0,3] | [0,0] | 43 [0,3] | [0,0] | [0,0] Trble Rst. | 51 [0,3] | [0,0] | 59 [0,3] | [0,0] | [0,0] Trble Rst. |
| 36 [0,3] | [0,0] | 44 [0,3] | [0,0] | [0,0] Bypass | 52 [0,3] | [0,0] | 60 [0,3] | [0,0] | [0,0] Bypass |
| 37 [0,3] | [0,0] | 45 [0,3] | [0,0] | [0,0] Byp Rst. | 53 [0,3] | [0,0] | 61 [0,3] | [0,0] | [0,0] Byp Rst. |
| 38 [0,3] | [0,0] | 46 [0,3] | [0,0] | | 54 [0,3] | [0,0] | 62 [0,3] | [0,0] | |
| 39 [0,3] | [0,0] | 47 [0,3] | [0,0] | | 55 [0,3] | [0,0] | 63 [0,3] | [0,0] | |
| 40 [0,3] | [0,0] | 48 [0,3] | [0,0] | | 56 [0,3] | [0,0] | 64 [0,3] | [0,0] | |

### ALARM REPORT CODE & ID DIGITS FOR RF RCVRs & PANICS, & THEIR SUPV. & RESTORE CODES

| *74 CODE | *75 ID | *76 CODE | *77 ID | *78 |
|---|---|---|---|---|
| 87 [0,7] | [0,0] | 89 [0,7] | [0,0] | [0,9] Alrm Rst. |
| 88 [0,7] | [0,0] | 90 [0,3] | [0,0] | [0,0] Trouble |
| | | 91 [0,7] | [0,0] | [0,0] Trble Rst. |
| | | 92 [0,2] | [0,0] | [0,0] Bypass |
| | | 98 [0,7] | [0,0] | [0,0] Byp Rst. |
| | | 97 [0,7] | [0,0] | |
| | | 95 [0,2] | [0,0] | |
| | | 96 [0,2] | [0,0] | |
| | | 99 [0,2] | [0,0] | |

**SYSTEM NON ALARM CODES**

| | *81 First Digit | *82 Second Digit |
|---|---|---|
| Close | [0,0] | [0,0] |
| Open | [0,0] | [0,0] |
| Low Battery | [0,0] | [0,0] |
| Low Bat Res. | [0,0] | [0,0] |
| AC Loss | [0,0] | [0,0] |
| AC Restore | [0,0] | [0,0] |
| Test | [0,0] | [0,0] |
| Power | [0,0] | [0,0] |
| Cancel | [0,0] | [0,0] |
| Prog. Tamper | [0,0] | [0,0] |

Second digit of each code applies only to 4+2 or expanded (fields *52 & *53) formats.

NOTES: 97= Poll Loop Short;

88 & 90 = RCVR not receiving transmitter signals or RF jamming.

89 & 91 = RCVR not responding, bad connection to panel.

87 = 4285/4286 phone module

92 = Duress

98 = Bell Supervision

### ZONE TYPE RESTORE ENABLES

*79   ZONE TYPES 1-8
        All enabled [1, 1, 1, 1, 1, 1, 1, 1]

*80   ZONE TYPES 9 &10
        All enabled [1, 1]

### ARM STAY & TIME SET REPORT CODES

| | 1*40 First Digit | 1*41 Second Digit |
|---|---|---|
| Armed STAY | [0,0] | [0,0] |
| Time/Date set or Event Log reset | [0,0] | [0,0] |

**COMMUNICATION DEFAULTS for ADEMCO EXPRESS FORMAT (✶94 then ✶81**

| *45 PRIMARY FORMAT | [3] Ademco Express | | *51 | DUAL REPORTING | [0] no |
|---|---|---|---|---|---|

*45 PRIMARY FORMAT               [3] Ademco Express          *51   DUAL REPORTING               [0] no

*46 LOW SPEED FORMAT (Primary) [0]                           *52   STANDARD/EXPANDED REPORT FOR PRIMARY

*47 SECONDARY FORMAT           [3] Ademco Express

| [0] | [0] | [0] | [0] | [0] | [0] | standard |
|---|---|---|---|---|---|---|
| Alarm | Rstr | Bypass | Trbl | Opn/Cls | Low Bat | |

*48 LOW SPEED FORMAT (Sec.)     [0]

*49 CHECKSUM VERIFICATION       [0]    [0] No checksum          *53   STANDARD/EXPANDED REPORT FOR SEC.

                              Primary   Secondary

| [0] | [0] | [0] | [0] | [0] | [0] | standard |
|---|---|---|---|---|---|---|
| Alarm | Rstr | Bypass | Trbl | Opn/Cls | Low Bat | |

*50 SESCOA/RADIONICS SELECT     [0] Radionics

## ALARM REPORT CODE & ID DIGITS FOR ZONES 1-32 & SUPERVISORY & RESTORE CODES

| *54 CODE | *55 ID | | *56 CODE | *57 ID | *58 | | *59 CODE | *60 ID | | *61 CODE | *62 ID | *63 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 [1,0] | [0,1] | 9 | [1,0] | [0,9] | [1,4] Alrm Rst. | 17 | [0,1] | [0,7] | 25 | [0,2] | [0,5] | [1,4] Alrm Rst. |
| 2 [1,0] | [0,2] | 10 | [0,1] | [1,0] | [0,0] Trouble | 18 | [0,1] | [0,8] | 26 | [0,2] | [0,6] | [0,0] Trouble |
| 3 [1,0] | [0,3] | 11 | [0,1] | [0,1] | [0,0] Trble Rst. | 19 | [0,1] | [0,9] | 27 | [0,2] | [0,7] | [0,0] Trble Rst. |
| 4 [1,0] | [0,4] | 12 | [0,1] | [0,2] | [0,0] Bypass | 20 | [0,2] | [1,0] | 28 | [0,2] | [0,8] | [0,0] Bypass |
| 5 [1,0] | [0,5] | 13 | [0,1] | [0,3] | [0,0] Byp Rst. | 21 | [0,2] | [0,1] | 29 | [0,2] | [0,9] | [0,0] Byp Rst. |
| 6 [1,0]] | [0,6] | 14 | [0,1] | [0,4] | | 22 | [0,2] | [0,2] | 30 | [0,3] | [1,0] | |
| 7 [1,0] | [0,7] | 15 | [0,1] | [0,5] | | 23 | [0,2] | [0,3] | 31 | [0,3] | [0,1] | |
| 8 [1,0] | [0,8] | 16 | [0,1] | [0,6] | | 24 | [0,2] | [0,4] | 32 | [0,3] | [0,2] | |

## ALARM REPORT CODE & ID DIGITS FOR ZONES 33-64 & SUPERVISORY & RESTORE CODES

| *64 CODE | *65 ID | | *66 CODE | *67 ID | *68 | | *69 CODE | *70 ID | | *71 CODE | *72 ID | *73 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 [0,3] | [0,3] | 41 | [0,4] | [0,1] | [1,4] Alrm Rst. | 49 | [0,4] | [0,9] | 57 | [0,5] | [0,7] | [1,4] Alrm Rst. |
| 34 [0,3] | [0,4] | 42 | [0,4] | [0,2] | [0,0] Trouble | 50 | [0,5] | [1,0] | 58 | [0,5] | [0,8] | [0,0] Trouble |
| 35 [0,3] | [0,5] | 43 | [0,4] | [0,3] | [0,0] Trble Rst. | 51 | [0,5] | [0,1] | 59 | [0,5] | [0,9] | [0,0] Trble Rst. |
| 36 [0,3] | [0,6] | 44 | [0,4] | [0,4] | [0,0] Bypass | 52 | [0,5] | [0,2] | 60 | [0,6] | [1,0] | [0,0] Bypass |
| 37 [0,3] | [0,7] | 45 | [0,4] | [0,5] | [0,0] Byp Rst. | 53 | [0,5] | [0,3] | 61 | [0,6] | [0,1] | [0,0] Byp Rst. |
| 38 [0,3] | [0,8] | 46 | [0,4] | [0,6] | | 54 | [0,5] | [0,4] | 62 | [0,6] | [0,2] | |
| 39 [0,3] | [0,9] | 47 | [0,4] | [0,7] | | 55 | [0,5] | [0,5] | 63 | [0,6] | [0,3] | |
| 40 [0,4] | [1,0] | 48 | [0,4] | [0,8] | | 56 | [0,5] | [0,6] | 64 | [0,6] | [0,4] | |

## ALARM REPORT CODE & ID DIGITS FOR RF RCVRs & PANICS, & THEIR SUPV. & RESTORE CODES

| *74 CODE | *75 ID | | *76 CODE | *77 ID | *78 |
|---|---|---|---|---|---|
| 87 [0,8] | [0,7] | 89 | [0,8] | [0,9] | [1,4] Alrm Rst. |
| 88 [0,8] | [0,8] | 90 | [0,9] | [1,0] | [0,0] Trouble |
| | | 91 | [0,9] | [0,1] | [0,0] Trble Rst. |
| | | 92 | [1,3] | [1,3] | [0,0] Bypass |
| | | 98 | [0,9] | [0,8] | [0,0] Byp Rst. |
| | | 97 | [0,9] | [0,7] | |
| | | 95 | [0,9] | [0,5] | |
| | | 96 | [0,9] | [0,6] | |
| | | 99 | [0,9] | [0,9] | |

| SYSTEM NON ALARM CODES | | |
|---|---|---|
| | *81 | *82 |
| | First Digit | Second Digit |
| Close | [0,0] | [0,0] |
| Open | [0,0] | [0,0] |
| Low Battery | [0,0] | [0,0] |
| Low Bat Res. | [0,0] | [0,0] |
| AC Loss | [0,0] | [0,0] |
| AC Restore | [0,0] | [0,0] |
| Test | [0,0] | [0,0] |
| Power | [0,0] | [0,0] |
| Cancel | [0,0] | [0,0] |
| Prog. Tamper | [0,0] | [0,0] |

Second digit of each code applies only to 4+2 or expanded (fields *52 & *53) formats.

NOTES: 97= Poll Loop Short;

88 & 90 = RCVR not receiving transmitter signals or RF jamming.

89 & 91 = RCVR not responding, bad connection to panel.

87 = 4285/4286 phone module

92 = Duress

98 = Bell Supervision

## ZONE TYPE RESTORE ENABLES

*79      ZONE TYPES 1-8

         All enabled [1, 1, 1, 1, 1, 1, 1, 1]

*80      ZONE TYPES 9 &10

         All enabled [1, 1]

## ARM STAY & TIME SET REPORT CODES

| | 1*40 | 1*41 |
|---|---|---|
| | First Digit | Second Digit |
| Armed STAY | [0,0] | [0,0] |
| Time/Date set or Event Log reset | [0,0] | [0,0] |

**COMMUNICATION DEFAULTS for ADEMCO HIGH SPEED FORMAT (✴94 then ✴82**

| *45 PRIMARY FORMAT | [2] Ademco High Speed | | *51 DUAL REPORTING | [0] no |
|---|---|---|---|---|

*46 LOW SPEED FORMAT (Primary) [0]

*47 SECONDARY FORMAT [2] Ademco High Speed

*48 LOW SPEED FORMAT (Sec.) [0]

*49 CHECKSUM VERIFICATION [0]   [0] No checksum

                               Primary   Secondary

*50 SESCOA/RADIONICS SELECT [0] Radionics

*51 DUAL REPORTING [0] no

*52 STANDARD/EXPANDED REPORT FOR PRIMARY

| [0] | [0] | [0] | [0] | [0] | [0] | standard |
|---|---|---|---|---|---|---|
| Alarm | Rstr | Bypass | Trbl | Opn/Cls | Low Bat | |

*53 STANDARD/EXPANDED REPORT FOR SEC.

| [0] | [0] | [0] | [0] | [0] | [0] | standard |
|---|---|---|---|---|---|---|
| Alarm | Rstr | Bypass | Trbl | Opn/Cls | Low Bat | |

## ALARM REPORT CODE & ID DIGITS FOR ZONES 1-32 & SUPERVISORY & RESTORE CODES

| *54 CODE | *55 ID | *56 CODE | *57 ID | *58 | *59 CODE | *60 ID | *61 CODE | *62 ID | *63 |
|---|---|---|---|---|---|---|---|---|---|
| 1 [0,1] | [0,0] | 9 [0,3] | [0,0] | [0,1] Alrm Rst. | 17 [0,4] | [0,0] | 25 [0,4] | [0,0] | [0,1] Alrm Rst. |
| 2 [0,2] | [0,0] | 10 [0,3] | [0,0] | [0,0] Trouble | 18 [0,4] | [0,0] | 26 [0,4] | [0,0] | [0,0] Trouble |
| 3 [0,2] | [0,0] | 11 [0,3] | [0,0] | [0,0] Trble Rst. | 19 [0,4] | [0,0] | 27 [0,4] | [0,0] | [0,0] Trble Rst. |
| 4 [0,2] | [0,0] | 12 [0,3] | [0,0] | [0,0] Bypass | 20 [0,4] | [0,0] | 28 [0,4] | [0,0] | [0,0] Bypass |
| 5 [0,2] | [0,0] | 13 [0,3] | [0,0] | [0,0] Byp Rst. | 21 [0,4] | [0,0] | 29 [0,4] | [0,0] | [0,0] Byp Rst. |
| 6 [0,2] | [0,0] | 14 [0,3] | [0,0] | | 22 [0,4] | [0,0] | 30 [0,4] | [0,0] | |
| 7 [0,2] | [0,0] | 15 [0,3] | [0,0] | | 23 [0,4] | [0,0] | 31 [0,4] | [0,0] | |
| 8 [0,2] | [0,0] | 16 [0,3] | [0,0] | | 24 [0,4] | [0,0] | 32 [0,5] | [0,0] | |

## ALARM REPORT CODE & ID DIGITS FOR ZONES 33-64 & SUPERVISORY & RESTORE CODES

| *64 CODE | *65 ID | *66 CODE | *67 ID | *68 | *69 CODE | *70 ID | *71 CODE | *72 ID | *73 |
|---|---|---|---|---|---|---|---|---|---|
| 33 [0,5] | [0,0] | 41 [0,5] | [0,0] | [0,1] Alrm Rst. | 49 [0,1] | [0,0] | 57 [0,6] | [0,0] | [0,1] Alrm Rst. |
| 34 [0,5] | [0,0] | 42 [0,5] | [0,0] | [0,0] Trouble | 50 [0,1] | [0,0] | 58 [0,6] | [0,0] | [0,0] Trouble |
| 35 [0,5] | [0,0] | 43 [0,5] | [0,0] | [0,0] Trble Rst. | 51 [0,1] | [0,0] | 59 [0,6] | [0,0] | [0,0] Trble Rst. |
| 36 [0,5] | [0,0] | 44 [0,5] | [0,0] | [0,0] Bypass | 52 [0,1] | [0,0] | 60 [0,6] | [0,0] | [0,0] Bypass |
| 37 [0,5] | [0,0] | 45 [0,5] | [0,0] | [0,0] Byp Rst. | 53 [0,1] | [0,0] | 61 [0,6] | [0,0] | [0,0] Byp Rst. |
| 38 [0,5] | [0,0] | 46 [0,5] | [0,0] | | 54 [0,1] | [0,0] | 62 [0,9] | [0,0] | |
| 39 [0,5] | [0,0] | 47 [0,5] | [0,0] | | 55 [0,1] | [0,0] | 63 [0,9] | [0,0] | |
| 40 [0,5] | [0,0] | 48 [0,1] | [0,0] | | 56 [0,6] | [0,0] | 64 [0,6] | [0,0] | |

## ALARM REPORT CODE & ID DIGITS FOR RF RCVRs & PANICS, & THEIR SUPV. & RESTORE CODES

| *74 CODE | *75 ID | *76 CODE | *77 ID | *78 |
|---|---|---|---|---|
| 87 [0,7] | [0,0] | 89 [0,7] | [0,0] | [0,1] Alrm Rst. |
| 88 [0,7] | [0,0] | 90 [0,8] | [0,0] | [0,0] Trouble |
| | | 91 [0,8] | [0,0] | [0,0] Trble Rst. |
| | | 92 [0,1] | [0,0] | [0,0] Bypass |
| | | 98 [0,7] | [0,0] | [0,0] Byp Rst. |
| | | 97 [0,7] | [0,0] | |
| | | 95 [1,0] | [0,0] | |
| | | 96 [1,1] | [0,0] | |
| | | 99 [1,2] | [0,0] | |

NOTES: 97= Poll Loop Short;

88 & 90 = RCVR not receiving transmitter signals or RF jam.

89 & 91 = RCVR not responding, bad connection to panel.

87 = 4285/4286 phone module

92 = Duress

98 = Bell Supervision

### SYSTEM NON ALARM CODES

| | *81 First Digit | *82 Second Digit |
|---|---|---|
| Close | [0,0] | [0,0] |
| Open | [0,0] | [0,0] |
| Low Battery | [0,0] | [0,0] |
| Low Bat Res. | [0,0] | [0,0] |
| AC Loss | [0,0] | [0,0] |
| AC Restore | [0,0] | [0,0] |
| Test | [0,0] | [0,0] |
| Power | [0,0] | [0,0] |
| Cancel | [0,0] | [0,0] |
| Prog. Tamper | [0,0] | [0,0] |

Second digit of each code applies only to 4+2 or expanded (fields *52 & *53) formats.

## ZONE TYPE RESTORE ENABLES

*79      ZONE TYPES 1-8

         All enabled [1, 1, 1, 1, 1, 1, 1, 1]

*80      ZONE TYPES 9 &10

         All enabled [1, 1]

## ARM STAY & TIME SET REPORT CODES

| | 1*40 First Digit | 1*41 Second Digit |
|---|---|---|
| Armed STAY | [0,0] | [0,0] |
| Time/Date set or Event Log reset | [0,0] | [0,0] |

**COMMUNICATION DEFAULTS for ADEMCO's CONTACT ID FORMAT (✱94 then ✱83**

| | | | |
|---|---|---|---|
| *45 PRIMARY FORMAT | [1] Ademco Contact ID | *51 DUAL REPORTING | [0] no |

*46 LOW SPEED FORMAT (Primary) [0]

*52 STANDARD/EXPANDED REPORT FOR PRIMARY

| [0] | [0] | [0] | [0] | [0] | [0] | standard |
|---|---|---|---|---|---|---|
| Alarm | Rstr | Bypass | Trbl | Opn/Cls | Low Bat | |

*47 SECONDARY FORMAT  [1] Ademco Contact ID

*48 LOW SPEED FORMAT (Sec.)  [0]

*49 CHECKSUM VERIFICATION  [0]  [0] No checksum

Primary Secondary

*53 STANDARD/EXPANDED REPORT FOR SEC.

| [0] | [0] | [0] | [0] | [0] | [0] | standard |
|---|---|---|---|---|---|---|
| Alarm | Rstr | Bypass | Trbl | Opn/Cls | Low Bat | |

*50 SESCOA/RADIONICS SELECT  [0] Radionics

## ALARM REPORT CODE & ID DIGITS FOR ZONES 1-32 & SUPERVISORY & RESTORE CODES

| *54 CODE | *55 ID | | *56 CODE | *57 ID | *58 | | *59 CODE | *60 ID | | *61 CODE | *62 ID | *63 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 [0,1] | [0,0] | 9 | [0,9] | [0,0] | [0,1] Alrm Rst. | 17 [0,2] | [0,0] | 25 | [1,0] | [0,0] | [0,1] Alrm Rst. |
| 2 [0,2] | [0,0] | 10 | [1,0] | [0,0] | [0,0] Trouble | 18 [0,3] | [0,0] | 26 | [1,1] | [0,0] | [0,0] Trouble |
| 3 [0,3] | [0,0] | 11 | [1,1] | [0,0] | [0,0] Trble Rst. | 19 [0,4] | [0,0] | 27 | [1,2] | [0,0] | [0,0] Trble Rst. |
| 4 [0,4] | [0,0] | 12 | [1,2] | [0,0] | [0,0] Bypass | 20 [0,5] | [0,0] | 28 | [1,3] | [0,0] | [0,0] Bypass |
| 5 [0,5] | [0,0] | 13 | [1,3] | [0,0] | [0,0] Byp Rst. | 21 [0,6] | [0,0] | 29 | [1,4] | [0,0] | [0,0] Byp Rst. |
| 6 [0,6] | [0,0] | 14 | [1,4] | [0,0] | | 22 [0,7] | [0,0] | 30 | [1,5] | [0,0] | |
| 7 [0,7] | [0,0] | 15 | [1,5] | [0,0] | | 23 [0,8] | [0,0] | 31 | [0,1] | [0,0] | |
| 8 [0,8] | [0,0] | 16 | [0,1] | [0,0] | | 24 [0,9] | [0,0] | 32 | [0,2] | [0,0] | |

## ALARM REPORT CODE & ID DIGITS FOR ZONES 33-64 & SUPERVISORY & RESTORE CODES

| *64 CODE | *65 ID | | *66 CODE | *67 ID | *68 | | *69 CODE | *70 ID | | *71 CODE | *72 ID | *73 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 [0,3] | [0,0] | 41 | [1,1] | [0,0] | [0,1] Alrm Rst. | 49 [0,4] | [0,0] | 57 | [1,2] | [0,0] | [0,1] Alrm Rst. |
| 34 [0,4] | [0,0] | 42 | [1,2] | [0,0] | [0,0] Trouble | 50 [0,5] | [0,0] | 58 | [1,3] | [0,0] | [0,0] Trouble |
| 35 [0,5] | [0,0] | 43 | [1,3] | [0,0] | [0,0] Trble Rst. | 51 [0,6] | [0,0] | 59 | [1,4] | [0,0] | [0,0] Trble Rst. |
| 36 [0,6] | [0,0] | 44 | [1,4] | [0,0] | [0,0] Bypass | 52 [0,7] | [0,0] | 60 | [1,5] | [0,0] | [0,0] Bypass |
| 37 [0,7] | [0,0] | 45 | [1,5] | [0,0] | [0,0] Byp Rst. | 53 [0,8] | [0,0] | 61 | [0,1] | [0,0] | [0,0] Byp Rst. |
| 38 [0,8] | [0,0] | 46 | [0,1] | [0,0] | | 54 [0,9] | [0,0] | 62 | [0,2] | [0,0] | |
| 39 [0,9] | [0,0] | 47 | [0,2] | [0,0] | | 55 [1,0] | [0,0] | 63 | [0,3] | [0,0] | |
| 40 [1,0] | [0,0] | 48 | [0,3] | [0,0] | | 56 [1,1] | [0,0] | 64 | [0,4] | [0,0] | |

## ALARM REPORT CODE & ID DIGITS FOR RF RCVRs & PANICS, & THEIR SUPV. & RESTORE CODES

| *74 CODE | *75 ID | | *76 CODE | *77 ID | *78 |
|---|---|---|---|---|---|
| 87 [1,2] | [0,0] | 89 | [1,4] | [0,0] | [0,1] Alrm Rst. |
| 88 [1,3] | [0,0] | 90 | [1,5] | [0,0] | [0,0] Trouble |
| | | 91 | [0,1] | [0,0] | [0,0] Trble Rst. |
| | | 92 | [0,2] | [0,0] | [0,0] Bypass |
| | | 98 | [1,2] | [0,0] | [0,0] Byp Rst. |
| | | 97 | [0,3] | [0,0] | |
| | | 95 | [0,4] | [0,0] | |
| | | 96 | [0,5] | [0,0] | |
| | | 99 | [0,6] | [0,0] | |

| SYSTEM NON ALARM CODES | | |
|---|---|---|
| | *81 | *82 |
| | First Digit | Second Digit |
| Close | [0,0] | [0,0] |
| Open | [0,0] | [0,0] |
| Low Battery | [0,0] | [0,0] |
| Low Bat Res. | [0,0] | [0,0] |
| AC Loss | [0,0] | [0,0] |
| AC Restore | [0,0] | [0,0] |
| Test | [0,0] | [0,0] |
| Power | [0,0] | [0,0] |
| Cancel | [0,0] | [0,0] |
| Prog. Tamper | [0,0] | [0,0] |

Second digit of each code applies only to 4+2 or expanded (fields *52 & *53) formats.

NOTES: 97= Poll Loop Short;

88 & 90 = RCVR not receiving transmitter signals or RF jamming.

89 & 91 = RCVR not responding, bad connection to panel.

87 = 4285/4286 phone module

92 = Duress

98 = Bell Supervision

## ZONE TYPE RESTORE ENABLES

*79    ZONE TYPES 1-8

All enabled  [1, 1, 1, 1, 1, 1, 1, 1]

*80    ZONE TYPES 9 &10

All enabled  [1, 1]

## ARM STAY & TIME SET REPORT CODES

| | 1*40 | 1*41 |
|---|---|---|
| | First Digit | Second Digit |
| Armed STAY | [0,0] | [0,0] |
| Time/Date set or Event Log reset | [0,0] | [0,0] |

# Downloading

**(Remote Downloading is not a UL Listed feature)**

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## In This Section

♦ *General Information*

♦ *Getting On-Line with a Control Panel*

♦ *On-Line Control Functions*

♦ *Access Security*

♦ *Connecting a 4100SM Module for Direct Wire Downloading*

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## General Information

Downloading allows the operator to remotely access, program, and control the security system over normal telephone lines.  Anything that can be done directly from the keypad can be done remotely, using ADEMCO's VLINK® or COMPASS downloading software.  To communicate with the control panel, the following is required:

### Using V-Link

1.  An IBM PC compatible 286, 386, or 486 computer with at least 1 MB RAM, a hard disk with 12 MB available disk space, running MS DOS 3.1 or higher operating system.

2.  One of the following modems:

    • Hayes Smartmodem 1200 (external: level 1.2 or higher; internal: level 1.1 or higher),

    • Hayes Optima 24 + Fax 96 external.

*Other brands are not compatible, even if claimed to be 100% compatible.*

3.  V-LINK® DOWNLOADING software, may be purchased from ADEMCO.  This software is available on 3-1/2" diskettes, and includes a complete User's Manual.  It may also be downloaded. from the ADEMCO web page.  The web address is http://www.ademco.com

### Using Compass

1.  An IBM PC compatible 486 33MHz PC or better with 30 MB of available hard disk space and at least 8 MB of RAM, (12 MB is preferred). Windows 3.X, Windows 95, or Windows NT.

2.  One of the following modems:

    • Hayes Smartmodem 1200 (external: level 1.2 or higher; internal: level 1.1 or higher),

    • Hayes Optima 24 + Fax 96 external.

    • Hayes Optima 336

    • BizComp Intellimodem 1200 w/volume

    • BizComp Intellimodem 2400

*Other brands are not compatible, even if claimed to be 100% compatible.*

3. COMPASS DOWNLOADING software, may be purchased from ADEMCO. This software is available on 3-1/2" diskettes, or CD ROM and includes a complete User's Manual. It may also be downloaded. from the ADEMCO web page. The web address is http://www.ademco.com

Internal modems must have 4 position DIP switch. Modems with 6 position DIP switch will not work.

Alternatively, you may use a 4100SM interface module to "direct wire" the control panel to your computer at the site.

## Getting On-Line with a Control Panel

At the protected premises, the Control panel must be connected to the existing telephone line (see the *System Communications* section). No programming of the panel is required before downloading to an initial installation.

To download, do the following:

1. Enter the installer code + [#] + [5]. The panel temporarily enables a ring count of 5 and sets the Download Callback option to "1" (callback not required).

2. Call the panel using the downloader software set to "FIRST COMMUNICATION" mode.

3. The downloader will establish a session with no callback. The panel information can then be downloaded.

4. In order to remotely access, control, or program the alarm panel, a "link" must be established between the computer and the control panel, as follows:

   a. The computer calls up the control panel. (The phone number for each customer is entered into the customer's account file on the computer).

   b. The control panel "answers" at the pre-programmed ring count and executes a handshake with the computer.

   c. The computer sends a request for callback to the control, unless callback is not required.

   d. The panel acknowledges the request and hangs up. During the next few seconds, the control will process the request making sure certain encrypted information, received from the computer matches its own memory.

   e. Upon a successful match, the control panel will seize the phone line and call the computer back, unless callback is not required.

   f. The computer answers, usually by the second ring, and executes a handshake with the panel.

   g. The panel then sends other default information to the computer. If this information matches the computer's information, a successful link is established. This is known as being "ON-LINE".

Alarms and trouble responses and reports are disabled during actual uploading or downloading sessions.

## On-Line Control Functions

The following functions can be performed while on-line with a control panel:

- Arm the system in the AWAY Mode; disarm the system

- Bypass a zone

- Force the system to accept a new program download

- Shutdown communication (dialer) functions (non-payment of monitoring fees in an owned system)

- Shutdown all security system functions (non-payment for a leased system)

- Inhibit local keypad programming (prevents takeover of your accounts)

- Leave a message for customer

- Command the system to upload a copy of its resident program to the office

- Read: arming status, AC power status, list of faulted zones, list of bypassed zones, 100 event log, list of zones currently in alarm, and list of zones currently in trouble.

- Set the real-time clock.

## Access Security

Accessing the control from a remote location is protected against compromise by the use of 4 levels of protection:

1. Security Code Handshake: The subscriber's account number as well as an 8-digit ID number (known only to the office) must be matched between the control and computer.

2. Hang-up and Call-Back: The control panel will "hang-up" and call the computer back at the pre-programmed number only if the security codes match.

3. Data Encryption: All data that is exchanged between the computer and control is encrypted to reduce the possibility of anyone "tapping" the line and corrupting data.

4. Operator Access Levels: Operators may be assigned various levels of access to the DOWNLOADER, each having their own log-on code. The access levels allow the operators READ/WRITE capabilities of the customers' account information. For a detailed explanation of the access levels see the downloading software user manual.

**NOTES:**

- Each time the control panel is accessed successfully, a CALLBACK REQUESTED report is sent to central station, if programmed.

- When downloading, the keypad displays "MODEM COMM."

- Whenever a download or a save is done, an automatic time stamp is done, indicating the date and time of the last download (or save) and the operator ID number.

- A complete hard copy of each individual account can be obtained by connecting a printer to the computer. Refer to your computer owner's manual or contact your dealer for printer recommendations.

## Connecting a 4100SM Module for Direct Wire Downloading

The VISTA-40 can be downloaded without using a modem or telephone line by using ADEMCO's V-Link® downloading software (Rev. 4 or higher) or ADEMCO's Compass Windows downloading software, and a 4100SM Serial Module. The direct wire downloading connection is to be temporary, and is not part of the permanent installation. Direct wire downloading is meant as a tool for the installer during the installation process.

The connections between the VISTA-40 and the 4100SM are different than those shown in the 4100SM Installation Instructions. See *Figure 21-1* for correct connections. In addition, when the "green" wire is referred to in step 2 of the IN CASE OF DIFFICULTY section of the 4100SM Instructions, use the "violet" wire.

Connector J8, located above connector J7 on the right hand side of the main PC board, is intended to be interfaced to a computer. Make connections to a computer as shown below.
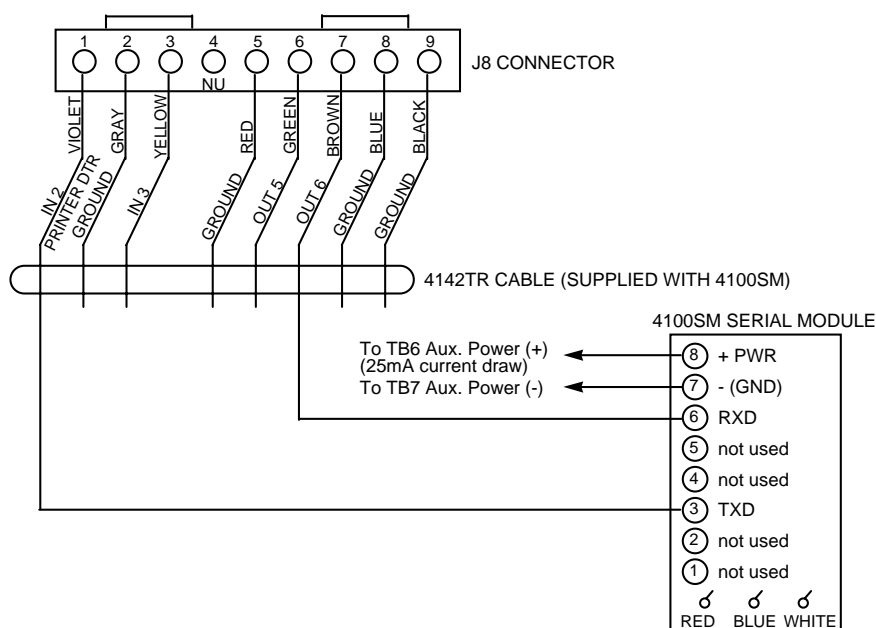
*Figure 21-1 Direct Wire Downloading Connections*

# Setting The Real-Time Clock

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

### *In This Section*

♦ *General Information*

♦ *Setting the Time and Date*

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

## General Information

This system provides a real-time clock, which must be set in order for the system's event log to keep track of events by time and date.

> Use a 6139 alpha keypad to set the real-time clock, or set the clock via the Downloader software. Only users with installer or master authority level can set the real-time clock.

## Setting the Time and Date

1.  Enter installer or master code + **# 63**.  Typical display shows

    | TIME/DATE   ––   THU |
    |----------------------|
    | 12:01 AM        01/01/90 |

2.  The day of the week is automatically calculated based on the date entered.  Time and date entries are made by simply entering the appropriate hour, minute, month, day and year.

    •  Press the [∗] to accept the entered value. The cursor then moves to the right.

    •  Press the [#] to move the cursor to the left of the display, to the previous position.

    •  Enter the correct hour then press [∗] to move to the minutes and make the correct entry.

    •  Press [∗] again, then press any key 0-9 to set AM/PM.  Press any key again to change AM to PM, or PM to AM.

    •  Press [∗] to move cursor to the month position and enter the correct month using a 2-digit entry.

    •  Press [∗] and enter the correct date.

    •  Press [∗] and enter the correct year.

    3. Exit clock mode by pressing the [∗] after the cursor is in the year position.

# User Access Codes

## In This Section

♦ *General Information*

♦ *User Codes & Levels of Authority*

♦ *To Add a Master, Manager, or Operator Code*

♦ *To Change a Master, Manager, or Operator Code*

♦ *To Add an RF Key to an Existing User*

♦ *To Delete a Master, Manager, or Operator Code*

♦ *To Exit the User Edit Mode*

## General Information

This system allows a total of 70 security access codes to be allocated, each identified by a user ID number.  A maximum of 69 may be assigned to any one of the partitions.  The installer code is automatically assigned to both partitions regardless of whether both partitions are used.

The Quick Arm feature can also be programmed (partition-specific program field *29), which allows the [#] key to be pressed instead of entering the security code when arming the system.  The security code must always be entered to disarm the system.

> A user # 2 code must be programmed for the Quick Arm feature to function.  Open/Close reporting of Quick Arm is enabled if User 2 is enabled for Open/Close reporting.  Quick Arm reports as User 0.

## User Codes & Levels Of Authority

Each user of the system can be assigned a level of authority (tells system what system functions that user is authorized to do), and can have different levels of authority within different partitions.  In general, users can perform most system functions, including Test and Chime Modes, but certain authority levels restrict disarming, bypassing or the assigning of other user codes.  These restrictions are noted in the descriptions below.

Use the "View Capabilities" keypad function to view the partitions and authority levels for which a particular user is authorized.  In highest to lowest ranking, these levels are described below.

| Auth | Title |
|------|-------|
| 0 | Installer |
| 1 | Master |
| 2 | Manager |
| 3 | Operator level A |
| 4 | Operator level B |
| 5 | Operator level C |
| 6 | Duress |

**Level 0: Installer (User 1)**

- Programmed in field *00 (default = 4-1-4-0). Installer open/close reporting is selected in field *39.

- Can perform all system functions (arm, disarm, bypass, etc.), but cannot disarm if armed by another code (or by Quick Arm).

- Can add, delete, or change all other authority level codes, and can select open/close reports for any user.

- Is the only code that can enter program mode, but even this can be prevented by exiting program mode using *98. (The only way to access Programming Mode, if this done is by powering down the system, powering up again, and then pressing both the [*] and [#] at the same time within 30 seconds of power up.)

- Must program at least one master code during initial installation. Master codes are codes intended for use by the primary user(s) of the system.

**Level 1: Master Codes**

- Can perform all normal system functions

- Can be used to assign up to 68 lower level codes, which can be used by other users of the system.

- Cannot assign anybody a level of 0 or 1.

- May change his own code.

- Can add, delete, change manager or operator codes. Each user's code can be individually eliminated or changed at any time.

- Open/close reporting of added users are the same as that of the master adding the new user.

**Level 2: Manager Codes**

- Can perform all system functions (arm, disarm, bypass, etc.) programmed by master.

- May add, delete or change other users of the system below this level (manager cannot assign anybody a level of 0, 1, or 2).

- May change his own code.

- Open/close reporting of added users are the same as that of the manager adding the new user.

**Levels 3-5: Operator Codes**

- Can arm and disarm the system to the authority assigned, but cannot add or modify any user code.

- May operate a partition with one of the three OPERATOR authority levels A through C listed in the following table:

| Level | Title | Functions Permitted |
|-------|-------|---------------------|
| 3 | Operator A | Arm, Disarm, Bypass |
| 4 | Operator B | Arm, Disarm |
| 5 | Operator C | Arm, Disarm only if armed with same code |

- Operator C (sometimes known as babysitter code), cannot disarm the system unless the system was armed with that code. This code is usually assigned to persons who may have the need to arm and disarm the system at specific times only (ex. a babysitter needs to control the system only when babysitting).

**Level 6: Duress**

- Sends a silent alarm to a central monitoring station, if the user is being forced to disarm (or arm) the system under threat (only useful if the system is connected to a central station).

- When the system's auxiliary voltage triggers are connected to another communication's media (Derived Channel/Long Range Radio), note that duress is signaled on the same trigger that signals silent panic (whereas duress has its own unique report when digitally communicated).

- Assigned on a partition-by-partition basis and can be any code or codes desired.

- Will disarm (or arm) the system, but will also send a silent alarm to the central station (if service is connected). There will be no indication at the keypad that an alarm was sent.

> Duress Reporting Note: A non-zero report code for zone 92 (duress) must be programmed and partition-specific field *85 duress location enabled to enable duress reporting.

- The Duress report triggering logic activates on the 5th key depression (such as OFF), not the 4th key depression (last digit of code). Duress reports will not be triggered if the 5th key is a [∗], such as when performing a GOTO or viewing the capabilities of a user.

**General Rules on Authority Levels and Changes**

The following rules apply to users when making modifications within the system based on the user code authority levels:

- Master codes and all lower level codes can be used interchangeably when performing system functions within a partition (a system armed with a user's temporary code can be disarmed with the master code or another user's temporary code), except the operator level C code described above.

- A user may not delete or change the user code of the SAME or HIGHER authority than which he is assigned.

- A user (levels 0, 1 & 2 only) may only ADD users to a LOWER authority level.

- A user may assign other users access to only those partitions to which he himself has access.

- A user can only be DELETED or CHANGED from within the partition he was created in.

- User numbers must be entered as 2-digit entries. Single digit user numbers must, therefore, always be preceded by a "0" (example, 03, 04, 05, etc.). Make sure the end user understands this requirement. Temporary codes are entered as 4-digit numbers.

**Open/Close Reporting Note:** When adding a user, the system will only prompt for Open/Close reporting capability if the installer is adding the user. When a Master or Manager adds a new user, the new user's Open/Close reporting enable will be the same as that of the Master or Manager adding the user. If Open/Close reports are required to be selectable by the Master or Manager, the Installer should assign two Master or Manager user codes: one with Open/Close reporting enabled, and one without.

Note that Open/Close reporting of Quick Arm is enabled if User 02 is enabled for Open/Close reporting, and that Quick Arm reports as User 00. In order for Quick Arm reports to be sent for all partitions, User #02 must have authority and Open/Close enabled for all partitions. If a code with access to both partitions is not desired, it is suggested that user #02 be assigned authority level 5 in both partitions, and that the code be kept secret. Authority level 5 cannot disarm the system unless armed by that user.

Ademco Contact ID format is capable of reporting Users 01-70 uniquely. If any other report format is used, only user numbers #01 - #15 can uniquely report to the central station. Users #16 - #70 will report as User #15.

**Multiple Partition Access Examples**

Each user is programmed for a primary (home) partition. A user can also be given access to operate one or both partitions. In addition, within each partition, each user may be programmed to have different levels of authority. For example, User #3, the VP of Engineering, could be assigned to work within the Engineering Department (Partition 1) of ABC Manufacturing. Since he needs the full capabilities in his area, he is assigned as a MASTER with Level 1 authority. This means he may arm, disarm, bypass, add or modify users in partition 1.

It is also a requirement that he be able to gain access to the manufacturing area (partition 2) on an emergency basis. You can set this up easily with the partitioned system by now requesting that he also be assigned to partition 2, with a level of authority set lower, such as Level 4 (OPERATOR Level B) which allows him to arm and disarm, but nothing else. The control will automatically assign him the same user number within partition 2 and does not require reprogramming of his already existing 4 digit security code.

**Example of Multiple Partition Access**

| Part 1 | Part 2 |
|--------|--------|
| User 3 | User 3 |
| Level 1 | Level 4 |
| Master | Oper B |

In the above example, User 3 has MASTER authority in partition 1 and OPERATOR B authority in partition 2. His user number is the same for both partitions. Note that if a user number is already being used in a partition, the system will automatically assign an unused User number.

## To ADD a Master, Manager, or Operator Code

During user code entry, normal key depressions at other keypads in a partition will be ignored. However, panic key depression will cause an alarm and terminate user entry.

Enter Installer Code†+ [8] + new user # (02-69) + new user's code

†Or Master or Manager code, but must be a code with higher level of authority than the code being changed (i.e. Master code can add a Manager or Operator level code, but cannot add another Master code; a Manager code can add an Operator level code, but cannot add a Master or another Manager code).

Keypad will prompt for the Authority Level for this user.

| User Number = 03 |
|---|
| Enter Auth. Level |

Enter the level number as follows:

1 = Master (Arm, Disarm, Bypass, add or modify lower level users)

2 = Manager (Arm, Disarm, Bypass, add or modify lower level users)

3 = Operator Level A (Arm, Disarm, Bypass)

4 = Operator Level B ( Arm, Disarm)

5 = Operator Level C ( Arm, Disarm only if system armed with this code)

6 = Duress (Arm, Disarm, triggers silent panic alarm)

Keypad will then prompt for Open/Close reporting option for this user.

| Open/Close Rep.? |
|---|
| 0 = NO , 1 = YES |

Press 0 (NO) or 1 (YES), depending on whether or not arming/disarming by this user will trigger opening & closing reports. This prompt appears only if the installer code is used to add a user.

| RF Button ? |
|---|
| 0=NO , 1=YES |

If a 5800 series button transmitter has been enabled for arming/disarming functions, and is not assigned to a user, this prompt will appear. Press 0 (NO) or 1 (YES).

| Enter Button ZN # |
|---|
| (01-63) |

If yes was given as the answer to the RF button question, the zone number for the button will be requested. Enter any one of the zone numbers assigned to the button transmitter as AWAY, STAY or DISARM. The system will then assign **all** buttons of the transmitter to this user number.

| Multi-Access ? |
|---|
| 0 = NO , 1 = YES |

Press 0 (NO) if the user is to have access to this partition only. Press 1 (YES) if the user is to have access to more than one partition. If NO, the program exits this mode. If yes, the Keypad prompts for the Global Arm option for this user.

| | |
|---|---|
| Global Arm ?<br>0 = NO , 1 = YES | Press 0 (NO) or 1 (YES), depending on whether or not this user will be allowed to arm more than one partition via Global Arm prompts (described in the *Keypad Functions* section) . |

The keypad now prompts for the user's access to the next partition.

| | |
|---|---|
| Part. 2 – SHOP ?<br>0 = NO , 1 = YES | Press 0 (NO) or 1 (YES), depending on whether or not this user will have access to the displayed partition number.  If NO, the keypad displays this prompt for the next partition number in sequence. |

If YES, the keypad prompts for the following:

- User's authority level in the displayed partition (see Enter Authority Level prompt above).

- Open/Close option for this user in the displayed partition (see Open/Close prompt above).

- Global Arm option for this user in the displayed partition.

When all partitions have been displayed, the keypad will scroll through all partitions to which access has been assigned, and will display the user number, authority level, open/close and global arm options that were programmed for each partition the user was granted access. For example:

| | |
|---|---|
| Part. 1 A0 ✶ WHSE<br>User 03  Auth=3G. | The "G" following the authority level indicates that the global arm feature is enabled for this user in the displayed partition, and that the period at the end of the second line indicates open/close reporting is enabled for this user in the displayed partition.  The "✶" indicates the partition from which the user may be changed or deleted. |

## To CHANGE a Master, Manager, or Operator Code

Enter Installer Code[†]+ [8] + new user # (02-69) + new user's code

[†]Or Master or Manager code, but must be a code with higher level of authority than the code being changed (i.e. Master code can change a Manager or Operator level code, but cannot change another Master code; a Manager code can change an Operator level code, but cannot change a Master or another Manager code).

| | |
|---|---|
| User Number = 03<br>NEW USER? | The system detects that the user number is already assigned and will prompt if this is a new user.<br>Press 0 (NO). |

The system will then confirm that the change is allowed based on authorization level.

## To Add An RF Key To An Existing User

To add an RF key to an existing user, or to change a user's global arm option, first delete that user's code, then re-add the user code as described in the "To Add A Master, Manager or Operator Level Code" paragraph.

## To Delete a Master, Manager, or Operator Code

Enter your code[†]+ [8] + new user # (02-69) + your code again.

[†]Or Master or Manager code, but must be a code with higher level of authority than the code being deleted (i.e. Master code can delete a Manager or Operator level code, but cannot delete another Master code; a Manager code can delete an Operator level code, but cannot delete a Master or another Manager code).

| OK TO DELETE 003? |
| 0=NO            1=YES |

The system will prompt to confirm that you want to delete this user.  Press 0 (NO) or 1 (YES).

If yes, that user's code will be removed from all partitions to which it had been assigned, and all authorization levels and other information about that user will be deleted.  Note that a user can only be deleted by a user with a higher authority level. A user cannot delete himself.

A user code can only be deleted from the partition through which it was entered.  If trying to delete from another partition, the message "User [XX] Not Deleted" will be displayed.

## To EXIT The User Edit Mode

Press either [✱] or [#], or don't press any key for 10 seconds.

# Keypad Functions

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

### In This Section

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

### General Information

The keypad allows the user to arm and disarm the system, and perform other system functions, such as bypassing zones, viewing messages from the central station, and displaying zone descriptors.  Zone and system conditions (alarm, trouble, bypass, etc.) are shown in the display window.

When an alarm occurs, keypad sounding and external sounding will occur, and the zone(s) in alarm will be displayed on the keypad.  Pressing any key will silence the keypad sounder for 10 seconds.  Disarming the system will silence both keypad and external sounders.  When the system is disarmed, any zones that were in an alarm condition during the armed period will be displayed (memory of alarm).  To clear this display, simply repeat the disarm sequence (enter the security code and press the OFF key).

The keypads also feature chime annunciation, and 3 panic keys (for silent, audible, fire or personal emergency alarms), which can notify the central station of an alarm condition, if that service is connected.

## Arming Functions

The following is a brief list of system commands. For detailed information concerning system functions, refer to the User's Manual.

| | |
|---|---|
| **Display Faulted Zones** | Before arming, the system must be in the READY condition (all zones must be intact). If the "NOT READY" message appears, press the READY * key to display faulted zones. |
| **Arming Away** | Enter code + 2 (AWAY) |
| **Arming Stay** | Enter code + 3 (STAY) (all zones designated as zone types 4 and 10 will be automatically bypassed). |
| **Arming Instant** | Enter code + 7 (INSTANT) (same as STAY without entry delay). |
| **Arming Maximum** | Enter code + 4 (MAXIMUM) (same as AWAY with out entry delay). |
| **Disarming** | Enter code + 1 (OFF). |
| **Bypassing Zones** | Enter code + 6 (BYPASS) + 3-digit zone number.  To automatically bypass all faulted zones, use "Quick Bypass" method: Enter code + BYPASS + #. |
| **Chime Mode** | Enter code + 9 (CHIME). To turn chime mode off, enter code + CHIME again. |
| **Quick Arming** | Note that if QUICK ARM is enabled (field *29), the # key can be pressed instead of entering the security code, for any of the arming procedures (AWAY, STAY, INSTANT, MAXIMUM). |

A user #2 code must be programmed into the system in order for the Quick Arm feature to work.

### SUMMARY OF ARMING MODES

| Mode | Features For Each Arming Mode | | | |
|---|---|---|---|---|
| | Exit Delay | Entry Delay | Perimeter Armed | Interior Armed |
| AWAY | Yes | Yes | Yes | Yes |
| STAY | Yes | Yes | Yes | No |
| INSTANT | Yes | No | Yes | No |
| MAXIMUM | Yes | No | Yes | Yes |

## Global Arming

If enabled for the user, the alpha keypad will display the following:

```
ARM ALL     ?
0 = NO , 1 = YES
```

If NO, the keypad prompts for arming each partition individually.  If YES, the system attempts to arm all partitions allowed by this user.  If there are any faults (open doors, windows, etc.) the keypad will display them.  See notes below.  These faults must be corrected or the zone bypassed before arming will occur.  When faults are corrected, repeat the arming procedure.

1.  When using the Global Arm feature, if there are faults in any of the selected partitions, the system will enter a summary mode in which the faulted zones of all of the selected partitions will be displayed.  These faults must be corrected or bypassed (code + BYPASS + [#] will attempt to bypass the faults in all of the selected partitions).  This summary mode will end in approx. 120 seconds if no keys are pressed.

2.  If, when disarming the system using a Global Disarm, any of the selected partitions has a condition which would cause the keypad to beep (such as alarm memory or a trouble condition), the system will enter a summary mode.  The keypad will display the alarm memory or trouble conditions of all of the selected partitions.  This mode will continue until either approximately 120 seconds elapses or a second disarm is entered.

## Access Control

The system has the capability to utilize access control.  One relay may be used for access control in each partition.  The relay is programmed in data field 1∗76.  To activate this relay, the user enters his user code + [0].  The relay will pulse for 2 seconds.

## Partition "GOTO" Commands

Each keypad is assigned a default partition for display purposes, and will show only that partition's information.  To see information for another partition, or perform system functions in another partition, use the GOTO command (code + [∗] +partition number 0-2).  The keypad will remain in the new partition until directed to go to another partition, or until 120 seconds has elapsed with no keypad activity.  To return to your home partition, enter [∗] + partition number **0**.

You must program data field 2*18 to enable the GOTO function.  This is a partition-specific field that must be set for each partition the user wants to access from another partition's keypad

## Viewing Capabilities Of A User

The alpha keypad will display the partitions that a user is authorized for, the user number, and the authority level for all partitions authorized. Enter code + [∗] + [∗].  The user's capabilities in each authorized partition will typically be displayed as follows:

| Part. 1  A0∗ WHSE |
| --- |
| User 01 Auth.=1G. |

The user's Open/Close report capability is shown by the dot following the authority level.  If Open/Close is not enabled for a user, the dot will not appear.

## Viewing Zone Descriptors

The Alpha Keypads can display all programmed descriptors, which is useful to the installer when checking entries, and can be helpful to the user when there is a need to identify zones. ***To display descriptors, the system must be disarmed and ready to arm.***  Press and hold the READY key until the built-in instructions for that key appear, then release the key. The zone descriptors will appear one at a time, for about 2-3 seconds each.  For faster viewing, press the READY key to display the next descriptor in numerical order and so on. When all descriptors have been displayed, the control will exit display mode.  To exit the display mode before all descriptors have been displayed, enter the security code and press the OFF key.

## Viewing Downloaded Messages

Users may occasionally receive a message from their installation company displayed on an alpha keypad.  When this occurs, the keypad will display "Message. Press 0 for 5 secs." Instruct the user to press and hold the 0 key to display the central station's message.  Note that the system must be in the READY state to view these messages.

## Using The Built-in User's Manual

An abbreviated User's Manual is stored in the system's memory, and can be particularly useful to the end user if the printed User's Manual is not conveniently accessible when the user needs to perform a seldom used and unfamiliar system procedure.  The Built-in User's Manual is displayed on an alpha keypad by simply pressing any of the function keys (e.g., OFF, AWAY, STAY, MAXIMUM, BYPASS, INSTANT, CODE, TEST, READY, #, and CHIME) for approximately 5 seconds and then releasing it.  Abbreviated instructions relative to the key that has been pressed will then be displayed (2 lines of text are displayed at a time).  This function operates in either the armed or the disarmed state.

## Panic Keys

There are three panic key pairs (shown below) that, if programmed, can be used to manually initiate alarms and send a report to the central station. Each key pair can be individually programmed for 24 Hour Silent, Audible or Auxiliary (Emergency) responses, as well as Fire. The panic function is activated when the appropriate key pair is pressed at the same time.

The panic functions are identified by the system as follows:

| PANIC | Displayed as Zone | |
| --- | --- | --- |
| * + 1 | 95 | For alpha keypads, these panic keys |
| # + 3 | 96 | can also be programmed with an alpha |
| * + # | 99 | descriptor. |

For the panic functions to be of practical value, the system must be connected to a central station.

## Manual Relay Activation Mode (#70 Mode)

The system allows users to manually activate relays by keypad command using either the keypad or a telephone keypad (if VIP module is used). The user will be prompted (either by keypad alpha display or telephone voice module).

To activate relays from a keypad, enter 4-digit security code + [#] +**70.**

To activate relays using a telephone and VIP module, first dial the 2-digit phone access code. When the system acknowledges the access, enter 4-digit security code + [#] + **70**. The following prompts/voice responses will begin.

| | |
|---|---|
| ENTER DEVICE NO.<br><br>00=QUIT          01 | **Voice:** "ENTER DEVICE CODE NOW"<br><br>Enter the 2-digit number of the relay to be activated. |

| | |
|---|---|
| nn  DEVICE IS OFF<br><br>HIT  0=OFF , 1=ON | **Voice:** "*voice descriptor*  DEVICE nn ON/OFF.  FOR *voice descriptor* ON ENTER 1, FOR *voice descriptor* OFF ENTER 0"<br><br>Press **0** or **1** to turn the device off or on respectively.<br><br>"nn" represents the 2-digit relay number and *voice descriptor* is the relay voice descriptor programmed by the installer (see relay descriptor programming). |

| | |
|---|---|
| nn DEVICE IS OFF<br><br>HIT THE "*" KEY | **Voice:** "*voice descriptor*  DEVICE nn ON/OFF.  TO EXIT ENTER 00 NOW"<br><br>From a keypad, press ✳ to continue. The ENTER DEVICE NO. prompt will appear.<br><br>From a telephone keypad, enter **00** to exit, or enter the next relay number to be programmed.  The current on/off state of that relay will be annunciated as described above.  Alternatively, if 6 seconds elapses with no key depression, the voice module will annunciate the "ENTER DEVICE CODE NOW" message. |

A relay may be designated as restricted to prevent inadvertent activation/deactivation by users. Only the Installer Code can override this restriction in *Relay Programming* in the *#93 Menu Mode Programming*

# *Testing The System*

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

### *In This Section*

♦ *Battery Test*

♦ *Dialer Test*

♦ *Burglary Walk Test*

♦ *Armed Burglary System Test*

♦ *Trouble Conditions*

♦ *Turning the System Over to the User*

♦ *To The Installer*

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## Battery Test

When AC power is present, the VISTA-40 will run a battery test every 4 hours to check on the battery's condition.  If the VISTA-40 finds that the battery voltage is low (less than approx. 11.5V) during one of these tests, it initiates a keypad  "System LoBat" display.  It also sends a low battery report to the central station (if the dialer feature is used).  The console can be cleared by entering any security code + OFF, and a restore report will be sent to the central station after a subsequent test indicates that the problem (disconnected or low battery) has been corrected.

## Dialer Test

The VISTA-40 may be programmed to automatically transmit test reports to a central station at intervals ranging from once per hour to once per 199 hours (field *27).  UL requires that a test report be transmitted at least once every 24 hours.  The VISTA-40 can be programmed to send the first report at any time of the day, or at any day of the week after power up (field *83).

## Burglary Walk Test (Code + TEST [5])

This test causes the system to sound keypad beeps in response to faults on burglary and non-fire related 24-hour zones for the purpose of allowing proper zone operation to be checked without triggering alarms.  Note that the system will not trigger alarms for burglary and 24-hour zones while this test is active.  This test is activated by entering the security code and pressing TEST while the burglary portion of the system is disarmed.  UL requires that this test be conducted on a weekly basis.

When this test is first activated, the system will sound burglary bells for 3 seconds.  The system will send a test message to the central station.  The keypads will display "Test in Progress" and will sound a single beep every 15 seconds while the test remains active.

Open and close each protected door and window in turn. Each action should produce 3 beeps from the keypad. Walk in front of any motion detectors. Listen for three beeps when the detector senses movement. The keypad will display the zone number and alpha descriptor while a door or window remains open or while a detector remains activated. The system automatically issues a zone 8 glassbreak detector power reset about 10 seconds after it finds a fault on this zone, to allow faulted detectors to be reset.

To end this test, enter any security code and press OFF.

## Armed Burglary System Test

1. Alarm messages will be sent to the central station during the following tests. Notify the central station that a test will be in progress.

2. A display of "COMM. FAILURE" indicates a failure to communicate (no Kissoff by the receiver at the central station after the maximum number of transmission attempts is tried). If this occurs, verify the phone line is connected, the correct report format is programmed, etc.

1. Arm the system and fault one or more zones. Silence alarm sounder(s) each time by entering the code and pressing OFF. Check that Entry/Exit delay zones provide the assigned delay times.

2. Check the keypad-initiated alarms, if programmed, by pressing the Panic keys (* and #, 1 and *, and/or 3 and #). If the system has been programmed for audible emergency, the keypad will emit a loud, steady alarm sound. The word ALARM and a descriptor "99" will be displayed for * and #. (if 1 and * are pressed, a "95" will be displayed; if 3 and # are pressed, a "96" will be displayed). Silence the alarm by entering the security code and pressing OFF. If the system has been programmed for silent panic, there will be no audible alarms or displays. A report will be sent to the central station, however.

3. Notify the central station that all tests are finished and verify results with them.

## Trouble Conditions

### Check Messages

- A display of "CHECK" accompanied by a zone number (01-64) and an alpha descriptor indicates that a problem exists with that zone. Zone trouble may be caused by one of the following conditions:

    A hardwired fire zone is open (broken wire)

    A Day/Night zone (Zone Type 5) is faulted

    A polling loop zone is not being seen by the control panel

    A polling loop zone has been tampered (cover removed on a 4190)

    A wireless zone has not checked in during the time programmed in field 1*31

    A 5800 series transmitter has been tampered (cover removed)

- "**CHECK 97**" indicates that a short exists on the Polling Loop and may eliminate some of the protection.

- "**CHECK**" accompanied by a numeric display of "88", "89", "90", or "91" indicates an RF Receiver problem.

- "**CHECK 87**" indicates a 4285/4286 phone module problem.

**Other System Messages**

- "**COMM. FAILURE**" (alpha) or "**FC**" (fixed-word) at the keypad indicates that a failure occurred in the telephone communication portion of your system.

- "**LO BAT**" (alpha) or "**BAT**" (fixed-word) and a zone descriptor, and a once per minute beep at the keypad indicates that a low battery condition exists in the wireless transmitter displayed. Silence the warning sound by pressing any key. "**SYSTEM LO BAT**" (alpha) or "**BAT**" with no zone number (fixed-word) indicates a low battery condition with the system's backup battery.

- "**RCVR SET UP ERROR**" (alpha) or "**E8**" (fixed-word) at the keypad indicates that the system has more RF zones programmed than the installed RF receiver can support. If this is not corrected, none of the zones in the system will be protected. If more RF zones are desired, use an appropriate receiver that supports more zones (ex. 4281H, 5881H).

- "**MODEM COMM**" (alpha) or "**CC**" (fixed-word) indicates that the control is on-line with the remote computer and the control is not operating. Panel's response to alarm and trouble conditions will be delayed until on-line session is completed.

If the problem has been corrected, key an OFF sequence (Security Code plus OFF) twice to clear the display.

**Power Failure**

If the POWER indicator is off, and the message "AC LOSS" is displayed, the keypad is operating on battery power only. Check to see that the circuit breaker for the branch circuit that your system's transformer is wired to has not been accidentally turned off. Instruct the user to call a service representative immediately if AC power cannot be restored.

## Turning the System Over to the User

- Fully explain the operation of the system to the user by going over each of its functions as well as the User's Manual supplied.

- In particular, explain the operation of each zone (entry/exit, perimeter, interior, fire, etc.). Be sure the user understands how to operate any emergency feature(s) programmed into the system.

## To The Installer

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any alarm system.

The installer should assume the responsibility of developing and offering a regular maintenance program to the user as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least weekly) to insure the system's proper operation at all times.

**Contacting Technical Support**

**PLEASE, before you call Technical Support, be sure you:**

- READ THE INSTRUCTIONS!
- Check all wiring connections.
- Determine that the power supply and/or backup battery are supplying proper voltages.
- Verify your programming information where applicable.
- Make sure all keypads and devices are addressed properly.
- Note the proper model number of this product, and the version level (if known) along with any documentation that came with the product.
- Note your ADEMCO customer number and/or company name.

Having this information handy will make it easier for us to serve you quickly and effectively.

You may contact Technical Support via Toll Free Fax. Please include your return fax number. You will receive a reply within 24 hours. You may also contact Technical Support via modem to ATLIS-BBS, Tech Support's Electronic Bulletin Board System. Replies are posted within 24 hours.

*Technical Support: 1-800-645-7492 (8 a.m.-8 p.m. E.S.T.)*

*Technical Support Fax Number: 1-800-447-5086*

*ATLIS-BBS Electronic Bulletin Board System: 1-516-496-3980*

(1200 – 28.8 Baud, 8 Data Bits, 1 Start/Stop Bit, No Parity)

*ATLIS-FAX Automated Document Retrieval System: 1-800-573--0153 or*

*1-516-921-6704/ext. 1667*

*Ademco World Wide Web Page: HTTP//:WWW.ADEMCO.COM*

*Internet E-Mail Address: ADEMCO_TECH_SPRT@ADEMCO-165.ADEMCO.COM*

# Regulatory Agency Statements

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## UL Installation Requirements

The following requirements apply to  UL Residential Burglary installations:

1.  All partitions must be owned and managed by the same person(s).

2.  All partitions must be part of one building at one street address.

3.  The audible alarm device(s) must be placed where it/they can be heard by all partitions.

4.  The control cabinet must be protected from unauthorized access.  This can be done by installing a tamper switch on the cabinet door (not supplied with VISTA-40) or by installing a UL Listed passive infrared detector positioned to detect cabinet access.  Wire the selected device to any EOLR supervised zone (zone 1-8).  Program this zone for day trouble/night alarm (type 05) or 24 hour audible alarm (type 07) response.  The 24 hour alarm response must be used for multiple partitioned systems.

5.  Remote Downloading is not a UL Listed feature.

**FEDERAL COMMUNICATIONS COMMISSION (FCC) STATEMENT**

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for your information:

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- If using an indoor antenna, have a quality outdoor antenna installed.
- Reorient the receiving antenna until interference is reduced or eliminated.
- Move the receiver away from the control/communicator.
- Move the antenna leads away from any wire runs to the control/communicator.
- Plug the control/communicator into a different outlet so that it and the receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user or installer may find the "Interference Handbook" booklet prepared by the Federal Communications Commission helpful. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402.

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

**FCC PART 68 NOTICE**

This equipment complies with Part 68 of the FCC rules. On the front cover of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This equipment uses the following jacks:

An RJ31X is used to connect this equipment to the telephone network.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs 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 RENs 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 RENs, contact the telephone company to determine the maximum REN for the calling area.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact the manufacturer for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

There are no user serviceable components in this product, and all necessary repairs must be made by the manufacturer. Other repair methods may invalidate the FCC registration on this product.

This equipment cannot be used on telephone company-provided coin service. Connection to Party Line Service is subject to state tariffs.

This equipment is hearing-aid compatible.

When programming or making test calls to an emergency number, briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours; such as early morning or late evening.

**IN THE EVENT OF TELEPHONE OPERATIONAL PROBLEMS**

In the event of telephone operational problems, disconnect the control panel by removing the plug from the RJ31X (CA38A in Canada) wall jack. We recommend that you demonstrate disconnecting the phones on installation of the system. Do not disconnect the phone connection inside the Control Panel. Doing so will result in the loss of your phone lines. If the regular phone works correctly after the Control Panel has been disconnected from the phone lines, the Control Panel has a problem and should be returned for repair. If upon disconnection of the Control Panel, there is still a problem on the line, notify the telephone company that they have a problem and request prompt repair service. The user may not under any circumstances (in or out of warranty) attempt any service or repairs to the system. It must be returned to the factory or an authorized service agency for all repairs.

### CANADIAN DEPARTMENT OF COMMUNICATIONS
### (DOC) STATEMENT

## NOTICE

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

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

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

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

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

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

## AVIS

L'étiquette du ministère des Communications du Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Le ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunications. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. Dans certains cas, les fils intérieurs de l'entreprise utilisés pour un service individuel à la ligne unique peuvent être prolongés au moyen d'un dispositif homologué de raccordement (cordon prolongateur téléphonique interne). L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empèchet pas la dégradation du service dans certaines situations. Actuellement, les entreprises de télécommunications ne permettent pas que l'on raccorde leur matériel aux prises d'abonnés, sauf dans les cas precis prévus par les tarifs particuliers de ces entreprises.

Les réparations du matériel homologué doivent être effectuées pas un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise en terre de la source d'énergie électrique, des lignes téléphoniques de réseau de conduites d'eau s'il y en a, soient raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

**Avertissement:** L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

L'indice de charge (IC) assigné à chaque dispositif terminal pour éviter toute surcharge indique le pourcentage de la charge totale qui peut être raccordé à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle combinaison de dispositifs, pourvu que la somme des indices de charge de l'ensemble des dispositifs ne dépasse pas 100.

# *DIP Switch Tables*

# DIP SWITCH TABLES FOR ADDRESSABLE POLLING LOOP DEVICES

## 4208 ZONE EXPANDER

SHOWN SET FOR
ID 10 (A)

1 2 3 4 5

UP
DN

SIDE VIEW
(UP)

POS.1: LOOPS 1 & 2
RESPONSE TIME:

| W/TABLE | FAST | SLOW |
|---|---|---|
| A | UP | DN |
| B | DN | UP |

## 4192D/4192SDT/4192CP SMOKE DETECTORS

SIDE VIEW (UP)

**APPLIES TO TABLE A UPLY**
SHOWN SET FOR ID 10

1 2 3 4 5 6 7 8

SIDE VIEW (DN)

POS.1: MUST BE DOWN

## 4190WH ZONE EXPANDER

DIP

**APPLIES TO TABLE A & B UPLY**
SHOWN SET FOR ID 10 (A)

1 2 3 4 5 6 7 8

UP
DN

SIDE VIEW (DN)

| WITH TABLE: | A | B |
|---|---|---|
| POS.1 MUST BE: | DN | UP |

---

THIS TABLE FOR DIPS WITH WORD "DN" ("—" = DN) **A**

| DEVICE ID | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 10-16 | — | — | — | UP |
| 17-24 | — | — | UP | — |
| 25-32 | — | — | UP | UP |
| 33-40 | — | UP | — | — |
| 41-48 | — | UP | — | UP |
| 49-56 | — | UP | UP | — |
| 57-64 | — | UP | UP | UP |

THIS TABLE FOR DIPS WITH WORD "UP" ("—" = DN) **B**

| DEVICE ID | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 10-16 | UP | UP | UP | — |
| 17-24 | UP | UP | — | UP |
| 25-32 | UP | UP | — | — |
| 33-40 | UP | — | UP | UP |
| 41-48 | UP | — | UP | — |
| 49-56 | UP | — | — | UP |
| 57-64 | UP | — | — | — |

THIS TABLE FOR DIPS WITH WORD "DN" ("—" = OFF) **A**

| DEVICE ID | DIP SWITCH POSITION |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
|  | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 10 | — | — | — | UP | — | UP | — |
| 11 | — | — | — | UP | — | UP | UP |
| 12 | — | — | — | UP | UP | — | — |
| 13 | — | — | — | UP | UP | — | UP |
| 14 | — | — | — | UP | UP | UP | — |
| 15 | — | — | — | UP | UP | UP | UP |
| 16 | — | — | UP | — | — | — | — |
| 17 | — | — | UP | — | — | — | UP |
| 18 | — | — | UP | — | — | UP | — |
| 19 | — | — | UP | — | — | UP | UP |
| 20 | — | — | UP | — | UP | — | — |
| 21 | — | — | UP | — | UP | — | UP |
| 22 | — | — | UP | — | UP | UP | — |
| 23 | — | — | UP | — | UP | UP | UP |
| 24 | — | — | UP | UP | — | — | — |
| 25 | — | — | UP | UP | — | — | UP |
| 26 | — | — | UP | UP | — | UP | — |
| 27 | — | — | UP | UP | — | UP | UP |
| 28 | — | — | UP | UP | UP | — | — |
| 29 | — | — | UP | UP | UP | — | UP |
| 30 | — | — | UP | UP | UP | UP | — |
| 31 | — | — | UP | UP | UP | UP | UP |
| 32 | — | UP | — | — | — | — | — |
| 33 | — | UP | — | — | — | — | UP |
| 34 | — | UP | — | — | — | UP | — |
| 35 | — | UP | — | — | — | UP | UP |
| 36 | — | UP | — | — | UP | — | — |
| 37 | — | UP | — | — | UP | — | UP |
| 38 | — | UP | — | — | UP | UP | — |
| 39 | — | UP | — | — | UP | UP | UP |
| 40 | — | UP | — | UP | — | — | — |
| 41 | — | UP | — | UP | — | — | UP |
| 42 | — | UP | — | UP | — | UP | — |
| 43 | — | UP | — | UP | — | UP | UP |
| 44 | — | UP | — | UP | UP | — | — |
| 45 | — | UP | — | UP | UP | — | UP |
| 46 | — | UP | — | UP | UP | UP | — |
| 47 | — | UP | — | UP | UP | UP | UP |
| 48 | — | UP | UP | — | — | — | — |
| 49 | — | UP | UP | — | — | — | UP |
| 50 | — | UP | UP | — | — | UP | — |
| 51 | — | UP | UP | — | — | UP | UP |
| 52 | — | UP | UP | — | UP | — | — |
| 53 | — | UP | UP | — | UP | — | UP |
| 54 | — | UP | UP | — | UP | UP | — |
| 55 | — | UP | UP | — | UP | UP | UP |
| 56 | — | UP | UP | UP | — | — | — |
| 57 | — | UP | UP | UP | — | — | UP |
| 58 | — | UP | UP | UP | — | UP | — |
| 59 | — | UP | UP | UP | — | UP | UP |
| 60 | — | UP | UP | UP | UP | — | — |
| 61 | — | UP | UP | UP | UP | — | UP |
| 62 | — | UP | UP | UP | UP | UP | — |
| 63 | — | UP | UP | UP | UP | UP | UP |
| 64 | UP | — | — | — | — | — | — |
| BIT VALUE: | 64 | 32 | 16 | 8 | 4 | 2 | 1 |

THIS TABLE FOR DIPS WITH WORD "UP" ("—" = OFF) **B**

| DEVICE ID | DIP SWITCH POSITION |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
|  | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 10 | UP | UP | UP | — | UP | — | UP |
| 11 | UP | UP | UP | — | UP | — | — |
| 12 | UP | UP | UP | — | — | UP | UP |
| 13 | UP | UP | UP | — | — | UP | — |
| 14 | UP | UP | UP | — | — | — | UP |
| 15 | UP | UP | UP | — | — | — | — |
| 16 | UP | UP | — | UP | UP | UP | UP |
| 17 | UP | UP | — | UP | UP | UP | — |
| 18 | UP | UP | — | UP | UP | — | UP |
| 19 | UP | UP | — | UP | UP | — | — |
| 20 | UP | UP | — | UP | — | UP | UP |
| 21 | UP | UP | — | UP | — | UP | — |
| 22 | UP | UP | — | UP | — | — | UP |
| 23 | UP | UP | — | UP | — | — | — |
| 24 | UP | UP | — | — | UP | UP | UP |
| 25 | UP | UP | — | — | UP | UP | — |
| 26 | UP | UP | — | — | UP | — | UP |
| 27 | UP | UP | — | — | UP | — | — |
| 28 | UP | UP | — | — | — | UP | UP |
| 29 | UP | UP | — | — | — | UP | — |
| 30 | UP | UP | — | — | — | — | UP |
| 31 | UP | UP | — | — | — | — | — |
| 32 | UP | — | UP | UP | UP | UP | UP |
| 33 | UP | — | UP | UP | UP | UP | — |
| 34 | UP | — | UP | UP | UP | — | UP |
| 35 | UP | — | UP | UP | UP | — | — |
| 36 | UP | — | UP | UP | — | UP | UP |
| 37 | UP | — | UP | UP | — | UP | — |
| 38 | UP | — | UP | UP | — | — | UP |
| 39 | UP | — | UP | UP | — | — | — |
| 40 | UP | — | UP | — | UP | UP | UP |
| 41 | UP | — | UP | — | UP | UP | — |
| 42 | UP | — | UP | — | UP | — | UP |
| 43 | UP | — | UP | — | UP | — | — |
| 44 | UP | — | UP | — | — | UP | UP |
| 45 | UP | — | UP | — | — | UP | — |
| 46 | UP | — | UP | — | — | — | UP |
| 47 | UP | — | UP | — | — | — | — |
| 48 | UP | — | — | UP | UP | UP | UP |
| 49 | UP | — | — | UP | UP | UP | — |
| 50 | UP | — | — | UP | UP | — | UP |
| 51 | UP | — | — | UP | UP | — | — |
| 52 | UP | — | — | UP | — | UP | UP |
| 53 | UP | — | — | UP | — | UP | — |
| 54 | UP | — | — | UP | — | — | UP |
| 55 | UP | — | — | UP | — | — | — |
| 56 | UP | — | — | — | UP | UP | UP |
| 57 | UP | — | — | — | UP | UP | — |
| 58 | UP | — | — | — | UP | — | UP |
| 59 | UP | — | — | — | UP | — | — |
| 60 | UP | — | — | — | — | UP | UP |
| 61 | UP | — | — | — | — | UP | — |
| 62 | UP | — | — | — | — | — | UP |
| 63 | UP | — | — | — | — | — | — |
| 64 | — | UP | UP | UP | UP | UP | UP |
| BIT VALUE: | 64 | 32 | 16 | 8 | 4 | 2 | 1 |

# DIP SWITCH TABLES FOR POLLING LOOP DEVICES

## 4275 PIR



SHOWN SET FOR ID 10 (A)  
SIDE VIEW (UP)

Switches 1 2 3 4 5 6 7 — UP/DN

POS 6: UP (A), DN (B) = INST. MODE  
  DN (A), UP (B) = PULSE COUNT  
POS. 7: UP (A), DN (B) = WALK TEST  
  DN (A), UP (B) = W/T DISABLE

THIS TABLE FOR DIPS WITH WORD "OFF" — **A**

| DEVICE ID | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 10 | — | UP | — | UP | — |
| 11 | — | UP | — | UP | UP |
| 12 | — | UP | UP | — | — |
| 13 | — | UP | UP | — | UP |
| 14 | — | UP | UP | UP | — |
| 15 | — | UP | UP | UP | UP |
| 16 | UP | — | — | — | — |
| 17 | UP | — | — | — | UP |
| 18 | UP | — | — | UP | — |
| 19 | UP | — | — | UP | UP |
| 20 | UP | — | UP | — | — |
| 21 | UP | — | UP | — | UP |
| 22 | UP | — | UP | UP | — |
| 23 | UP | — | UP | UP | UP |
| 24 | UP | UP | — | — | — |
| 25 | UP | UP | — | — | UP |
| 26 | UP | UP | — | UP | — |
| 27 | UP | UP | — | UP | UP |
| 28 | UP | UP | UP | — | — |
| 29 | UP | UP | UP | — | UP |
| 30 | UP | UP | UP | UP | — |
| 31 | UP | UP | UP | UP | UP |

THIS TABLE FOR DIPS WITH WORD "ON" — **B**

| DEVICE ID | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 10 | UP | — | UP | — | UP |
| 11 | UP | — | UP | — | — |
| 12 | UP | — | — | UP | UP |
| 13 | UP | — | — | UP | — |
| 14 | UP | — | — | — | UP |
| 15 | UP | — | — | — | — |
| 16 | — | UP | UP | UP | UP |
| 17 | — | UP | UP | UP | — |
| 18 | — | UP | UP | — | UP |
| 19 | — | UP | UP | — | — |
| 20 | — | UP | — | UP | UP |
| 21 | — | UP | — | UP | — |
| 22 | — | UP | — | — | UP |
| 23 | — | UP | — | — | — |
| 24 | — | — | UP | UP | UP |
| 25 | — | — | UP | UP | — |
| 26 | — | — | UP | — | UP |
| 27 | — | — | UP | — | — |
| 28 | — | — | — | UP | UP |
| 29 | — | — | — | UP | — |
| 30 | — | — | — | — | UP |
| 31 | — | — | — | — | — |
| BIT VALUE: | 16 | 8 | 4 | 2 | 1 |

## 4278 PIR



SHOWN SET FOR ID 10  
SIDE VIEW (DN)

Switches 1 2 3 4 5 6 7 8 — UP/DN

POS 7: UP = NORMAL MODE  
  DN = INSTANT MODE  
POS. 8: UP = W/T DISABLE  
  DN = WALK TEST

| DEVICE ID | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 10 | UP | UP | — | UP | — | UP |
| 11 | UP | UP | — | UP | — | — |
| 12 | UP | UP | — | — | UP | UP |
| 13 | UP | UP | — | — | UP | — |
| 14 | UP | UP | — | — | — | UP |
| 15 | UP | UP | — | — | — | — |
| 16 | UP | — | UP | UP | UP | UP |
| 17 | UP | — | UP | UP | UP | — |
| 18 | UP | — | UP | UP | — | UP |
| 19 | UP | — | UP | UP | — | — |
| 20 | UP | — | UP | — | UP | UP |
| 21 | UP | — | UP | — | UP | — |
| 22 | UP | — | UP | — | — | UP |
| 23 | UP | — | UP | — | — | — |
| 24 | UP | — | — | UP | UP | UP |
| 25 | UP | — | — | UP | UP | — |
| 26 | UP | — | — | UP | — | UP |
| 27 | UP | — | — | UP | — | — |
| 28 | UP | — | — | — | UP | UP |
| 29 | UP | — | — | — | UP | — |
| 30 | UP | — | — | — | — | UP |
| 31 | UP | — | — | — | — | — |
| 32 | — | UP | UP | UP | UP | UP |
| 33 | — | UP | UP | UP | UP | — |
| 34 | — | UP | UP | UP | — | UP |
| 35 | — | UP | UP | UP | — | — |
| 36 | — | UP | UP | — | UP | UP |
| 37 | — | UP | UP | — | UP | — |
| 38 | — | UP | UP | — | — | UP |
| 39 | — | UP | UP | — | — | — |
| 40 | — | UP | — | UP | UP | UP |
| 41 | — | UP | — | UP | UP | — |
| 42 | — | UP | — | UP | — | UP |
| 43 | — | UP | — | UP | — | — |
| 44 | — | UP | — | — | UP | UP |
| 45 | — | UP | — | — | UP | — |
| 46 | — | UP | — | — | — | UP |
| 47 | — | UP | — | — | — | — |
| 48 | — | — | UP | UP | UP | UP |
| 49 | — | — | UP | UP | UP | — |
| 50 | — | — | UP | UP | — | UP |
| 51 | — | — | UP | UP | — | — |
| 52 | — | — | UP | — | UP | UP |
| 53 | — | — | UP | — | UP | — |
| 54 | — | — | UP | — | — | UP |
| 55 | — | — | UP | — | — | — |
| 56 | — | — | — | UP | UP | UP |
| 57 | — | — | — | UP | UP | — |
| 58 | — | — | — | UP | — | UP |
| 59 | — | — | — | UP | — | — |
| 60 | — | — | — | — | UP | UP |
| 61 | — | — | — | — | UP | — |
| 62 | — | — | — | — | — | UP |
| 63 | — | — | — | — | — | — |
| BIT VALUE: | 32 | 16 | 8 | 4 | 2 | 1 |

## 4194 REED CONTACT (SURFACE MOUNT)



SHOWN SET FOR ID 10  
SIDE VIEW (DN)

Switches 1 2 3 4 5 6 — UP

| DEVICE ID | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 10 | — | — | UP | — | UP | — |
| 11 | — | — | UP | — | UP | UP |
| 12 | — | — | UP | UP | — | — |
| 13 | — | — | UP | UP | — | UP |
| 14 | — | — | UP | UP | UP | — |
| 15 | — | — | UP | UP | UP | UP |
| 16 | — | Up | — | — | — | — |
| 17 | — | UP | — | — | — | UP |
| 18 | — | UP | — | — | UP | — |
| 19 | — | UP | — | — | UP | UP |
| 20 | — | UP | — | UP | — | — |
| 21 | — | UP | — | UP | — | UP |
| 22 | — | UP | — | UP | UP | — |
| 23 | — | UP | — | UP | UP | UP |
| 24 | — | UP | UP | — | — | — |
| 25 | — | UP | UP | — | — | UP |
| 26 | — | UP | UP | — | UP | — |
| 27 | — | UP | UP | — | UP | UP |
| 28 | — | UP | UP | UP | — | — |
| 29 | — | UP | UP | UP | — | UP |
| 30 | — | UP | UP | UP | UP | — |
| 31 | — | UP | UP | UP | UP | UP |
| 32 | UP | — | — | — | — | — |
| 33 | UP | — | — | — | — | UP |
| 34 | UP | — | — | — | UP | — |
| 35 | UP | — | — | — | UP | UP |
| 36 | UP | — | — | UP | — | — |
| 37 | UP | — | — | UP | — | UP |
| 38 | UP | — | — | UP | UP | — |
| 39 | UP | — | — | UP | UP | UP |
| 40 | UP | — | UP | — | — | — |
| 41 | UP | — | UP | — | — | UP |
| 42 | UP | — | UP | — | UP | — |
| 43 | UP | — | UP | — | UP | UP |
| 44 | UP | — | UP | UP | — | — |
| 45 | UP | — | UP | UP | — | UP |
| 46 | UP | — | UP | UP | UP | — |
| 47 | UP | — | UP | UP | UP | UP |
| 48 | UP | UP | — | — | — | — |
| 49 | UP | UP | — | — | — | UP |
| 50 | UP | UP | — | — | UP | — |
| 51 | Up | UP | — | — | UP | UP |
| 52 | UP | UP | — | UP | — | — |
| 53 | UP | UP | — | UP | — | UP |
| 54 | UP | UP | — | UP | UP | — |
| 55 | UP | UP | — | UP | UP | UP |
| 56 | UP | UP | UP | — | — | — |
| 57 | UP | UP | UP | — | — | UP |
| 58 | UP | UP | UP | — | UP | — |
| 59 | UP | UP | UP | — | UP | UP |
| 60 | UP | UP | UP | UP | — | — |
| 61 | UP | UP | UP | UP | — | UP |
| 62 | UP | UP | UP | UP | UP | — |
| 63 | UP | UP | UP | UP | UP | UP |
| BIT VALUE: | 32 | 16 | 8 | 4 | 2 | 1 |

# DIP SWITCH TABLES FOR 5700 SERIES WIRELESS DEVICES

## HOUSE ID SWITCH SETTING FOR ALL DEVICES EXCEPT 5716

| DEVICE ID | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1 | UP | UP | UP | UP | — |
| 2 | UP | UP | UP | — | UP |
| 3 | UP | UP | UP | — | — |
| 4 | UP | UP | — | UP | UP |
| 5 | UP | UP | — | UP | — |
| 6 | UP | UP | — | — | UP |
| 7 | UP | UP | — | — | — |
| 8 | UP | — | UP | UP | UP |
| 9 | UP | — | UP | UP | — |
| 10 | UP | — | UP | — | UP |
| 11 | UP | — | UP | — | — |
| 12 | UP | — | — | UP | UP |
| 13 | UP | — | — | UP | — |
| 14 | UP | — | — | — | UP |
| 15 | UP | — | — | — | — |
| 16 | — | UP | UP | UP | UP |
| 17 | — | UP | UP | UP | — |
| 18 | — | UP | UP | — | UP |
| 19 | — | UP | UP | — | — |
| 20 | — | UP | — | UP | UP |
| 21 | — | UP | — | UP | — |
| 22 | — | UP | — | — | UP |
| 23 | — | UP | — | — | — |
| 24 | — | — | UP | UP | UP |
| 25 | — | — | UP | UP | — |
| 26 | — | — | UP | — | UP |
| 27 | — | — | UP | — | — |
| 28 | — | — | — | UP | UP |
| 29 | — | — | — | UP | — |
| 30 | — | — | — | — | UP |
| 31 | — | — | — | — | — |
| BIT VALUE: | 16 | 8 | 4 | 2 | 1 |

## 5701 PANIC TRANSMITTER

HOUSE ID (1 SHOWN)
1 2 3 4 5 6 — UP — DN — SIDE VIEW (UP)
POS.6 UP= XMTR ID 62
DN= XMTR ID 63

## 5727 KEYPAD

HOUSE ID (1 SHOWN)
1 2 3 4 5 — UP — DN
XMTR ID FIXED AT "00" — SIDE VIEW (DN)

## 5706/5707 SMOKE DETECTOR TRANSMITTER

DIP
HOUSE ID (1 SHOWN)
1 2 3 4 5 6 7 8 — UP — DN — SIDE VIEW (UP)
XMTR ID (48 SHOWN)

| XMTR ID | 6 | 7 | 8 |
|---|---|---|---|
| 48 | UP | UP | UP |
| 49 | UP | UP | — |
| 50 | UP | — | UP |
| 51 | UP | — | — |
| 52 | — | UP | UP |
| 53 | — | UP | — |
| 54 | — | — | UP |
| 55 | — | — | — |

## 5775 PIR DETECTOR/TRANSMITTER

DIP MIRROR SIDE VIEW (UP)
HOUSE ID (1 SHOWN)
1 2 3 4 5 6 7 8 9 10 — UP — DN
XMTR ID (32 SHOWN) UP = PULSE COUNT — = INST. MODE

| XMTR ID | 6 | 7 | 8 | 9 |
|---|---|---|---|---|
| 32 | UP | UP | UP | UP |
| 33 | UP | UP | UP | — |
| 34 | UP | UP | — | UP |
| 35 | UP | UP | — | — |
| 36 | UP | — | UP | UP |
| 37 | UP | — | UP | — |
| 38 | UP | — | — | UP |
| 39 | UP | — | — | — |
| 40 | — | UP | UP | UP |
| 41 | — | UP | UP | — |
| 42 | — | UP | — | UP |
| 43 | — | UP | — | — |
| 44 | — | — | UP | UP |
| 45 | — | — | UP | — |
| 46 | — | — | — | UP |
| 47 | — | — | — | — |

## 5715 UNIVERSAL TRANSMITTER

DIP DIP
1 2
POS.1: UP = NORMAL RESPONSE
DN = FAST RESPONSE
POS. 2: UP = NO COVER TAMPER
DN = COVER TAMPER (use N.C. setting)

| XMTR ID | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|
| 1 | UP | UP | UP | UP | UP | — |
| 2 | UP | UP | UP | UP | — | UP |
| 3 | UP | UP | UP | UP | — | — |
| 4 | UP | UP | UP | — | UP | UP |
| 5 | UP | UP | UP | — | UP | — |
| 6 | UP | UP | UP | — | — | UP |
| 7 | UP | UP | UP | — | — | — |
| 8 | UP | UP | — | UP | UP | UP |
| 9 | UP | UP | — | UP | UP | — |
| 10 | UP | UP | — | UP | — | UP |
| 11 | UP | UP | — | UP | — | — |
| 12 | UP | UP | — | — | UP | UP |
| 13 | UP | UP | — | — | UP | — |
| 14 | UP | UP | — | — | — | UP |
| 15 | UP | UP | — | — | — | — |
| 16 | UP | — | UP | UP | UP | UP |
| 17 | UP | — | UP | UP | UP | — |
| 18 | UP | — | UP | UP | — | UP |
| 19 | UP | — | UP | UP | — | — |
| 20 | UP | — | UP | — | UP | UP |
| 21 | UP | — | UP | — | UP | — |
| 22 | UP | — | UP | — | — | UP |
| 23 | UP | — | UP | — | — | — |
| 24 | UP | — | — | UP | UP | UP |
| 25 | UP | — | — | UP | UP | — |
| 26 | UP | — | — | UP | — | UP |
| 27 | UP | — | — | UP | — | — |
| 28 | UP | — | — | — | UP | UP |
| 29 | UP | — | — | — | UP | — |
| 30 | UP | — | — | — | — | UP |
| 31 | UP | — | — | — | — | — |
| 32 | — | UP | UP | UP | UP | UP |
| BIT VALUE: | 32 | 16 | 8 | 4 | 2 | 1 |

## 5711/5711WM DOOR/WINDOW TRANSMITTER

TERMINAL BLOCK
DIP
HOUSE ID (1 SHOWN)
1 2 3 4 5 6 7 8 9 10 11 12 — UP — DN — SIDE VIEW (DN)
XMTR ID (33 SHOWN)
POS.12: UP = N.O. — = N.C (Avoid ID 32-37 with N.O.)

| XMTR ID | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|
| 33 | — | UP | UP | UP | UP | — |
| 34 | — | UP | UP | UP | — | UP |
| 35 | — | UP | UP | UP | — | — |
| 36 | — | UP | UP | — | UP | UP |
| 37 | — | UP | UP | — | UP | — |
| 38 | — | UP | UP | — | — | UP |
| 39 | — | UP | UP | — | — | — |
| 40 | — | UP | — | UP | UP | UP |
| 41 | — | UP | — | UP | UP | — |
| 42 | — | UP | — | UP | — | UP |
| 43 | — | UP | — | UP | — | — |
| 44 | — | UP | — | — | UP | UP |
| 45 | — | UP | — | — | UP | — |
| 46 | — | UP | — | — | — | UP |
| 47 | — | UP | — | — | — | — |
| 48 | — | — | UP | UP | UP | UP |
| 49 | — | — | UP | UP | UP | — |
| 50 | — | — | UP | UP | — | UP |
| 51 | — | — | UP | UP | — | — |
| 52 | — | — | UP | — | UP | UP |
| 53 | — | — | UP | — | UP | — |
| 54 | — | — | UP | — | — | UP |
| 55 | — | — | UP | — | — | — |
| 56 | — | — | — | UP | UP | UP |
| 57 | — | — | — | UP | UP | — |
| 58 | — | — | — | UP | — | UP |
| 59 | — | — | — | UP | — | — |
| 60 | — | — | — | — | UP | UP |
| 61 | — | — | — | — | UP | — |
| 62 | — | — | — | — | — | UP |
| 63 | — | — | — | — | — | — |
| BIT VALUE: | 32 | 16 | 8 | 4 | 2 | 1 |

## 5716 DOOR/WINDOW TRANSMITTER

IMPORTANT SET SWITCHES WITH BATTERY REMOVED
DIP — SW4
TERMINALS
DIP — SW3
6 5 4 3 2 1 UP SW4 — SIDE VIEW (UP)
XMTR ID (33 SHOWN) HOUSE ID (1 SHOWN)
6 5 4 3 2 1 UP SW3 — DN
POS. 6: UP = N.O. DN = N.C.

| TRANSMITTER ID | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 1 | — | UP | UP | UP | UP | UP |
| 2 | UP | — | UP | UP | UP | UP |
| 3 | — | — | UP | UP | UP | UP |
| 4 | UP | UP | — | UP | UP | UP |
| 5 | — | UP | — | UP | UP | UP |
| 6 | UP | — | — | UP | UP | UP |
| 7 | — | — | — | UP | UP | UP |
| 8 | UP | UP | UP | — | UP | UP |
| 9 | — | UP | UP | — | UP | UP |
| 10 | UP | — | UP | — | UP | UP |
| 11 | — | — | UP | — | UP | UP |
| 12 | UP | UP | — | — | UP | UP |
| 13 | — | UP | — | — | UP | UP |
| 14 | UP | — | — | — | UP | UP |
| 15 | — | — | — | — | UP | UP |
| 16 | UP | UP | UP | UP | — | UP |
| 17 | — | UP | UP | UP | — | UP |
| 18 | UP | — | UP | UP | — | UP |
| 19 | — | — | UP | UP | — | UP |
| 20 | UP | UP | — | UP | — | UP |
| 21 | — | UP | — | UP | — | UP |
| 22 | UP | — | — | UP | — | UP |
| 23 | — | — | — | UP | — | UP |
| 24 | UP | UP | UP | — | — | UP |
| 25 | — | UP | UP | — | — | UP |
| 26 | UP | — | UP | — | — | UP |
| 27 | — | — | UP | — | — | UP |
| 28 | UP | UP | — | — | — | UP |
| 29 | — | UP | — | — | — | UP |
| 30 | UP | — | — | — | — | UP |
| 31 | — | — | — | — | — | UP |
| 32 | UP | UP | UP | UP | UP | — |
| 33 | — | UP | UP | UP | UP | — |
| 34 | UP | — | UP | UP | UP | — |
| 35 | — | — | UP | UP | UP | — |
| 36 | UP | UP | — | UP | UP | — |
| 37 | — | UP | — | UP | UP | — |
| 38 | UP | — | — | UP | UP | — |
| 39 | — | — | — | UP | UP | — |
| 40 | UP | UP | UP | — | UP | — |
| 41 | — | UP | UP | — | UP | — |
| 42 | UP | — | UP | — | UP | — |
| 43 | — | — | UP | — | UP | — |
| 44 | UP | UP | — | — | UP | — |
| 45 | — | UP | — | — | UP | — |
| 46 | UP | — | — | — | UP | — |
| 47 | — | — | — | — | UP | — |
| 48 | UP | UP | UP | UP | — | — |
| 49 | — | UP | UP | UP | — | — |
| 50 | UP | — | UP | UP | — | — |
| 51 | — | — | UP | UP | — | — |
| 52 | UP | UP | — | UP | — | — |
| 53 | — | UP | — | UP | — | — |
| 54 | UP | — | — | UP | — | — |
| 55 | — | — | — | UP | — | — |
| 56 | UP | UP | UP | — | — | — |
| 57 | — | UP | UP | — | — | — |
| 58 | UP | — | UP | — | — | — |
| 59 | — | — | UP | — | — | — |
| 60 | UP | UP | — | — | — | — |
| 61 | — | UP | — | — | — | — |
| 62 | UP | — | — | — | — | — |
| 63 | — | — | — | — | — | — |
| BIT VALUE: | 1 | 2 | 4 | 8 | 16 | 32 |

| HOUSE ID | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1 | — | UP | UP | UP | UP |
| 2 | UP | — | UP | UP | UP |
| 3 | — | — | UP | UP | UP |
| 4 | UP | UP | — | UP | UP |
| 5 | — | UP | — | UP | UP |
| 6 | UP | — | — | UP | UP |
| 7 | — | — | — | UP | UP |
| 8 | UP | UP | UP | — | UP |
| 9 | — | UP | UP | — | UP |
| 10 | UP | — | UP | — | UP |
| 11 | — | — | UP | — | UP |
| 12 | UP | UP | — | — | UP |
| 13 | — | UP | — | — | UP |
| 14 | UP | — | — | — | UP |
| 15 | — | — | — | — | UP |
| 16 | UP | UP | UP | UP | — |
| 17 | — | UP | UP | UP | — |
| 18 | UP | — | UP | UP | — |
| 19 | — | — | UP | UP | — |
| 20 | UP | UP | — | UP | — |
| 21 | — | UP | — | UP | — |
| 22 | UP | — | — | UP | — |
| 23 | — | — | — | UP | — |
| 24 | UP | UP | UP | — | — |
| 25 | — | UP | UP | — | — |
| 26 | UP | — | UP | — | — |
| 27 | — | — | UP | — | — |
| 28 | UP | UP | — | — | — |
| 29 | — | UP | — | — | — |
| 30 | UP | — | — | — | — |
| 31 | — | — | — | — | — |
| BIT VALUE: | 1 | 2 | 4 | 8 | 16 |

*For 5700 series transmitters not shown in this table, refer to the instructions accompanying each transmitter.*

# Specifications

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

## VISTA-40 Control

| | |
|---|---|
| **Physical:** | 12-1/2"W X 14-1/2"H X 3"D |
| **Electrical:** | |

| | |
|---|---|
| Voltage Input: | Ademco No. 1361 Plug-In Transformer (use 1361CN in Canada) or 4300 transformer (for X-10 installations) rated 16.5VAC, 40VA. |
| Alarm Output: | 10VDC-13.8VDC, 1.7 amps max., 750mA less auxiliary current draw (UL1023/UL985 installations). |
| Auxiliary Power: | 9.6VDC-13.8VDC, 750mA max.  For UL installations, the accessories connected to this output must be UL Listed, and rated to operate in the above voltage range. |
| Backup Battery: | 12VDC, 4AH or 7AH gel cell.  YUASA NP4-12 (12V, 4AH) or NP7-12 (12V, 7AH) recommended. |
| Standby: | 4 hours min. with 750mA aux. load using 7AH battery. |
| Circuit Protectors: | Thermal circuit breakers are used on battery input to protect against reverse battery connections and on alarm sounder output to protect against wiring faults (shorts). |
| | A solid state circuit breaker is used on auxiliary power output to protect against wiring faults (shorts). |

## Digital Communicator

**Formats Supported:**

ADEMCO HIGH SPEED

ADEMCO 4+2 EXPRESS

ADEMCO LOW SPEED

ADEMCO CONTACT ID

SESCOA

RADIONICS LOW SPEED

| | |
|---|---|
| **Line Sieze:** | Double Pole |
| **Ringer Equivalence**: | 0.7B |
| **FCC Registration No.:** | AC398U-68192-AL-E |

## 6128 Remote Keypad

| | |
|---|---|
| **Physical:** | 5-3/4" W x 4-3/4" H x 1" D (146mm x 121mm x 26mm) |
| **Electrical:** | Voltage Input:   12VDC; Current Drain: 30mA |
| **Interface Wiring:** | |

| | |
|---|---|
| RED: | 12VDC input (+) auxiliary power |
| BLUE: | Not Used, if present |
| GREEN: | Data to control panel |
| YELLOW: | Data from control panel |
| BLACK: | Ground and (-) connection from supplemental power supply. |

## 6137 Remote Keypad

| | |
|---|---|
| **Physical:** | 6-1/4" W x 4-3/4" H x 1" D (159mm x 121mm x 26mm) |
| **Electrical:** | Voltage Input:   12VDC; Current Drain: 85mA |
| **Interface Wiring:** | Same as 6128. |

## 6139 Remote Keypad

| | |
|---|---|
| **Physical:** | 6-1/4" W x 4-3/4" H x 1" D (159mm x 121mm x 26mm) |
| **Electrical:** | Voltage Input:   12VDC; Current Drain: 100mA |
| **Interface Wiring:** | Same as 6128. |

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## B

## C

## D

## E

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**F**

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**G**

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**H**

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**I**

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**J**

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**K**

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**L**

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**M**

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**N**

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**O**

## U

## V

## W

## X

## Y

## Z

# WARNING!
# THE LIMITATIONS OF THIS ALARM SYSTEM

While this System is an advanced wireless security system, it does not offer guaranteed protection against burglary, fire or other emergency. Any alarm system, whether commercial or residential, is subject to compromise or failure to warn for a variety of reasons. For example:

• Intruders may gain access through unprotected openings or have the technical sophistication to bypass an alarm sensor or disconnect an alarm warning device.

• Intrusion detectors (e.g., passive infrared detectors), smoke detectors, and many other sensing devices will not work without power. Battery-operated devices will not work without batteries, with dead batteries, or if the batteries are not put in properly. Devices powered solely by AC will not work if their AC power supply is cut off for any reason, however briefly.

• Signals sent by wireless transmitters may be blocked or reflected by metal before they reach the alarm receiver. Even if the signal path has been recently checked during a weekly test, blockage can occur if a metal object is moved into the path.

• A user may not be able to reach a panic or emergency button quickly enough.

• While smoke detectors have played a key role in reducing residential fire deaths in the United States, they may not activate or provide early warning for a variety of reasons in as many as 35% of all fires, according to data published by the Federal Emergency Management Agency. Some of the reasons smoke detectors used in conjunction with this System may not work are as follows. Smoke detectors may have been improperly installed and positioned. Smoke detectors may not sense fires that start where smoke cannot reach the detectors, such as in chimneys, in walls, or roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level of a residence or building. A second floor detector, for example, may not sense a first floor or basement fire. Finally, smoke detectors have sensing limitations. No smoke detector can sense every kind of fire every time. In general, detectors may not always warn about fires caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson. Depending on the nature of the fire and/or location of the smoke detectors, the detector, even if it operates as anticipated, may not provide sufficient warning to allow all occupants to escape in time to prevent injury or death.

• Passive Infrared Motion Detectors can only detect intrusion within the designed ranges as diagrammed in their installation manual. Passive Infrared Detectors do not provide volumetric area protection. They do create multiple beams of protection, and intrusion can only be detected in unobstructed areas covered by those beams. They cannot detect motion or intrusion that takes place behind walls, ceilings, floors, closed doors, glass partitions, glass doors, or windows. Mechanical tampering, masking, painting or spraying of any material on the mirrors, windows or any part of the optical system can reduce their detection ability. Passive Infrared Detectors sense changes in temperature; however, as the ambient temperature of the protected area approaches the temperature range of 90° to 105°F (32° to 40°C), the detection performance can decrease.

• Alarm warning devices such as sirens, bells or horns may not alert people or wake up sleepers if they are located on the other side of closed or partly open doors. If warning devices are located on a different level of the residence from the bedrooms, then they are less likely to waken or alert people inside the bedrooms. Even persons who are awake may not hear the warning if the alarm is muffled by noise from a stereo, radio, air conditioner or other appliance, or by passing traffic. Finally, alarm warning devices, however loud, may not warn hearing-impaired people.

• Telephone lines needed to transmit alarm signals from a premises to a central monitoring station may be out of service or temporarily out of service. Telephone lines are also subject to compromise by sophisticated intruders.

• Even if the system responds to the emergency as intended, however, occupants may have insufficient time to protect themselves from the emergency situation. In the case of a monitored alarm system, authorities may not respond appropriately.

• This equipment, like other electrical devices, is subject to component failure. Even though this equipment is designed to last as long as 20 years, the electronic components could fail at any time.

The most common cause of an alarm system not functioning when an intrusion or fire occurs is inadequate maintenance. This alarm system should be tested weekly to make sure all sensors and transmitters are working properly. The security keypad (and remote keypad) should be tested as well.

Wireless transmitters (used in some systems) are designed to provide long battery life under normal operating conditions. Longevity of batteries may be as much as 4 to 7 years, depending on the environment, usage, and the specific wireless device being used. External factors such as humidity, high or low temperatures, as well as large swings in temperature, may all reduce the actual battery life in a given installation. This wireless system, however, can identify a true low battery situation, thus allowing time to arrange a change of battery to maintain protection for that given point within the system.

Installing an alarm system may make the owner eligible for a lower insurance rate, but an alarm system is not a substitute for insurance. Homeowners, property owners and renters should continue to act prudently in protecting themselves and continue to insure their lives and property.

We continue to develop new and improved protection devices. Users of alarm systems owe it to themselves and their loved ones to learn about these developments.

WARNING: OWNER'S INSTRUCTION NOTICE NOT TO BE REMOVED    WEEKLY TESTING IS REQUIRED TO ENSURE PROPER OPERATION OF THIS SYSTEM.

**NOTES:**
1. Zone 1 may be selected for EOLR supervised or normally closed (no EOLR) operation via cut jumper. (Cut red jumper for normally closed operation. Do not cut for Fire Usage). Zones 2-8 may be selected for either operation via program field *41.
2. Zone 1 supports 2-wire smoke detectors. See Installation Instructions for recommended type and maximum number of detectors supported.
3. Zone 7 may be used for remote keyswitch arming/disarming. See Installation Instructions for wiring instructions.
4. Zone 8 supports 2-wire latching type glass break detectors. See Installation Instructions for recommended type and maximum number of detectors supported.
5. Cut blue jumper to disable supervision of alarm sounder output. Leave jumper intact to supervise output. (See Installation Instructions for Programming and Wiring Instructions).

**J7 Header**
1. Not Used
2. Ground-
3. Out 1 (Ground Start)
4. Ground-
5. Out 2 (fire)
6. Ground-
7. Out 3 (burg./aud. panic)
8. Ground
9. Out 4 (silent panic/duress)

**J8 Header**
1. In 2
2. Ground
3. In 3 (4300 sync)
4. In 4 (4300 sync)
5. Ground
6. Out 5 (4300 data)
7. Out 6
8. Ground
9. Ground

Optional programming:
Out 1: Open/close or Keypad-like sounding
Out 2: Armed LED
Out 4: Ready LED
Ratings for Out 1:
Active: 10VDC-13.8VDC through 4k OHMS
Not Active: 100 OHMS to ground
Ratings for out 2-4:
Active: 10VDC-13.8VDC through 5k OHMS
Not Active: 1k OHMS to ground
(Refer to Installation Instructions for information concerning Direct Wire Downloading using the 4100SM Serial Module.)

MAKE CONNECTIONS USING No. 4142TR CABLE

J8  1 2 3 4 5 6 7 8 9
J7  1 2 3 4 5 6 7 8 9

Blue Jumper (note 5)

Connect to 12VDC, 4AH or 12VDC, 7AH GEL CELL BATTERY

CHARGING VOLTAGE 13.7VDC See Installation Instructions for required battery capacity

Replace every 3 years

BATTERY TABS
RED (+)
BLK (-)

Red Jumper (note 1)

TO EARTH GROUND Connect to good earth ground to maintain immunity to transients. See Installation Instructions for proper grounding.

Terminals: 1 2 3 4 5 6 7 8 9 10 | 11 12 13 14 15 16 17 18 19 20 | 21 22 23 24 25 26 27 28 29 30

ZONE 1
ZONE 2  ZONE 3  ZONE 4  ZONE 5  ZONE 6  ZONE 7  ZONE 8  ZONE 9

Connect to 24-hr. 120VAC, 60 Hz Outlet

TRANSFORMER 16.5VAC, 40VA ADEMCO No.1361 (IN CANADA USE No. 1361CN) or 4300 TRANSFORMER IF X-10 DEVICES WILL BE USED

**NOTE:** WHEN POWERING UP THE PANEL, PLUG THE TRANSFORMER IN BEFORE CONNECTING THE BATTERY.

NO CONNECTION

BELL
SIREN

ALARM SOUNDER OUTPUT 10VDC-13.8VDC, 1.7A max. Note: Combined alarm and auxiliary power output current must be limited to 750mA for UL installations.

Red Blk Grn Yel
Data in  Data out

REMOTE KEYPAD (Addressable keypads)
See Installation Instructions for type & max # of keypads, and for max wire run length.

TO: 6 7 8 9
OPTIONAL 4285 VIP MODULE

TO: 6 7 8 9
OPTIONAL 4281/5881/5882 RF RECEIVER
SEE INSTRUCTIONS FOR WIRING DETAILS

AUXILARY POWER OUTPUT 9.6VDC - 13.8VDC,750mA max. Note: Include current drawn by keypads and polling loop devices when making auxiliary power calculations.

**ALL CIRCUITS ARE POWER LIMITED.**

2-WIRE SMOKE DETECTOR LOOP (Also supports NO/NC Burg contacts)

ZONE 1
SMOKE
Fire Usage
N.C.
Burg. Usage
N.O.
2k EOLR (note 1,2)

N.C. N.O. 2k EOLR (note 1)
N.C. N.O. 2k EOLR (note 1)
N.C. N.O. 2k EOLR (note 1)
N.C. N.O. 2k EOLR (note 1)
N.C. N.O. 2k EOLR (note 1,3)

**NOTE:** Zone 5 supports AAV Triggering (Zone Type 10) See I.I. for Programming and Wiring Information.

Zone resistance (Excluding EOLR):
ZONE 1, 8: 100 OHMS MAX.
ALL OTHER ZONES: 300 OHMS MAX.
Zone response time:
ZONES 1-8: 350mSec-500mSec, or 720mSec
ZONE 9: Programmable for
Fast: 10mSec-15mSec
Normal: 350mSec-500mSec, or 720mSec (default response)

LATCHING TYPE GLASS BREAK DETECTOR LOOP
Programmable Response (Fast/Normal) Loop

GLASS BREAK
N.C. N.O. 2k EOLR (note 1,4)

N.C. N.C.

POLLING LOOP
4190 RPM
4192SD SMOKE
4278 PIR

USE UL LISTED ENERGY CABLE FOR ALL CONNECTIONS

Polling loop rating: 64mA max. See Installation Instructions for maximum number of devices supported and maximum wire run length.

TIP (BROWN)  RING (GRAY)  TIP (GREEN)  RING (RED)
Handset    Incoming Phone Line

Telephone connections using Ademco direct connect cord and RJ31X jack (CA38A in Canada)

DOC LOAD No.: 5

**WARNING: TO PREVENT RISK OF ELECTRICAL SHOCK, DISCONNECT TELCO JACK BEFORE SERVICING THIS PANEL.**

CONNECTION OF THE FIRE ALARM SIGNAL TO A FIRE ALARM HEADQUARTERS OR A CENTRAL STATION SHALL BE PERMITTED ONLY WITH THE APPROVAL OF THE LOCAL AUTHORITY HAVING JURISDICTION. THE BURGLAR ALARM SIGNAL SHALL NOT BE CONNECTED TO A POLICE EMERGENCY NUMBER.

THIS DEVICE COMPLIES WITH PART 15 OF FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

COMPLIES WITH FCC RULES, PART 68 FCC REGISTRATION NO. AC398U-68192-AL-E RINGER EQUIVALENCE: 0.7B

THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARD 72, (NATIONAL FIRE PROTECTION ASSOC., BATTERYMARCH PARK, QUINCY, MA. 02269). PRINTED INFORMATION DESCRIBING PROPER INSTALLATION, OPERATION, TESTING, MAINTENANCE, EVACUATION PLANNING AND REPAIR SERVICE IS TO BE PROVIDED WITH THIS EQUIPMENT.

# VISTA-40 SUMMARY OF CONNECTIONS

N7001V4  7/98